



DEPARTMENT OF THE NAVY
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5830
Ser N09D/21U100550
15 Sep 21

FINAL ENDORSEMENT on VADM Scott D. Conn ltr 5830 of 5 Apr 21

From: Vice Chief of Naval Operations
To: File

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES
SURROUNDING THE FIRE ONBOARD USS BONHOMME RICHARD (LHD 6) ON
OR ABOUT 12 JULY 2020

1. I reviewed the subject investigation and endorsement. The loss of a U.S. Navy capital ship due to the preventable causes outlined in this investigation is unacceptable and points to operational standards issues which will be addressed through accountability actions and learning to action initiatives at multiple levels. Ship survivability and damage control are core to our service. Navy action in correcting these operational standards deficiencies, and related root causes, must be every bit as focused and urgent as the courageous actions demonstrated by the San Diego waterfront Sailors and their Federal Fire and San Diego Fire Department partners in attacking this fire.

2. I approve the findings of fact and opinions of the investigating officer as modified by the endorsement. Article 31(b) rights advisements are incorporated into the respective enclosures for those personnel provided rights warnings. Recommendations 13, 17, 23, 30, 31, 36, 51, 58, 59f, 59h, 60, 63, 65, 72, 79-82, 103, 105, 108, 109, 111-113, 125, and 131 are approved and have been implement as noted in the first endorsement. Many of the recommendations discussed in the subject investigation and the endorsement are resident in strategic recommendations contained in the Major Fires Review report. These include recommendations 1-4, 12, 14, 15, 18-22, 24-26, 28, 32-35, 37-40, 42-50, 52-57, 59, 61, 62, 64, 66-71, 73-78, 83-98, 100-102, 106, 107, 110, 114-120, 122-124, 126-128, 130, and 132-134. Recommendations 5-11, 16, 27, 29, 41, 104, 121, 129 and those recommendations contained in the first endorsement are referred to the Navy Learning to Action Oversight Board for consideration and action, as deemed appropriate. I echo the investigation report's statement that "adding requirements does not necessarily solve problems." The recommendations in this report, along with the Major Fire Review strategic recommendations and related steps taken to improve fire safety, must be implemented in a practical manner that clearly drives problem ownership and improved fire safety outcomes.

3. In the aftermath of the fire, Fleet Commanders took actions to affirm that every afloat unit is postured to prevent and respond to fires. These and additional follow-on actions, as detailed in the first endorsement, have implemented a number of recommendations contained within this investigation.

4. In January 2021, I directed the Fleet Commanders to review major fires occurring over the last 12 years, including this fire, to identify common, systemic factors that led to the events

Subj: **COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE FIRE ONBOARD USS BONHOMME RICHARD (LHD 6) ON OR ABOUT 12 JULY 2020**

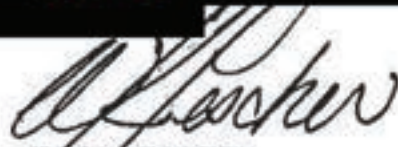
occurring, impeded appropriate response, and/or increased the severity of the casualty. This Major Fires Review, in combination with this investigation, highlights the imperative for a systematic and comprehensive framework to prevent these events. The Navy Learning to Action Oversight Board will provide accountability in implementing the approved recommendations from these reviews, and related investigations and reports.

5. I designate Commander, U.S. Pacific Fleet as the Consolidated Disposition Authority to handle any administrative or disciplinary actions as appropriate relating to military members identified in the accountability chapter of this investigation. The recommendations concerning civilian employees will be forwarded to the cognizant supervisor for action as appropriate. An on-going criminal case against a member of the BONHOMME RICHARD crew continues for hazarding a vessel and aggravated arson.

6. This loss is not the first time the U.S. Navy has lost a capital ship to a preventable fire. We will work together now at speed to make it the last. This means strong action is required by Commanders at every level to understand and address the issues identified in this investigation and the Major Fires Review in order to establish the necessary long-term culture and standards required to change fire safety performance in an enduring way.

7. Please direct any questions or concerns to (b) (6)

(b) (6)



W. K. LESCHER
Admiral, U.S. Navy

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IN REPLY REFER TO:
5830
Ser N00/ 0856
3 Aug 21

FIRST ENDORSEMENT on VADM Scott D. Conn, USN, ltr 5830 Memo N00/156 of 5 Apr 21
w/encl

From: Commander, U.S. Pacific Fleet
To: Vice Chief of Naval Operations

Subj: COMMAND INVESTIGATION INTO THE CIRCUMSTANCES SURROUNDING
THE FIRE ONBOARD USS BONHOMME RICHARD (LHD 6) ON OR ABOUT 12
JULY 2020

1. On Sunday, July 12, 2020, at Naval Base San Diego, a fire consumed the USS BONHOMME RICHARD (LHD 6). The fire burned for nearly five days. It spread to 11 of 14 levels of the ship and reached temperatures in excess of 1,400 degrees Fahrenheit. A separate criminal investigation identified arson as the cause of the fire. This investigation focused on why the fire destroyed the ship.
2. I acknowledge bravery, ingenuity, and resourcefulness in the actions of Sailors across the San Diego waterfront, our partners in Federal Fire & Emergency Services, the San Diego Fire Department (SDFD), and others who had a role in the fire response. Their acts were insufficient to overcome the failures of the BONHOMME RICHARD ship's force and organizations supporting the ship's maintenance availability on the day of the fire and in the months leading up to July 12, 2020.
3. After 19 months executing the ship's maintenance availability, repeated failures allowed for the accumulation of significant risk. The investigation identified four categories of causal factors. The material condition of the ship left it unnecessarily vulnerable to fire and impeded firefighting efforts. The training and readiness of the ship's crew were deficient. They were unprepared to respond. Integration between the ship and supporting shore-based firefighting organizations was inadequate. Finally, there was an absence of effective oversight that should have identified the accumulated risk, and taken independent action to ensure readiness to fight a fire. Common to the failures evident in each of these broad categories, was a lack of familiarity with requirements and procedural noncompliance at all levels of command.
4. On Monday, 13 July 2020, before any investigation was convened, the Commanders of U.S. Pacific Fleet, U.S. Fleet Forces Command, and U.S. Naval Forces Europe/Africa [hereinafter the Fleet Commanders] released a "personal for" naval message to all Commanding Officers of afloat units. This message directed comprehensive actions and follow-on reporting, tracking and

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validation of the completion of these actions in order to affirm that each afloat unit, regardless of their location or maintenance status, was immediately postured to prevent and respond to fires. Units were tasked to:

- a. Conduct a damage control zone inspection of every shipboard space led by a warfare qualified E-7 or above, focusing on cleanliness, stowage, combustible and hazardous material, obstacles to emergency egress and fire team access;
- b. Review the adequacy of damage control manning and qualifications in each duty section and overall crew damage control and firefighting readiness (manning, completion of required schools, and periodicity of training);
- c. Conduct a review of duty section manning sufficiency to respond to a fire (duty section size and experience level);
- d. Assess the proficiency of each duty section to combat shipboard fires;
- e. Conduct all-hands training on fire reporting procedures, classes of fires, preferred extinguishing agents, immediate response procedures, maintenance policies and procedures for damage control systems, requirements for fire watches, hot work, and damage control equipment locations;
- f. Review firefighting procedures with watch teams to include conducting drills;
- g. Review the damage control work center and safety-coded line items in the current ship's maintenance project to assess risk of open jobs, ensure open jobs are scheduled for repair, and all parts are on order;
- h. Conduct a review of damage control preventative maintenance;
- i. Conduct a review of command indoctrination programs to ensure new crewmembers understand the hazards of shipboard fires and how to take immediate response actions to report and combat shipboard fires;
- j. And, for ships in a maintenance availability period:
 - i. Perform a self-assessment of compliance with the 8010 Manual (the guidance that sets requirements relating to the prevention, detection, and response to fires aboard Navy vessels during industrial work) and all applicable industrial environment safety manuals;
 - ii. Conduct a 100 percent verification of damage control equipment to ensure proper location and function;

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- iii. Verify appropriate mitigations are in place for unavailable damage control systems; and,
- iv. Review procedures for integrating with federal fire and emergency response personnel.

5. The Surface Force type commanders established a fire safety assessment program to drive compliance with existing guidance and improve understanding of the risks associated with fire aboard surface ships, especially while in port or during an availability. This program includes random, no-notice inspections of ships designed to check for 8010 Manual compliance, enacts any necessary remediation plans, and provides trends and lessons learned to the Force.

6. On 22 October 2020, in coordination with the Naval Safety Center and the Commander, Naval Sea Systems Command, the Fleet Commanders assigned 36 additional fire safety actions to be implemented across the Navy surface force and shore support establishment. These activities effectively implemented many of the recommendations of this investigation.

7. I extend my deepest gratitude to Vice Admiral Scott Conn and his team of 77 uniformed and civilian personnel for a thorough, critical, and exhaustive report while deconflicting effort with an equally complex criminal investigation.

8. Commander, U.S. Fleet Forces Command, Commander, Naval Installations Command, Commander, Naval Sea Systems Command, and, Commander, Naval Surface Forces Command reviewed this investigation. Informed by their perspectives and comments, I approve the findings, opinions, and recommendations of the investigating officer, with the following modifications and additions:

a. Modify Finding of Fact 207 as follows: SWRMC and NAVSEA were concerned about the impact of firefighting water on the stability of BONHOMME RICHARD in the initial days of the firefighting, but they did not anticipate the significant list shift that occurred on 15 July 2020. The Naval Architects understood how free surface effects impact stability, but were not aware there was so much free surface water high in the ship. [Encl 111, 440]

b. Modify Finding of Fact 215 as follows: The Standard Navy Distribution List (SNDL) does not formally establish or define a relationship between BONHOMME RICHARD, PHIBRON-5, ESG-3, and CNSP. Because the command responsible for overseeing the man, train, and equip mission of ships in availabilities is not clearly defined in the SNDL, many senior leaders assessed that the oversight of BONHOMME RICHARD was largely personality dependent and that the current configuration presents challenges. [Encl 142, 332, 458, 459, 460]

c. Modify Finding of Fact 596 to add the following sentence: The SNDL does not identify PHIBRON 5 as the Immediate Superior in the Chain of Command (ISIC) to BONHOMME

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RICHARD. However, command of Amphibious Squadrons is a sequential command tour for qualified Surface and Aviation Line Officers (i.e. one that requires prior successful completion of major command at sea as an O-6). Accordingly, the ship, PHIBRON 5, ESG 3, and CNSP all recognized that PHIBRON 5 was acting as ISIC at the time of the fire. [Encl 741]

d. Modify Finding of Fact 787 as follows: NAVSEA 04 oversees industrial processes associated with shipbuilding and ship repair for the U.S. Navy. This includes oversight of the Naval Shipyards and Supervisors of Shipbuilding (SUPSHIPs). Commander, Navy Regional Maintenance Center (CNRMC) oversees Regional Maintenance Centers. CNRMC reports directly to Commander, Naval Sea Systems Command. [Encl 878]

e. Modify Finding of Fact 1114 as follows: The primary writers of the 8010 Manual are SEA 04X6 with input from the Damage Control/Firefighting Technical Warrant Holders (TWH) in SEA 05, CNIC, and other personnel from the Naval Shipyards. The 8010 Manual was written over a short duration and initially focused on Naval Shipyard and submarine availabilities. Only later did the 8010 Manual expand to include surface ships and RMCs. [Encl 191, 481, 752, 781, 993]

f. Modify Finding of Fact 1132 as follows: SEA 04XQ has responsibility for the 8010 Manual, but not Technical Authority. From 2016-2020, SEA 04XQ asserted responsibility as the 8010 Manual TWH, but acknowledged no formal documentation establishing that position as the TWH. [Encl 191, 883, 934]

g. Modify Opinion 118 to read: Prior to the fire, the Fleet Commanders had not implemented OPNAVINST 3440.18. [Findings of Fact 651, 652, 1195-1204]

h. Modify Opinion 175 to read: Because the area of responsibility for Fire & Emergency Services (F&ES) Metro Area is not clearly defined, the scope of F&ES personnel requirements are not well known. This poses an additional challenge for higher headquarters to evaluate requests for resources each year in the budgeting process. Because resource requests for fire safety span across multiple resource sponsors throughout the Navy, there is no single entity that advocates for particular requests. [Findings of Fact 227, 1016, 1020, 1037, 1038]

i. Modify Opinion 185 to read: On Naval Base San Diego, the potential loss of a capital ship is one of the costliest possible fire outcomes, and protection of critical defense assets should be the top priority for F&ES on the installations they serve. Thirty-five minutes elapsed between the arrival of F&ES and the establishment of a hose line to Lower Vehicle Stowage Area (Lower V), which exceeded the time in NSTM 555 for flash-over and spread of a fire. Even with limited familiarity and experience on shipboard firefighting, San Diego Fire Department demonstrated more effectiveness during the initial few hours of the fire and was

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the closest of all the immediate responders to applying agent before the fire grew beyond control. While ships are responsible for the entire fire response, the expectations associated with the arrival of F&ES for any emergency must align to the actual response and capability they could bring to bear. Unless F&ES, as an organization, significantly alters the way in which they train, manage their personnel, and execute the current requirements for a shipboard fire response, including planned use of a ship's installed equipment as a primary response apparatus, their response will never be timely enough nor sufficient to prevent a significant fire spread onboard a ship. CNIC has not established clear standards for what F&ES would specifically provide in an emergency response to all ships across the fleet. [Finding of Facts 47-63, 798-833, 836-841, 845-855, 857-900, 1034, 1039-1049]

j. Modify Opinion 193 to read: The 8010 Manual's guidance on the incident management structure for shipboard fire emergencies, specifically the "in-hull incident command" and "off-hull incident command" terminology, is inconsistent with the National Incident Management Systems (NIMS) terminology in OPNAVINST 3440.17A and OPNAVINST 11320.23G. The "off-hull incident command" construct from the 8010 Manual is inconsistent with OPNAVINST 3440.18, which provides for no such off-hull incident command. [Finding of Facts 121, 122, 241, 834-839]

k. Add a Recommendation for OPNAV as follows: With input from CNIC, assess whether the mission, manning, and resources for F&ES should be re-aligned with a narrower scope of responsibility. [Shore Establishment Support]

l. Add a Recommendation for OPNAV as follows: List Amphibious Squadrons in the Standard Navy Distribution List as in the administrative chain of command for LHAs, LHDs, LPDs, and LSDs. [Oversight]

m. Add a Recommendation for OPNAV as follows: Review and clarify the operational chain of command responsibilities over subordinate units while in a maintenance availability. [Oversight]

n. Modify Recommendation 12 as follows: Coordinate with CNIC to evaluate whether embedding Damage Controlman (DC) billets at F&ES firehouses on installations hosting shipboard assets would improve F&ES shipboard firefighting capability and provide enhanced training for DCs. [Training and Readiness; Shore Establishment Support]

o. Add a Recommendation for Fleet Commanders: Develop an operational safety program in order to implement and enforce policy standards, and ensure the identification and implementation of lessons learned at the Fleet level. [Shore Establishment Support; Oversight; Training and Readiness]

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THE FIRE ONBOARD USS BONHOMME RICHARD (LHD 6) ON OR ABOUT 12
JULY 2020

p. Add a Recommendation for Commander, Naval Surface Forces: Promulgate instructions for commanding officers defining minimum habitability standards and general shipboard safety requirements necessary for crew move-aboard. These instructions should ensure both the adequacy of living spaces, such as berthing and mess compartments, and the overall condition of the ship, such as the status of key damage control systems and unmitigated safety concerns. [Shore Establishment Support; Oversight]

9. The criminal investigation has resulted in the preferral of criminal charges against a member of the BONHOMME RICHARD's crew for hazarding a vessel and aggravated arson. As appropriate, I will take administrative or disciplinary actions in the cases of those individuals identified in the accountability chapter of this investigation or forward this investigation to cognizant commanders for disposition.

10. My point of contact for this matter is (b) (6) who may be reached at (b) (6)


S. J. PAPANARO

Copy to:
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~~CUI~~

USS BONHOMME RICHARD (LHD-6) JAGMAN INVESTIGATION

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~~CUI~~

COMMAND INVESTIGATION



**INTO THE FIRE ABOARD
USS BONHOMME RICHARD (LHD-6)
12 JULY 2020**

5830
Memo N00/156
5 Apr 21

From: VADM Scott D. Conn, USN
To: Commander, U.S. Pacific Fleet

Subj: COMMAND INVESTIGATION INTO THE CIRCUMSTANCES SURROUNDING
THE FIRE ONBOARD USS BONHOMME RICHARD (LHD 6) ON OR ABOUT 12
JULY 2020

Ref: (a) COMPACFLT Ltr N00/0976 of 4 Aug 20 (Convening Order)
(b) COMPACFLT Ltr N00/1106 of 15 Sep 20 (Modified Convening Order)
(c) COMPACFLT Ltr N00/1312 of 18 Nov 20 (Modified Convening Order)
(d) COMPACFLT Ltr N00/0242 of 22 Feb 21 (Modified Convening Order)

Encl: (1) Final Report

1. Reference (a), as modified by references (b) through (d), directed an in-depth investigation into the facts and circumstances and actions taken in response to the fire onboard USS BONHOMME RICHARD. Enclosure (1) is the required report.

2. This investigation reviewed execution, compliance and effectiveness of the programs, policies and procedures in place as of 12 July 2020. The investigation conducted several site visits, program reviews and interviews. During the course of the investigation, the team received support from all organizations, including the Naval Criminal Investigative Service, the Bureau of Alcohol, Tobacco, Firearms, and Explosives, and various San Diego community firefighting organizations.



S. D. CONN

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Executive Summary

On 12 July 2020, a fire set USS BONHOMME RICHARD (LHD-6) ablaze for more than four days, and left the ship damaged beyond economical repair. Although the fire was started by an act of arson, the ship was lost due to an inability to extinguish the fire. In the 19 months executing the ship's maintenance availability, repeated failures allowed for the accumulation of significant risk and an inadequately prepared crew, which led to an ineffective fire response. There were four key focus areas to this final outcome:

- Material Condition. Throughout the maintenance period, the material condition of the ship was significantly degraded, to include heat detection capability, communications equipment, shipboard firefighting systems, miscellaneous gear clutter, and combustible material accumulation. To illustrate the extent of degradation, on the morning of the fire, 87% of the ship's fire stations remained in inactive equipment maintenance status.
- Training and Readiness. The training and readiness of Ship's Force was marked by a pattern of failed drills, minimal crew participation, an absence of basic knowledge on firefighting in an industrial environment, and unfamiliarity on how to integrate supporting civilian firefighters. To illustrate this point, the crew had failed to meet the time standard for applying firefighting agent on the seat of the fire on 14 consecutive occasions leading up to 12 July 2020.
- Shore Establishment Support. The integration and support expected by the shore establishment did not adhere to required standards. Southwest Regional Maintenance Center (SWRMC) did not meet their requirements associated with fire safety and, in doing so, failed to communicate risk to leadership while facilitating unmitigated deviations from technical directives. Naval Base San Diego (NBSD) failed to ensure its civilian firefighters were familiar with Navy vessels on the installation, verify they were trained to respond to a shipboard fire, or effectively practice how to support Ship's Force and simultaneously integrate responding mutual aid assets.
- Oversight. Ineffective oversight by the cognizant Commanders across various organizations permitted their subordinates to take unmitigated risk in fire preparedness. A significant source of this problem was an absence of codification of the roles and responsibilities expected by each organization in their oversight execution.

Common to all four focus areas was a lack of familiarity with key policies and requirements along with procedural non-compliance at all levels of command from the unit level to programmatic, policy, and resourcing decisions. An example of how these focus areas combined to result in unacceptable levels of risk is the status of the ship's Aqueous Film Forming Foam sprinkling system. At no point in the firefighting effort was it used – in part because maintenance was not properly performed to keep it ready and in part because the crew lacked familiarity with capability and availability.

On Sunday, 12 July 2020, at approximately 0800 and shortly after duty section turnover, a fire started in the Lower Vehicle Stowage Area (Lower V) of BONHOMME RICHARD. The ship was in the midst of a two-year availability and was particularly vulnerable to fire: having systems tagged out for maintenance; scaffolding, temporary services, and other contractor equipment hung throughout; a significant amount of ship's gear, equipment, flammables and combustible material recently loaded onto the ship and packed into various spaces; and, more than three-quarters of the ship's firefighting equipment was in an unknown status.

BONHOMME RICHARD's crew of more than 1,000 personnel, divided into a varied array of duty sections by department and functional areas, had approximately 138 Sailors present that morning – 115 of whom were on duty. The Command Duty Officer (CDO) was a second tour Surface Warfare Officer (SWO) division officer standing his first duty day as CDO and oversaw BONHOMME RICHARD's initial response to the fire. At least 10 minutes elapsed after the initial detection of smoke before the casualty was called away. These precious early minutes were lost for various reasons — the duty section primarily used personal cell phones to communicate because they lacked radios; the Officer of the Deck (OOD) directed further investigation of the smoke before taking action; when the OOD was convinced of a casualty, he directed Damage Control (DC) Central to call it away; the 1 Main Circuit (MC) did not work in many areas of the ship to include DC Central; and there was a lack of urgency. When initial responders from Ship's Force descended into Lower V, no one shared the same understanding of what firefighting capability was online, contributing to their failure to apply agent to the fire or set fire boundaries, which enabled smoke and heat to intensify.

As a small number of BONHOMME RICHARD Sailors executed their initial actions, crews moored across NBSD began organizing and deploying Rescue and Assistance (R&A) teams. The R&A teams from other ships that arrived early on that morning to provide support were never employed by BONHOMME RICHARD. Aboard BONHOMME RICHARD, the ship's duty section mustered in the Hangar and deployed two attack teams to locate a usable fire hose in the Upper Vehicle Stowage Area (Upper V). Because the nearest shipboard fire stations had cut or missing hoses that were not corrected through routine maintenance checks, these teams were unsuccessful locating a serviceable fire station and hose and they did not adapt their strategy in light of these conditions.

Shortly after 0830, NBSD Federal Fire Department (FEDFIRE) crews arrived, having been directed to respond by a Region Dispatch Center (RDC) dispatcher. FEDFIRE firefighters were met by the CDO, who was overseeing a small and unorganized group of BONHOMME RICHARD Sailors. After checking in with the CDO, and without being provided actionable information or direction, FEDFIRE began to employ their own hoses, pulling them nearly 30 feet vertically up the port Aircraft Elevator (ACE) into the Hangar. Although the sideport door located further down the pier would have provided immediate access to Upper V and was the closest entrance to the fire, FEDFIRE was not given direction to enter from that location. The lack of direction and leadership from Ship's Force over firefighting efforts led FEDFIRE to operate as an independent unit.

FEDFIRE ran their hoses a significant distance along the Hangar, down the ramp to Upper V, through Upper V, and down the ramp to Lower V. With no installed firemain system on the

pier, FEDFIRE connected their hoses to a potable water riser, which was supplying water to USS FITZGERALD (DDG-62) directly across from BONHOMME RICHARD. Through this prolonged approach, a single FEDFIRE hose team with one BONHOMME RICHARD Sailor transited towards the fire but only partially accessed Lower V. While this was the first attempt to deploy agent on the fire nearly an hour after ignition, the hose team only opened their hose nozzle temporarily for cooling purposes. Within just a few minutes, the team backed out after one of the firefighters received a “low air” alarm on his Self-Contained Breathing Apparatus (SCBA) and no relief team replaced them.

At 0905, the BONHOMME RICHARD CO arrived onboard NBSD and proceeded to the pier. Around the same time, as FEDFIRE organized its effort from the port ACE to attack the fire from the Hangar, additional firefighters arrived from various municipal fire departments. These municipal departments were organized under San Diego Fire Department (SDFD), but a lack of compatible radios inhibited integration efforts between SDFD and FEDFIRE. Throughout the first three hours and with rare exception, there were no attempts by the CO, CDO, or other BONHOMME RICHARD leaders to integrate civilian firefighters with Ship’s Force. Moreover, many of the personnel on scene at this time perceived FEDFIRE had assumed control of firefighting. Around 0915 and due to the significant growth in smoke, the CDO, with concurrence from the CO, ordered the evacuation of BONHOMME RICHARD personnel without SCBAs by informing them individually in the Hangar because he did not have adequate communications gear. With a significant number of uniform personnel egressing the ship following this order, by 0930, all BONHOMME RICHARD personnel began to evacuate.

Despite undergoing an availability, BONHOMME RICHARD was equipped with extensive shipboard firefighting systems, which included firemain and Aqueous Film Forming Foam (AFFF) sprinkling systems and hoses. At no point in the firefighting effort were any of them used, in part because they were degraded, maintenance was not properly performed to keep them ready, and the crew lacked familiarity with their capability and availability. Three months before the fire, BONHOMME RICHARD was required by policy to restore shipboard firefighting systems when it unloaded more than 900,000 gallons of fuel. For the AFFF sprinkling systems, Ship’s Force determined only a limited portion would be brought online. Notwithstanding the roles and responsibilities of the ship’s Executive Officer (XO), Chief Engineer (CHENG), and Damage Control Assistant (DCA), the systems that were brought online had numerous undocumented system discrepancies. By 0944 on the day of the fire, aft shore power to BONHOMME RICHARD was secured, likely due to the direction of the CDO who believed that the fire was electrical in origin. This action rendered the ship’s firemain and AFFF unusable, as the ship lacked any backup power source. From this point on, all firefighting efforts relied on external water sources, which were further hampered by the lack of firemain on NBSD piers.

Throughout the entire morning, BONHOMME RICHARD did not lead firefighting efforts and failed to coordinate or attempt to integrate attack teams from SDFD or FEDFIRE with Ship’s Force to attack the fire. At approximately 0935, SDFD firefighters initiated an effort to enter the ship via the sideport door, the closest access point to attack the seat of the fire. Without any Ship’s Force escort or assistance, and without Damage Control plates being made available to them, SDFD accessed the ship and attempted to locate the seat of the fire. They encountered

ship and contractor equipment substantially narrowing their available access path to the fire. By this point, combustible materials stored in Upper V had ignited from heat radiating through the deck below, creating additional fires. SDFD partially descended the ramp to Lower V, but the heat, lack of visibility, and unfamiliarity with the ship's layout led them to back out without engaging the fire. SDFD and its municipal partners eventually engaged ancillary fires in Upper V for approximately 45 minutes. Around this time, FEDFIRE terminated its attack from the Hangar and staged on the pier where SDFD entered the ship to support them.

Shortly after 1030, the SDFD and FEDFIRE Incident Commanders (IC) noted deteriorating fire conditions and ordered the withdrawal of all firefighters from the ship — a decision likely preventing any loss of life or serious injuries to numerous personnel. At 1050, less than five minutes after the last firefighter exited BONHOMME RICHARD, a major explosion rocked the ship, blowing debris across the pier and knocking down firefighters and Sailors. This explosion occurred after more than two hours of efforts where none of the ship's installed firefighting systems were employed and no effective action was taken by any organization involved to limit the spread of the smoke and fires. After the explosion, all personnel completely evacuated the pier. Without personnel onboard, available installed systems, or electrical power, the fires on BONHOMME RICHARD were unimpeded. Subsequent attempts to regain a foothold aboard relied on ad hoc strategies, delivering too little firefighting agent to combat the pace of the fire's spread. Throughout the first day of efforts, agent was never applied to the seat of the fire, and the opportunity to do so was lost once the fire spread beyond the perimeter of Lower V and across the entire ship.

The fire expanded unabated and burned for the next four days, despite the efforts of hundreds of Sailors, FEDFIRE and contract firefighter support. Earlier failures to either extinguish or contain the fire transformed the ship into an environment where some compartments reached temperatures above 1,200 degrees Fahrenheit. The interior of the ship's superstructure, made of aluminum, melted completely in such heat, converting into molten metal that flowed into the spaces below. It was into this environment Sailors and firefighters made repeated entries in an attempt to save BONHOMME RICHARD. Though their efforts were unsuccessful and occurred beyond the point where the ship could have been saved, the courage displayed in subsequent firefighting efforts warrant acknowledgment.

The overall command and control for the fire response was initially chaotic, but it improved over time through ad hoc decisions and assignments. Although the CO, XO, CMC, CHENG, and DCA were all present on the pier prior to the explosion, they failed to establish command and control of the situation and did not lead action to integrate fire response efforts. Instead, Commander, Expeditionary Strike Group THREE (ESG-3), the ship's operational Commander who has no assigned role or responsibility in response to a shipboard fire during a maintenance availability, stepped into a command and control vacuum to align the various ship, installation, and external organizations by employing a make-shift emergency response organizational structure. This rapidly-formed command structure enabled coordinated action, and by the fifth day, the fire was declared out. The fire was extinguished due to five days of firefighting efforts coupled with the limited amount of combustibles remaining onboard that had not previously burned. The fire left the ship damaged beyond economical repair, leading to the decision to decommission BONHOMME RICHARD.

Preceding the day of the fire, the investigation evaluated the execution of the BONHOMME RICHARD 19 month maintenance availability. Consistent with any extended maintenance period, the risk of fire is significantly higher as compared to operating at sea due to hazards associated with industrial work onboard ships. The ship's CO and crew are primarily responsible for the management of this risk but the complexity of an availability requires support from multiple organizations.

As the Navy entity for overseeing the contractor's maintenance activities on BONHOMME RICHARD, the Southwest Regional Maintenance Center (SWRMC) was the single point of contact responsible for the planning, execution, and close out maintenance actions. While moored at Pier 2, NBSD was responsible for support to the ship and associated maintenance activities, to include the availability of shore based firefighting capabilities. Additionally, higher echelon Commanders were responsible to safeguard procedural compliance and enable mission success through effective oversight.

What should have happened during the course of the BONHOMME RICHARD availability was the maintenance community and shore establishment, coupled with effective oversight, would support the ship in navigating its milestones. Instead, there were multiple execution failures throughout the maintenance period, which are shared by Ship's Force and the supporting organizations.

Equally important is the development and efficacy of the underlying policies and procedures. The governing framework on how to successfully execute maintenance availabilities is principally derived from lessons learned from previous incidents and events. Most notably, the Navy maintenance community undertook a broad array of programmatic changes in the wake of the fire aboard USS MIAMI (SSN-755) that occurred on 23 May 2012. In response to this fire, Commander, U.S. Fleet Forces Command (USFF) convened a Fire Review Panel to determine how MIAMI could be lost in a shipyard environment despite readily available fire prevention programs and resources. The critical takeaway from the MIAMI investigation, as stated in the USFF endorsement was that "accept[ing] a reduced margin to fire safety when a ship enters an industrial environment" was a key driver to the policies and procedures that developed to prevent a similar outcome. Foremost among these changes was the development of the NAVSEA Technical Publication, Industrial Ship Safety Manual for Fire Prevention and Response, S0570-AC-CCM-010/8010 (hereafter "8010 Manual"). For the BONHOMME RICHARD availability, however, many of the requirements developed and codified in the 8010 Manual were not properly executed – to include the functions of the Fire Safety Council as a means to manage the accumulation of risk and the Chapter 12 and 13 drills that were designed to enable a coordinated response to a shipboard fire during a maintenance period.

In the last 5 years, policy changes and corrective actions to address fire safety were inconsistently implemented or failed to be implemented across the Navy maintenance organization. While not the focus of this investigation, training, implementation, and compliance with the 8010 Manual in private shipyards was not representative of maintenance on nuclear vessels being executed in the public yards. Additionally, there was a lack of procedural compliance and effective oversight within the Naval Sea Systems Command (NAVSEA), Navy Installations Command, and Naval Surface Force Pacific Fleet. This placed the non-nuclear

Surface Fleet on a trajectory of an unacceptable fire prevention and response posture with a high level of accumulated risk before the fire started on 12 July 2020. Once the fire started, the response effort was placed in the hands of inadequately trained and drilled personnel from a disparate set of uncoordinated organizations that had not fully exercised together and were unfamiliar with basic issues to include the roles and responsibilities of the various responding entities.

Our business requires us to operate in a pressurized environment, with aggressive timelines, performing to plans and an expectation to always accomplish the mission. In the case of BONHOMME RICHARD, the leaders most directly associated to this final outcome framed their decisions around a false choice between meeting timelines versus adhering to safety and standards. Exacerbating this, leaders failed to communicate these choices up the chain of command. The course corrections and changes identified in this report are designed to prevent this outcome in the future. Finally, Commanders at all levels are entrusted with extraordinary responsibility with full regard for its consequences – as command is the foundation upon which our Navy rests.

Chapter 1 – Introduction

Scope of Investigation

1. In accordance with enclosure (1), as modified by enclosures (2) through (4), this investigation was charged with a mandate that was both broad and specific, starting with an inquiry into the circumstances and actions taken in response to the 12 July 2020 fire aboard USS BONHOMME RICHARD (LHD-6). The broader mandate included an examination of all causal and contributing factors from unit-level execution to programmatic, policy, and resourcing factors that played a role in leading up to this incident in order to understand what drove the pertinent stakeholders to be in the position they were in prior to the fire. The specific mandate included an investigation into the adequacy of training, manning, and pier firemain support services, as well as an inquiry into potential impacts of Coronavirus Disease-2019 (COVID-19) mitigation measures. The convening order required a vigorous self-assessment, including the Ship's Force and all levels of the chain of command external to BONHOMME RICHARD. To that end, the investigation conducted an extensive review of command and control relationships and assignment of responsibility across multiple commands and organizations, engaging multiple commands across the San Diego waterfront, maintenance community, installation and region emergency management authorities, and their higher headquarters. The investigation further conducted a multifaceted analysis of policies germane to the Navy's execution of surface ship maintenance, ship modernization, shipboard fire prevention, and shipboard casualty response during construction, repair, and lay-up. In accordance with enclosure (2), the command investigation refrained from investigating any individual related to the initial cause of the fire and cited to the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) report to establish the cause and origin of the fire.

2. The investigation team submitted more than 67 requests for information from 23 organizations, to include entities outside the Navy such as the City of San Diego Fire Department and General Dynamics National Steel and Shipbuilding Company (NASSCO). Additionally, the investigation reviewed portions of the Naval Criminal Investigative Service (NCIS) investigation into the fire as well as the cause and origins report prepared by the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), which augmented the criminal investigation. In total, the team reviewed more than 26,000 documents, photos, videos, and other materials. Reviewing these documents helped better inform the team on which personnel were best positioned to provide information through witness interviews. To that end, the investigation team interviewed more than 375 personnel, memorializing each of those interviews in a written summary that was provided to each witness for review prior to including the written summary as an enclosure in this report.

3. In order to evaluate execution and compliance with relevant programs, policies, and procedures, the investigation team reviewed all documented command investigations and similar inquiries into shipboard fires occurring after the 2012 shipyard fire aboard USS MIAMI (SSN-755). This review included a close analysis of the MIAMI Fire Review Panel recommendations and subsequent implementation by responsible entities to help inform how the Navy's programs, policies, and resources were put in place for shipboard firefighting, safety, training and

prevention. This effort included a detailed tracing of the current applicable policies and requirements since the MIAMI fire to understand if these were insufficient or not properly executed.

4. The fire safety practices, policies, and procedures for new ship construction differ widely from in-service ships. Additionally, for new ship construction, the manning, safety posture, and overall status of a new ship as it progresses through the new construction phases is fundamentally different than an in-service ship undergoing maintenance. Because of these differences, the investigation did not look closely at new ship construction. To best position the Navy to learn from the incident following this investigation, any effort to implement changes in fire safety practices of in-service ships should also consider the applicability of individual changes to new construction.

Methodology

5. After assembling the command investigation team immediately following Commander, U.S. Pacific Fleet's (COMPACFLT) 4 August 2020 convening order, considerable time was spent reviewing and deciphering the various mandates in the order to devise how best to conduct the investigation. Given this investigation was convened after several other investigations — commencing 22 days after the incident — efforts were made to coordinate with other ongoing investigations to identify and deconflict their various purposes.

6. A total of five BONHOMME RICHARD investigations, inquiries, or assessments were initiated by the Navy after 12 July 2020. Of those 5, Naval Sea Systems Command (NAVSEA) convened 3: Safety Investigation Board (SIB); Failure Review Board (FRB); and, Material Assessment. NCIS, in coordination with ATF, initiated a criminal investigation and COMPACFLT convened this command investigation. The investigation team identified points of contact for each of these 5 inquiries and, where possible, obtained information associated with their respective fact gathering efforts, including updated information as it became available.

7. On 16 July 2020, agents from NCIS and ATF conducted an initial evaluation of BONHOMME RICHARD to assess the scene. Upon completion of their preliminary evaluation, they determined the ATF National Response Team was needed to fully process BONHOMME RICHARD's Lower Vehicle Stowage Area (Lower V) to determine the fire's causation. On 18 July 2020, ATF assumed control of Lower V in furtherance of the NCIS investigation into the incident.

8. The SIB, convened on 17 July 2020 by NAVSEA, was conducted as a privileged investigation to ensure commanders and safety officials could obtain accurate information for safety purposes. A key purpose for the privilege is to overcome reluctance of individuals involved to reveal complete and candid information for fear of embarrassment or negative consequence to themselves, other personnel, or their commands. Due to this privilege, the command investigation received limited information from the SIB, but there was some coordination to share limited information that was permissible for our consumption. During the course of the SIB, a decision was made to pause the investigation because of the ongoing criminal investigation by NCIS into the fire. Consistent with Navy policy, mishaps that are the

subject of a criminal investigation, to include arson, are not investigated under the safety program. As of the publishing of this report to COMPACFLT, the SIB was remained paused and it is expected the report will not be completed, but all materials remain privileged and are off-limits for non-safety purposes.

9. The Material Assessment (MA), which convened shortly after the fire was declared extinguished on 16 July 2020, assessed the ship's condition, determined the ship's structural integrity, feasibility of repair, laid the groundwork for a cost estimate, and led a system recovery effort. The Material Assessment did not attempt to determine the cause of the fire and did not evaluate with much detail the fire's progression.

10. The FRB, convened on 29 July 2020, coordinated with the Material Assessment team to finalize a timeline of events from initiation of the fire and key events, conduct an engineering assessment of fire protection systems (both passive and active), and evaluate Damage Control (DC) and firefighting doctrine as it pertained to contributing towards the fire spread. Additionally, the FRB conducted a compliance assessment, focusing on fire prevention requirements in place for BONHOMME RICHARD's availability to include reviewing: (1) 8010 Manual; (2) NSTM 555; and, (3) contractual requirements. As of the publishing of this report to COMPACFLT, the FRB was still final pending signature by NAVSEA. However, following coordination with NAVSEA, this report references the draft FRB at various points to augment certain findings or where necessary, highlight differences. While some variations exist between the FRB and this investigation, they are minor and due in part to the greater length and scope of this investigation, which permitted our team to conduct detailed interviews and synchronize their recollections with audio and visual evidence.

11. Following initial synthesis of all available information and thorough analysis of the convening order, the investigation team constructed a framework to approach the broad scope, establishing a requirement for two teams to approach specific aspects to the order: Pre-Fire (i.e., what should have happened in accordance with applicable regulations and what did occur before the fire) and Post-Fire (i.e., what actually happened and the subsequent response to the fire). To provide further context, the Pre-Fire team owned all policies and procedures governing execution of a Chief of Naval Operations (CNO) availability on an amphibious assault ship, including but not limited to: (1) adequacy and compliance with all fire prevention and training requirements; (2) appropriate manning levels during an availability; (3) minimum number of authorized duty sections; (4) pier laydown and equipment; and, (5) coordination with the multiple stakeholders across the waterfront with an assigned role. In addition to this list, Pre-Fire also reviewed actions and steps taken by BONHOMME RICHARD, Southwest Regional Maintenance Center (SWRMC) and all other organizations playing a role in the availability through 12 July 2020. The Post-Fire team was tasked with investigating what occurred from 12 July 2020 onward.

12. Within the two primary teams, we identified four lines of effort transcending both teams, including reviewing the ship's training and execution of casualty response, the shipyard, shore-based support (which includes Federal Firefighting Department (FEDFIRE), SWRMC, and other supporting organizations), and finally the helicopter operations associated with fighting the fire. Beyond this framework, the investigation team further sub-divided, assigning 16 specifically identifiable questions from the convening order to subject matter experts within their assigned

Pre-Fire and Post-Fire teams to further prioritize focus areas. These 16 specific questions were separate from the six broad focus areas mentioned above and were also assigned to the two primary teams to answer.

13. The above methodology was developed as a framework to answer the broad mandate within the convening order. Throughout the process, the investigation team adjusted its approach, but kept an eye towards consistency, process, and fairness when approaching its task.

Organization

14. The convening order assigned VADM Scott D. Conn, USN as the investigating officer. Additionally, VADM DeWolfe H. Miller, USN was designated to assist the investigation, along with (b) (6) and (b) (6) as legal advisors. Consistent with the convening order, the investigation team was further augmented by RDML Timothy J. Kott, USN along with 72 additional uniform and civilian personnel. See Appendix K for a list of all members of the command investigation.

15. Given the convening order's mandate to drive vigorous self-assessment and examination across all levels of the chain of command regardless of rank, pay grade, or level of command, the investigation team incorporated individuals from more than 20 major organizations to include: Special Operations Command; Allied Joint Force Command Naples; Office of the Secretary Navy; U.S. THIRD Fleet; Carrier Strike Group ONE; Expeditionary Strike Group TWO; Destroyer Squadron TWENTY ONE; Naval Sea Systems Command; Navy Installations Command; Naval Air Force; U.S. Pacific Fleet; Naval Surface Force; U.S. Pacific Fleet; Naval Surface Force Atlantic; Expeditionary Warfare Training Group Pacific, and, Afloat Training Group Pacific.

16. To address the numerous aspects associated with civilian firefighting practices, the team also incorporated two faculty members from the United States Merchant Marine Academy at Kings Point, New York. In addition to their roles as current faculty members, these individuals possess a combined 60 years of experience with civilian firefighting organizations (to include service with the New York City Fire Department Marine Division), shipboard firefighting (retired Navy Reserve officers) and numerous engagements with outside entities instructing and certifying on fire safety and fire response.

17. The investigation team distributed the experience and talent across these various organizations into the Pre-Fire and Post-Fire teams. This distribution was purposefully allocated around the tasking and responsibilities within the groups to maximize the team's ability to address the assigned focus areas.

Overview of Key Applicable Authorities

18. The 8010 Manual is the key policy document that sets requirements relating to the prevention of, detection of, and response to fires aboard Navy vessels during industrial work to ensure safety of equipment and personnel. The 8010 Manual requirements were intended to provide tiered risk mitigations based on the amount and complexity of the industrial work

performed. The 8010 Manual applies to all Ship Repair and/or Construction Activities (SRCAs) performing maintenance and other industrial activities on Navy vessels, including Navy Shipyards, Regional Maintenance Centers (RMC), private repair shipyards, and new construction shipyards. Finally, the 8010 Manual integrates the corrective actions developed as a result of the May 2012 fire aboard USS MIAMI (SSN-755) and integrates them with existing fire safety and prevention requirements.

19. OPNAVINST 3440.18, establishes an emergency response command structure, defines responsibilities, and provides response procedures and reporting requirements for major shipboard non-nuclear casualties. The instruction identifies and defines the supporting/supported roles of the Primary Commander, the Regional Commander, the Area Commander or Unified Area Commander, Bridge Line Commands, and In-Hull Incident Command to support a coordinated emergency response.

20. OPNAVINST 3440.17A assigns overall responsibility for the Navy Installation Emergency Management (EM) Program to CNIC and provides operational authority, procedures, and further assigns responsibilities for developing, implementing, and sustaining comprehensive, all-hazard Installation EM programs on Navy installations. The instruction applies to all Navy regions and installations within the United States and requires inactive equipment maintenance (IEM) compliance with the National Incident Management System (NIMS), National Preparedness Guidelines, and the National Response Framework.

21. NSTM 555 provides guidance on shipboard fire classification, characteristics, and effects; operation and maintenance of shipboard firefighting equipment and agents; and, procedures for fire prevention and firefighting on surface ships.

Coordination with Naval Criminal Investigative Service

22. Consistent with the convening order, the investigation team maintained regular communications with the San Diego Field Office for NCIS to coordinate our respective inquiries and ensure the command investigation did not interfere with the criminal investigation. The focus area of the criminal investigation prompted NCIS to place significant restrictions on the command investigation's efforts throughout the course of the investigation, but particularly during the first 19 weeks. At the start of the command investigation, NCIS restricted the sharing of all information through the use of non-disclosure agreements, and only a few individuals from the command investigation were provided access to limited amounts of information. Additionally, the command investigation was precluded from engaging with all BONHOMME RICHARD personnel present on the morning of the fire, which included all leadership from the ship as well as the crew members that were most pertinent to the command investigation.

23. On 27 August 2020, NCIS provided an initial brief of its investigative efforts to the command investigation, which included limited portions of their report, witness statements, and evidence. In September 2020, the command investigation attempted to deconflict certain aspects of the convening order mandate with NCIS to enable our fact gathering efforts while limiting any impact to the criminal investigation. In late September 2020, NCIS directed a complete

cessation of the command investigation for three weeks so they could pursue certain leads and coordinate with the U.S. Attorney.

24. In early October 2020 after this investigation was permitted to resume activities, NCIS continued to prohibit access to BONHOMME RICHARD and other key personnel that played any role in the initial fire response. As modified by enclosure (2), the convening order removed the requirement to inquire or investigate any individual related to the initial cause of the fire, but the modification reiterated the requirement to investigate the facts and circumstances of the fire, to include addressing the factors that contributed to its magnitude and intensity and the adequacy of the response. Based on this, the command investigation pressed forward on other aspects to the convening order that did not have a nexus to what NCIS considered a focal point to their investigation. Additionally, using the limited information provided by NCIS up to this point from their criminal investigation into what occurred 12 July 2020, the command investigation developed a list of the most pertinent personnel involved in the fire response from BONHOMME RICHARD and other commands. This list of approximately 150 individuals was provided to NCIS in early October 2020 to help narrow what the command investigation assessed as most critical to complete their mandate. Except for a few personnel, NCIS continued to prohibit access to these individuals.

25. In late November 2020, two agents from NCIS headquarters were detailed to liaise with the command investigation and work through the list of approximately 150 personnel assessed as most relevant and necessary to interview in order to complete this report. Following review of the witnesses and follow-on engagement with the NCIS San Diego Field Office in consultation with the Region Legal Service Office Southwest (RLSO) Trial Department, the command investigation was granted access to all but approximately 10 witnesses. The command investigation commenced these witness interviews the first week of December 2020 and completed them the first week of January 2021. After additional coordination, NCIS granted access to the final 10 witnesses in mid-January 2021, and those interviews were completed before the end of January 2021.

26. The inability to gain access to crucial witnesses involved in the initial firefighting efforts, especially from BONHOMME RICHARD, resulted in the command investigation being granted additional time by COMPACFLT to complete the report. Moreover, because six months elapsed between the fire and the point that the command investigation was permitted to interview the most crucial witnesses involved in the fire response, memories had faded which presented challenges with getting at certain details in the initial minutes after the fire was discovered.

Miscellaneous

27. The investigation team was aware of the concerns raised by the San Diego community and others regarding any possible environmental impacts resulting from this incident. Consistent with the scope of the convening order, this investigation did not examine the environmental impacts from the fire, as these impacts were outside the scope of our mandate. The Navy is committed to following all regulatory requirements and the appropriate organizations continue to work in partnership with regulatory partners on environmental matters.

28. There were various personnel from the mutual aid fire departments within the vicinity of Naval Base San Diego (NBSD) that responded to this incident. Their commitment to the Navy demonstrated by their response to this incident is commendable. Additionally, their willingness to be interviewed and invest additional time to support this investigation, to include sharing their perspective and lessons learned provided a valuable perspective.

29. The rank and position of personnel contained throughout this report reflects their rank and position on 12 July 2020. Numerous uniformed personnel have promoted or advanced since the incident, and some civilian personnel have transferred to different positions. Any reference to a position of leadership reflects the individual that occupied the billet at the time of the fire, unless specifically referenced otherwise (e.g., “the previous Commanding Officer (CO)”).

30. Consistent with the modification in enclosure (2), the command investigation refrained from investigating any individual related to the initial cause of the fire. This report cites to the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) report on the cause and origin to reflect their determination that the fire was caused by an act of arson. As of the date of this report, the Naval Criminal Investigative Service (NCIS) investigation remains open.

Chapter 2 – Findings of Fact

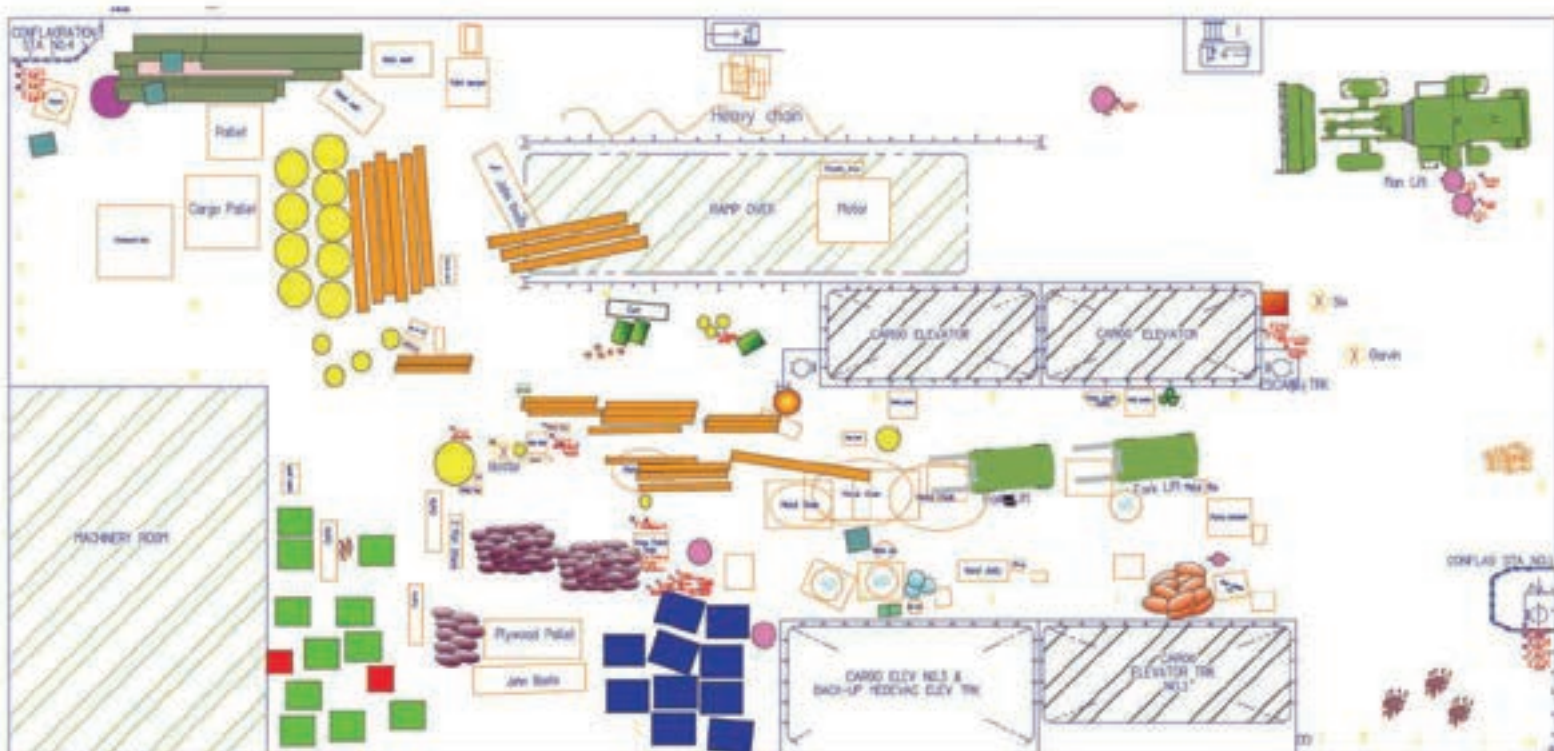
JAGINST 5800.7G (JAGMAN), the governing reference for administrative investigations in the Navy, directs findings of fact be made “only if supported by a preponderance of the evidence, i.e., more likely than not.” This Chapter includes more than 1,000 findings of fact associated with the fire and all other relevant aspects to the convening order. The findings of fact contained herein were all determined based on the above evidentiary standard.

Section I: Execution of Casualty Response by Ship’s Force and Other First Responders

On Sunday, 12 July 2020, a fire broke out on USS BONHOMME RICHARD (LHD-6), which had been undergoing a Chief of Naval Operations (CNO)-scheduled Docking Phased Maintenance Availability (DPMA) (hereafter referred to as “the availability”) since November 2018. (See Appendix G for an explanation of availabilities.) This fire eventually consumed the entire ship, after all initial firefighting actions proved futile. After several days, and several new firefighting attacks, the fire was declared out on Thursday, 16 July 2020. Of note, this section occasionally deviates from strict chronological order to help describe significant events and milestones. Appendix D: BONHOMME RICHARD Fire Timeline provides additional context for these events.

A. Fire Origins

1. The origin of the fire aboard BONHOMME RICHARD has been the subject of a criminal investigation since 16 July 2020. The investigation, which is still ongoing as of the date of this report, is led by the Naval Criminal Investigative Service (NCIS), supported by the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF). [Encl 5]
2. ATF conducted a systematic fire scene examination and determined the fire originated in Lower Vehicle Stowage Area (Lower V). ATF classified the fire as incendiary (arson). ATF defined incendiary as the deliberate application of an open flame to either tri-wall cardboard boxes or ignitable liquid vapors on or near these boxes within Lower V. ATF determined the origin and cause based on an analysis of the facts gathered throughout the investigation and the logical inferences that flowed from those facts, which included the elimination of other heat sources within the area of origin. The identity of any individual who may have engaged in these acts remains under investigation. [Encl 5]
3. ATF determined that once the fire ignited, it spread to the significant amount of combustible material stored within Lower V (See Figure 1), which included dozens of tri-walls filled with gear and equipment and three fueled vehicles (a forklift, a man-lift, and a cargo tractor). [Encl 5]



LEGEND

Fan	Cargo Pallet
Bucket	CO2 Bottles
Wire Spools	Heavy Hose
Wood Beam	Ladder
Ammo Cart	Chair
Space Heater	Hose
Stool	Hose Reel
Propane	Spool Rope
Ammo can	Metal Cylinder
Fire Hose	

Figure 1 depicts an ATF diagram of equipment and material stored in Lower V on 12 July 2020.

B. Fire Detection and Initial Response

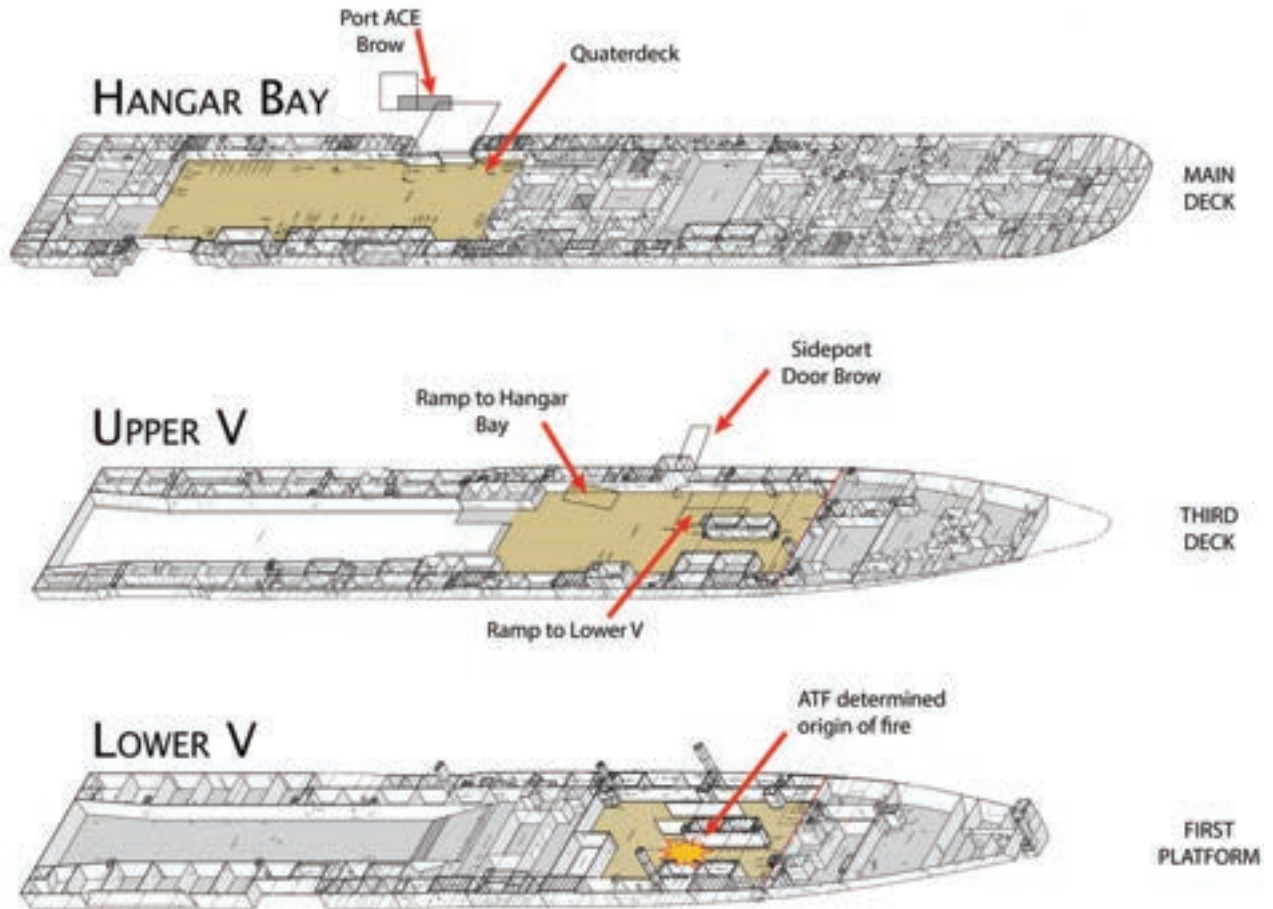


Figure 2 depicts various BONHOMME RICHARD decks and compartments.

4. At 0745, BONHOMME RICHARD conducted duty section turnover. Of note, BONHOMME RICHARD had varying duty sections for different watchstanders and departments. According to BONHOMME RICHARD, 115 of 145 duty section personnel were present at muster. Several Inport Emergency Team (IET) Sailors were not present for duty section muster, including (b) (6), the on-coming IET Team Leader; (b) (6), IET Electrician; (b) (6), IET Accessman; and (b) (6), IET Smoke Control/Removal. Additional details on the estimated number and ranks of personnel available that morning is provided in Section III. [Encl 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28]

5. At 0625, (b) (6), the oncoming sideport brow security watchstander, arrived onboard Naval Base San Diego (NBSD). After receiving his duty weapon from the armory, he assumed his post at approximately 0720. While he originally assumed the post without a radio, a radio was later brought to him by (b) (6) at approximately 0745. [Encl 29, 30, 31]

6. After morning colors at approximately 0801 – 0803, (b) (6), a duty section member, passed through Upper Vehicle Stowage Area (Upper V) in transit from the Hangar to the Well Deck, where vending machines were located. As she passed the Lower V ramp, (b) (6) observed that Lower V appeared “foggy.” After making a purchase at the vending machine, (b) (6) walked back through Upper V to the Hangar at approximately 0805 – 0810, where she observed a “hazy, white fog” in Lower V. Because she did not smell smoke, (b) (6) continued to her berthing. [Encl 32]

7. Shortly after 0805, (b) (6), a duty section member, stopped in Upper V near the sideport door to have a conversation with the sentry watch, (b) (6). During this conversation, at approximately 0810 – 0815, both (b) (6) and (b) (6) observed white smoke rising from the Lower V ramp into Upper V. [Encl 29, 31, 33, 34, 35, 36, 37, 38, 39, 40, 41]

8. Upon noticing smoke, (b) (6) ran from the sideport door, up the Upper V ramp, and through the Hangar to the port ACE, where the Quarterdeck was located. (b) (6) reported white smoke to the Officer of the Deck (OOD), (b) (6). [Encl 37, 41, 42, 43]

9. Upon receipt of the report of smoke, the OOD called Damage Control (DC) Central to report the casualty, but did not call away the report of smoke from the quarterdeck. (b) (6), who was present in DC Central at this time, recalled hearing an audible alarm sounding from the alarm panel in DC Central immediately prior to receiving a call from the OOD. After receiving the call from the OOD, (b) (6) departed DC Central to investigate the report. From the Hangar, he descended down the Upper V ramp into Upper V, then attempted to descend the Lower V ramp. Driven back by heat and smoke, he ran back up to the Upper V ramp to Damage Control Repair Station (DCRS) 5. As he passed the Quarterdeck, he yelled at the OOD to call away the casualty. [Encl 35, 42, 44, 45, 46, 47]

10. From the Quarterdeck, (b) (6) followed (b) (6) down the Upper V ramp towards Lower V. (b) (6) proceeded about halfway down the Lower V ramp, then noticed that (b) (6) was no longer present and withdrew towards the Hangar. While passing through Upper V, (b) (6) observed (b) (6) sprinting up from the Well Deck. [Encl 48]

11. At approximately 0800 – 0810, (b) (6) was making a purchase from a vending machine in the Well Deck when he observed smoke coming from the Lower V ramp. He ran through Upper V towards the ramp into the Hangar; en route, he passed (b) (6) and (b) (6). (b) (6) told (b) (6) that he ((b) (6)) had already reported the smoke. (b) (6) continued to DCRS 5M (1-69-2-Q), where he encountered (b) (6). (b) (6) and (b) (6) grabbed Self-Contained Breathing Apparatuses (SCBAs), a Naval Firefighting Thermal Imager (NFTI), and a Potassium Bicarbonate (PKP) bottle. Together, they proceeded down the Upper V ramp into Upper V and attempted to descend the Lower V ramp. At some point while descending the Lower V ramp, they determined it was too hot to continue and withdrew to the Hangar. Of note, (b) (6) recalled a similar movement to Lower V, but did not identify he was with any other Sailors at this time. [Encl 44, 49, 50]

12. (b) (6) stated that the Duty Fire Marshal, (b) (6), accompanied him and (b) (6) when they traveled into the Lower V ramp; however, this account is inconsistent with statements by several other Sailors, who stated that the Duty Fire Marshal was not notified of the casualty until it was called away on the 1 Main Circuit (1MC). Additionally, (b) (6) stated that she contacted the Duty Fire Marshal via phone at approximately 0815 to inform him of her location in berthing; during this conversation, he did not mention anything out of the ordinary. [Encl 32, 49, 51, 52]

13. Before the casualty was called away, the DC Central Watch Supervisor, (b) (6), reported to Naval Criminal Investigate Service (NCIS) that alarm sensors activated on "fire alarm control panels"; specifically, both fire alarms activated for Lower V. After observing the alarms and receiving a call reporting smoke, he contacted the Duty Fire Marshal. (4-49-0-E). [Encl 53, 54, 55, 56]

14. The Duty Fire Marshal stated in an interview that he received a call from the DC Central Watch Supervisor reporting smoke in Upper V and that he departed the Air Conditioning and Refrigeration Shop (3-82-2-Q) to investigate. Upon entering the Hangar, he looked down the Upper V ramp and observed smoke pouring out of Lower V. He called the DC Central Watch Supervisor and ordered him to call away the casualty. [Encl 55, 56, 57]

15. At approximately 0815, the Engineering Duty Officer (EDO), (b) (6), encountered a civilian contractor in an engineering office (1-73-4-Q) who informed him of smoke in the vicinity of the mess decks. EDO began investigating the smoke and encountered (b) (6), who was also investigating reports of smoke received when he was present with the Section Leader, (b) (6). [Encl 17, 27, 58]

16. After (b) (6) yelled to call away the casualty while en route to DCRS 5, the OOD called DC Central and requested that DC Central call away the casualty. Approximately two minutes elapsed, then the OOD called DC Central again to ask whether DC Central was going to call away the casualty. The OOD stated that the DC Central watchstander informed him that they already made a 1MC announcement. Having not heard any announcement, at 0820, the OOD called away the casualty over the 1MC. [Encl 41, 42, 43, 44, 59]

17. Of note, the OOD stated in his interview that he delayed calling away the casualty due to the possibility of a benign reason for the smoke (such as starting an Emergency Diesel Generator (EDG)). Other initial responders emphasized this point as well: (b) (6) noted in an interview with NCIS that Sailors must have "eyes on" the casualty before calling it away; and (b) (6) stated in his interview with the investigation team that he was taught at boot camp to put "eyes on" a fire before calling it away. A similar process was also outlined by another Duty Fire Marshal, (b) (6). [Encl 42, 60, 61, 62, 63]

18. Shortly before the 1MC announcement, (b) (6) and (b) (6) were standing watch in forward Main Machinery Room (MMR) (6-65-0-E) when they observed smoke entering the compartment from a ventilation duct. (b) (6) checked the Electric Plant Control Console (EPCC) ground detector and detected a ground on the forward power bus.

Upon departing the space immediately before he heard the casualty called away, (b) (6) called the EDO and informed him of the ground. [Encl 64, 65]

19. Numerous sources agree to having heard a rapid ringing of a bell but disagree on whether the casualty was announced as "white smoke," "black smoke," or "fire," as well as the location of the casualty: "Lower V," "Upper V," or "Hangar bay." At 0820, the Petty Officer of the Watch (POOW) noted in his log: "Fire reported in Lower V." [Encl 41, 43, 66, 67, 68, 69]

20. (b) (6), (b) (6), and (b) (6) heard the ship's bell ring from an adjacent parking lot at approximately 0822. The IMC announcement provided the initial notification of the casualty for the BONHOMME RICHARD Command Duty Officer (CDO), (b) (6), who was located in his stateroom. [Encl 51, 52, 70]

21. After the casualty was called away, the EDO reported to DC Central, where he asked the DC Central Watch Supervisor why he did not call away the casualty on the IMC from DC Central. The DC Central Watch Supervisor reported he had, in fact, called away the casualty, but the EDO observed the IMC had not been switched to broadcast to the entire ship as some spaces were in cut-out. The EDO then switched the IMC to ship-wide broadcast and called away the casualty. [Encl 17]

22. At 0824 – 0825, USS RUSSELL (DDG-59) and USS FITZGERALD (DDG-62) reported black smoke coming from BONHOMME RICHARD. At 0825, a "ship fire" was reported on the Anti-Terrorism Tactical Watch Officer (ATTWO) Harbor Defense Net radio channel. In response to the smoke coming from BONHOMME RICHARD, both RUSSELL and FITZGERALD assembled their duty sections and began equipping Rescue and Assistance (R&A) teams. [Encl 71, 72, 73, 74, 75, 76, 77, 78, 79, 80]

23. While en route to the Hangar, (b) (6) informed both (b) (6) and (b) (6) about the ground he detected on the forward bus. In the Hangar, (b) (6) and (b) (6) discussed the electrical ground and descended to the forward MMR (6-65-0-E), where they unsuccessfully attempted to isolate the ground before evacuating due to heavy smoke. [Encl 64, 81]

24. At approximately 0824, the CDO arrived in the Hangar from his stateroom. He sent text messages to the BONHOMME RICHARD's Commanding Officer (CO) and Executive Officer (XO) informing them of the smoke and Federal Fire Department's (FEDFIRE) arrival on the pier. As Sailors arrived in the Hangar, the CDO directed them to report to (b) (6), who was serving as the DCRS locker officer. At an undetermined time (after the CDO's arrival in the Hangar, but before FEDFIRE arrived on the Quarterdeck), the EDO informed the CDO of an electrical ground, while the EDO and CDO were in the Hangar. [Encl 70, 82]

25. Following the IMC announcement from the Quarterdeck, BONHOMME RICHARD Sailors began assembling in the Hangar and dressing out in SCBAs and Firefighting Ensembles (FFEs). Multiple Sailors, including several Chief Petty Officers (CPO), reported they did not dress out in FFEs because they were wearing the Type III Navy Working Uniform (NWU), rather than coveralls. The choice not to dress out was at least partially based on an assumption that it is not

safe to conduct firefighting efforts in Type III NWUs. [Encl 27, 44, 67, 68, 83, 84, 85, 86, 87, 88, 89, 90, 91]



Figure 3 captures BONHOMME RICHARD Sailors dressing out in the Hangar.

26. After the casualty was called away, there are various conflicting accounts of initial attempts to descend to Lower V. (b) (6) stated in an interview that he was investigating a report of smoke prior to hearing the calling away of the casualty and that he had entered the Hangar near the top of the Upper V ramp at approximately the same time as the IMC announcement. He stated that he attempted to descend to Lower V without any Personal Protective Equipment (PPE) but had to turn around on the Lower V ramp due to intense smoke and heat. (b) (6) stated that he returned to the Hangar, where he encountered the Duty Fire Marshal, who removed the SCBA he was wearing and handed it to (b) (6), along with a NFTI. Using this SCBA, (b) (6) stated that he descended, alone, to Lower V. Inside Lower V, (b) (6) proceeded forward, turned right, and observed an orange glow against the starboard bulkhead, approximately halfway towards the aft end of Lower V. (b) (6) observed that the NFTI “whited out” due to the extreme heat. (b) (6) was likely near Fire Station 4-53-2 at this time. After remaining in Lower V for a period time, he departed and returned to the Hangar. [Encl 92, 93]

27. The Duty Fire Marshal reported that upon returning to the Hangar after attempting to descend to Lower V alone and without PPE, he obtained an SCBA bottle and NFTI from the firefighting equipment that was being laid out in the Hangar by responding Sailors. The Duty Fire Marshal stated that he encountered (b) (6) in the Hangar, already wearing an SCBA, and the two of them descended to Lower V together. The Duty Fire Marshal stated that they proceeded forward into Lower V, turned right, and observed an orange glow in approximately the same location noted by (b) (6) near Fire Station 4-53-2. The Duty Fire Marshal stated that

during this trip, (b) (6) had a NFTI, while he did not. The Duty Fire Marshal stated that after several minutes, he and (b) (6) withdrew to the Hangar. [Encl 56, 94]

28. (b) (6) stated in an interview that he traveled with the Duty Fire Marshal to the Hangar after the Duty Fire Marshal received a report of black smoke in Upper V. Observing black smoke from the Upper V ramp, (b) (6) stated that he and the Duty Fire Marshal encountered (b) (6). (b) (6) proceeded to DCRS 2M to acquire a NFTI, while the Duty Fire Marshal proceeded to DCRS 3M to acquire a NFTI as well. After returning to the Hangar, (b) (6) stated that he, the Duty Fire Marshal, and (b) (6) descended to Upper V to investigate the location of the fire. [Encl 95]

29. (b) (6) stated in an interview that he descended to the bottom of the Lower V ramp with (b) (6) and the Duty Fire Marshal while they were all wearing SCBAs and FFEs; however, this account is inconsistent with a photograph taken at 0843, which shows the Duty Fire Marshal in coveralls without an SCBA and (b) (6) wearing coveralls, an SCBA, and firefighting boots. [Encl 49, 96]

30. (b) (6) stated in an interview that he descended to the bottom of the Lower V ramp with a PKP bottle and he individually encountered (b) (6), the Duty Fire Marshal, and (b) (6). [Encl 41, 44]

31. At 0829, the EDO logged DCRS "5M manned and ready." However, due to increasing smoke, BONHOMME RICHARD personnel evacuated DCRS 5M and transitioned to various DCRSs throughout the ship. From DCRS 5M, the locker personnel transitioned to DCRS 2M (1-42.5-1-Q); however, since DCRS 2M was still within the smoke-impacted area, another move was made to DCRS 3 (1-122-1-Q). Due to a lack of ship's power in DCRS 3, the locker personnel transitioned between DCRS 3 and DCRS 1H (1-102-2-Q), which had lights and communications, but no equipment. [Encl 15, 17, 41, 90, 97, 98, 99]

32. After returning from Upper V, (b) (6) directed Sailors to dress out in FFEs and began organizing hose teams in the Hangar. (b) (6) was ordered to serve as Team Leader for a hose team consisting of (b) (6), (b) (6), and (b) (6). While (b) (6) stated that his hose team was comprised of six personnel, other witnesses interviewed indicated the team may have only consisted of four personnel. [Encl 49, 51, 65, 100, 101, 102]

33. DC plates from DC Central indicate that at 0833, two investigators went out to investigate. Two Sailors, (b) (6) and (b) (6), stated they were investigators. They traveled down the Upper V ramp to Upper V wearing SCBAs and carrying a NFTI. Of note, (b) (6) stated that they were accompanied by (b) (6), while (b) (6) stated they were accompanied by an unidentified Seaman. These Sailors reported their NFTI "whited out" in Upper V before returning to the Hangar. [Encl 63, 69, 103]

34. (b) (6), BONHOMME RICHARD Anti-Terrorism Tactical Watch Officer (ATTWO), observed "investigators" returning from Lower V and informing the CDO that there was significant smoke and hot spots, but that they had not located the fire. [Encl 77]

35. DC Central DC plates indicate that at 0838, a four-man team went donned SCBAs and went on air. At 0840, the DC Central DC plates indicate that a hose team went on air. In handwritten notes, the EDO also logged a six-man team on air at 0904. (See Figure 4, which depicts the BONHOMME RICHARD DC plates in DC Central). [Encl 69]



Figure 4 depicts the BONHOMME RICHARD DC plates in DC Central.

36. One of these teams was (b) (6)'s team, while the other team was comprised of (b) (6), (b) (6), (b) (6), and (b) (6). [Encl 49, 51, 86, 104, 105]

37. The team comprised of (b) (2), (b) (6), (b) (6), (b) (6), and (b) (6) was the first of these two teams to descend to Upper V. (b) (6) and (b) (6) stated that their team descended the Lower V ramp; however, (b) (6) stated that their team stopped at the base of the Upper V ramp and withdrew to the Hangar. This team descended without a hose and did not attempt to locate one. [Encl 51, 86, 104, 105, 106]

The 8010 Manual defines a "major fire" as a "fire that has progressed beyond the incipient stage, beyond the ability of the initial responders (usually [Ship's Force] on ships in commission) to control, and is still not under control when the first hose team outfitted in SCBAs and FFEs needs to be relieved. A multilevel fire is a major fire."

38. The team comprised of (b) (6), (b) (6), (b) (6), and (b) (6) descended next. Once down the ramp into Upper V,

(b) (6)'s team proceeded to the port side, near the sideport door, in an attempt to locate a fire hose. At Fire Station 3-68-2 and the hose storage rack near the port sideport door, no fire hose was present. Proceeding across Upper V to the starboard side, (b) (6)'s team located the starboard side Fire Station 3-69-1 and camelback. One hose was connected to the fire plug and draped over the side of the ship. (b) (6) grabbed the second hose stored on the camelback; however, as he pulled out the hose, he observed that the fitting had been cut off, rendering it unusable. The team then attempted to haul the hose that was draped overboard back onto the ship, but was unsuccessful, as the hose was connected to a cofferdam over the starboard side. After this discovery, (b) (6) led his team back out of Upper V to the Hangar to report the status of the hoses to (b) (6). [Encl 41, 65, 107, 108, 109, 110]

39. While the EDO's handwritten notes and DC Central DC plates indicate additional teams went on air at 0904 and 0916, no evidence exists that any additional BONHOMME RICHARD teams descended to Upper V. [Encl 69, 99]

40. During NCIS interviews, (b) (6) and (b) (6) reported efforts to stop fire spread were complicated by an inability to close various doors and hatches with temporary services running through them; further, they stated it was not possible to set boundaries in Lower V, because it was such a large space. Additionally, they reported the fire spread too fast to set effective boundaries. However, most Duty Section 6 Sailors aboard at this time stated in interviews they neither knew how to set boundaries nor operate the quick-disconnects. Limited quick-disconnect training was conducted early in the availability, but was not repeated nor reemphasized. One Sailor stated that he was instructed to "cut" temporary services in order to shut hatches, while another was warned that attempting to disconnect or sever temporary services could damage equipment or lead to a loss of power. [Encl 13, 25, 42, 44, 83, 89, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126]

41. Of note, the motor controller for the Lower V ramp is located directly under the ramp itself. Thus, any attempt to operate the motor controller for the ramp would have involved entering Lower V and navigating around the fire. Additionally, closing the Lower V ramp as a boundary would require the operator to exit the compartment via one of the conflagration stations. [Encl 126, 127, 128, 129]

42. At 0832, the BONHOMME RICHARD CO, CAPT Gregory Thoroman, received a text message from the CDO that contained routine turnover items, as well as a report of black smoke in Upper V. Shortly thereafter, the CO received a call from the BONHOMME RICHARD Command Master Chief (CMC), (b) (6), informing him that a few Sailors suffered smoke inhalation. After this report, the CO departed his home for Naval Base San Diego (NBSD). The BONHOMME RICHARD XO, (b) (6), received a call from the CMC as well, which prompted him to travel into NBSD. [Encl 46, 70, 82, 130, 131]

43. Between 0845 and 0859, 11 Sailors from RUSSELL and 8 Sailors from FITZGERALD departed their respective vessels to lend assistance to BONHOMME RICHARD. The CDO greeted these R&A teams in the Hangar after entering via the port ACE. Both groups were directed to stand by in the Hangar and were never directed to participate in DC efforts. At approximately 0915, (b) (6) directed RUSSELL and FITZGERALD Sailors to

evacuate to the pier and stage near the forward sideport door due to the excessive amount of smoke in the Hangar. Both teams departed the Hangar via the port ACE and staged near the sideport door; however, they were never directed back on the ship for firefighting efforts. [Encl 44, 70, 73, 75, 78, 126, 132, 133, 134, 135, 136, 137]

44. At approximately 0850, the EDO departed DC Central and transited to the Hangar to establish negative ventilation. While present in the Hangar, the CDO stated that he encountered the EDO and discussed reports of a B Phase ground and whether that may have been the origin of the fire; however, the EDO stated in his interview that he may have encountered the CDO, but has no recollection of a conversation regarding a ground. [Encl 17, 70]

45. Other than departing to set negative ventilation, the EDO remained in DC Central with the DC Central Watch Supervisor from 0826 to approximately 0930. During this time, the EDO stated that he made announcements over the IMC, but did not issue any orders. The DC Central Watch Supervisor stated that DC Central had limited communications with the DCRS and other responding personnel for nearly an hour. Further, the DC Central Watch Supervisor stated that neither he nor EDO had an idea of how bad the fire was until later events forced them to evacuate DC Central. At no point did either the DC Central Watch Supervisor or EDO attempt to start any additional equipment or activate Aqueous Film Forming Foam (AFFF) firefighting systems. [Encl 17, 55, 126]

46. Only two BONHOMME RICHARD personnel interviewed by the investigation team reported hearing IMC announcements from DC Central, including (b) (6), who was acting as the repair locker officer. Despite the lack of reports that any of announcements were received or acted upon, neither the EDO nor DC Central Watch Supervisor sought confirmation that their announcements were broadcast. Though the senior EDO in the duty section, (b) (6), did not hear any IMC announcements from DC Central, he did not proceed to DC Central to determine whether the EDO was attempting to execute control of the firefighting effort. [Encl 17, 55, 93, 98, 105]

C. Federal Fire Department Arrival

47. At 0826, (b) (6), a Commander, Navy Region Southwest (CNRSW) dispatcher at the Regional Dispatch Center (RDC), was monitoring the Harbor Defense net in the background at his workstation and heard radio traffic about a ship fire. After speaking with the NBSD Battle Watch Captain, he unilaterally decided to dispatch a Fire and Emergency Services (F&ES) response. [Encl 126, 138, 139, 140, 141, 142, 143, 144, 145]

48. The first FEDFIRE unit arrived on the pier at 0829. FEDFIRE firefighters initially proceeded to the sideport door, as it appeared to be an easier access point; however, they did not observe any smoke emanating out of the sideport ramp, nor any Sailors stationed there. Shortly thereafter, BONHOMME RICHARD Sailors on the port Aircraft Elevator (ACE) redirected FEDFIRE to the Quarterdeck. Upon arrival at the port ACE Quarterdeck, the CDO briefed FEDFIRE that the location of the fire was unknown, and that the ship had also detected a B Phase ground. FEDFIRE radioed the RDC and reported the location of the fire was unknown but thought to be on the main deck. [Encl 70, 126, 139, 140, 146, 147, 148, 149, 150]



Figure 5 is a photograph of BONHOMME RICHARD with the sideport door/port ACE identified.

49. FEDFIRE proceeded to establish its attack via the port ACE (See Figure 5 above) and commenced running hoses from its engines on the pier up to the port ACE. With no installed firemain system on Pier 2 (or any other NBSD pier), FEDFIRE Engine 161 connected to the potable water riser, which was supplying water to FITZGERALD located on Pier 2. Once established in the Hangar, FEDFIRE ran hoses through the forward portion of the Hangar, down the Upper V ramp, through Upper V, and down the ramp to Lower V. Engine 161, led by FEDFIRE (b) (6), was the first team to lay a hose line down to Lower V. His team consisted of four FEDFIRE firefighters and (b) (6). FEDFIRE Engine 161 laid 200 feet of hose from the Quarterdeck, across the Hangar, down the Upper V ramp, and across Lower V. They then had to attach an additional 100 feet down the ramp. After laying this hose, FEDFIRE Engine 161 was not able to combat the fire because a team member received a “low air” alarm on his SCBA. FEDFIRE (b) (6)’s team egressed at approximately 0904. [Encl 44, 126, 140, 148, 149, 151, 152, 153, 154, 155]

50. FEDFIRE (b) (5), (b) (6), who initially served as FEDFIRE Incident Commander, explained that FEDFIRE used its own hoses and equipment, rather than the ship’s installed firefighting systems, because he did not know the status of the ship’s systems or the location of the fire. In hindsight, FEDFIRE (b) (6) asserted that FEDFIRE should have made

entry via the sideport door, which he assessed was the closest access point to the fire. [Encl 126, 156]

51. Firefighters from FEDFIRE Truck 17 were acting as FEDFIRE Engine 161's Rapid Intervention Crew (RIC)/backup crew and relieved FEDFIRE Engine 161 in the Hangar. FEDFIRE (b) (6) led FEDFIRE Truck 17, consisting of four firefighters and one BONHOMME RICHARD Sailor, (b) (6), down the Upper V ramp. FEDFIRE Truck 17 made it down to Lower V, where FEDFIRE (b) (6) observed temperatures on his Thermal Imaging Camera (TIC) were increasing upwards of 500 degrees Fahrenheit. FEDFIRE (b) (6) was the Nozzleman, and once at the bottom of the Lower V ramp, he attempted to determine the amount of heat the team was facing by bouncing a solid stream of water off the overhead to gauge how quickly it evaporated. He observed it evaporated very quickly, rather than dripping down as he would have expected. FEDFIRE (b) (6) also directed the team to use a 180 degree "V" nozzle pattern to cool the space to advance. Shortly thereafter, FEDFIRE Truck 17 encountered water pressure issues; further inspection led to the discovery that someone had inadvertently kicked a ball valve closed on the fire hose running across the deck, restricting the flow of water. Due to zero visibility, extensive heat, and a diminishing air supply, FEDFIRE Truck 17 retreated to the Hangar at approximately 0918. [Encl 126, 140, 157, 158, 159]

52. Firefighters from FEDFIRE Engine 12, led by (b) (6), staged in the Hangar to relieve FEDFIRE Truck 17. (b) (6)'s team consisted of four firefighters and one BONHOMME RICHARD Sailor, (b) (6). At this point, the heat and decreased visibility in the Hangar forced them to follow the hose line through the Hangar, where they encountered and relieved FEDFIRE Truck 17 on the Upper V ramp. On the ramp, (b) (6) briefed (b) (6) about the charged hose in Lower V as well as water pressure issues they had encountered. Before FEDFIRE Engine 12 reached Lower V, the extreme heat and exertion associated with reaching the fire caused a team member to deplete his SCBA to a low air condition, forcing the team to back out. [Encl 101, 149, 159, 160, 161]

53. In the Hangar, FEDFIRE Engine 19 staged to relieve FEDFIRE Engine 12. Led by FEDFIRE (b) (6), this team consisted of four firefighters and one BONHOMME RICHARD Sailor. FEDFIRE Engine 19 turned over with FEDFIRE Engine 12; however, before FEDFIRE Engine 19 could begin transiting through the Hangar, a San Diego Fire Department (SDFD) team entered via the port ACE at 0931 and began proceeding towards the Upper V ramp. The confusion of the two firefighting teams caused FEDFIRE (b) (6) to pause, establish accountability, and direct the SDFD team to depart the Hangar at 0932. [Encl 140, 148, 162, 163, 164]

54. After ordering SDFD to depart the Hangar, FEDFIRE Engine 19 proceeded through the Hangar and down the Upper V ramp. As FEDFIRE Engine 19 proceeded down the Upper V ramp, extreme heat caused the team to squat low and proceed slowly down the ramp. By the time they reached Upper V, they encountered SDFD teams bringing hoses from the sideport door at approximately 0939. FEDFIRE (b) (6) also observed the fire had spread to material on the deck in the forward starboard side of Upper V. FEDFIRE Engine 19 tried pushing forward toward the Lower V ramp, but due to difficulties communicating with SDFD firefighters

in Upper V and team members running low on air, FEDFIRE Engine 19 exited via the sideport door at 0940 without reaching the nozzle of FEDFIRE's hose in Lower V. [Encl 148, 162, 164, 165, 166]

55. Upon FEDFIRE's arrival and after their advancement of a hose line toward Lower V, numerous BONHOMME RICHARD Sailors stated that they thought FEDFIRE had assumed responsibility and control of firefighting efforts. For the remainder of the morning, no hose teams comprised of BONHOMME RICHARD Sailors attempted to descend to Lower V once FEDFIRE commenced its descent down the Upper V ramp. [Encl 19, 126, 167, 168, 169, 170, 171, 172, 173, 174]

56. FEDFIRE (b) (6) noted that in hindsight, a significant amount of time was lost searching for the fire. He noted that FEDFIRE does not train to search for a shipboard fire and ended up running hose lines onto the ship without knowing exactly where the fire was located. FEDFIRE (b) (6) explained that while FEDFIRE might have been able to investigate the location of the fire before establishing hose lines, in practice FEDFIRE does not send its personnel into fire without a hose line. Of note, FEDFIRE hose fittings are not compatible with hoses and fittings aboard Navy ships. Both FEDFIRE and BONHOMME RICHARD personnel noted the differences in threading prevented FEDFIRE and BONHOMME RICHARD hoses from being connected. [Encl 153, 156, 167, 175]

D. Municipal Fire Department Arrival

57. At 0900, the first municipal fire department unit arrived from SDFD. The request for municipal support came directly from FEDFIRE (b) (6) on-scene, using a portable radio capable of communicating on municipal F&ES frequencies, rather than standard protocol, which would have involved a request to the RDC followed by dispatch-to-dispatch coordination with the San Diego Metro Zone Dispatch. Before making the radio call, FEDFIRE (b) (6) informed his superior, FEDFIRE (b) (6), that he intended to request a third-alarm response from SDFD. [Encl 140, 141, 146, 156, 176, 177, 178]

58. On arrival, SDFD met with FEDFIRE (b) (6), who had assumed the role of FEDFIRE Incident Commander (IC). (b) (6) directed SDFD to support FEDFIRE's attack via the port ACE. At this time, FEDFIRE did not provide SDFD any information about the fire other than they had not determined its location. By this time (0900), several BONHOMME RICHARD Sailors were aware of the fire's location. [Encl 126, 156, 166, 178, 179]



Figure 6 is a screen capture from SDFD (b) (6)'s helmet-mounted camera footage. The image shows the ICP (FEDFIRE and SDFD command vehicles with tailgates up) at approximately 0910.

59. After arriving at 0900 and checking in with FEDFIRE (b) (6) near the entrance to Pier 2, SDFD (b) (6) walked down the pier and asked a Navy Sailor whether he knew where the fire was located. The Sailor replied that the fire was located either in Upper V or Lower V while pointing past the port ACE toward the sideport ramp. SDFD (b) (6) asked several personnel for a “map” of the ship but was unable to acquire one. [Encl 126, 166, 180]



Figure 7 is a screen capture from SDFD (b) (6)'s helmet-mounted camera footage. At approximately 0908, SDFD (b) (6) stopped Sailors to seek information about the fire.

60. Though dispatch personnel from both San Diego Metro Dispatch and RDC subsequently stated that radio patching between the two entities is possible, SDFD and FEDFIRE personnel on scene on 12 July 2020 did not believe the radio systems were interoperable. Consequently, radio communications between FEDFIRE and SDFD personnel did not exist throughout the response. With this in mind, SDFD and FEDFIRE established a "joint" Incident Command Post (ICP) with SDFD (b) (6) and FEDFIRE (b) (6) each exercising parallel control over their respective units. To mitigate the communication confusion, SDFD (b) (6) suggested FEDFIRE and SDFD teams "join at the hip" to ensure integrated operations, yet this did not occur. Additionally, at the time of his arrival at approximately 0905, SDFD (b) (6) was unable to identify a BONHOMME RICHARD representative at the ICP. After several minutes, SDFD (b) (6) stated that he just started grabbing personnel walking by and asking questions about the interior of the ship. [Encl 126, 141, 148, 180, 181, 182, 183, 184]

61. At approximately 0906, additional municipal fire department units arrived in response to SDFD requests for additional support, including units from National City, Chula Vista, and Coronado. Each of these units had compatible radio systems and routinely operate together; consequently, they integrated under a SDFD command structure with SDFD (b) (6) serving as Incident Commander (IC). SDFD (b) (6) assumed the role of SDFD Operations Chief, responsible for coordinating tactical firefighting operations on-scene. [Encl 126, 141, 166, 180, 181]

62. Based on FEDFIRE direction, SDFD staged to conduct an attack via the port ACE. At 0919, SDFD (b) (6) led SDFD teams up the port ACE. This group crossed paths with BONHOMME RICHARD CDO and Duty Fire Marshal as they were exiting the ship. The Duty Fire Marshal was carrying DC plates. SDFD (b) (6) asked for the location of the fire while the CDO stopped to speak with him, and the Duty Fire Marshal continued down to the pier. The CDO informed SDFD (b) (6) that the fire was located "under the ramp," but the CDO did not specify Lower V. SDFD (b) (6) then briefed SDFD (b) (6) that the fire was about two decks below them and possibly caused by an electrical issue. As SDFD (b) (6)'s team maneuvered from the Hangar down the Upper V ramp, they were directed to back out by FEDFIRE (b) (6) at 0932. [Encl 126, 162, 164, 174, 185, 186]

63. Of note, as SDFD teams moved through the Hangar, a charged BONHOMME RICHARD fire hose is visible on the Hangar deck in the footage obtained from a SDFD firefighter's helmet-mounted camera. The investigation team was unable to determine who stretched out and charged this hose, but the entire length of the hose is visible in the Hangar, with no section pulled toward the Upper V ramp. [Encl 126, 162]

64. Despite evidence that suggests the Duty Fire Marshal was carrying DC plates as he departed the ship, both FEDFIRE and SDFD Chiefs stated that DC plates were not available at the ICP. When BONHOMME RICHARD Amphibious Air Traffic Control Officer (AATCO), (b) (6) arrived at the ICP at approximately 1100, he observed multiple personnel attempting to locate DC plates. The BONHOMME RICHARD XO stated in his interview that BONHOMME RICHARD's crew did not take DC plates with them when they evacuated the

ship. Ultimately, DC plates were provided from USS BOXER (LHD-4) to the ICP. [Encl 72, 120, 130, 131, 149, 160, 168, 185, 187, 188, 189, 190, 191, 192, 193, 194]



Figure 8 is a screen capture from SDFD (b) (6)'s helmet-mounted camera footage (subtitles and other text added by the investigation team). SDFD (b) (6) was speaking about the location of the fire. No personnel are visible by the sideport door.

E. BONHOMME RICHARD Aft Shore Power Mound Secured and Personnel Evacuated

65. At approximately 0900, (b) (6) and RUSSELL's R&A team were directed to evacuate the Hangar due to smoke. They debarked and staged on the pier next to the sideport ramp. RUSSELL's team observed numerous BONHOMME RICHARD Sailors departing the ship. At approximately 0915, due to deteriorating smoke conditions in the Hangar, the CDO ordered all personnel not wearing SCBAs to evacuate the ship. Prior to issuing this order, the CDO spoke to BONHOMME RICHARD CO via phone and informed him that he (the CDO) was ordering the evacuation of non-SCBA wearing personnel. The CO concurred with this action and ordered the evacuation. There are varying reports on whether this evacuation order was communicated over the 1MC. [Encl 27, 41, 70, 98, 99, 142, 185, 195]



Figure 9 shows Sailors evacuating the BONHOMME RICHARD Hangar.

66. Several BONHOMME RICHARD Sailors traveled to various berthing areas to confirm no personnel remained in berthings. One Sailor, (b) (6), wore neither an SCBA nor an Emergency Escape Breathing Device (EEBD); after 10 – 15 minutes of clearing berthings, she fainted en route to the Hangar in the vicinity of the “wind tunnel” passageways (1-67-3-Q through 1-77-3-Q). An unknown Sailor picked her up and carried her to the Hangar, where (b) (6) regained consciousness and was medically evacuated for smoke inhalation injuries. Another berthing investigator, (b) (6), located a Sailor showering in berthing and led him to the Hangar with a wet towel wrapped around his face. [Encl 41, 52, 95, 196, 197]

67. Of note, no personnel evacuating BONHOMME RICHARD shouldered or donned an EEBD. There are conflicting accounts as to whether all berthings had EEBDs in place. (b) (6) was the only BONHOMME RICHARD Sailor interviewed who recalled looking for an EEBD and being unable to locate one. Most BONHOMME RICHARD Sailors stated in their interviews that they did not try to find an EEBD or were concerned that returning to find an EEBD might have led to them becoming trapped by the fire. [Encl 52, 90, 124, 197, 198, 199, 200, 201]

68. Sometime after 0904, but before the initial evacuation of non-SCBA wearing Sailors, (b) (6) withdrew to the Hangar after accompanying a FEDFIRE team to Lower V and informed FEDFIRE (b) (6) that he intended to activate AFFF sprinkling in Lower V. (b) (6) then reported to the Duty Fire Marshal and communicated this request. He observed a conversation between the Duty Fire Marshal and the CDO, after which the Duty Fire Marshal informed him that AFFF sprinkling was either not available or would not

be employed. However, neither the Duty Fire Marshal nor CDO recall any conversation about activating AFFF. [Encl 44, 56, 70, 149]

69. At 0905, the BONHOMME RICHARD CO arrived onboard NBSD. He proceeded to Pier 2 and liaised with the FEDFIRE and SDFD Chiefs located at the ICP while communicating with the CDO via phone. The BONHOMME RICHARD CO provided FEDFIRE/SDFD with basic information about the ship and asked whether they knew the location of the fire. He stated that the FEDFIRE/SDFD Chiefs at the ICP were unable to confirm whether their fire hoses were aboard BONHOMME RICHARD or if any firefighters had accessed the seat of the fire. The BONHOMME RICHARD XO arrived at the ICP at approximately 0930, while the BONHOMME RICHARD CMC passed through the NBSD gate at 0932 and arrived at Pier 2 several minutes later. [Encl 30, 82, 131, 202]

70. At 0914, the FEDFIRE Operations Chief radioed the ICP to advise that BONHOMME RICHARD Sailors informed him they were running out of SCBA bottles. The radio exchange requested a rapid refill capability for SCBA bottles. Of note, this aligns with the Naval Sea Systems Command (NAVSEA) Failure Review Board (FRB) (hereafter NAVSEA FRB) finding that there is no evidence to suggest that BONHOMME RICHARD established a SCBA refilling station or attempted to use an organic refilling capability. BONHOMME RICHARD's organic SCBA refilling capability is addressed in detail in Section III. [Encl 45, 126, 141, 148]

71. At approximately 0926, the BONHOMME RICHARD Damage Control Assistant (DCA), (b) (6), arrived on Pier 2. He immediately dressed out in an FFE and SCBA and informed the BONHOMME RICHARD CO that he was going aboard to locate the fire, though he was unaware the ship had already been evacuated. He entered alone via the port ACE and proceeded down to DC Central. When the DCA arrived at DC Central at approximately 0945, he noted the equipment and consoles were illuminated. He briefly went off air and realized that DC Central was smoky. As he departed DC Central, visibility continued to decrease. Two decks up from DC Central, the smoke was completely black, and the DCA lost situational awareness. He regained his bearings on the main deck and walked forward until he observed the light on the port ACE, then departed the ship. In an interview, the DCA stated that he did not consider activating AFFF in DC Central because he was preoccupied by his failing SCBA regulator and diminishing air supply. After departing the ship, he returned to the ICP with the BONHOMME RICHARD CO and XO. Of note, the BONHOMME RICHARD CO did not recall DCA telling him he was going aboard. [Encl 82, 203, 204]

72. Witness accounts differ on whether a formal second order was issued for the complete evacuation of BONHOMME RICHARD, or if the initial evacuation order gradually grew into a full evacuation. At 0930, the Engineering Log noted "NBSD FIRE DEPT. ASSUMED CONTROL OF ALL FIREFIGHTING EFFORTS." At 0940, the EDO wrote in a personal notebook that he ordered IET to abandon ship. [Encl 42, 98, 99, 142]

73. (b) (6), the watchbill coordinator for engineering section 4 of 6, stated that he observed white smoke coming from a vent in lower machinery level and subsequently noticed an electrical ground was present in the system. As he attempted to report this to the EDO on the batt phone (an individual-to-individual call system using four digit "phone numbers"), he heard

the 1MC announce black smoke. He then encountered (b) (6) and informed him of the ground. He went with (b) (6) to the main machinery room (MMR) to work to isolate the ground before smoke filled the space until they left for the hangar. [Encl 64]

74. Upon learning of the presence of a Phase B ground on the forward bus from (b) (6), (b) (6) reported to the MMR forward Electrical Plan Control Panel (EPCP) to verify and investigate the alleged ground. He confirmed the indication of phase B ground and observed smoke in the space. He then reviewed the electrical isolation binder in the motor rewind shop and subsequently directed two subordinates, (b) (6) and (b) (6), to secure power to certain breaker panels in order to conduct electrical isolation. (b) (6) then proceeded to secure partial ventilation from the master ventilation panel in the wind tunnel and then returned to the MMR with (b) (6) to watch if opening the breakers would clear the ground indication. They encountered thick smoke in the MMR and confirmed the phase B ground was still present before moving to the hangar where they observed FEDFIRE's arrival and heard Sailors yelling to evacuate. [Encl 64, 81, 205]

75. (b) (6) stated she went to the forward diesel (4-41-2-E) with (b) (6) to turn off breakers in order to effect ventilation. She then reported to (b) (6) at approximately 0845 and observed that the smoke appeared to be unaffected by the ventilation line-up and noted civilian firefighters were arriving onboard. (b) (6) then evacuated to the pier and went home at some point prior to 1050. [Encl 206]

76. (b) (6) stated he donned SCBAs with (b) (6) and they proceeded to secure ventilation controlled from repair lockers and then proceeded to Forward EDG to secure panels. He noted that power was lost as they were returning back to the hangar. (b) (6) then evacuated to the pier. [Encl 64]

77. (b) (6) stated that, at the direction of (b) (6) he and (b) (6) dressed out in SCBAs and began looking for ventilation buttons to shut off air supply in various spaces. They returned to the hangar when (b) (6) SCBA began to run out of air. At that point they immediately evacuated the ship. [Encl 13]

78. (b) (6) stated that he was unsure if (b) (6) and (b) (6) were successful in shutting off all of their breakers due to the ship being evacuated. While on the pier, (b) (6) approached (b) (6) about the need to fully secure ventilation throughout the ship. (b) (6) stated that he discussed the ground with (b) (6) before (b) (6) and (b) (6) went back on the ship with their SCBAs to attempt to secure ventilation on the second master ventilation panel. Based on (b) (6) phone call records to (b) (6) he believes (b) (6) and (b) (6) went back aboard the ship sometime between 0912-0949. Once (b) (6) and (b) (6) returned to the pier and reported they were unable to access further ventilation, (b) (6) called his Chief Petty Officer, (b) (6), to report the presence of the B Phase ground and that they were unable to clear it. [Encl 81, 205]

79. At 0944, the aft shore power mound was secured using 6 of the 20 emergency operation push-buttons located on the mound itself, which opened the breakers connected to BONHOMME RICHARD's six shore power cables. Of note, BONHOMME RICHARD Fire

Pumps 11 and 12 were the only two operational fire pumps and both were located on the aft power bus, which was receiving power from the aft shore power mound. Once power was secured at the aft shore power mound, these fire pumps experienced a loss of power and were tripped offline. Consequently, BONHOMME RICHARD's firemain and AFFF sprinkling system (supplied by firemain water) were inadvertently secured. While the forward shore power mounds remained energized for 41 additional minutes, Fire Pumps 11 and 12 would have shifted via the Automatic Bus Transfer (ABT) to the forward power bus but would have required manual restart at the pumps themselves (located in Fire Pump Room (5 1/2-97-01-E)) to operate on the forward shore power mound. [Encl 207, 208, 209, 210, 211, 212, 213, 214, 215, 216]

80. At an undetermined time, but prior to the evacuation order, the CDO ordered the EDO to "secure power" due to his belief that the fire was caused by an electrical ground. The EDO did not recall receiving this order and stated that he did not secure shore power. While the identity of the individual who engaged the emergency push-buttons is unknown, the only push-buttons depressed were those supplying power to BONHOMME RICHARD. [Encl 70, 77, 99, 213, 217, 218]

81. At 1006, the BONHOMME RICHARD Chief Engineer (CHENG), (b) (6), passed through the NBSD gate. He arrived at Pier 2 several minutes later, where he encountered multiple engineering department personnel, including the EDO, (b) (6), the Engineering Department Leading Chief Petty Officer (LCPO), (b) (6), and the Main Propulsion Assistant (MPA), (b) (6). The EDO informed him that the ship had been evacuated. [Encl 30, 219]

82. At approximately 1015 – 1020, the General Dynamics National Steel and Shipbuilding Company (NASSCO) Project Manager (PM) directed a NASSCO electrician to secure power to NASSCO temporary services. The NASSCO electrician secured power to contractor equipment via circuit breakers on NASSCO-operated power panels, rather than the pier shore power mounds. The electrician stated that as he secured power to these panels, he could hear NASSCO equipment powering down, indicating power was still being supplied from both shore power mounds. [Encl 220, 221]

F. Transition to Sideport Door Firefighting Effort

83. As the initial SDFD team led by SDFD (b) (6) was staging and advancing to the Hangar via the port ACE at 0925, SDFD (b) (6) walked forward on the pier to the sideport door. He observed no one at the sideport door and entered the ship. Once inside, he observed a fire on the starboard side of Upper V, likely caused by radiant heat from Lower V, igniting combustibles having been stored in the area. At 0934, SDFD (b) (6) left the ship and radioed to SDFD (b) (6) that he had located the fire, just as SDFD (b) (6)'s team was forced to withdraw from the port ACE after being ordered out of the Hangar by FEDFIRE Engine 19 (b) (6). Based on SDFD (b) (6)'s report, SDFD (b) (6) decided to shift the SDFD attack to the sideport ramp. [Encl 148, 162, 181, 185]

84. At approximately 0935, SDFD established a new staging area near the sideport ramp. For water supply, SDFD ran a hose down the length of the pier to a fire hydrant located just outside of Pier 2's Entry Control Point (ECP). After leaving the ship from the port ACE and moving down the pier to the sideport ramp, SDFD (b) (6)'s team, with no BONHOMME RICHARD personnel, entered the ship at 0936 to investigate. His team struggled to navigate around an accumulation of large steel boxes, equipment, and stacked scaffolding. SDFD (b) (6) observed the radiant fire of wood pallets and material on the starboard side deck of Upper V, but he initially directed his team not to engage the fire or attempt to move forward to the area, as he was unsure whether the deck itself was on fire or had been compromised. This team identified that the seat of the fire was located in a deck below Upper V. [Encl 162, 222, 223]

85. At 0939, SDFD (b) (6) withdrew from Upper V and exited the sideport ramp. On the pier, he had a discussion with (b) (6), BONHOMME RICHARD Repair Division Leading Petty Officer (LPO), who was dressed in FFEs, about the location of the fire. Based on the SDFD description, (b) (6) identified the fire location as the Lower V. SDFD (b) (6) requested (b) (6) accompany SDFD (b) (6) and (b) (6) back into Upper V. (b) (6) stated that he wanted to bring a Sailor identified only as his "right hand man" with him; however, this Sailor (later identified as the Duty Fire Marshal) was not wearing FFEs, so SDFD (b) (6) stated that it would not be safe for him to enter. Following this conversation, SDFD (b) (6) and (b) (6) reentered Upper V with their SDFD team at 0944, but without (b) (6). [Encl 56, 162]

86. At 0945, SDFD (b) (6)'s team descended the Lower V ramp and proceeded forward 5 – 10 feet into Lower V, following the hose previously laid by FEDFIRE. The team encountered near zero visibility as well as high heat and was unable to locate any fire. Without having a BONHOMME RICHARD escort nor a diagram of the space layout, this team did not understand the main access to the compartment required for proceeding forward from the bottom of the ramp and then turning right. Due to their unfamiliarity with BONHOMME RICHARD's layout, SDFD (b) (6)'s team backed out of Lower V and exited the ship. As this team exited the ship, additional SDFD attack teams entered Upper V. At 0951, these teams began applying water to the radiant fire on the starboard side deck of Upper V. This was the first time any firefighting agent was employed against active fire. [Encl 126, 222, 224, 225]

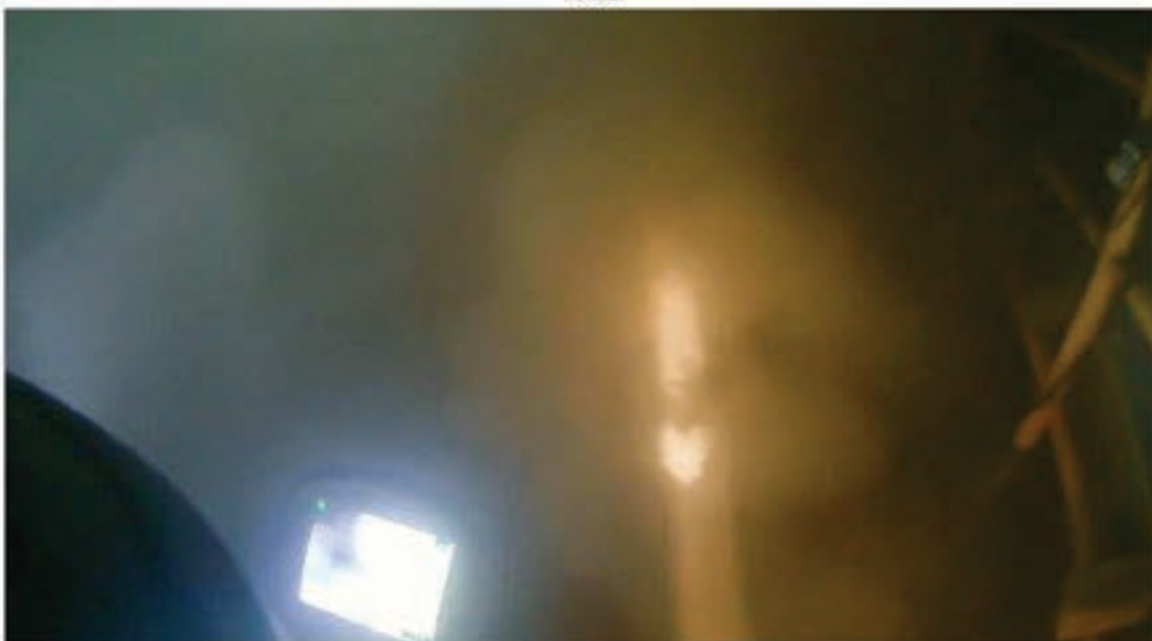


Figure 10 shows a screen capture from SDFD (b) (6) helmet-mounted camera footage. His team is at the top of the Lower V ramp. The thermal imaging camera (TIC) reads 269 degrees Fahrenheit. Note: this photo has been enhanced by the investigation team.

87. After SDFD (b) (6) departed the ship at 0953, his helmet-mounted camera captured (b) (6) speaking with National City Fire Department (NCFD) (b) (6), drawing a picture of Lower V and explaining how to navigate through the compartment. SDFD (b) (6) stated that he asked (b) (6) to accompany his teams into the ship several times; however, (b) (6) did not enter the ship with any SDFD attack teams prior to the SDFD teams backing out at 1037. [Encl 126, 181, 222, 226, 227, 228]

88. After the initial attempt by SDFD (b) (6)'s team, no further attempts were made to descend into Lower V. [Encl 126, 181]



Figure 11 shows a screen capture from SDFD Firefighter (b) (6) 's helmet-mounted camera footage. This image captures the first time agent was applied to fire on 12 July 2020, as SDFD teams applied firefighting water to the radiant fire in Upper V at approximately 0951.

89. At 0945, FEDFIRE terminated their attack via the port ACE based on SDFD reporting the fire in the vicinity of Upper V. They then staged on the pier in support of SDFD efforts via the sideport door. FEDFIRE (b) (6) assumed responsibility for FEDFIRE Forward Operations and coordination of firefighting efforts at the sideport door. On termination of FEDFIRE efforts on the port ACE, SDFD (and supporting municipal agencies) were the only continuous firefighting effort. [Encl 126, 148, 164, 229, 230]

G. Report of Missing Sailors Complicates Firefighting Efforts

90. Following a ship-wide muster ordered by the BONHOMME RICHARD Operations Officer (OPS), (b) (6), two Sailors were reported as unaccounted for, prompting FEDFIRE and SDFD to assemble rescue teams. These rescue teams entered the ship and began searching for the missing Sailors. One team, comprised of a FEDFIRE captain, two FEDFIRE firefighters, and a BONHOMME RICHARD Sailor ((b) (6)) entered the ship via the sideport ramp, started proceeding up the Upper V ramp, encountered intense heat, and turned back. This team then climbed SDFD Truck 17's ladder up to the Flight Deck, where they conducted a brief search. [Encl 44, 126, 141, 181, 193, 204, 231, 232, 233, 234, 235]

91. The second rescue team was comprised of two SDFD firefighters and a BONHOMME RICHARD Sailor ((b) (6)). The team entered via the port ACE; however, after proceeding a short distance into the "Route 49" passageway, the team backed out of the ship due to the smoke and heat. Shortly after backing out of the ship, SDFD learned all personnel had been accounted for. NASSCO and Southwest Regional Maintenance Center (SWRMC) completed accountability checks for their personnel at this time as well. [Encl 126, 130, 181, 193, 235, 236, 237]

H. Deteriorating Conditions and Loss of Ship's Power Leads to Complete Evacuation of BONHOMME RICHARD

92. After their initial entry via the sideport door at 0936, SDFD teams continued attempting to establish a safe way down to Lower V while fighting the fires in Upper V. However, as these teams continued firefighting efforts in Upper V for approximately 45 minutes, they made little to no progress on the fire; on the contrary, the fire continued to grow in size and intensity. Additionally, SDFD firefighters reported the fire was heating gas cylinders, causing them to vent and explode, transforming them into flying projectiles. SDFD firefighters assessed these cylinders were flying across Upper V. [Encl 176, 181]

93. At 1025, the emergency push-buttons for the six cables supplying power to BONHOMME RICHARD on the forward shore power mound were depressed, opening the breakers supplying power to the ship. When combined with the securing of the aft shore power mound at 0944, BONHOMME RICHARD was left with a total loss of power. [Encl 212, 215, 238]

94. As the firefighting efforts continued, SDFD (b) (6) and SDFD (b) (6) observed smoke conditions were deteriorating. The fire transitioned to producing heavy black smoke with a yellow tinge, and multiple SDFD firefighters observed smoke being pulled back into the ship. At approximately 1035, SDFD (b) (6) informed the Assistant Operations Chief, NCFD (b) (6), that firefighters had “lost the space” (referring to Upper V). He then informed the firefighting teams, “This compartment is about to blast, get what you can, get what you can.” NCFD (b) (6) radioed his concerns to SDFD (b) (6) and announced his intention to begin withdrawing the attack teams from the ship. Additionally, FEDFIRE (b) (6) received a report from FEDFIRE (b) (6) about the change in smoke conditions. FEDFIRE (b) (6) also noticed the smoke had become very heavy and black. Based on these reports, FEDFIRE (b) (6) also made the call to evacuate and pull all gear off the ship. At 1037, the ICP officially ordered all firefighting teams to evacuate BONHOMME RICHARD. [Encl 126, 141, 148, 164, 181, 229, 230, 239, 240, 241]



Figure 12 shows a screen capture from SDFD Firefighter (b) (6)'s helmet-mounted camera footage, illustrating smoke conditions at approximately 1035.

95. Between 1011 and 1050, (b) (6), (b) (6), and several additional BONHOMME RICHARD Sailors conversed on the pier to determine whether AFFF sprinkling could be employed. (b) (6) noted that when he encountered the Duty Fire Marshal sometime after 0915, the Duty Fire Marshal informed him that he could not locate the AFFF push-buttons due to the heavy smoke. These discussions, which included the status of the AFFF system and what valves needed to be aligned to activate AFFF sprinkling in Lower V and coalesced into a plan to reenter the ship and align valves necessary to employ AFFF sprinkling in Upper V and Lower V. This plan was briefed to the BONHOMME RICHARD CO, who approved the plan to align and activate AFFF. Of note, because (b) (6) and (b) (6) were unaware aft shore power had been lost at 0944, these plans did not account for the loss of firemain pressure required to employ AFFF. Ultimately, BONHOMME RICHARD teams did not enter the ship due to deteriorating conditions. [Encl 62, 82, 131, 167, 171, 174, 176, 194, 242, 243, 244, 245, 246]

96. Numerous SDFD firefighters reported they had asked BONHOMME RICHARD personnel about the status of installed firefighting systems, including the XO, DCA, and (b) (6). However, no SDFD personnel recalled any direct answer on the status of the ship's installed firefighting systems. [Encl 176, 181]

97. From 1035 until approximately 1050, SDFD teams withdrew from the ship and began pulling fire hoses out of Upper V. [Encl 141, 239, 240]

I. Major Explosion Leads to Pier Evacuation

98. At 1050, approximately 90 seconds after the last firefighters had departed the ship, a massive explosion occurred on BONHOMME RICHARD. The explosion created a shock wave

that knocked down numerous personnel on the pier and blew debris across the pier onto FITZGERALD. [Encl 126, 140, 141, 147, 148, 156, 181, 230, 247, 248, 249, 250]

99. Based on forensic analysis, ATF and NAVSEA Fire Experts assessed this explosion was a “smoke explosion” that occurred in the overhead of Upper V. Within this area, unburned fuel (in the form of smoke), heat, and pressure accumulated until the mixture of smoke and air ignited, creating multiple explosions and causing extensive damage in the forward part of Upper V. ATF assessed this explosion destroyed the structural support of the overhead in Upper V, leading to the collapse of the mess decks into Upper V. In turn, this collapse created a new opening, which supplied the fire with a fresh, large, open area filled with oxygen and consumable material. A secondary smoke explosion occurred in the vicinity of the first class petty officer mess. While the NAVSEA FRB did not reach a finding on the cause of this explosion, they concluded that the collapse of the main deck over Upper V was caused by explosive over pressurization. [Encl 5, 249, 251, 252, 253]

100. Following the explosion, Pier 2 was completely evacuated. [Encl 41, 126, 140, 146, 251, 254, 255, 256]

101. At approximately 1124, FEDFIRE personnel and several BONHOMME RICHARD Sailors, including the DCA, returned to Pier 2 to establish an unmanned monitor (fire nozzle) at the sideport door, which sprayed water directly into Upper V from the sideport door. FEDFIRE (b) (6) and FEDFIRE (b) (6) were the first FEDFIRE firefighters to return to the pier after the explosion. FEDFIRE (b) (6)'s team was tasked with leading a firefighting effort up to the Hangar (Division 1) while FEDFIRE (b) (6)'s team was tasked with leading a firefighting effort into Lower V (Division 2). Due to the intensity of the fire, Divisions 1 and 2 were re-tasked with evaluating the state of the fire and determining the feasibility of recommencing firefighting efforts. The fire's intensity, heat, and a significant amount of debris forced the divisions to use a “round robin” approach to combatting the casualty. The teams departed just outside the ship and swapped out bottles before reentering and continuing to fight. [Encl 149, 189, 203, 257, 258, 259]



Figure 13 shows firefighting monitors spraying water from the pier on 12 July 2020.

102. Outside of these efforts, the fire burned unabated throughout the ship. At some point during the afternoon, the fire reached 55-gallon drums of oil stored in Upper V and oxygen tank cylinders laid on the deck in the medical compartments. As these items ignited, they caused minor explosions and accelerated the spread of the fire. [Encl 167, 194, 201, 260, 261, 262, 263, 264]

J. Waterborne Firefighting Efforts

103. At approximately 1005, San Diego Harbor police boats arrived and began spraying water on the starboard side of BONHOMME RICHARD. By 1045, three police boats were engaged in a waterborne firefighting effort. At 1110, San Diego Port Authority water tugs were requested by NBSD. At 1200, additional tugs arrived to continue cooling BONHOMME RICHARD's starboard side and provide pump support for pier-based firefighting efforts. At 1230, the ICP, in coordination with the BONHOMME RICHARD CO and Navy Region Southwest Deputy Commander, requested all available tugboats from Los Angeles and San Diego to support hull cooling. [Encl 141, 146, 151, 254, 265, 266, 267, 268, 269, 270]

104. On arrival, various tugs provided continuous water cooling on the starboard side of BONHOMME RICHARD throughout the firefighting effort on 12 July 2020. By 1547, four tugboats were providing cooling water alongside the starboard side of the ship. [Encl 249, 266, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280]

105. FEDFIRE (b) (6) was tasked by FEDFIRE (b) (6) with locating additional water sources to support firefighting efforts. He recognized the tugs could pump seawater from the San Diego Bay into fire engines located on the pier, thereby supplying additional firefighting water. This method was employed on tug arrival at approximately 1430 and continued over the next several days. [Encl 187, 189, 281]

106. Supervisor of Salvage and Diving (NAVSEA 00C) representatives arranged for two contracted firefighting tugs to deploy from Long Beach, California. By mid-morning on 13 July 2020, these tugs arrived at NBSD and commenced hull cooling. Aerial observation confirmed their firefighting progress and over the next several days, these tugs were directed to more precise locations for cooling hot spots, container express (CONEX) boxes located on the Flight Deck, and topside gear. [Encl 141, 151, 272, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292]

K. Incident Command Post Movement

107. At approximately 1120, shortly after the first explosion, the ICP moved from alongside BONHOMME RICHARD down the pier to the vicinity of the Pier 2 ECP, after the pier evacuation. The BONHOMME RICHARD CO, OPS, XO, and FEDFIRE Metro (b) (6) were all present at the ICP. Following this transition, these leaders began an hour-long discussion on how and when to recommence firefighting efforts aboard BONHOMME RICHARD. [Encl 82, 126, 293, 294, 295]

108. The smoke and hazards from the fire would ultimately force the established ICP at Pier 2 to relocate several times throughout the day. The ICP transitioned from the ECP to outside of Building 71 (Base Theater), behind the Search and Rescue (SAR) Swimming Pool parking lot, then to the Expeditionary Strike Group THREE (ESG-3) parking lot near Chollas Creek, and then to FEDFIRE Station 16. At this point, major firefighting efforts had ceased on Pier 2, except for the placement of unmanned monitors; however firefighting efforts were still ongoing on the starboard side with tugs spraying water on the hull attempting to cool internal spaces. [Encl 41, 82, 164, 229, 254, 276, 279, 294, 295, 296, 297, 298]

109. After evacuating Pier 2 following the 1050 explosion, BONHOMME RICHARD Sailors mustered on the east side of Building 71, then moved farther east, away from Pier 2, to the Building 56 and Building 58 parking lots. From there, some Sailors were moved to the NBSD Chapel parking lot while others were bussed to the Navy Exchange Fleet Store, south of the NBSD Main Gate. [Encl 45, 49, 140, 141, 230, 249, 254, 299, 300, 301, 302, 303, 304, 305]

110. At approximately 1329, NBSD Emergency Operations Center (EOC) developed a plan to use Building 71 to house BONHOMME RICHARD Sailors and other R&A teams. At 1401, NBSD opened Building 71, which became a staging area for medical and rehabilitation for all firefighting teams and associated gear. [Encl 49, 187, 230, 273, 306, 307]

L. Headquarters Command Centers Respond

111. At approximately 0830, the NBSD CDO received a report from the NBSD ATTWO of a fire aboard BONHOMME RICHARD with FEDFIRE responding. The NBSD CDO immediately traveled to Pier 2, where he observed smoke emanating from BONHOMME RICHARD. The CDO began notifying NBSD leadership, and at approximately 0845, he notified (b) (6), the NBSD Emergency Management Officer (EMO), via text. (b) (6) subsequently contacted the NBSD CO and XO and recommended activating the EOC Incident Management Team (IMT), including a FEDFIRE liaison, public affairs, public works, plans, and security representatives. The EOC began operations at approximately 0922. Throughout the incident, the primary point of contact between the EOC and the ICP were FEDFIRE representatives, including FEDFIRE (b) (6) and (b) (6). Of note, FEDFIRE (b) (6) stated that when he arrived to the EOC, there was no checklist, pre-planned response, or list of resources available to use as guidance on his role within the EOC. In addition to radio communications, multiple personnel served as runners between the ICP and the EOC to facilitate information flow. [Encl 146, 304, 308, 309, 310, 311, 312]

112. Initially, communications between the ICP and EOC were limited, with many of the ICP actions failing to reach the EOC as updates. (b) (6), a Naval Facilities Engineering Command (NAVFAC) officer, described the ICP as "frantic," while the EOC was silent. (b) (6) eventually traveled to the pier to directly liaise with ICP personnel and provide timely NAVFAC support. [Encl 313]

113. The EOC coordinated logistics support and equipment to the firefighting effort, including food, water, lighting, and various items of equipment. This included equipment from NAVFAC Southwest, such as lighting, refueling trucks for fire engines parked on the pier, and crane

operations. Later in the week, NBSD requested Federal Aviation Administration (FAA) approval to operate a contractor-controlled firefighting drone around Pier 2. [Encl 312, 313, 314, 315, 316]

114. At 0929, the SWRMC CDO was notified of the fire aboard BONHOMME RICHARD via phone by a SWRMC employee. At the time, the SWRMC CDO was at his home, as SWRMC policy does not require CDOs to maintain a 24-hour presence on-site. The CDO promptly notified SWRMC leadership, including the SWRMC CO, XO, CMC, and Safety Officer and began the 30-minute drive into NBSD. The SWRMC CDO arrived at Pier 2 at 1015 and spoke with BONHOMME RICHARD XO, who informed him the incident could be declared a major fire. Subsequently the SWRMC CDO activated the Emergency Command Center (ECC) in accordance with the SWRMC Fire Response Plan (FRP). [Encl 237, 317, 318, 319, 320]

115. SWRMC Emergency Response Team (ERT) members began arriving around 1100 in the ECC as they received notification of the fire and traveled to NBSD. In one circumstance, the Waterfront Operations Department Head (Code 300), (b) (6), received notice of a ship fire while in transit to the NBSD commissary. (b) (6) stated that she completed her trip to the commissary before traveling to the ECC. [Encl 309, 321, 322]

116. At approximately 1015, the SWRMC CO, CAPT David Hart, arrived at SWRMC, called the SWRMC Executive Director, (b) (6), and recalled Department Heads. The ECC reached full manning approximately 45 – 60 minutes after his arrival. As command members arrived at SWRMC, they dialed into phone bridgelines to establish communications from the incident ICP and up to the NAVSEA response cells. [Encl 309, 321, 323, 324, 325]

117. Initial communications between the ECC and the pier ICP were difficult to establish. Eventually, SWRMC safety personnel established a physical presence on Pier 2 in accordance with the SWRMC FRP. Of note, after initially proceeding directly to the pier, the SWRMC CDO did not return to distribute radios, as required in the SWRMC FRP. [Encl 237, 321, 324, 326, 327]

118. The BONHOMME RICHARD CO assessed SWRMC's assistance was generally a hindrance during the firefighting efforts. As an example, he described a planning conversation with FEDFIRE that included a SWRMC employee that was observing the discussion. Within five minutes of the discussion, the CO would receive a phone call from a flag officer within NAVSEA, which he assessed as not helpful. The CO stated that he understood SWRMC was feeding information to their superiors but that he assessed these engagements needed to be coordinated to better enable the firefight. When a battle rhythm and better coordination was further established later in the week, the CO assessed SWRMCs inputs were more helpful. [Encl 82]

119. SWRMC provided technical and logistical support to the firefighting effort, such as refilling SCBA bottles. At one point, the ECC directed temporary fire pumps powering the temporary firemain aboard USS HARPERS FERRY (LSD-49), located in the NBSD Graving Dock, be moved to Pier 2 to support the firefighting effort, which would have left HARPERS

FERRY without any available firefighting system. However, due to delays in securing contractor support for fire pump transfer, this was not executed. [Encl 307, 313, 328, 329, 330]

120. Members of the EOC and ECC stated that initially, there was confusion regarding the roles of the ECC and EOC to support the integrated firefighting effort, as well as their relationship with each other. These same members assessed this confusion was exacerbated by communication difficulties between the ECC, EOC, and ICP located on the pier (after the afternoon ICP movements). Eventually, SWRMC stationed a liaison officer in the EOC, which many described as improving the situation. The SWRMC CO characterized their actions as “[feeling] through their relationship.” The ESG-3 Chief of Staff stated that while he knew SWRMC participated in the hourly situational report (SITREP) calls, he was unaware the ECC, as an entity, existed over at SWRMC. [Encl 308, 313, 314, 315, 321, 324, 326, 331, 332]

121. One of the SWRMC Contract Fire Safety Officers (CFSO), (b) (6), who writes 8010 Manual Chapter 12 and Chapter 13 fire drills, noted that the actual command structure on 12 July 2020 did not mirror the required set-up in 8010 Manual drills. He observed that SWRMC, BONHOMME RICHARD, and FEDFIRE were not effectively integrated at the ICP, and that BONHOMME RICHARD and FEDFIRE established separate command posts, rather than integrating together. [Encl 333]

122. FEDFIRE Metro Deputy Chief, (b) (6), noted that the National Incident Management System (NIMS) process was not implemented on 12 July 2020. (b) (6) stated that as the crisis progressed, a communications plan was implemented; by Monday, 13 July 2020, standard briefing times were established and communications flowed more easily. [Encl 193]

123. At approximately 1120, the Commander of ESG-3, RDML Phillip Sobeck, arrived at NBSD and received a brief from ICP leadership (BONHOMME RICHARD CO, FEDFIRE, and SDFD) on the situation. Following this brief, RDML Sobeck called the Commander, Naval Surface Force Pacific (CNSP) Chief of Staff, (b) (6), and reported there appeared to be significant confusion with the firefighting effort and that he (RDML Sobeck) felt that ESG-3 may have to assume duties as the on-scene commander to properly align firefighting resources and lessen confusion. [Encl 72, 334]

124. During this exchange, Commander, CNSP, VADM Richard Brown, joined the call and directed RDML Sobeck to assume control of the overall effort. RDML Sobeck relayed this conversation to the BONHOMME RICHARD CO; however, he reiterated that the CO remained in charge of BONHOMME RICHARD and on-scene firefighting efforts, and ESG-3 would serve as an aid and assisting with firefighting efforts. RDML Sobeck proceeded to the EOC with his staff to gain situational awareness and establish hourly synchronization meetings. [Encl 72, 334]

125. Upon establishing a presence in the EOC, ESG-3 initiated hourly meetings, conducted both in-person and via teleconference, which provided a forum for the various organizations to report their ongoing efforts and align resources. RDML Sobeck chaired these meetings, and each organization contributing to the firefighting effort had an opportunity to provide a brief. Various witnesses stated that RDML Sobeck was “in charge” of the overall effort; however, they described his role as more facilitating communication flow and unity of effort, rather than

directing tactical firefighting actions. Of note, SWRMC did not participate in these hourly calls until 13 July 2020. [Encl 72, 321, 325, 332, 335]

126. The ESG-3 Deputy Commander, (b) (6), U.S. Marine Corps (USMC), stated during an interview that he perceived a leadership vacuum in the firefighting response effort. He noted that there seemed to be two levels of command and control (at the pier and the EOC), but a third level was necessary to facilitate communications with higher headquarters and coordinate resources and efforts. He stated that ESG-3's role was to enable higher-level communications and facilitate sharing of information and resources. [Encl 335]

127. Despite ESG-3's coordination efforts, communication shortfalls between the pier ICP and EOC continued to exist. FEDFIRE (b) (6), serving as a FEDFIRE EOC liaison, noted that a lack of coordination between FEDFIRE and BONHOMME RICHARD leadership on the pier caused inaccurate and conflicting information to be passed to the EOC. Consequently, RDML Sobeck and FEDFIRE (b) (6) had to walk to the pier on several occasions to directly obtain information about the status of the fire. [Encl 308]

128. Among the EOC representatives, the U.S. Coast Guard (USCG) Captain of the Port, (b) (6), and (b) (6) arrived at approximately 1400 to serve as liaisons for the fire response effort. USCG representatives were originally notified of the fire at approximately 0930 and deployed response personnel. Once USCG personnel learned of the fuel present aboard BONHOMME RICHARD (980,236 gallons of diesel fuel, marine (DFM)), (b) (6) and (b) (6) deployed to the EOC to represent USCG equities and monitor the environmental situation. [Encl 336, 337, 338, 339]

129. The USCG established a one nautical mile safety zone around BONHOMME RICHARD and liaised with numerous other federal and state agencies with equities related to the environmental impact of the ongoing fire, to include the Environmental Protection Agency (Environmental Protection Agency), the Department of the Interior, U.S. Fish & Wildfire Service, the California Office of Spill Prevention and Response (OSPR) and the Office of the Governor of California. The USCG also coordinated with Navy Region Southwest Fleet Environmental Coordinator (N40) throughout the incident. [Encl 338]

130. (b) (6) stated that for oil spills, the USCG serves as the on-scene commander for a unified command structure comprised of multiple federal agencies, each playing a role in response efforts. In this circumstance, where no oil was actually spilled, (b) (6) explained the USCG worked to support the Navy firefighting effort. Ultimately, the USCG established an "environmental branch" within the NBSD EOC, which served as a liaison for federal and state agencies seeking updates on the firefighting effort. [Encl 338]

131. On notification of the BONHOMME RICHARD fire at approximately 1100 Pacific Time, NAVSEA activated the NAVSEA Ship Incident Response Center (NSIRC). NAVSEA personnel either dialed into the technical bridgelines from their homes or traveled into the Washington Navy Yard to support the NSIRC technical response. NSIRC provided technical recommendations, including suggestions to restore firemain, as well as tracking BONHOMME RICHARD's list from firefighting water. [Encl 191, 340, 341, 342, 343, 344, 345, 346, 347]

132. At approximately 0800 on 12 July 2020, CNRSW Director of Operations (N3), (b) (6), was notified about the fire. After learning that explosions were occurring on the ship, he activated the Regional Operations Center (ROC). Before proceeding to the ROC, he tasked Region Port Operations to prepare tugs for use. When he arrived at the ROC, he ordered a Level 2 Crisis Action Team, which was fully activated at approximately 1200 on 12 July 2020. [Encl 348]

133. Immediately after standing up, a major ROC priority was moving RUSSELL and FITZGERALD on Pier 2 across from BONHOMME RICHARD. The CNRSW N3 noted that ESG-3 established an hourly telephone meeting during the first day of the response and took over as the primary point of contact at the NBSD EOC, which was helpful in organizing support and streamlining communications. He assessed that while ESG-3 serving as the primary point of contact was anomalous, it was beneficial to the situation. [Encl 348]

134. After the 1050 explosion, the NBSD EOC IMT began submitting hourly SITREPs to the ROC. [Encl 312]

135. The ROC's primary objective was taking notes during the hourly phone conferences, staying abreast of waterfront needs, and relaying information up the chain of command. The ROC arranged for tug support for water pumping and in-water booms. The CNRSW Director of Emergency Management (EM), (b) (6), recalled that the ROC started to respond as requests for support were received, but ESG-3 or Commander, U.S. THIRD Fleet (C3F) frequently took control. [Encl 349]

136. Throughout the response, the ROC did not have any direct interaction with the ECC; however, the ROC dialed into the bridgelines with NAVSEA and monitored communications. CNRSW Director of EM noted that the ROC generally had a listening role; and aside from CNRSW, RDML Bette Bolivar, noting her presence on the conference, the ROC did not have a major speaking role during the calls. [Encl 348, 349]

137. In addition to CNRSW, CNIC headquarters staff participated in the bridgeline with NAVSEA. VADM Yancy Lindsey, Commander of Naval Installations Command, stated he also exchanged several emails and phone calls with RDML Bolivar as they managed the incident. [Encl 350]

M. RUSSELL and FITZGERALD Get Underway, Firefighting Efforts Resume without Municipal Firefighting Agencies

138. At 1138, after consulting with FEDFIRE leadership on Pier 2 and the EOC, RUSSELL and FITZGERALD determined the danger posed by the fire necessitated shifting from Pier 2 to other piers at NBSD. Both ships made preparations to get underway. [Encl 72, 132, 141, 310, 351, 352, 353]

139. At 1238, NAVFAC personnel secured power to Electrical Substation B, which services all of Pier 2, by isolating power remotely at Electrical Substation A and Electrical Substation Harbor Drive. NAVFAC roving watch personnel had been present on Pier 2 since approximately 0845, when they were dispatched by the Utilities Duty Desk to support any requirements during the fire response. The order to secure power to the pier was issued by the NBSD CO to the NBSD Deputy Public Works Officer, (b) (6). (b) (6) communicated this order to NAVFAC personnel at Substations A and Harbor Drive via phone. The intent of securing power was to ensure RUSSELL and FITZGERALD could disconnect from shore power and get underway safely. It is unclear whether the NBSD EOC was aware of the status of power aboard BONHOMME RICHARD (all power having been secured since 1025) at the time the order was given to secure power. [Encl 141, 213, 215, 217, 238, 246, 300, 314, 354, 355, 356, 357, 358, 359]

140. At 1305, FITZGERALD got underway from Pier 2 and transited to Pier 10 under tug control. At 1324, RUSSELL got underway from Pier 2 and transited to Pier 12 under tug control. [Encl 75, 78, 147, 351, 360]

141. At approximately 1200, SDFD Assistant Chief for EM, (b) (6), arrived at NBSD. On arrival, he observed FEDFIRE developing a revised firefighting strategy, and he participated in the decision to transition the ICP to the ESG-3 parking lot. After discussing the situation with his personnel, SDFD (b) (6) and SDFD determined that while they would continue to support the firefighting effort, SDFD personnel would not go back aboard BONHOMME RICHARD. This decision was made based on SDFD firefighting priorities, as articulated in the SDFD Drill Manual: “[a]ctivities that pose a significant risk to firefighters shall only be taken when there is potential to save lives.” Some FEDFIRE and Navy personnel were unaware of this limitation. [Encl 130, 176, 181, 188, 302, 361, 362]

142. The Navy and FEDFIRE leadership expressed frustration with SDFD’s decision not to reenter the ship. Numerous FEDFIRE and military personnel spoke with the SDFD chiefs present, attempting to convince SDFD to return to BONHOMME RICHARD. After SDFD continued to refuse, FEDFIRE met with RDML Sobeck to discuss the situation. When the meeting concluded, FEDFIRE (b) (6) walked over to SDFD (b) (6) and informed him that SDFD could leave if they were not going to return to the ship for firefighting. [Encl 72, 82, 130, 156, 176, 181, 266, 363]

143. FEDFIRE (b) (6) recalled during his conversation with SDFD (b) (6) that he stated SDFD could leave if they were not going to provide meaningful assistance to fight the fire. He did not recall specifically informing SDFD was released. He noted FEDFIRE still required SDFD assistance at that time. [Encl 156, 176, 181, 193, 266, 363, 364]

144. After the conversation between SDFD (b) (6) and FEDFIRE (b) (6), SDFD and the other municipal agencies began collecting their equipment and departed the scene. SDFD (b) (6) left SDFD (b) (6) as a liaison at the FEDFIRE fire station, where he remained until approximately 1740. [Encl 176, 181, 193, 266, 363]

145. Uncertainty over whether SDFD was specifically released or left on their own led to confusion and disappointment among BONHOMME RICHARD leadership when municipal firefighting units began departing. [Encl 82, 266, 363]

N. Base Theater Staging Area

146. Throughout the morning of 12 July 2020, Navy ships moored at NBSD began sending DC equipment and R&A teams to Pier 2 to support the firefighting effort. Early in the afternoon on 12 July 2020, USS ABRAHAM LINCOLN (CVN-72) sent 150 Sailors to support firefighting efforts. Initially, this effort was unorganized and resulted in a loose collection of personnel and equipment at the ECP to Pier 2. Late in the morning, the CHENG from USS SHOUP (DDG-86), (b) (6), encountered the ESG-3 N4, (b) (6), and Commander, Amphibious Squadron FIVE (PHIBRON-5) N4, (b) (6), and identified the need for a more formal command and control structure for the arriving support personnel and equipment. (b) (6), (b) (6), and (b) (6) decided to stage firefighting equipment on the grassy area in front of Building 72 (NBSD Headquarters). (b) (6) established herself as an “On-scene Leader” for off-pier management of R&A personnel and equipment and, with (b) (6)’s assistance, created a watchbill for this position. Later in the day, NBSD opened Building 71 (Base Theatre), which became a check-in and staging area for supporting personnel. The on-scene leaders for this effort established a command post outside the entrance to Building 71. [Encl 297, 307, 365, 366, 367, 368, 369, 370, 371, 372, 373]

147. Once the Building 71 command post was established, command post personnel coordinated with the Pier 2 ICP to supply fire teams and equipment to support firefighting efforts. On 12 July 2020, this coordination was conducted via runners because no radios were available. (b) (6) assisted with establishing DCRSs on the pier, filled with DC equipment from the CNSF DC equipment warehouse. Building 71 and adjacent areas also served as staging points for equipment sent from other ships, such as SCBA bottles, FFEs, and other firefighting gear. [Encl 307, 374]

148. Continuous use of DC equipment resulted in numerous equipment failures and operating errors. In particular, Emergency Breathing Air Compressors (EBACs), Portable Exothermic Cutting Units (PECUs) and P-100 portable dewatering pumps failed on several occasions. ECC logs indicated that between two and seven P-100 pumps were inoperable; further, PECU batteries were not charged on several occasions, hindering operations. Additionally, maintaining full SCBA bottles posed challenges, as the number of on-scene EBACs could not keep pace with how quickly bottles were being consumed in the firefighting effort. To support SCBA refilling, SWRMC personnel transported empty SCBA bottles back to SWRMC’s building to be refilled and returned full bottles back to this location. [Encl 307, 322, 366]

149. To request relief firefighting teams or equipment, the ICP sent messenger runners to the Building 71 command post. The on-scene leader at the time would designate a team to dress out in Building 71 and report to the ICP. A fully-dressed team typically consisted of a scene leader, two team leaders, and between seven to nine hose team members. From the ICP, the team would be directed to a further staging area, located either near the sideport door or at the landward end

of the pier; however, this did not necessarily mean teams would then enter BONHOMME RICHARD. [Encl 366, 375]

150. At approximately 1400, a continuous presence on Pier 2 was reestablished, led by the BONHOMME RICHARD CO, XO, CMC, CHENG, DCA, and FEDFIRE leadership. As this presence was reestablished, FEDFIRE and BONHOMME RICHARD set up ICPs on opposite sides of the pier. A BONHOMME RICHARD representative to the EOC, (b) (6), reported that this division of ICPs on the pier lasted until 16 July 2020. As to organizing NAVFAC support, (b) (6) observed that it appeared as if FEDFIRE was in charge, as most of the requests for support originated from FEDFIRE. [Encl 121, 249, 307, 313, 353, 376, 377]

151. At 1415, five FEDFIRE teams, consisting of six personnel each, were organized and staged at the port ACE. Two of these teams entered BONHOMME RICHARD with three teams remaining on standby. Additionally, 66 BONHOMME RICHARD duty section personnel were mustered and placed on standby at Building 71; however, the CDO reported at the time that these Sailors were not employed in the firefighting effort. [Encl 179, 249, 378, 379]

152. Expanding beyond the initial early efforts of a few Sailors, over the remainder of the afternoon, teams of BONHOMME RICHARD Sailors began joining FEDFIRE in firefighting efforts. Initially, BONHOMME RICHARD teams were not integrated with FEDFIRE teams; while both organizations contributed teams, the teams themselves were not integrated. A team of BONHOMME RICHARD Sailors entered via the sideport door at approximately 1530. By this time, two unmanned monitors, each capable of deploying 300 gallons-per-minute (GPM), were placed in Upper V with one pointing in Upper V itself and the second pointing down the Lower V ramp. Despite issues with water volume, these monitors continued pumping water into Upper and Lower V. [Encl 149, 172, 197, 249, 313, 380, 381]



Figure 14 shows BONHOMME RICHARD Sailors organizing into fire teams.

153. Starting in the early afternoon, the spread of flames throughout the ship was visible from the pier and quay wall between Piers 1 and 2 (on the starboard side of BONHOMME RICHARD). At approximately 1600, flames were visible at the 04-Level of the superstructure. The fire's spread throughout BONHOMME RICHARD was analyzed by the NAVSEA FRB and included in its report. [Encl 179, 249, 270, 273, 381]

O. Evening Explosion and Pier Evacuation

154. During the afternoon of 12 July, BONHOMME RICHARD and FEDFIRE leadership developed a firefighting plan they called "surround and drown": using tugs, unmanned monitors, and fire teams to deploy large amounts of water throughout the ship. [Encl 82, 131]

155. At 1645, additional tugboats arrived, one of which moored alongside the pier and used its pump as a water supply source for fire engines on the pier. Additional smaller explosions continued to occur on BONHOMME RICHARD throughout the afternoon and evening, which resulted in teams evacuating and leaving hoses unmanned and charged, only to return on an inconsistent basis. [Encl 179, 379, 381]

156. By 1830, teams progressed further into the ship via the sideport ramp. BONHOMME RICHARD's unofficial deck log indicated that the fires were out in Upper V and contained in the forward port quarter of Lower V despite the reported progress in Upper V and Lower V. At this point, the fire had expanded and was burning throughout the entire length of the ship with approximately three decks on fire to include equipment on the Flight Deck and the ship's superstructure. [Encl 179, 249, 296, 379, 382, 383, 384]

157. At 1855, another large explosion occurred aboard BONHOMME RICHARD. This explosion originated from an 8-inch Fuel, Jet Propulsion (JP-5) fuel pipe located in an auxiliaries division compartment underneath the Upper V ramp on the port side of the ship, Valve Grinding Area (3-81-2-Q). This explosion blew a watertight door from an adjacent compartment, Engine Test Area (3-82-2-Q), across to the starboard side of Upper V and resulted in a large fireball. Of note, the NAVSEA FRB concurred in the source of the 1855 explosion. [Encl 5, 141, 179, 203, 230, 251, 296, 371, 379, 383, 384]

158. At the time of the explosion, a team was attempting to ascend the Upper V ramp (above and forward of Engine Test Area (3-82-2-Q)) into the Hangar. The explosion caused multiple minor concussive and blast-type injuries. After this explosion, BONHOMME RICHARD was evacuated for a second time. As a result of this explosion, no interior firefighting efforts were conducted for several hours. [Encl 141, 230, 251, 294, 296, 379, 383, 384, 385]

159. At approximately 1924, a water main ruptured on NBSD, related to the "hammer effect" caused by the evacuation of the pier and suspension of pierside firefighting efforts. For approximately 10 minutes, all firefighting water was supplied from the moored tug. After this brief period of time, the ruptures were isolated and the fire hydrant water supply was reestablished. [Encl 249, 386]

160. At 1954, the fire was observed to be venting out of the superstructure and continued to burn out of control, with an active fire visible from BONHOMME RICHARD's stacks. There were no FEDFIRE personnel or Sailors aboard BONHOMME RICHARD at this time. [Encl 249, 297, 377, 384]



Figure 15 shows BONHOMME RICHARD burning in the evening on 12 July 2020.

161. At approximately 2000, the SWRMC ECC logged “no indirect firefighting on the pier. Only indirect firefighting from the water. Assessing if super structure risk of collapsing.” [Encl 249]

162. As the fire continued, the structural integrity of the superstructure became a major concern due to the possibility of collapse. Additionally, the Flight Deck began showing signs of fatigue with warping observed throughout, raising the risk of Hangar collapse. At 2021, two engines remained on the pier and no personnel were allowed access to the pier, halting any forward progress on the firefighting effort. Indirect firefighting from tugs on the starboard side cooling the hull was the only remaining positive action. [Encl 249, 251, 383, 385, 386]

163. In the evening on 12 July 2020, FEDFIRE (b) (6) walked from the EOC to Pier 2, where he observed that the FEDFIRE and BONHOMME RICHARD command posts were on opposite sides of the pier, rather than unified. Walking to the FEDFIRE command post, he asked the IC why there was no unified command, with the reply being that BONHOMME RICHARD's command post would “let them [FEDFIRE] know if they needed anything.” FEDFIRE (b) (6) stated that this lack of unified command hampered EOC efforts to gain an accurate picture of what was happening on the pier. Ultimately, FEDFIRE (b) (6) reported that he and RDML Sobeck walked to the pier multiple times in order to visit each command post for direct information on the status of the fire and number of personnel aboard. [Encl 308]

164. The Mayor of San Diego approved a request for aerial support from SDFD firefighting helicopters at the request of RDML Bolivar. At approximately 2140, SDFD helicopters flew over the ship to assess the fires burning topside on the Flight Deck and in the superstructure. Open flames were clearly visible from the island structure and multiple CONEX boxes near the aft end of the Flight Deck were observed to be on fire. An exhaust location for smoke, heat, and gases on the superstructure had thermal imaging in excess of 1,200 degrees Fahrenheit. The flyovers were in part to facilitate a discussion about the possibility of conducting helicopter-borne water drops on BONHOMME RICHARD; however, SDFD did not authorize its helicopters to participate in water drops. [Encl 141, 308, 387, 388]

P. Commencement of Helicopter Water Drops

165. At approximately 2305, two helicopters from Helicopter Sea Combat Squadron THREE (HSC-3) commenced aerial water drops using attached water buckets normally used for wildfire firefighting. The initial drops were conducted by the Southern California Offshore Range (SCORE) detachment, a full-time support (FTS) detachment of HSC-3, which serves as the firefighting program manager for Navy aerial firefighting operations on the West Coast. [Encl 141, 251, 297, 385, 389, 390, 391, 392]

166. On 12 July 2020, a request for helicopter support was received by the HSC-3 Operations Officer, who contacted the SCORE Operations Officer, (b) (6). (b) (6) organized two aircrews and conducted an initial concept of operations brief at HSC-3 at approximately 1500. The two aircrews were ordered to stand down at approximately 1700 by the Squadron Duty Officer (SDO) and OPS after being informed the fire was under control and airdrops were not necessary. (b) (6) and his crews were recalled at 1900 and arrived at approximately 2100. The first aircraft launched at 2230; after the second aircraft launched, HSC-3 conducted several practice water drops in San Diego Bay. At approximately 2305, the helicopters conducted their first water drops on BONHOMME RICHARD. Each helicopter completed several drops before effects were deemed successful. [Encl 251, 297, 385, 391, 392, 393]

167. The helicopters did not have dedicated frequency for radio communications. As such, they communicated with an air controller stationed on-scene via maritime bridge-to-bridge radio channels 10 and 12. The initial air controller was ESG-3 Chief of Staff (b) (6), who controlled the drops from a harbor security boat. Each helicopter conducted 60 drops the first evening. During the drops, the helicopters worked to maintain a consistent altitude (85 – 100 feet) and speed (50 knots) to ensure effective deployment of the water. Before dropping, the aircrews verified they were not conducting the drop over firefighting personnel. [Encl 193, 391]

168. HSC-3's SCORE detachment is certified through the California Department of Forestry and Fire Protection (CALFIRE) to conduct aerial water drops in support of wildfire firefighting efforts. Navy assistance to CALFIRE is governed by a Memorandum of Agreement (MOA) between the two organizations. Prior to the BONHOMME RICHARD fire, SCORE had only trained to conduct daytime wildfire operations. [Encl 391, 393]

169. HSC-3 Quality Assurance Officer, (b) (6), noted that the ship water drops required significantly more precision than a standard wildfire water drop. Additionally, (b) (6) noted that because night firefighting had not been previously training or executed, the SCORE detachment used a slow and methodical approach to maintain safety of flight. Additionally, crew days were longer and the nature of the firefighting effort was described by (b) (6) as extremely taxing on the entire flight crew. [Encl 391, 393]

170. (b) (6) noted the most dangerous aspect of the operation as the close proximity of the aircraft to the ship's superstructure and antennas, which was necessary to ensure the aircraft put water on the target. Careful coordination as required for each approach to the ship, including the danger of flying in close proximity to the tugs located on BONHOMME RICHARD's starboard side. The pilots and aircrew also struggled with smoke and strong fumes entering the aircraft. After the fire, several pilots and air crew members complained of throat and nose irritation from the fumes. [Encl 393]

171. In addition to Navy helicopters, San Diego's firefighting helicopters were requested to support firefighting efforts. The Mayor of San Diego authorized San Diego Copter 1 to conduct a flyover of BONHOMME RICHARD, which employed a Forward-Looking Infrared (FLIR) camera to analyze the heat emitting from BONHOMME RICHARD; however, SDFD ultimately determined its aerial firefighting assets could not participate in water drops, as it was not certified to conduct nighttime water drops in an urban environment and participation would have likely resulted in CALFIRE rescinding SDFD's aerial firefighting certification. Further, SDFD only operates two firefighting helicopters and the helicopters (and their associated firefighting equipment) have never employed salt water. Use of salt water would have degraded aircraft readiness during a heightened wildfire season. [Encl 141, 176, 363]

172. From 12 July 2020 until 15 July 2020, 1,649 water drops were conducted, deploying 545,076 gallons of water. (See Figures 16 and 17). After 12 July 2020, the SCORE detachment was augmented by additional aircrews from HSC-3. Various Navy, FEDFIRE, and contract firefighting personnel disagreed about the overall effectiveness of the water drops. [Encl 188, 308, 391, 393, 394, 395]



Figure 16 shows a SH-60 helicopter picking up water to conduct water drops on BONHOMME RICHARD.



Figure 17 shows a helicopter conducting a water drop on BONHOMME RICHARD.

Q. Establishment of Stern Gate Brow

173. On the evening of 12 July 2020, a series of small explosions generated safety concerns about accessing BONHOMME RICHARD via the port ACE and sideport door, and these entrances were determined to be unavailable. The BONHOMME RICHARD CHENG recommended to the BONHOMME RICHARD CO that the stern gate be leveraged as an access point for continued firefighting efforts; consequently, the CO directed BONHOMME RICHARD Sailors to work with FEDFIRE personnel and tugs to establish an entrance. At approximately 0000 on 13 July 2020, two reconnaissance teams, each comprised of two personnel, including the DCA, entered BONHOMME RICHARD via the stern gate. The teams reached the stern gate

via an extended ladder from FEDFIRE Truck 17 after FEDFIRE firefighters cut away overhanging scaffolding which had previously been blocking the lowered stern gate. Once inside, both teams identified areas for fire attack and departed the ship via the stern gate. [Encl 70, 179, 203, 219, 249, 307, 385, 396]

174. After the reconnaissance teams departed the ship, a five-person hose team, comprised of Navy Sailors and led by FEDFIRE (b) (6) and the DCA, entered the stern gate via the same method and commenced firefighting using a hose carried from the pier. Their initial attack focused on extinguishing localized fires in the Well Deck and continued up to Upper V along the starboard side. [Encl 179, 203, 249, 385, 397, 398]

175. At approximately 0211, 13 July 2020 a NAVFAC crane, organized by (b) (6), landed a brow on the stern gate, enabling a 20-man hose team to enter and relieve the 5-man team. (See Figure 18). This team continued the fire attack by advancing forward through the Well Deck toward Upper V. [Encl 72, 179, 187, 249, 313, 385, 396, 397, 398]



Figure 18 shows the stern gate brow, which was landed at approximately 0211 on 13 July 2020.

R. Persistent, Continuous Firefighting Efforts

176. Simultaneous with the stern gate fire attack, firefighting efforts resumed at the sideport ramp in the early morning hours of 13 July 2020. At approximately 0248, FEDFIRE firefighters reported having engaged the fire in Lower V. FEDFIRE (b) (6) continued efforts to advance the firefighting monitors, leading efforts to move the monitor nozzle to the starboard side of the ship and working forward and up toward the anticipated active fire's location. His team advanced close to the entrance of the mess decks (1-57-0-L). [Encl 141, 149, 249, 383, 385, 396, 398, 399, 400]

177. At 0330 on 13 July 2020, additional firefighting units arrived from Marine Corps Air Station (MCAS) Miramar, including Miramar Fire Department (MFD) (b) (6). These units integrated into the ongoing firefighting effort. At the time these personnel arrived, 32 Navy Sailors and 12 FEDFIRE firefighters were aboard BONHOMME RICHARD combating fires. MFD (b) (6) reported that while aboard, it was very dark with low visibility. Additionally, there was a significant amount of material and debris as well as residual heat from steam and smoke. MFD (b) (6) led MCAS Miramar's team into Upper V via the sideport ramp, following a 2.5-inch hose to add hose extensions and advance the line toward the fire. The team proceeded up the Upper V ramp into the Hangar and then attempted to proceed up a ramp on the starboard side of the Hangar but was halted by debris. MFD (b) (6) observed fire up the ramp beyond the debris. [Encl 141, 249, 385, 401]

178. At 0342 on 13 July 2020, the fire remained out of control in the interior of the ship, but the superstructure no longer appeared engulfed in flames. The fire in the Well Deck and Upper V appeared to be out as well. At this point, two teams of five personnel each were aboard identifying and cooling hotspots, transitioning from the Well Deck, to Upper V and Lower V, and up to the Hangar. All Navy personnel and FEDFIRE personnel were logged as being off the ship at 0406. On reentry approximately 30 minutes later, FEDFIRE firefighters and Sailors shifted their focus to clearing debris to move freely through the ship to identify and extinguish remaining fires. [Encl 249, 385, 399, 400, 402]

179. As air water drops and tugboat support continued, these efforts focused on BONHOMME RICHARD's superstructure, away from the firefighters' entry points. Shortly after 0430, FEDFIRE and BONHOMME RICHARD teams went on air to access the ship from the port ACE. One of the first teams to reenter consisted of five BONHOMME RICHARD Sailors and three FEDFIRE firefighters; their objective was to clear debris and scaffolding on the aft section of the port ACE and the immediate Hangar area. [Encl 141, 249, 282, 385, 399]

S. Activation of Supervisor for Salvage Contract Firefighters

180. On 12 July 2020, (b) (6), an officer with NAVSEA 00C (Supervisor of Salvage), observed smoke coming from BONHOMME RICHARD while conducting underwater husbandry operations aboard USS CINCINNATI (LCS-20) at Pier 5. NAVSEA 00C, as the Navy's salvage authority, has the authority to enter into contracts for salvage facilities and operations. Leveraging this authority, (b) (6) contacted her CO, (b) (6), to seek approval and initiate the process to activate US Fire Pump, a firefighting contractor based in Holden, Louisiana. Additionally, she activated Global Phillips Cartner/Emergency Ship Salvage Material (GPC/ESSM), another contractor based out of Naval Base Ventura County, California. GPC/ESSM was tasked to provide large capacity pumps for firefighting water and dewatering. [Encl 34, 316, 403, 404, 405, 406]

181. US Fire Pump, a Navy sub-contractor for salvage services, was called by NAVSEA 00C to assist in fighting the fire aboard BONHOMME RICHARD. US Fire Pump mobilized its team and assets early on the evening of 13 July 2020. US Fire Pump drove trucks non-stop from Louisiana to California with rotating crews. These trucks were loaded with additional equipment to support firefighting efforts on an industrial scale. Additionally, a 13-person team flew via

charter flight with 1000 pounds of firefighting portable equipment, arriving on NBSD at approximately 0050 on 14 July 2020. This team liaised with NAVSEA 00C representatives and developed a plan to assist with the firefighting effort. [Encl 34, 316, 394, 405]

T. Entry and Clearing Efforts in the Subsequent Days

182. From the early morning of 13 July 2020 into the afternoon, firefighting efforts continued. Fire teams advanced from the sideport door and Well Deck throughout the ship. Hotspots in Upper V and Hangar were engaged and extinguished. [Encl 249, 380, 385, 400, 407]

183. Helicopter water drops continued throughout 13 July 2020. Approximately 926 drops were completed on 13 July 2020, focusing on the superstructure. At 0545, the helicopter crews observed the forward mast had collapsed. [Encl 141, 272, 392, 407]

184. MFD (b) (6) 's team returned to BONHOMME RICHARD 4 – 5 times over the course of their 12-hour shift, advancing the monitor nozzle forward as far as the Galley (1-49-0-Q) and Chiefs Mess (1-41-01-L) to establish a staging area for gear (reducing the need for firefighting teams to retreat due to low air by allowing them to exchange bottles within the ship). During this shift, MFD (b) (6) 's team walked through the mess decks and noticed significant portions of the ship had been damaged as a result of the fire spread. [Encl 401]

185. At approximately 1840 on 13 July 2020, a team of four FEDFIRE firefighters and two Navy Sailors engaged a fire in Ship's Laundry (4-73-0-Q). FEDFIRE (b) (6) determined that since the fire was near a machinery space, it was necessary to engage the fire quickly to prevent spread to machinery and fuel spaces. He recalled it was dangerous because hose lines had not been established; it was three decks down from Upper V; and the ladder to the compartment was missing steps. The fire was extinguished, and the team left the hoses and evacuated. [Encl 153, 168, 249, 257, 407, 408]

186. In the evening of 13 July 2020, FEDFIRE requested firefighting assistance from SDFD, as FEDFIRE crews were reaching operational limits from exhaustion and continuous firefighting. SDFD dispatched a Strike Team (consisting of five trucks, five engines, and two battalion chiefs) at approximately 2303; however, once on-scene, a SDFD Chief reiterated that SDFD crews would not go aboard to conduct firefighting efforts. Consequently, FEDFIRE Metro (b) (6) released the SDFD strike team at 2325. [Encl 141, 176]

187. On Tuesday, 14 July 2020, at approximately 0050, the US Fire Pump 13-man fly-away team arrived on-scene. They met (b) (6) (NAVSEA 00C) at the ICP to discuss a way forward assisting in combating the fire. As part of its equipment, US Fire Pump operated a drone capable of capturing infrared imagery. There was an initial delay in receiving Navy and Federal Aviation Administration (FAA) approval for use of the drone in firefighting efforts, and the Coast Guard previously initiated a Temporary Flight Restriction (TFR). CAPT Mark Nieswiadomy, NBSD CO, stated that he released a message to notify personnel that a drone would be used, and once US Fire Pump had received Federal Aviation Administration (FAA) clearance, the drone was employed to provide an additional visual of the fire. CAPT Nieswiadomy stated that any delays experienced were due to obtaining FAA clearance and not

NBSD approval. This drone was subsequently used to identify hot spots for targeted firefighting efforts. US Fire Pump recommended cutting targeted holes in the ship to gain access to compartments with excessive heat or active fire. The first cuts started later that day at approximately 1737. [Encl 34, 141, 249, 314, 392, 394, 407, 409, 410, 411, 412, 413]



Figure 19 show US Fire Pump forward-looking infrared (FLIR) imagery of BONHOMME RICHARD, compared to a standard photograph taken simultaneously by the same drone.

188. Throughout 13 – 14 July 2020, the BONHOMME RICHARD DCA alternated between the ICP, roving the pier, and entering the ship to personally conduct firefighting efforts. On 14 July 2020, RDML Sobeck recommended the DCA remain off the ship, so the DCA could contribute to the “bigger picture” of the firefighting effort. The BONHOMME RICHARD CO specifically directed the DCA not to enter the ship, however, the DCA proceeded into the Hangar to investigate smoke conditions. The DCA stated that his roving efforts were effective and productive. Nonetheless, the ADCA, (b) (6), stated that there was a lack of consistent communication with the DCA throughout the firefighting response. Other BONHOMME RICHARD leaders noted the DCA could not be located for long periods of time, which hampered decision-making during the firefighting effort. At one point during the response, the BONHOMME RICHARD XO directed the DCA to remain at the ICP for DC leadership continuity. [Encl 70, 131, 192, 203, 214, 414, 415]

189. Through 14 July 2020, FEDFIRE firefighters and BONHOMME RICHARD Sailors continued to advance forward up the starboard side of the ship. Reconnaissance teams were dispatched to find excessively hot compartments with firefighters then entering to cool compartments and fight fires. Fires engaged on 14 July 2020 included fires in the forward berthings, the Chiefs Mess, and multiple compartments forward of Frame 57. The forward berthing fires were exceptionally challenging, as temperatures reached 500 degrees Fahrenheit and took several hours and rotations of firefighting teams to extinguish. [Encl 86, 249, 285, 286, 287, 407, 409, 416, 417, 418, 419, 420, 421]

190. At approximately 0945 on 14 July 2020, the SDFD Urban Search and Rescue (USAR) team arrived to assist with conducting hull cuts. While FEDFIRE assisted in making a test cut, FEDFIRE Metro (b) (6) noted the USAR team requested a number of department-required safety precautions prior to conducting cuts, which FEDFIRE did not think were feasible. Consequently, the USAR team was released without making hull cuts. [Encl 176, 193, 363, 422]

191. At approximately 1715, the decision was made to apply AFFF via an indirect attack method; specifically, by cutting a hole in the port side of the ship, as well as several holes in the Flight Deck; then deploying AFFF through those holes into the affected areas. This was done with the assistance of the US Fire Pump, who used a drone equipped with thermal imaging to identify high-temperature areas for access via the Flight Deck. Cuts were made with Navy PECUs above the following spaces: Joint Intelligence Center (02-81-0-C), Ship’s signal exploitation space (02-85-01-C), Supply Officer Office (JIQ) (02-113-1-Q), and Executive Department Office (02-118-0-Q). The first hull cut was completed at 1753 and AFFF was pumped into the space using an inline educator at the 01-Level at Frame 20 at 1755. [Encl 34, 149, 249, 287, 316, 405, 407, 409, 419, 423, 424, 425, 426]

192. Despite coordinated efforts between Navy Sailors and FEDFIRE firefighters, communication problems continued. On 14 July 2020, RDML Sobeck received a report from BONHOMME RICHARD leadership that the “fire was out” in an aft compartment on the ship. However, FEDFIRE teams were actually on the verge of accessing that compartment to extinguish the fire. Based on the BONHOMME RICHARD report, the FEDFIRE team was directed to back out to allow for a contractor to enter the pier and set up equipment. Upon

exiting, a FEDFIRE Chief informed RDML Sobek that the report he had received was erroneous and was authorized to return to the ship and extinguish the fire. [Encl 308, 397]

193. Throughout the firefighting effort, progress throughout the ship was severely hampered by fallen temporary services. The wires left after these services had burned away entangled firefighters and their equipment as they attempted to move through the ship. One FEDFIRE firefighter described the ship as an “entanglement nightmare.” [Encl 161, 257, 427, 428, 429]

194. At 0200 on Wednesday, 15 July 2020, US Fire Pump fire trucks and equipment dispatched from Louisiana arrived at NBSD. US Fire Pump personnel entered the ship for reconnaissance and firefighting efforts. A US Fire Pump engine commenced a continuous spray from a pierside, large-capacity, 3,000 GPM pump, over the Flight Deck, and onto the superstructure. [Encl 34, 188, 316, 394, 405]

195. At approximately 0600 on 15 July 2020, firefighting teams engaged a large fire in the Ship’s Disbursing Office (02-117-2-Q). This fire proved challenging because it was difficult to access and located in an administrative area of the ship, which contained a large amount of class “A” combustibile material. This produced significant steam and smoke in the aft section of the 02-Level of the ship. Responders set negative ventilation prior to attacking the fire. [Encl 189, 249, 257, 272, 407, 430]

196. Another major fire engaged on 15 July 2020 was located in the JIQ (02-81-0-C). Because the JIC is a secure, classified space, it proved difficult for firefighting teams to access the space; further, as the space contained a significant amount of metal, it retained a high degree of heat. Eventually, FEDFIRE (b) (6) led a team accessing the space and conducting overhaul and cooling. Elevated temperatures were detected in the JIC over the next several days, requiring overhaul and cooling on multiple occasions. [Encl 189, 407, 424, 430, 431, 432]

197. At approximately 1910 on 15 July 2020, firefighting teams found a fire in a Troop Washroom/Troop Watercloset (1-7-0-L) full of debris. An initial attempt was made to extinguish the fire with portable fire extinguishers; however, the fire re-flashed, requiring a hose line be reestablished and a hose team dispatched to reengage the fire. This fire was extinguished on 16 July 2020 at 0030. [Encl 189, 249, 257, 272, 407, 424, 430, 433, 434]

198. Through the late evening on Wednesday, 15 July 2020 into the early morning hours of Thursday, 16 July 2020, dewatering and stability efforts began taking precedence. Small teams continued searching for hot spots and additional holes were cut into the ship to provide ventilation and access for introduction of firefighting water and AFFF. At 0800 on 16 July 2020, Navy officials declared all active fires aboard BONHOMME RICHARD out after more than four days of battling the blaze. [Encl 272, 407, 419, 435, 436]

U. Parallel Dewatering and Stability Actions

199. Throughout the firefighting effort, BONHOMME RICHARD gradually developed a starboard list after the introduction of firefighting water. Starting on 13 July 2020, dewatering teams entered BONHOMME RICHARD to remove firefighting water and stabilize the starboard

list. Several teams were brought in with P-100 portable dewatering pumps but were unable to keep the pumps operational. At 1037 on 13 July 2020, dewatering operations halted due to operational issues with the P-100 pumps, which stemmed from both material readiness and a lack of training on their operation. [Encl 385, 399, 407, 437, 438, 439, 440, 441, 442]

200. BONHOMME RICHARD's list was tracked by various entities, including NAVSEA 00C, ECC, EOC, and NSIRC. NAVSEA 00C recognized early in the firefighting effort that stability and dewatering would need to be addressed and informed the BONHOMME RICHARD CO of the capabilities NAVSEA 00C could bring to bear in this area. [Encl 316, 437, 438]

201. Reports that BONHOMME RICHARD was experiencing longitudinal bending stress prompted executive-level visibility on the stability and dewatering efforts. The BONHOMME RICHARD CO stated that he fielded frequent calls from senior personnel at NAVSEA inquiring about BONHOMME RICHARD's stability status and directing him to "fix" the hogging, which created a distraction from ongoing firefighting efforts. The reports of a hogging condition were ultimately the result of inaccurate draft readings; ultimately, it was later determined that a hogging condition had never occurred. [Encl 82, 131]

202. By the morning of 13 July 2020, BONHOMME RICHARD had a 2.5-degree starboard list. NAVSEA 00C began developing a ballasting plan and made a recommendation to the ICP to slowly fill one port side ballast tank at a time to counter the list. From 13 July 2020 to 14 July 2020, no ballasting was conducted; however, dewatering efforts continued in flooded spaces. Spaces of concern, where several feet of water were reported, included: DC Central (5-79-0-C), Ship's Laundry (4-73-0-Q), Starboard Uptake (4-81-1-Q), Main Engine Room number two (6-81-0-E); and, Lower V (3-49-0-A). [Encl 249, 286, 287, 316, 399, 437, 438, 441, 443, 444, 445, 446]

203. At approximately 1430 on 15 July 2020, active ballasting efforts began filling ballast tanks 7-125-2-W and 4-105-2-W on the port side of the ship. Dewatering and ballasting efforts were tracked on a dry erase board in the ICP command tent, along with personnel entering to combat the fire, SCBA times, draft markings, and fire locations. Space and tank surveys were taken but did not account for the continuous application of firefighting water. Contrary to the NAVSEA 00C recommendation to fill one tank at a time, logs showed that at 1514 on 15 July 2020 four tanks were simultaneously filled. Ballasting teams reported being directed to open voids and fill tanks with firehoses as well. Further, several members from USS BOXER (LHD-4) were directed to the Well Deck to fill ballast tanks. [Encl 52, 273, 316, 377, 438, 444]

204. The starboard list peaked at approximately 6 degrees on 13 July 2020. From 14 July 2020 to 15 July 2020, the starboard list ranged from 4.5 to 1.5 degrees and gradually trended toward a smaller list with sporadic increases due to continuous helicopter water drops. [Encl 272, 286, 392, 424, 438]

V. Rapid Shift from Starboard to Port List Leads to Another Evacuation

205. At approximately 2030 on 15 July 2020, BONHOMME RICHARD experienced a rapid shift from a 2.1-degree starboard list to a 4.9-degree port list. The following ballast tanks were

being filled at the time, with their sounding levels as follow: 4-105-2-W (10%), 4-109-2-W (100%), 7-121-8-W (98%), 4-113-2-W (90%), and 4-117-2-W (25%). This rapid shift occurred within approximately 90 seconds. During the shift, several firefighting teams were aboard. The shift prompted teams to be evacuated and BONHOMME RICHARD was deemed not safe to return aboard until 2215. [Encl 189, 249, 316, 392, 409, 430, 433, 434, 447, 448]

206. This shift in list was exacerbated by the free surface effect of firefighting water, which remained in the 01 and 02-Levels of the ship. While there was no danger of capsizing, the rapid shift placed firefighters and personnel on scene at risk due to the shifting of equipment and debris. Personnel tracking the list at the ICP were surprised the list shift occurred. [Encl 111, 189, 405, 409]

207. (b) (5)

208. Following the list shift on 15 July 2020, NAVSEA 00C assumed control of all dewatering effort, and all dewatering actions were subsequently approved by the NAVSEA 00C representative on-scene. [Encl 316, 405, 449]

W. ESG-3 Declares the Fire Out

209. In the afternoon of Thursday, 16 July 2020, RDML Sobeck convened a press conference and announced the fires aboard BONHOMME RICHARD were out, though dewatering and overhaul efforts continued. [Encl 272, 450]

210. As stern gate operations continued, a tertiary command post was established in the Well Deck, and firefighting attack teams began advancing from the Well Deck into Upper V and beyond to conduct overhaul. [Encl 272]

211. Overhaul, re-flash, and dewatering efforts continued for the next several days, including during the CNO's visit on Friday, 17 July 2020. Several spaces, including the Supporting Arms Coordination Center (SACC) (02-65-3-C) and JIC (02-81-0-C), exceeded temperatures of 200 degrees Fahrenheit and required periodic cooling up to five days after the fire was declared out. [Encl 189, 249, 392, 430, 451, 452]

212. At 0113 on 17 July 2020, NCFD returned to assist and relieve FEDFIRE. FEDFIRE (b) (6) made a personal phone call to NCFD to assist his crews with clearing the Hangar area. NCFD (b) (6) and Truck 34 cleared several large piles of ash that were difficult to extinguish and assisted in overhauling a space on the port side of the ship. NCFD departed at 0602 on 17 July 2020. [Encl 156, 422, 453]

213. Numerous BONHOMME RICHARD Sailors, FEDFIRE firefighters, and other responders stated in interviews that Coronavirus Disease-2019 (COVID-19) did not impact their response to the fire. As the response transitioned to a sustained effort, strengthened COVID-19 mitigation

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measures were implemented, such as additional sanitization of SCBA masks in a mixture of hand sanitizer and water. [Encl 73, 134, 136, 138, 149, 153, 164, 187, 202, 204, 221, 300, 307, 315, 332, 335, 340, 347, 355, 357, 360, 369, 371, 377, 414, 454, 455, 456, 457]

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Section II: Command and Control Structure

A. Division of Responsibility for BONHOMME RICHARD Through Phases of Ship's Availability

Responsibility for USS BONHOMME RICHARD (LHD-6) lies primarily with its Commanding Officer (CO). However, several other organizations have responsibilities relating to execution of the ship's availability per the U.S. Navy Regulations, OPNAVINST 5400.45, OPNAVINST 11320.23G, OPNAVINST 3440.18, and the 8010 Manual.

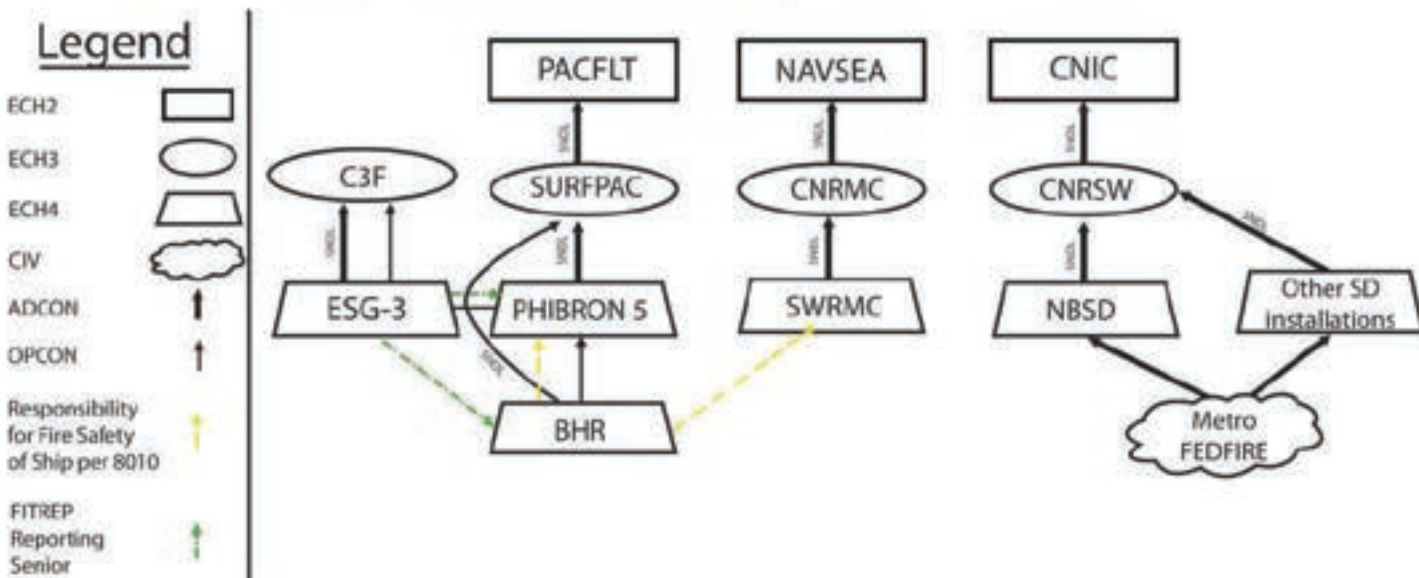


Figure 20 depicts the various command and supporting relationships related to BONHOMME RICHARD fire safety during its availability.

214. Per OPNAVINST 5400.45, BONHOMME RICHARD is an echelon 4 command under the Administrative Control (ADCON) of Commander, Naval Surface Force Pacific Fleet (CNSP), an echelon 3 command. CNSP is ADCON to Commander, U.S. Pacific Fleet (PACFLT), an echelon 2 command. [Encl 142]

215. (b) (5) [Redacted]

216. Additionally, although ESG-3 is not in BONHOMME RICHARD's ADCON chain of command, the Required Operational Capabilities and Projected Operational Environment for Expeditionary Strike Group Staffs (ROC/POE) requires ESG-3 to support the Type Commander

(TYCOM) (in this case, CNSP) on fleet maintenance issues. Specifically, ESG-3 is responsible to the “TYCOM for material, training, and administrative readiness of ships assigned,” to include oversight of the Maintenance & Material Management System (3M) program. ESG-3 is also the reporting senior for both the BONHOMME RICHARD CO and CPR-5 Commodore’s periodic Fitness Reports (FITREP). [Encl 72, 142, 458, 459]

217. BONHOMME RICHARD is under the direct Operational Control (OPCON) of PHIBRON-5. PHIBRON-5 is then OPCON to ESG-3, an operational echelon 4 command. For both OPCON and ADCON, ESG-3 reports to Commander, U.S. THIRD Fleet (C3F), an operational echelon 3 command, who then reports to COMPACFLT. [Encl 72, 82]

218. On 12 March 2020, ESG-3 sent a naval message to C3F and CNSP shifting BONHOMME RICHARD’s Immediate Superior in Command (ISIC) from PHIBRON-1 to PHIBRON-5. This message listed the justification for this ISIC shift as “TRAINING/MAINT OVERSIGHT.” [Encl 461, 462]

219. Southwest Regional Maintenance Center (SWRMC), an echelon 4 command, reports to Commander, Navy Region Maintenance Center (CNRMC), who oversees operations of all Regional Maintenance Centers (RMCs). [Encl 321, 463]

220. Although BONHOMME RICHARD and SWRMC do not have an official reporting relationship, the 8010 Manual requires coordination between BONHOMME RICHARD and SWRMC, as the Naval Supervising Activity, on all fire safety decisions for the ship while in an availability. SWRMC CO, CAPT David Hart, assessed that the BONHOMME RICHARD CO bears ultimate responsibility for the ship’s fire safety and CNRMC also assessed that in the end, the ship’s CO owns any risk arising out of the 8010 Manual not being fully implemented. Per paragraph 2.1.2.4 of the 8010 Manual, the assignment of a SWRMC Fire Safety Officer to a ship undergoing an availability in no way relieves the ship Commanding Officer of responsibilities as prescribed in the U.S. Navy Regulations. [Encl 321, 463]

221. CNRMC, an echelon 3 command, reports to Naval Sea Systems Command (NAVSEA), an echelon 2 command. CNRMC is also dual-hatted as Director for Surface Ship Maintenance and Modernization (NAVSEA 21), which is a department within the echelon 2 NAVSEA command. [Encl 463]

222. Though CNRMC is SWRMC’s ISIC, CNRMC does not control the funding of SWRMC billets or expenses. This funding, instead comes from CNSP mission-related funding. [Encl 463, 464, 465]

223. NBSD, an echelon 4 command, reports to Commander, Navy Region Southwest (CNRSW) for both ADCON and OPCON purposes. NBSD CO is responsible for Port Operations, Emergency Management (EM), Anti-Terrorism Force Protection (ATFP), Facility Management, and F&ES programs. Per the U.S. Navy Regulations, OPNAVINST 3440.17A, and CNICINST 3440.17, the NBSD CO has the authority and responsibility to protect personnel, equipment, and facilities ashore and may direct tenants and visiting commands both afloat and ashore on matters concerning EM and ATFP. [Encl 72, 466]

224. Per OPNAVINST 11320.23G, the FEDFIRE Metro Chief is administratively responsible to the CNRSW FEDFIRE Chief and is operationally responsible to the Commanding Officers of Naval Base San Diego (NBSD), Naval Base Coronado (NBC), Naval Base Point Loma (NBPL), and Marine Corps Recruit Depot (MCRD). [Encl 188, 193, 314, 348, 363]

225. CNRSW, an echelon 3 command, is ADCON to Commander, Navy Installation Command (CNIC). Per CNICINST 5450.6 CNRSW is responsible to organize, man, train, and equip assigned naval installations operating support functions and infrastructure, which includes some assistance toward Chief of Naval Operations (CNO) availabilities occurring onboard naval installations. [Encl 463]

226. Under OPNAVINST 5450.339, CNIC is assigned ADCON of CNRSW, with this administrative authority extending to resourcing (budget submission and execution) and alignment of shore installation management policies and procedures. Additionally, CNIC is responsible for manning, training, and equipping support functions for the Navy Regions, including Base Operations Support (BOS), infrastructure management, ATFP, safety, EM, F&ES, facilities, civil engineering, nuclear weapons incident response, and common BOS enabling and information technology services. [Encl 240, 467, 468, 469]

227. Per USFF AT OPORD 3300-17 and OPNAVINST 5450.339, CNICINST 3440.17, Commander, U.S. Fleet Forces (USFF) is the ISIC for operational employment of Navy region commanders within the continental United States, and all subordinate Navy shore installations within the U.S. Northern Command (USNORTHCOM) Area of Responsibility (AOR) to include ATFP and EM functions. [Encl 469]

B. Incident Response Command and Control

This sub-section addresses the relationship between various Office of the Chief of Naval Operations (OPNAV), Commander, Navy Installation Command (CNIC), and Naval Sea Systems Command (NAVSEA) references; consequently, several paragraphs lack enclosures. While this constitutes a deviation from the traditional JAGINST 5800.7G investigation format, the investigation team determined an explanation of these key references is necessary to understand subsequent facts and opinions.

228. During his interview, COMNAVSEA, VADM William Galinis assessed that one of the key issues identified after the BONHOMME RICHARD fire was how the various responding organizations were organized for command and control. [Encl 470]

229. Despite the creation of the 8010 Manual to serve as a “single source” document for requirements relating to the response to fires aboard Navy vessels during industrial work, several other Navy instructions still provide applicable policy guidance on casualty response procedures for the various organizations responsible for supporting a casualty response. Figures 21 through 24 depict the multiple command and control structures that apply to casualty response procedures. [Encl 470, 471]

230. The Navy Installation EM Program, OPNAVINST 3440.17A, dated 1 August 2014, governs all hazards emergency response and applies to all Navy regions and installations within the United States. OPNAVINST 3440.17A requires the use of the command and control construct identified in the National Incident Management System (NIMS) and the Incident Command System (ICS) for all hazards emergency response on naval installations. "All hazards" is defined by DoDI 6055.17 and Presidential Policy Directive 21 as "defined by DoDI 6055.17 as "Defined in PPD-21." PPD-21, or Presidential Policy Directive 21, defines "all hazards" as "a threat or an incident, natural or manmade, that warrants action to protect life, property, the environment, and public health or safety, and to minimize disruptions of government, social, or economic activities." The Navy Installation EM Program serves to integrate the Navy's response to emergencies into the larger National construct established by NIMS, the NRP, and the National Preparedness Goal. While OPNAVINST 3440.17A excludes from its application nuclear casualty reactor accidents and incidents, the instruction does not address major shipboard non-nuclear casualty incidents. [Encl 471]

231. In accordance with the requirement from OPNAVINST 3440.17A for CNIC to develop a comprehensive, all-hazards EM program and Navy Regions and Installation, the Navy Installation EM Program, CNICINST 3440.17 establishes policy and program guidance for preparing "all-hazards" emergency management onboard Regions and Installations. See Figure 21 for the command and control structure under CNICINST 3440.17.

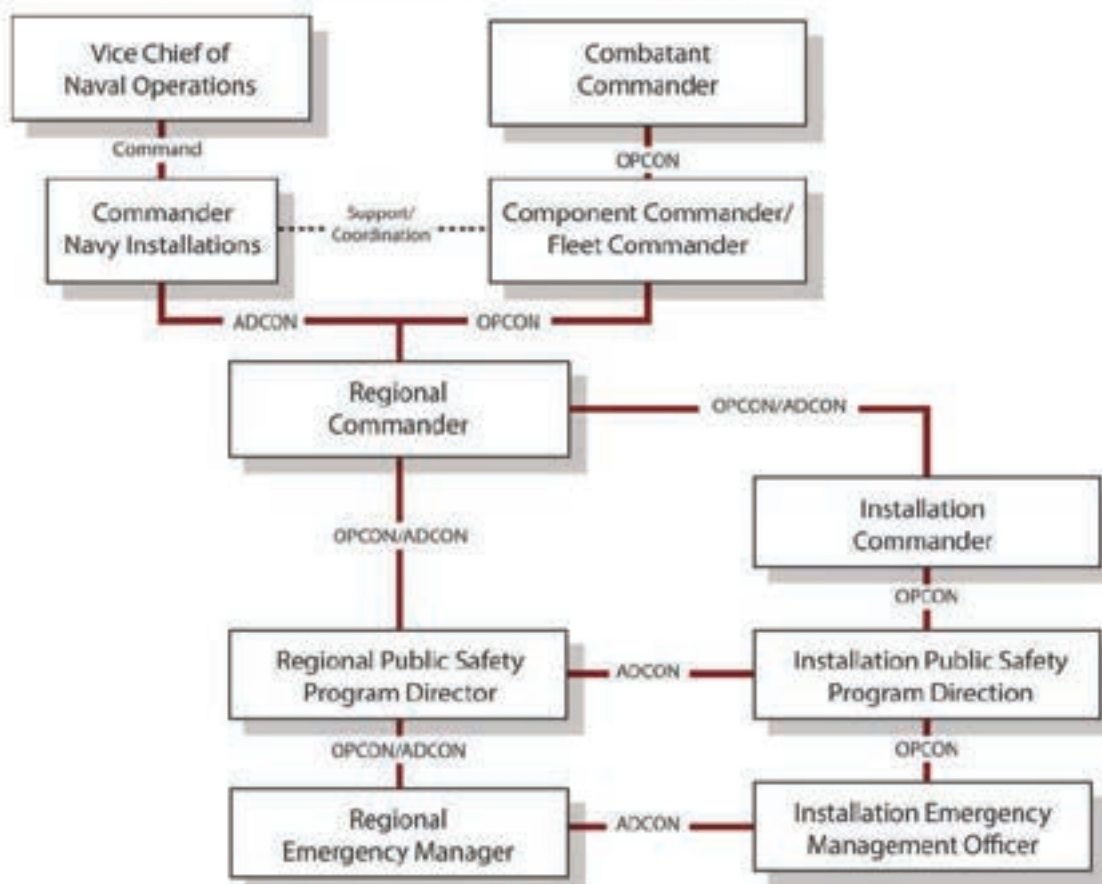


Figure 21. Command Structure for Navy Installation Emergency Management Program per CNICINST 3440.17.

232. Under NIMS and the ICS, the Incident Commander (IC) is defined as being in charge of the incident site and is responsible for all decisions to manage the incident, including tactical planning and execution. The Incident Command Post (ICP) is the location from which the IC oversees operations. An ICS organization may be expanded into a unified command to bring together incident commanders representing agencies or jurisdictions with shared responsibility for the incident.

233. Per CNICINST 3440.17, and consistent with OPNAVINST 3440.17A, the installation Emergency Operations Center (EOC) is responsible for supporting the IC or Unified Commander (UC) during emergencies with resource management support and establishing strategic/operational-level objectives, as necessary. The EOC coordinates and liaises with local, other service, and/or private sector entities. Per OPNAVINST 3440.17, the installation commander exercises OPCON of installation forces and allocates resources from the Installation EOC.

CNICINST 3440.17: NIMS establishes ICS as a standard incident management organization with five functional areas —command, operations, planning, logistics, and finance/administration — for management of all major incidents. To ensure further coordination, and during incidents involving multiple jurisdictions or agencies, the principle of unified command has been universally incorporated into NIMS. This unified command not only coordinates the efforts of many jurisdictions, but provides for and assures joint decisions on objectives, strategies, plans, priorities and public communications.

234. OPNAVINST 3440.18 establishes an emergency response command structure for major shipboard non-nuclear casualties while in port at a U.S. naval installation or at a U.S. ship repair or construction activity. OPNAVINST 3440.18 provides that the ship’s CO serves as the IC for in-hull actions, or the “in-hull incident commander,” supported by a fire department senior fire chief.

235. OPNAVINST 3440.18 states that it applies to “major shipboard non-nuclear casualties and all hazards incidents on ships.” The instruction defines “all hazards incidents” as “any incident, natural or manmade, that warrants action to protect the life, property, health, and safety of personnel.” The instruction defines “major shipboard non-nuclear casualty” as “any major shipboard incident (e.g., major fire, flooding, and weapons casualty) that could result in significant injuries, major equipment damage, or which may result in any member of the general population exceeding exposure limits of hazardous constituents.”

236. OPNAVINST 3440.18 defines responsibilities for primary commanders, area or unified area commanders, custodial commands, and supporting commands. Prior to the BONHOMME RICHARD fire, none of the primary commanders, to include PACFLT and USFF, elected to designate area commands and establish required responsibilities under OPNAVINST 3440.18. The instruction, however, provides for default area command designations, which are in effect “unless otherwise designated by the primary command.” In the absence of a formal designation by the primary commander, the installation and naval supervising authority COs are designated as the unified area command for ships in an availability at a U.S. naval installation other than a public shipyard. [Encl 472, 473]

237. Though OPNAVINST 3440.18 does not discuss the role of the installation EOC during a major shipboard non-nuclear casualty, the instruction states that the unified area command (which includes the installation commander and the naval supervising authority commander) “should be co-located in a single operations center” and should operate under a unified structure with an integrated emergency response organization.

238. OPNAVINST 3440.18 states that it does not apply to shipboard casualties threatening naval facilities or the installation population, in which case OPNAVINST 3440.17A applies. OPNAVINST 3440.18 provides that installation commands “retain response authority for the non-shipboard aspects of all-hazards incidents, consistent with [OPNAVINST 3440.17A].” OPNAVINST 3440.18 does not delineate what “non-shipboard aspects of all-hazards incidents” would fall under OPNAVINST 3440.17A as opposed to OPNAVINST 3440.18.

239. Although the instruction states it does not apply to casualties threatening the installation population, OPNAVINST 3440.18 directs the Area Commander to take various actions “ashore” and “on-base,” such as “taking immediate action to minimize the effect of the casualty, including protection of life and property ashore.” Additionally, the instruction directs the Area Commander to “[i]f appropriate, determine and direct on-base protective and precautionary actions, such as directing on-base personnel to remain indoors or move upwind of the casualty.” Additionally, OPNAVINST 3440.18 does not reference NIMS or the ICS for all hazards casualty response processes and procedures for ashore and on-base activities.

240. The 8010 Manual, which predates OPNAVINST 3440.18, also delineates command and control for a shipboard fire while a ship is undergoing an availability. Per the 8010 Manual, the ship’s CO or designated representative (i.e., the Ship’s Duty Officer) is in charge of the actions inside the ship at all times and therefore, per NIMS, is the IC. The 8010 Manual also refers to the ship’s CO as the in-hull IC.

241. Per the 8010 Manual, the in-hull IC, with the support of the F&ES Chief/Senior F&ES Officer, is responsible for the safety, accountability, and well-being of the integrated F&ES, SF, and mutual aid firefighting resources. The in-hull IC also directs “off-hull” actions “until establish[ment] of the on-scene incident command,” which is led by the Ship Repair and/or Construction Activity (SRCA). This “off-hull incident command” construct is not discussed in OPNAVINST 3440.18.

Incident Management Structure for Shipboard Fire Emergency

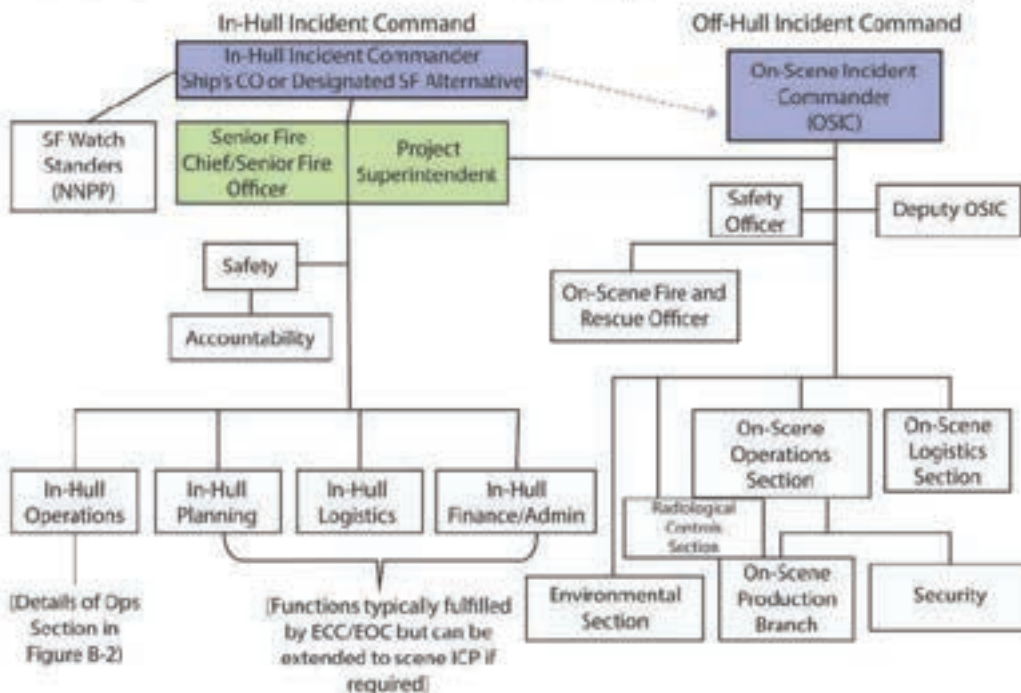


Figure 22. Incident Management Structure per the 8010 Manual.

242. SWRMC’s Fire Response Plan (FRP) further defines the incident command structure for a shipboard fire emergency while a ship is undergoing an availability. (See Figure 23 below). The FRP also defines the role of SWRMC’s Emergency Command Center (ECC) and provides for an “off-hull” incident command, as discussed in the 8010 Manual, but in contrast to OPNAVINST 3440.18, which does not describe an off-hull incident command. [Encl 474]

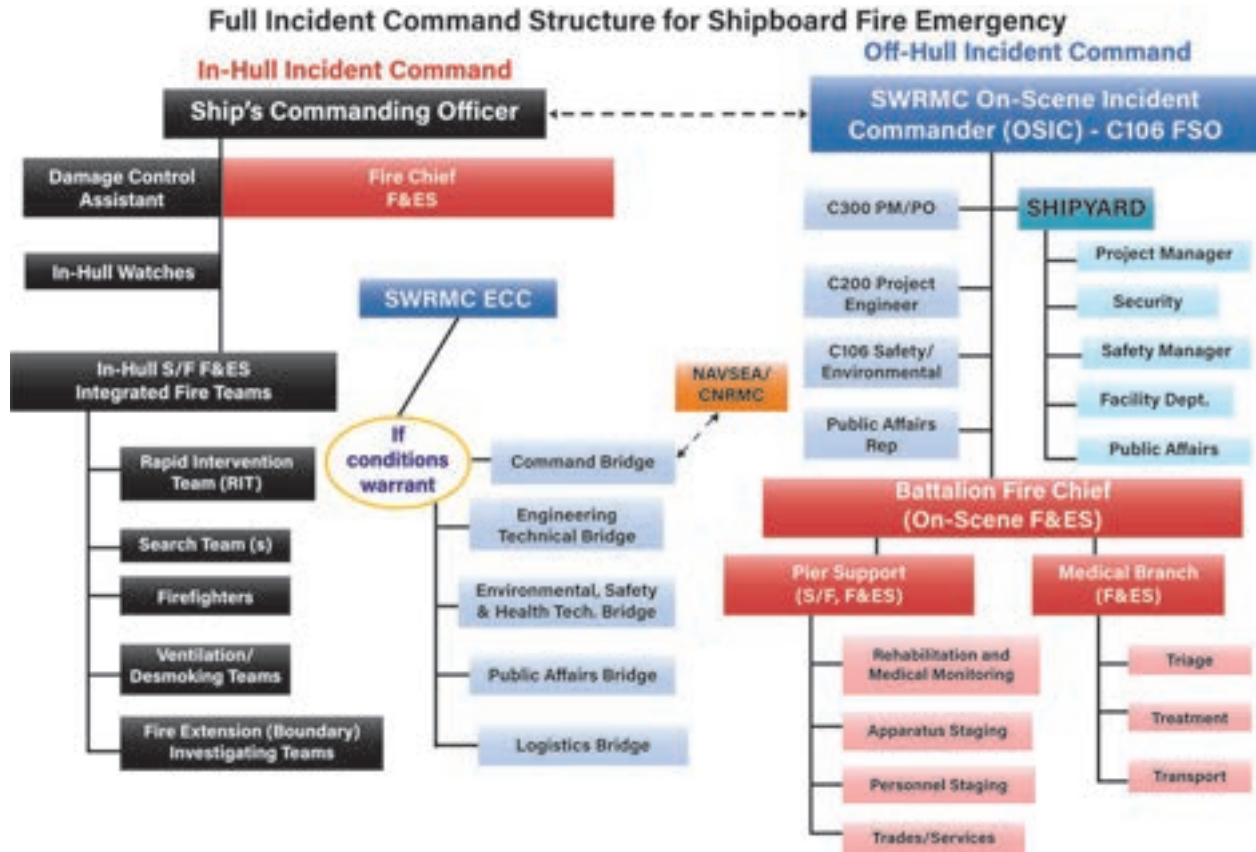


Figure 23, Full Incident Command Structure for Shipboard Fire Emergency per SWRMCINST 5100.11C (Fire Response Plan).

243. OPNAVINST 11320.23G also provides guidance on “F&ES Incident Command for Shipboard Incidents.” In contrast to the 8010 Manual, OPNAVINST 11320.23G does not identify the ship’s CO as IC or in-hull IC. Instead, OPNAVINST 11320.23G states that “the F&ES incident commander directs firefighting operations, equipment, resources, and personnel for combating the fire and provides tactical firefighting direction as required. The F&ES officer shall be responsible for the accountability and safety of all shipboard emergency responders when assisting the ship’s forces with the emergency.” However, OPNAVINST 11320.23G recognizes the ship CO “retains absolute responsibility for the safety of his or her command, except when he or she may be relieved by competent authority.” Additionally, the instruction states further that the initial response and overall control of a pierside shipboard emergency response is normally retained and overseen by the CO and his or her Damage Control (DC) organization as defined by the ship’s FRP. Finally, OPNAVINST 11320.23G states that the Navy F&ES department shall provide support to the ship, as required, for firefighting and related emergency functions.

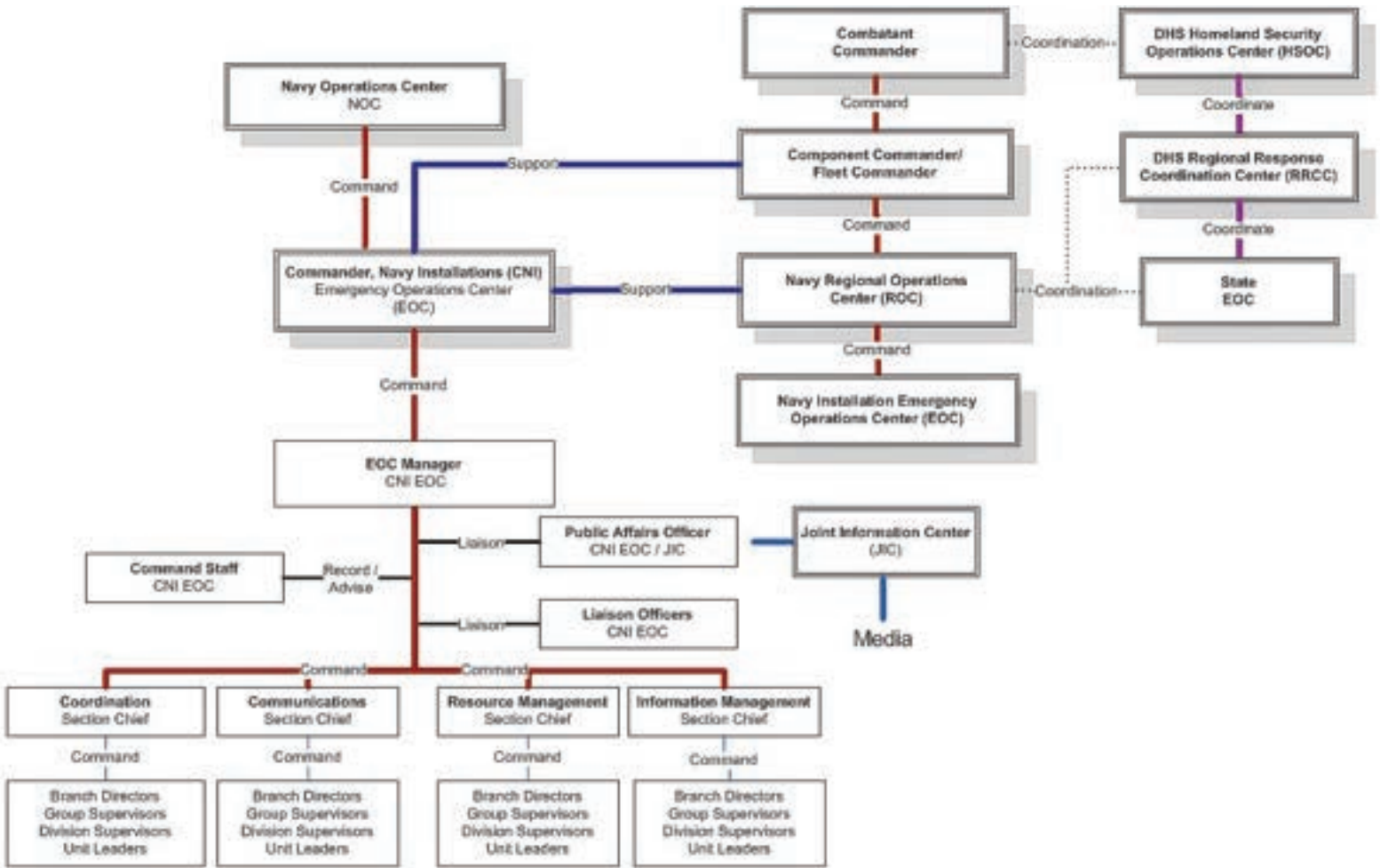


Figure 24, EOC structure per CNICINST 3440.17.

Section III: Ship's Force Execution and Compliance with Programs, Policies, and Procedures Pertaining to Fire Prevention and Casualty Response

A. Availability Overview

244. In December 2017, Naval Sea Systems Command (NAVSEA) solicited a contract for repair and alterations aboard BONHOMME RICHARD for the Fiscal Year (FY) 2018 Docking Phased Maintenance Availability (DPMA). On 4 September 2018, the contract was officially awarded to General Dynamics National Steel and Shipbuilding Company (NASSCO) as a firm-fixed price contract 62 days before the scheduled availability start date on 5 November 2018. [Encl 190, 475, 476]

245. BONHOMME RICHARD began its availability on 5 November 2018 at Naval Base San Diego (NBSD). BONHOMME RICHARD later docked at the NASSCO shipyard on 23 June 2019 through 18 December 2019. On 19 December 2019, BONHOMME RICHARD returned to NBSD Pier 2 to complete the rest of her availability. [Encl 477]

246. Although the original BONHOMME RICHARD availability end date was originally set as 15 March 2020, the availability was extended until 15 May 2020 and then extended a second time to 12 July 2020. [Encl 478, 479, 480]

247. At the time of the fire, BONHOMME RICHARD was approved for a third availability extension to December 2020 by the Commander, U.S. Pacific Fleet (COMPACFLT). The Southwest Regional Maintenance Center (SWRMC) Branch Head responsible for overseeing contracts was awaiting the final contract extension paperwork. [Encl 480, 481]

248. As of 6 July 2020, BONHOMME RICHARD reported 86.8 percent of actual progress completed against 94.8 percent of planned progress with the following significant maintenance milestones completed:

- a. AC Plant Restored (2 of 4 Ready to Operate): 8 March 2020
- b. Combat Systems Production Complete Date (CSPCD): 27 March 2020
- c. Firemain Restored: 1 April 2020
- d. All Tank Work Complete: 8 April 2020
- e. Auxiliary Machinery Room (AMR) Work Complete: 8 April 2020
- f. Fuel Ship: 9 April 2020
- g. Boiler Work Complete: 20 May 2020
- h. Sea Water Cooling System Restored: 1 June 2020
- i. Collection Holding Transfer (CHT) Tanks System Restored: 24 June 2020

j. Potable Water System Restored and Sanitized: 26 Jun 2020

k. Aft Machinery Room Work Complete: 3 July 2020

[Encl 477]

249. The following maintenance milestones were outstanding as of 6 July 2020:

a. Low Pressure (LP) /High Pressure (HP) Air Systems Restored and Pressurized

b. Forward Machinery Room Work Complete

c. Engineering Plant Production Completion Date (PCD)

d. Habitability Work

e. Combat Systems Alignment

f. Engineering Light-Off Assessment (LOA)

g. Hot Plant Testing

h. Dock Trials

i. Sea Trials

[Encl 477]

250. In the week preceding the fire (5 – 12 July 2020), a major focus of effort on BONHOMME RICHARD was restoring habitability to support the movement of approximately 100 Sailors from the berthing barge to the ship. [Encl 130, 220, 482, 483, 484]

251. To support crew move-on, NASSCO had restored potable water, CHT, and chill water. Medical spaces were almost completed and the BONHOMME RICHARD Commanding Officer (CO), CAPT Gregory Thoroman, and Executive Officer (XO), (b) (6), had both conducted walkthroughs of the berthings where Sailors would be residing. [Encl 82, 131, 220]

252. The Galley, multiple heads, and various ventilation and berthing sinks were not yet operational as of 12 July 2020. Engineering berthing had no hot water available and were moved to Troop Berthing. [Encl 82, 91, 130, 201, 220, 482, 483, 485, 486]

253. The BONHOMME RICHARD CO and XO both stated that the crew had to vacate the berthing barge and move back aboard the ship because the berthing barge would be relinquished in mid-July 2020 to support USS ABRAHAM LINCOLN (CVN-72). [Encl 82, 131]

254. The BONHOMME RICHARD CO spoke with the CAPT David Hart, SWRMC CO, and (b) (6), SWRMC Project Manager (PM) for LHA/LHD class ships, about a potential berthing barge extension, but he was informed it would be impossible. The BONHOMME

RICHARD CO further stated that he would have delayed the crew move aboard date if he had known he could have received an extension on the berthing barge from the COMPACFLT Berthing Barge Coordinator. [Encl 82, 487]

255. The Hazardous Materials (HAZMAT) program had been taken off BONHOMME RICHARD prior to 12 July 2020, and with HAZMAT lockers on the ship inoperable, HAZMAT was required to be issued and stored on the pier. [Encl 131, 199]

256. On 12 July 2020, self-defense load out was kept aboard consisting of 7.62 millimeter (mm), 5.56mm, 9mm, and .50 caliber ammunition rounds. [Encl 488]

B. Physical and Functional Responsibilities for Ship Spaces

257. The BONHOMME RICHARD XO stated that he was aware of non-skid work being conducted in the Hangar, however, he did not realize that several pieces of equipment had been moved to the Lower Vehicle Stowage Area (Lower V) from the Hangar. He also did not recall the Upper Vehicle Stowage Area (Upper V) being overly cluttered. [Encl 131]

258. (b) (6), the NASSCO PM for BONHOMME RICHARD, stated that there was Aqueous Film Forming Foam (AFFF) work being conducted in Upper V, which required overhead staging. The work was completed, and the system was being restored. [Encl 236]

259. The NASSCO PM for BONHOMME RICHARD stated that Lower V was a week or two from being "returned" to the ship, but a deck socket weld repair had to be conducted before turnover. The repair was scheduled to begin on 13 July 2020. [Encl 236]

260. According to the NASSCO PM for BONHOMME RICHARD, when ship spaces were undergoing maintenance performed by NASSCO, the ship still used spaces in some circumstances. Space "ownership" would be transferred to the ship when all contractor work in a space had been completed. A housekeeping walkthrough would be conducted within the space, and full custody would then be turned over to the ship. [Encl 236, 489, 490]

261. BONHOMME RICHARD Repair Division (ER09), which included the ship's Fire Marshals, held daily divisional quarters in Lower V during the work week, including the morning of 10 July 2020. (b) (6) stated that on 10 July 2020, Lower V was "jam-packed" with large boxes (tri-walls), a man-lift, and a couple forklifts. [Encl 61, 62, 260, 491]

262. (b) (6), the BONHOMME RICHARD Deck Department Head, and (b) (6), Leading Chief Petty Officer (LCPO), stated that while Upper V and Lower V spaces belonged to deck department, these spaces had not yet been turned over from the contractor. Neither were aware whether or not AFFF stations in Upper V and Lower V were operational on 12 July 2020. [Encl 261, 492, 493]

263. The Deck Department Head explained that personnel did not always request permission from the deck department to stow gear in Lower V, and many departments instead coordinated

gear stowage through the Duty Department Heads or Command Duty Officer (CDO). [Encl 261, 494]

264. The Deck Department Head stated that NASSCO was required to coordinate through BONHOMME RICHARD personnel to handle Ship's Force equipment and material. He stated that he had neither received any reports nor requests to move equipment in Lower V. [Encl 261]

265. (b) (6), the BONHOMME RICHARD Air Department Head, stated that NASSCO routinely moved equipment without informing Ship's Force. He raised this concern with the NASSCO and SWRMC PMs. [Encl 495]

266. The Deck Department Head was the BONHOMME RICHARD CDO on 10 July 2020. On that day, most of the equipment staged in the Hangar was moved to Lower V to facilitate preservation and non-skid work. Equipment was moved approximately two weeks prior to the fire; however, equipment was also continuously moved from the Hangar to Lower V. [Encl 261]

267. The Hangar laydown spaces were controlled by the BONHOMME RICHARD Air Department Head, who ensured other Department Heads moved their equipment to the appropriate location immediately after the equipment was brought aboard. In June 2020, material staged in the Hangar began to be moved into Upper V and Lower V to prepare for non-skid replacement in the Hangar. [Encl 204, 243, 294, 495, 496]

268. The Deck Department Head recalled that he observed drums in Upper V and Lower V, but he was not certain of their contents. He stated that if he had encountered lube oil in his spaces, he would have discussed this with (b) (6), the Chief Engineer (CHENG), or (b) (6), the Damage Control Assistant (DCA). The Deck Department Head said he would have had to approve the presence of lube oil in his spaces and create a risk mitigation plan, which would then be approved by the CO or XO. [Encl 261]

269. The Deck Department Head stated that prior to assuming duty as the CDO on 10 July 2020, and also before going to bed during his duty day, he walked spaces and checked the security of the Well Deck, Upper V, Lower V, Flight Deck, and pier. [Encl 261]

270. The Deck Department Head stated that after his duty day on 10 July 2020, the arrangement of some of the equipment in Lower V had been altered. Between Saturday, 11 July 2020 and the morning of Sunday, 12 July 2020, the equipment in Lower V had likely been moved to create space, because he last remembered the forklifts being in the forward port corner of the space, but he saw they were located on the starboard side following the fire. He also stated that the tri-walls were not double stacked on his duty day but were double stacked after the fire. [Encl 261]

271. The Deck Department Head could not recall requirements regarding AFFF and fueled equipment storage in Lower V. He approximated there were 30 pallets in Lower V, 10 – 15 tri-walls for the engineering department, shackles for the deck department, Quarterdeck equipment, two paint punts, pilot's ladder, dollies for the weapons department, and various ropes and lines. [Encl 261]

272. (b) (6), the BONHOMME RICHARD Amphibious Air Traffic Control Officer (AATCO), was the BONHOMME RICHARD CDO on 11 July 2020. When he conducted CDO turnover with the Deck Department Head on 11 July 2020, he stated that he did not recall any information during the turnover regarding obstructions or movement of gear in Upper V or Lower V. [Encl 192]

273. The AATCO stated that he conducted a walkthrough of the ship on 11 July 2020, which included Upper V, where he noticed significant amounts of contractor equipment and lockers on the starboard side of the space. He did not access Lower V on 11 July 2020 and did not see anyone operating forklifts. He also stated that he was not aware of any official constraints for storing fueled equipment. [Encl 192]

274. The AATCO did not observe 55-gallon lube oil drums in Upper V on 11 July 2020. When asked how he would have responded if he had seen oil drums in Upper V, he responded that would have immediately reported this discrepancy to the Duty Section Leader and directed a member of deck department to address the improper storage issue. [Encl 192]

275. The Deck Department LCPO recalled both Upper V and Lower V being “crammed full of stuff.” Although the spaces were turned over to NASSCO, he did not have control over what was stored in the spaces. He stated that he voiced his concerns to his chain of command at the daily morning production meetings. [Encl 493]

276. The Deck Department LCPO stated that Upper V was full of contractor scaffolding due to overhead repairs. He recalled the deck being covered in plywood, and he also recalled 55-gallon drums. He stated that Lower V was packed with equipment, including tri-walls, forklifts, pallets, Damage Control (DC) equipment, and hazardous waste and material. [Encl 493]

277. (b) (6), a BONHOMME RICHARD Deck Department Chief Petty Officer (CPO), stated that the deck department owned the vehicle storage spaces, including Upper V, Lower V, and Well Deck. He recalled Upper V mostly having NASSCO materials and scaffolding. He also described Lower V as being used for contractor storage as well as deck equipment and other department equipment organized in tri-walls. [Encl 87]

278. (b) (6) stated that Lower V was used as storage for the contractors as well as some of his deck equipment and equipment from other departments. [Encl 87]

279. (b) (6) stated that there were too many items in Lower V, and although he could physically move about the space, there was an egress issue. He raised concerns about the amount of equipment stowed in Lower V to NASSCO representatives at a daily production meeting, but he did not recall to whom he spoke. [Encl 87]

280. Zone inspections were conducted weekly aboard BONHOMME RICHARD throughout 2020 to meet the quarterly minimum inspection requirements for each zone per the COMNAVSURFORINST 3120.1. The CO and XO were both actively involved in the zone inspection program. Zone inspections continued to be conducted in 2020 with Coronavirus

Disease-2019 (COVID-19) mitigations. [Encl 82, 90, 119, 130, 204, 245, 493, 497, 498, 499, 500]

281. On 18 March 2020, a Lower V zone inspection was completed and graded “unsatisfactory” (UNSAT). Numerous discrepancies were listed related to DC items, including missing Carbon Dioxide (CO2) or Potassium Bicarbonate (PKP) bottles as well as AFFF hoses. Though some were annotated as having been corrected, many DC discrepancies were notated as “ER09 notified” in the action block without any further follow-up. [Encl 501, 502]

282. On 18 March 2020, an Upper V zone inspection was completed and graded UNSAT. Similar discrepancies were listed related to DC items, including missing CO2 or PKP bottles as well as AFFF hoses. Though some were annotated as having been corrected, many DC discrepancies were notated “ER09 notified” in the action block, similar to what is reflected in Figure 25. Specifically, a missing fire hose on the port side of Upper V (Frame 68 in the vicinity of the port sideport door) was one of ten additional discrepancies listed on the back page of the inspection sheet (See Figure 26), however, there was no documentation of any follow-up action for the 10 discrepancies indicating whether the missing hose discrepancy was corrected. [Encl 501, 502]

283. Follow-up actions for the 18 March 2020 Upper V and Lower V zone inspections were signed by the Deck Department Head on 17 April 2020, but did not include any of the back page discrepancies, including a missing fire hose at Frame 68 in Upper V. [Encl 502]

Zone Inspection Discrepancy List

ZONE K11	DATE 18 MAR 20	LOCATION 3-490-A - Upper Vehicle Storage
WORK CENTER D861	(b) (5)	(b) (6)
WORK CENTER SUPERVISOR (b) (5)	(b) (6)	(b) (6)
SAFETY OFFICER (b) (5)	EXECUTIVE OFFICER (b) (5)	COMMANDING OFFICER CAPT G. THOROMAN
GRADINGS	SATISFACTORY	UNSATISFACTORY
SAFETY	x	
DC		x
PREPARATION		x
CLEANNESS	x	
OVERALL		x

CAT	DEFICIENCY (PRINT LEGIBLY)	ACTION OR OMMS JSN	DO INITIALS
DC	Missing CD + Stashed		
DC	PKP Bottle missing tag		
DC	Missing CD sticker		
DC	Corrosion on Y-Gate 3-52-3		
DC	Missing Sponyord wrenches xt)		
DC	Improper Stow it for these		
DC	FR 51 Broken Sprinkler Head		
G	FR 51 Light fixture missing hardware		
G	Broken AFFF 2-41-3 Label		
DC	Looping on Hot water Sp/return		
DC	3-41-2 Fire hose Nozzle Corroded		
DC	3-41-2 Missing Sponyord wrench		
DC	2-41-8 CD Bottle rusty, missing tag		
P	Frame 49 "All" Piping Strains/Paint		
P	Frame 41 center line corrosion sound		
DC	PKP temp for Basin D7-56-4		
E	Cableing Brackets FR 51		
DC	FR 52 part Sponyord wrench missing		
E	Missing Cable iden tag FR 51 part		
E	PCS-03 Box Hanging Part FR 53		
G	Exhaust Screen Reptice FR 53 part		
E	Corrosion wiring part FR 53		
P	Corroded Rebarbed/Fixture FR 53		
FOR UNSAT SPACES		DEPARTMENT HEAD SIGNATURE	DATE

ZONES GRADE THAT IS OVERALL UNSATISFACTORY MUST BE RE-INSPI CTED BY DEPARTMENT HEAD.

Figure 25 shows the front page of the Zone Inspection Discrepancy List for Upper V assessed on 18 March 2020.

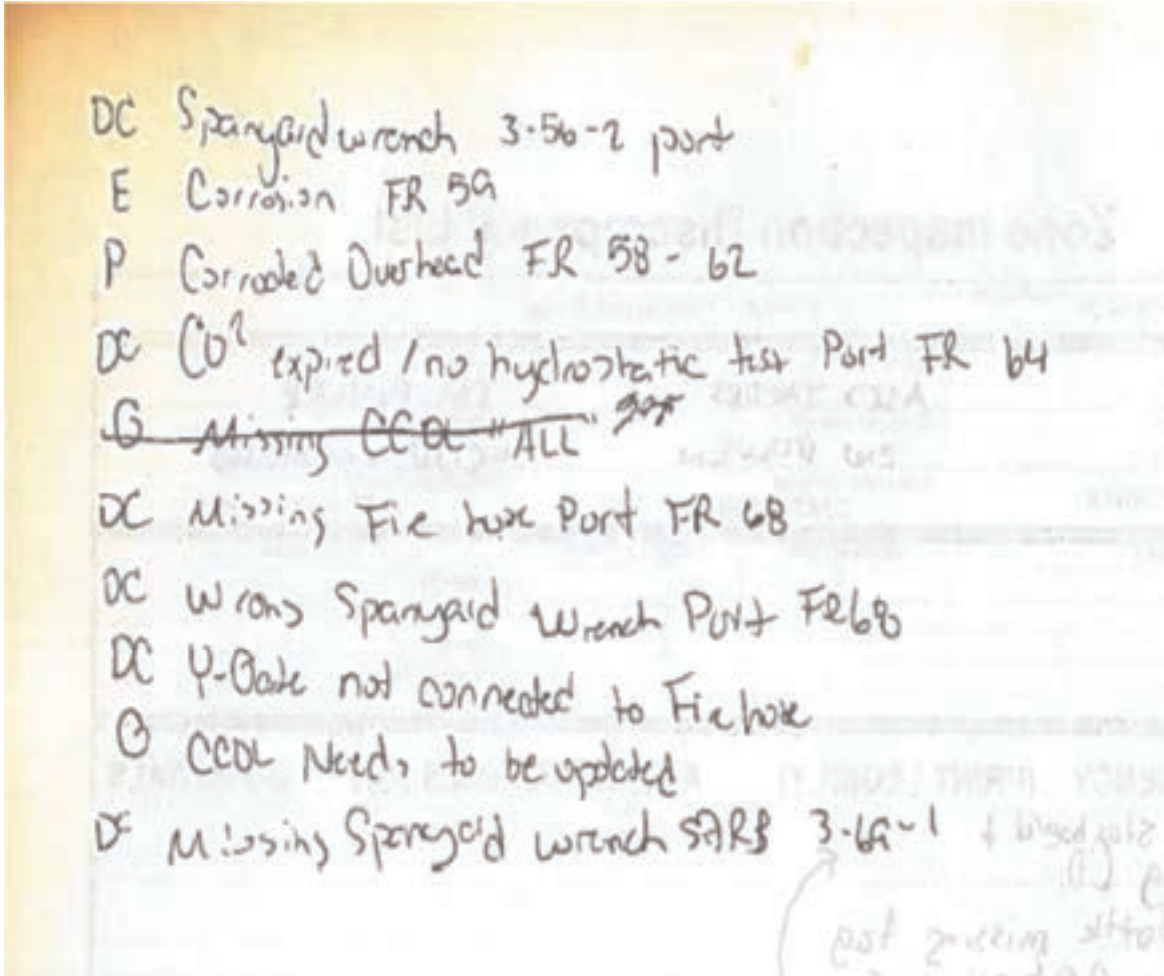


Figure 26 shows the back page of the Zone Inspection Discrepancy List for Upper V assessed on 18 March 2020.

ZONE INSPECTION DISCREPANCY LIST

ZONE K11	DATE 18MAR20	LOCATION 3-49-0-A - UPPER VEHICLE STORAGE		
WORK CENTER DB01	INSPECTOR (b) (6)	RECORDER (b) (6)		
WORK CENTER SUPERVISOR (b) (6)	DIVISION OFFICER (b) (6)	DEPARTMENT HEAD (b) (6)		
SAFETY OFFICER (b) (6)	EXECUTIVE OFFICER (b) (6)	COMMANING OFFICER CAPT THOROMAN		
GRADE	SATISFACTORY	UNSATISFACTORY	CAT LEGEND	
SAFETY	X		2 - Safety	
DC		X	3 - DC	
PRESERVATION		X	4 - Electrical	
CLEARANCE	X		5 - General/Other	
OVERALL		X		
CAT	DEFICIENCY (PRINT)	ACTION OR OMS JSN	DO INITIALS	
D	MISSING CO2 STBD	CORRECTED		
D	PKP BOTTLE MISSING TAG	ER09 NOTIFIED		
D	MISSING CO2 STICKER	CORRECTED		
D	CORROSION ON Y-GATE	CORRECTED		
D	MISSING WRENCHES X2	CORRECTED		
D	IMPROPER STORAGE OF FIRE HOSE	CORRECTED		
D	FR 51 BROKEN SPRINKLER HEAD	CORRECTED		
G	LIGHT FIXTURE MISSING HARDWARE	CONTRACTOR WORK		
G	PAINY ON APFF LABEL 2-49-5	CORRECTED	(b) (6)	
D	LAGGING	A-DIV NOTIFIED		
D	FIRE BOX NOZZLE CORRODED	CORRECTED		
D	MISSING SPANNER WRENCH	CORRECTED		
D	CO2 BOTTLE MISSING TAG	ER09 NOTIFIED		
G	FRAME 49 ALL PIPING STEPCILS	DB01 1903		
G	FRAME 49 CENTERLINE SOUND POWERED PHONE CORROSION	CORRECTED		
E	CABLING BRACKETS PORT LOOSE	DB01 1903		
G	FRW 52 PORT SPANNER WRENCH MISSING	CORRECTED		
E	MISSING CABLE ID TAG	CONTRACTOR WORK		
E	PCS BOX HANGING PORT FR 53	CORRECTED		
G	EXHAUST SCREEN REPLACE	DB01 1903		
E	CORROSION WING PORT FR 53	DB01 1903		
G	CORRODED DOORHEAD/FIREMAIN	DB01 1903		
	FOR UNSAT SPACES	DEPARTMENT HEAD SIGNATURE	DATE	

ZONE'S GRADE THAT IS OVERALL UNSATISFACTORY MUST BE RE-INSPECTED BY DEPARTMENT HEAD.
(Revised 2/18)

Enclosure (1)

Figure 28 shows the front page of the Zone Inspection Discrepancy List for Upper V assessed on 18 March 2020, with typed discrepancies listed.

284. The next scheduled Upper V and Lower V zone inspection was on 20 May 2020; however, the investigation team was unable to review these inspection records, as all zone inspection records from April through July 2020 were destroyed in the fire. [Encl 500, 503, 504]

285. The 20 May 2020 Deck Department Eight O’Clock report listed Upper V and Lower V spaces in IEM (Inactive Equipment Maintenance) status with a remark stating, “[p]reservation in progress.” More recent reports were lost in the fire. [Encl 505]

C. Damage Control Equipment Status

286. The BONHOMME RICHARD Engineering Log records from 10 July 2020 until 0826 12 July 2020 were lost in the fire. The CHENG also noted within the Engineering Log that events listed from 0826 – 0913 were (b) (6), the Engineering Duty Officer (EDO) recollection of that day’s events. The last official Engineering Log entry prior to the fire was 2359 on 09 July 2020. [Encl 99, 506]

287. For the log records that were not destroyed by the fire, Ship’s Force did not consistently maintain them in a manner that reflected the current status of systems. For example, damage control logs did not record all damage control equipment status and active damage control repair stations did not match what Ship’s Force understood as current. [Encl 150, 296, 337, 379, 383, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517]

Emergency Diesel Generators – Back-up Electric Power

288. On 12 December 2018, both BONHOMME RICHARD Emergency Diesel Generators (EDG) were tagged out for maintenance, leaving BONHOMME RICHARD without a backup power source to the fire pumps beyond primary provided shore power. [Encl 214, 518]

289. The Lead Maintenance Activity (LMA), NASSCO, did not provide a diesel generator as a backup power source. The Naval Supervisor Authority (NSA), SWRMC, did not enforce the NAVSEA Standard Item requirement to provide the generator. Neither group was aware of the NAVSEA requirement, which historically had been performed in other availabilities without a backup power source. For the BONHOMME RICHARD availability specifically, the PM, (b) (6), and LHD Class Team Lead, (b) (6), stated that they were unaware of this

FY18 CHI NAVSEA Standard Item 009-07 3.16

Provide a portable 300KW diesel generator with associated cables, lugs/plugs to supply emergency power during transits to and from dry dock when ship’s emergency power cannot be used or anytime during the availability that the craft’s power is not available as an emergency back-up to installed shore power.

requirement. The SWRMC CO was also not aware of requirements in the NAVSEA Standard Items for providing backup power and stated that he did not know if SWRMC had acknowledged the risk of not having backup power, or at what level this risk would have been acknowledged. The BONHOMME RICHARD CO was also unaware of the requirement to have an additional source of power. [Encl 82, 190, 220, 236, 321, 519]

290. Repairs on both EDGs remained ongoing throughout the availability. Situation Report (SITREP) 88 dated 10 July 2020 reported that the EDG bellow’s flange gasket replacement was in-progress with repairs occurring within four weeks upon receipt of material. Engineering Logs from 9 July 2020 listed both EDGs as Out of Commission (OOC). Of note, BONHOMME

RICHARD submitted a Departure From Specification (DFS) on 9 July 2020 for both EDGs. [Encl 337, 506, 520, 521]

Ship's Firemain

291. BONHOMME RICHARD, while located at NBSD, secured ship's firemain system and all associated fire pumps on 11 February 2019. NASSCO established a temporary firemain system on the ship with fire trees and an independent diesel-powered pump providing firefighting water from San Diego Bay. The temporary firemain was continued at NASSCO shipyard and a smaller temporary system was installed for transiting to and from NBSD.

The firemain system includes 12 fire pumps (8 electric-driven 1000 Gallons- Per-Minute (GPM) pumps and 4 steam-driven 2000 GPM pumps) providing seawater at 175 Pounds-Per-Square-Inch (PSI) to the firemain loop, which distributes seawater to fireplugs, AFFF stations, and sprinkling system nozzles. Fire Pumps 1 – 4 are located in the forward Fire Pump Room (6-45-0-E) and Fire Pumps 9 – 12 are located in aft Fire Pump Room (5½-97-01-E). Fire Pumps 5 – 8 are steam-driven and located in the Main Machinery Rooms (MMR).

[Encl 82, 131, 220, 522, 523]

292. The BONHOMME RICHARD CHENG and DCA stated that NASCCO's temporary fire pumps remained after arriving at Pier 2 in December 2019 and until the ship's firemain was restored several weeks later. [Encl 203, 219, 524]

293. NASSCO removed its temporary fire trees and fire pumps on 6 January 2020. [Encl 236, 525]

294. The NASSCO PM for BONHOMME RICHARD and (b) (6), Assistant PM, stated that BONHOMME RICHARD satisfactorily tested a fire pump in January 2020 and received concurrence from the BONHOMME RICHARD CHENG and DCA before removing temporary firemain. [Encl 220, 236]

295. BONHOMME RICHARD Engineering Logs recorded a single fire pump as having started and stopped three times on 20 December 2019: once on 21 December 2019 and twice on 23 December 2019. Not a single fire pump was recorded as remaining online continuously pressurizing the firemain until 27 December 2020. [Encl 526]

296. After BONHOMME RICHARD returned to NBSD, the NASSCO temporary fire system consisted of fire trees charged by two pumps and a generator in Upper V. These were not continuously running and thus, firemain was not constantly pressurized. Sailors received training on operating the pumps, and in the event of an emergency, a Fire Marshal was expected to run to Upper V and start the pumps. (b) (6), Repair Division LCPO, stated that he originally considered this arrangement as being safe prior to the fire, but he no longer held this opinion during his interview. This system was the sole fire protection system available from 19 – 27 December 2019. [Encl 173, 415, 526, 527, 528, 529, 530, 531]

297. SWRMC reported to the investigation team that BONHOMME RICHARD was without temporary or ship supplied firemain 19 December 2019 – 5 January 2020, countering the above fact. The available firefighting system for this time period was reported as being limited to portable firefighting equipment available on or near the ship. [Encl 529]

298. On 6 January 2020, the BONHOMME RICHARD Fire Safety Council (FSC) documents the ship's firemain as having been restored with hot work commencing. There is no supporting documentation of operational testing or Planned Maintenance System (PMS) completion included in the FSC meeting minutes. [Encl 532, 533]

299. BONHOMME RICHARD had an original work package to inspect and overhaul 27 firemain valves, but this grew to 83 valves during the availability. Because of significant lead-time to procure new valves, a decision was made to reinstall valves failing inspection in an "as is" condition due to the amount of time remaining in the availability being less than the time required to procure and install any replacements. This left the system in a better condition than it had been, but not "fully repaired." [Encl 220]

300. The Repair Division LCPO stated that some firemain valves were reinstalled without repair, and as a result, some leaked and many could not be remotely operated. [Encl 415, 530, 531]

301. In their periodic availability SITREP, BONHOMME RICHARD identified firemain as having been restored on 1 April 2020. [Encl 534]

302. Four steam fire pumps were not online during the availability and were scheduled to be operationally tested after boiler light-off during dock trials. BONHOMME RICHARD relied on 7 of 8 electric fire pumps or temporary firemain during the availability. [Encl 506, 518, 526]

Fire Pumps

303. The 29 June 2020 NASSCO BONHOMME RICHARD DPMA System Restoration brief listed 7 of 8 electric fire pumps as either operational or as having the operational test as completed and turned over to Ship's Force. [Encl 506]

304. The BONHOMME RICHARD Engineering Log on 9 July 2020 listed 7 of 8 electric fire pumps as being available for use with Fire Pumps 11 and 12 online. [Encl 99]

305. The BONHOMME RICHARD DC Central Log from 12 July 2020 listed Fire Pumps 11 and 12 as the running fire pumps in the equipment status block. [Encl 535]

306. The BONHOMME RICHARD Engineering Log indicated the ship shifted online Fire Pumps 1 and 4 to Fire Pumps 11 and 12 on 25 June 2020. Fire Pumps 11 and 12 remained logged as online through 12 July 2020. [Encl 379, 508]

307. Aligning Fire Pumps 11 and 12 online limits firemain availability throughout the ship. Anytime the ship is configured in material Condition Yoke or Zebra, firemain valves are closed, separating the starboard and port firemain loops. Because Fire Pumps 11 and 12 are both starboard pumps, firemain pressure could only be supplied to the starboard loop. [Encl 511, 536]

308. When presented with a diagram of the ship's firemain system after the fire, BONHOMME RICHARD DC leadership confirmed the limitation of Fire Pumps 11 and 12 restricting firemain to the starboard side of the ship during material condition Yoke. [Encl 243, 415, 496, 530, 531]

309. Multiple Duty Fire Marshals were unable to correctly describe the status of the firemain system aboard when presented with the same diagram of the ship's firemain system after the fire. They incorrectly described material conditions, stating that while at material condition Yoke, all X-Ray and Yoke designated valves would be in the open position. [Encl 61, 62, 171, 174]

310. Fire Pumps 11 and 12 operate from the 4S and 5S Switchboard, which connects to the aft shore power station. In the event of an electrical power loss in the aft part the ship, both pumps would be secured and would require operators to manually restart the pumps at their location after Automatic Bus Transfers (ABT) shift to operate from forward power. [Encl 99, 131, 219]

311. The Repair Division LCPO (who had been Sick in Quarters (SIQ) and had been off the ship since 28 May 2020) stated that normal firemain alignment would have one fire pump running forward and another running from aft with one of these pumps supplying the starboard firemain loop and the other supplying the port firemain loop. [Encl 415, 530, 531]

312. The DC Central 0000 entry for 12 July 2020 reported Fire Pumps 11 and 12 were online. Eight entries between 0038 and 0740 reported firemain pressure was at exactly 200 PSI. [Encl 517]

Fire Stations

313. The most recently available BONHOMME RICHARD IEM logs were those recorded in 25 June 2020. These records indicated 187 of 216 ship's fire stations (87.5%) had been remaining in an IEM status since 25 January 2020. BONHOMME RICHARD CO, XO, and CHENG were unaware of the number of fire stations that remained in IEM at the time of the fire. [Encl 61, 62, 131, 219, 247, 537, 538]

314. Only 29 fire stations onboard BONHOMME RICHARD were in an active status on the day of the fire. The investigation team was unable to obtain records to identify the location of these 29 fire stations. [Encl 537]

315. (b) (6), the ER09 Leading Petty Officer (LPO), stated that ER09 had recently started to replace old fire hoses and gaskets with brand new hoses. He estimated approximately 30 fire stations had been restored from IEM by 12 July 2020. [Encl 539]

316. The ER09 LPO stated that the ER09 division was very behind with maintenance and had approximately 1,300 delinquent maintenance checks as of 12 July 2020. [Encl 539]

317. The ER09 Division Officer was unsure how many fire stations were in IEM at the time of the fire, but he estimated that more than 50% were in IEM. [Encl 70]

318. Regarding the BONHOMME RICHARD Maintenance Material Management (3M) program, the BONHOMME RICHARD XO (as the 3M Officer) and the 3M Coordinator (3MC), (b) (6), both reported aboard in November 2019. Upon reporting aboard, the 3MC identified significant discrepancies with the 3M program. In particular, he discovered that BONHOMME RICHARD had entered the availability without an IEM plan and that over 13,000

pieces of equipment were in IEM, without an established plan for restoring the equipment to an operational status. [Encl 131, 425]

319. The 3MC noted that while Department Heads should report the status of their IEM equipment to the 3MC, he did not receive this information from the engineering department, and that for that department, IEM did not seem to be a “top concern.” After reviewing the 3M program, the 3MC discovered that the majority of BONHOMME RICHARD’s fire stations, DC equipment, and Damage Control Repair Stations (DCRS) were still in an IEM status, and he reported his concerns with this discovery to the CHENG and DCA. [Encl 425]

320. The 3MC noted that during monthly Planning Board for Maintenance (PB4M) meetings, topics generally consisted of depot-level work and Casualty Reports (CASREP), but did not include any discussion about equipment IEM status. The 3MC stated that he spoke with the XO about establishing a monthly sit-down with the ship’s Department Heads to discuss IEM. In his interview, the XO stated that he received a weekly briefing on IEM restoration to track progress towards the ship’s upcoming Damage Control Material Assessment (DCMA). However, he also stated that he was unaware that approximately two-thirds of BONHOMME RICHARD’s fire stations were in IEM on 12 July 2020. [Encl 131, 425]

321. In March 2020, (b) (6), the ER09 Repair Parts Petty Officer (RPPO), was assigned to a lead a team of three Sailors to bring fire stations out of IEM status and replace every fire station with new hoses. The ER09 RPPO stated that the team initially focused on the engineering spaces, and the Upper and Lower V stations were not yet addressed at the time of the fire. Approximately two weeks before the fire, he observed on a duty day that the fire stations in the Upper V were dirty and likely not recently maintained. He estimated “hundreds” of stations were still in IEM at the time of the fire. [Encl 110, 484, 540]

322. According to the ER09 RPPO, it was common to find fire stations with dirty or even missing hoses because most fire stations did not have periodic maintenance performed since the beginning of the availability in November 2018. He recalled that on or about 26 June 2020, he was tasked to repair a fire station on the 01-Level that was identified as having two dedicated hoses on the racks but detached from the Wye Gate. He recalled finding a third hose was attached to the Wye Gate, with three or four other hoses on the floor in a pile, which he assessed was caused by contractors. [Encl 110, 540]

323. Placing fire stations in lay-up requires an associated maintenance check; however, there is no record of lay-up maintenance checks being performed between 28 October 2019 and 4 July 2020. [Encl 541]

324. Fire stations within the Hangar, Upper V, and Lower V areas require monthly scheduled maintenance checks once placed in service and taken out of IEM/lay-up status. [Encl 541]

325. BONHOMME RICHARD maintenance records show:

- a. No maintenance occurred on any fire stations between 28 October 2019 and 5 February 2020.
- b. February 2020: maintenance performed on 16 fire stations.
- c. March 2020: maintenance performed on 29 fire stations.
- d. April 2020: maintenance performed on 19 fire stations.
- e. May 2020: maintenance performed on 14 fire stations.
- f. June 2020: maintenance performed on 5 fire stations.
- g. July 2020: no records of maintenance on fire stations.

[Encl 541]

326. Of note, no maintenance was recorded on any stations in Upper V and Lower V. [Encl 541]

327. Records indicate all fire stations in Upper V and Lower V remained in IEM status at the time of the fire. Shortly after the fire, a Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) examination revealed that on Fire Station 4-53-2, located in Lower V along the compartment's centerline near the Lower V ramp, the fire hoses were not connected to the station's Wye Gate, which would have prevented rapid operation. [Encl 5, 83, 541]

328. DC leadership on BONHOMME RICHARD stated that fire stations in IEM should still be operational and used, even if periodic maintenance was not performed. [Encl 70, 203, 539]

329. On 14 May 2020, a cut fire hose with a missing brass nozzle fitting was identified on a fire station in Upper V. (b) (6), the CDO at the time, and (b) (6), the ADCA, stated that the cut hose and suspected theft of the brass nozzle were discussed at a morning maintenance meeting. The fire hose was replaced shortly thereafter. [Encl 46, 82, 131, 542, 543, 544]

Aqueous Film Forming Foam System

330. The BONHOMME RICHARD Engineering Log on 9 July 2020 listed AFFF Stations 1, 2, 5, and 6 as Out of Commission (OOC). [Encl 99]

331. The 29 June 2020 NASSCO BONHOMME RICHARD DPMA System Restoration brief listed AFFF Stations 2, 3, 4, and 5 as having no further contractor work. AFFF Stations 1 and 6 each had remaining work with an estimated completion date of 6 July 2020 and 10 July 2020, respectively. [Encl 506]

The AFFF system consists of six AFFF pumping stations, which support numerous sprinkling systems and hose stations via a main loop. The AFFF system protects numerous spaces throughout the ship to include the engineering plants, Flight Deck, Hangar, fueled vehicle stowage spaces (Upper V and Lower V), and Well Deck. Remote control and monitoring is provided at the DC Panel in DC Central for all AFFF sprinkling groups and zones.

332. AFFF Stations 3 and 4 were reported online as of 6 April 2020. These pumps were documented as operationally tested satisfactorily in preparation for the fuel onload. [Encl 44, 56, 243, 337, 415, 496, 530, 531]

333. AFFF Stations 3 and 4 are normally configured to provide firefighting coverage via sprinkling and hose reels to the MMRs, AMR, port and starboard sides of Upper V from frames 66 – 92, port side of Lower V from frames 49 – 73, and portions of the Flight Deck. [Encl 415, 530, 531, 545]

334. Any online AFFF station could be cross connected to support other stations by manipulating loop segregation valves if the interconnected piping was in place. This could be accomplished locally at each station or remotely in DC Central via push-buttons. [Encl 546]

335. On 2 July 2020, the BONHOMME RICHARD Engineering Log noted at 1355, AFFF Stations 3 and 4 were placed in “Recirc.” “Recirc” is a valve configuration allowing for recirculation of AFFF concentrate throughout the system without allowing the concentrate to mix with seawater or discharge. The log did not indicate whether AFFF Stations 3 and 4 were restored to a normal valve alignment configuration. [Encl 99]

336. COMUSFLTFORCOMINST 4790.3 Volume 2, Appendix K, page II-I-3K-3, paragraph D (1) states that prior to getting underway “firefighting systems must be completely installed, tested and placed in operating condition before the ship is fueled.” Additionally, 8010 Manual paragraph 7.1.5 requires “the pumping or transfer of liquid fuel onto or within the ship shall not take place without the ship’s permanent firefighting systems protecting all of the fuel system components being operational, or a suitable temporary firefighting system is made available for immediate use in the event of a fire. [Fire Safety Council] FSC concurrence shall be obtained when a temporary system is established for firefighting use in place of the ship’s permanent system prior to fuel pumping or transfer operations.” FSC meeting minutes dated on the same day as the fuel onload — 7 April 2020 — note concurrence with fuel onload without discussing any system availability. [Encl 547]

337. The CPR-5 Chief of Staff (COS), (b) (6), performed walkthroughs of BONHOMME RICHARD as part of oversight responsibilities for the Administrative Control

(ADCON) Immediate Superior in Command (ISIC). He stated that CPR-5 is responsible for certifying a ship has proper safety precautions in place before loading fuel and utilizing the “Safe to Start” requirements referenced in the Ship’s Force Training Manual. [Encl 219, 458, 459, 548]

338. The PHIBRON-5 COS performed an initial pre-fueling walkthrough in March 2020 examining fuel and firemain pipe integrity, valve labeling, eye wash stations, fire stations, AFFF stations, IEM coverage, alarms, access doors, Emergency Escape Breathing Devices (EEBD), quick-acting water-tight doors, markings on doors and ladders, and AFFF hoses and firemain hoses. Throughout this walkthrough, he discovered multiple discrepancies to include tagged out AFFF hoses. As a result of his review, the ship received a “no-go” for onloading fuel. A detailed discrepancy list was e-mailed to the engineering chain of command and XO. [Encl 219, 458, 459, 548]

339. The PHIBRON-5 COS returned several weeks later in early April 2020 for a second pre-fueling walkthrough and noticed improvement. After the PHIBRON-5 COS observed a hanging tag on an AFFF hose reel, the DCA said it needed to be cleared, and the DCA went to find someone to do it. The CPR-5 COS understood AFFF Stations 3 and 4 were available with previous noted discrepancies reported to him as complete. [Encl 459]

340. The BONHOMME RICHARD CHENG directed restoration of AFFF Stations 3 and 4 before the fuel onload because these stations serviced the MMRs. [Encl 219]

341. The BONHOMME RICHARD Engineering Logs recorded that AFFF Stations 3 and 4 were operationally tested as “satisfactory” (SAT) and respectively logged as ready for use on 2 and 6 April 2020. [Encl 337]

342. BONHOMME RICHARD refueling commenced the morning of 7 April 2020. [Encl 337]

343. The 43P1 3M Maintenance Index Page (MIP) for the AFFF Fire Extinguishing System Balanced Pressure Proportioner used by BONHOMME RICHARD is 5551/052-50, which was most recently updated in May 2020. This MIP does not include any maintenance requirements or scheduling aids requiring specific checks be accomplished to place AFFF into an IEM status or conduct start-up maintenance after coming out of IEM. (b) (6), the Technical Warrant Holder (TWH) for Fire Protection Systems and Material Fire Performance (NAVSEA 05P5), explained that NAVSEA did not see a need for these maintenance requirements, because it was not expected that AFFF stations would be taken off-line for long periods. Rather, portions of the systems would be tagged out for specific maintenance actions such as valves being rebuilt. [Encl 191]

344. BONHOMME RICHARD performed the following maintenance on AFFF Stations 3 and 4 when coming out of IEM status:

PERIODICITY	MIP & MRC	DESCRIPTION
Q-1 (Quarterly)	5551/052 37 G2KH N	Inspect and Clear Solenoid Operated Pilot Valves (SOPV)
Q-2 (Quarterly)	5551/052 A7 G2KJ N	Conduct Electrical Operational Test of AFFF System
D-1 (Daily)	5511/052 69 G2JX N	Inspect Balanced Pressure Proportioner System Valve and Electrical Alignment
M-1 (Monthly)	5551/052 15 G2JY N	Test Operation of the Concentrate Pump Assembly Itself Within the Station.

[Encl 56, 243, 415, 496, 530, 531, 549]

345. BONHOMME RICHARD Maintenance Records indicated AFFF Stations 3 and 4 completed the Q-2 and D-1 checks on 6 April 2020. The Q-2 check has mandatory maintenance related to the Q-1, meaning the Q-2 and Q-1 checks must be performed on the same day. The Q-1 was not recorded as complete until the following day on 7 April 2020, in addition to the M-1 check for both stations. [Encl 243, 415, 496, 530, 531, 549, 550]

346. Maintenance Record entries for 6 and 7 April 2020 notated operational testing had been completed on 2 and 3 April 2020 using Q-1/Q-2 and D-1, even though SKED did not record these checks being conducted until 6 and 7 April 2020. [Encl 489, 549]

347. AFFF Stations 3 and 4 supply AFFF to 26 hose reels. 13 of 26 hose reels provide AFFF to either MMR 1, MMR 2, or the AMR. BONHOMME RICHARD recorded performing maintenance on these 13 hose reels, however, records indicated 3 were tagged out, which would have prevented successful completion of the maintenance. Of the 13 remaining reels, 8 are recorded as tagged out, while the other 5 (located in Upper V and Lower V) were in an unknown status, as they did not appear in tag out records, IEM records, nor records of completed maintenance. [Encl 537, 546, 549]

348. BONHOMME RICHARD performed the following maintenance on AFFF Hose Reels 47 – 59 located in engineering spaces. [Encl 549]

PERIODICITY	MIP & MRC	DESCRIPTION
A-9R	5551/052 40 C2CG Y	Visual Inspection of Hose Reels
36-M	5551/052 66 C5UH N	Hydrostatic Test of Hose Reels

349. Both A-9R and 36-M maintenance was recorded as having been completed on 7 April 2020. The manually entered A-9R check noted each state maintenance had been accomplished on 27 March 2020; this information was not captured in SKED. [Encl 549]

AFFF Q-2 Maintenance

350. Maintenance Records indicated on 6 April 2020 that the AFFF Q-2 maintenance check was completed on AFFF Stations 3 and 4 by (b) (6) (Repair Division LCPO), (b) (6) (Repair Division LPO), (b) (6), (b) (6), (b) (6), (b) (6), and (b) (6) (ER04 LPO) and (b) (6) (ER04 Work Center Supervisor (WCS)) also participated in the maintenance. [Encl 56, 443, 446, 499, 549, 550]

351. The Repair Division LCPO stated that the checks took approximately 2 – 3 days per station to complete. This is contrary to the Maintenance Requirement Card (MRC), indicating requirements of 0.6-man hours for MRC Q-1 37 G2KH N and 6.0-man hours for MRC Q-2, A7 G2KJ N. The Repair Division LCPO explained that the Repair Division LPO led the maintenance checks, because the Repair Division LPO had a better understanding of BONHOMME RICHARD layout, and the Repair Division LCPO was still learning during the maintenance accomplishment. [Encl 415, 530, 531]

352. The Repair Division LCPO stated that there was “lots of pressure” to meet the timeline for completing the maintenance checks before fuel onload. On a daily basis, he was asked “why are we behind” by the DCA and CHENG at the engineering khaki morning meetings. [Encl 415, 530, 531]

353. The Repair Division LPO stated that he felt a general pressure from his chain of command, to include the Repair Division LCPO, to complete the checks because of the deadline for the fuel onload. He thought the focus of the check was to ensure the AFFF system was available in the main spaces. [Encl 243, 496]

354. The Repair Division LPO stated that he was given permission from the 3MC to perform an operational check prior to taking the equipment out of IEM over a multi-day period. There is no evidence to corroborate this assertion by the Repair Division LPO. [Encl 243, 496]

355. Completing the AFFF (A7 G2KJ N) Q-2 check requires verifying all AFFF remote activation push-buttons from the AFFF Mimic Panel in DC Central. (b) (6) stated that the console was not energized when the Q-2 maintenance check was completed because the CKT K-2FFF circuit was not connected. He further stated that NASSCO needed to complete the cable connection before his division (Combat Electronics (CE)) could conduct follow-on electrical work to restore the panel to operation. This cable was coiled up underneath a relay box outside the forward Interior Communications (IC) Repair shop, awaiting NASSCO to install. Therefore, the remote activation push-buttons on the DC Console did not work as required by the Q-2 check. [Encl 482, 483]

356. (b) (6) stated that it was possible the AFFF push-buttons on the DC Console in DC Central could have been restored after April 2020, but this would have been highly unlikely without him being notified. [Encl 482, 483]

357. BONHOMME RICHARD Current Ship's Maintenance Project (CSMP) indicates three Job Sequence Numbers (JSNs) were created from 27 June 2018 to 22 May 2020, describing a number of issues with the DC Console, ranging from inoperable switches to faulty relays. [Encl 551]

358. (b) (6) stated that once NASSCO completed their cable connection, his work center, CE-05, would have finished remaining JSNs on the DC Console, to include installing a new relay driver card, repairing an inoperable button, and repairing inoperable pressure meters. [Encl 482, 483, 551]

359. The ADCA stated that either the Repair Division LCPO or Repair Division LPO told him when AFFF maintenance had been completed. The ADCA recalled no discussion of any discrepancies within the system other than having to replace a few bilge sprinkling nozzles prior to fuel onload. The ADCA stated that he notified the DCA of Q-1 and Q-2 AFFF maintenance checks being completed. [Encl 70]

360. The Repair Division LCPO stated in four different interviews that AFFF Stations 3 and 4 were fully up at the time of the fire — the Q-2 check had been completed without discrepancies, and both stations could be activated from all locations. [Encl 415, 530, 531, 552]

361. The Repair Division LPO initially stated that AFFF Stations 3 and 4 were operational, and the Q-2 check had tested "satisfactorily" (SAT). In a follow-on interview, the Repair Division LPO stated that he thought AFFF Stations 3 and 4 were "partially operational at most push-buttons and controlling stations." He acknowledged conflagration station push-buttons were inoperable. He did not know the status of the DC Central buttons. [Encl 243, 496]

362. The Repair Division LPO further stated that the AFFF check should not have been completed in SKED. He stated that he provided a list of discrepancies to the Repair Division LCPO. He also thought the 3MC should have been notified of the discrepancies. He was unaware why the AFFF system was taken out of IEM with discrepancies and did not recall anyone directing him to enter the maintenance check in SKED, nor did he know who ultimately entered the check. He stated that he did not provide his SKED pin for anyone to sign on his behalf. [Encl 243, 496]

363. The Repair Division LCPO stated that during the AFFF check, the Repair Division LPO kept a hand-written record of identified discrepancies. The Repair Division LPO reported minor discrepancies and correction to the Repair Division LCPO. To the Repair Division LCPO's knowledge, all discrepancies, other than a missing hose reel in MMR 1, were fixed prior to fuel onload. [Encl 415, 530, 531]

364. The ER04 LPO stated that AFFF push-buttons worked inside the MMRs, however, the AFFF Mimic Panels inside the ship's major conflagration stations and DC Central were not

operational. These push-buttons were discovered not to have power while performing the Q-2 check. To activate AFFF, an individual would either have to go to the MMRs or open the SOPV for manual AFFF operation. [Encl 499]

365. The ER04 LPO stated that all discrepancies were recorded and provided to the Repair Division LCPO. He was unsure whether the DCA was made aware of the discrepancies. [Encl 499]

366. The Repair Division LCPO stated that during the AFFF checks, he was back and forth between different stations and never physically observed push-buttons being checked in DC Central. He did recall reports of push-buttons being “good to go.” He also recalled (b) (6) assisting with AFFF push-buttons. [Encl 415, 530, 531]

367. (b) (6) stated that the Repair Division LPO informed him, following AFFF testing, that the AFFF remote activation buttons in DC Central did not work. [Encl 482, 483]

368. (b) (6), one of the maintenance personnel recorded in SKED as having performed the Q-2 check, recalled showing other Sailors where the AFFF SOPVs were located. He further stated that he was directed by his WCS, the ER04 LPO, and the Repair Division LPO to sign the maintenance check as completed even if the system was not operational. Furthermore, reports of discrepancies were to be verbally communicated to superiors, rather than listed in SKED. [Encl 553]

369. (b) (6), who was also recorded in SKED as having performed the Q-2 check, did not recall completing either the AFFF Q-1 or Q-2 checks. He further stated that he was trained to sign-off on maintenance checks even if a check could not be completed as written. If there was a problem with the AFFF system, he would verbally report discrepancies to his WCS, the ER04 LPO, and the Repair Division LPO. He did not recall whether he reported any discrepancies concerning AFFF Stations 3 and 4 to his WCS, but noted that if there had been a discrepancy, he still would have signed the check as complete and verbally informed his WCS. [Encl 554]

370. When asked about the AFFF system checks, 3MC stated that no discrepancies were reported to him when the system was brought out of IEM. After reviewing SKED exported check details, he acknowledged the start-up maintenance was not properly conducted. [Encl 425]

371. The Repair Division LPO and ER04 WCS were each awarded Navy Achievement medals by the BONHOMME RICHARD CO for working through the weekend to restore AFFF stations prior to refueling on 7 April 2020. The pertinent sections of the award citations read:

- a. (b) (6) LED 22 DAMAGE CONTROL MEN IN THE CRITICAL AND TIMELY RESTORATION OF AQUEOUS FILM FORMING FOAM STATIONS THREE AND FOUR DIRECTLY SUPPORTING FUEL ONLOAD. HIS PERSISTENCE AND METICULOUS EFFORTS OVERCAME TREMENDOUS OBSTACLES WHILE REVIVING THE FIRST INSTALLED FIRE PROTECTION SYSTEM SINCE ENTERING THE DOCKING PHASE

MAINTENANCE AVAILABILITY PERIOD WITH ZERO DISCREPANCIES. THIS TIMELY SUCCESS ENABLE THE FLAWLESS ONLOAD OF 1.1 MILLION GALLONS OF DIESEL FUEL MARINE, KEEPING USS BONHOMME RICHARD ON SCHEDULE WHILE WORKING AND PROGRESSING THROUGH RESTORATION OF ESSENTIAL SYSTEMS.”

- b. “(b) (6) LED 22 DAMAGE CONTROLMEN IN THE CRITICAL AND TIMELY RESTORATION OF AQUEOUS FILM FORMING FOAM STATIONS THREE AND FOUR DIRECTLY SUPPORTING FUEL ONLOAD. HIS PERISTENCE AND METICULOUS EFFORTS OVERCAME TREMENDOUS OBSTACLES WHILE REVIVING THE FIRST INSTALLED FIRE PROTECTION SYSTEM SINCE ENTERING THE DOCKING PHASE MAINTENANCE AVAILABILITY PERIOD WITH ZERO DISCREPANCIES. THIS TIMELY SUCCESS ENABLE THE FLAWLESS ONLOAD OF 1.1 MILLION GALLONS OF DIESEL FUEL MARINE, KEEPING USS BONHOMME RICHARD ON SCHEDULE WHILE WORKING AND PROGRESSING THROUGH RESTORATION OF ESSENTIAL SYSTEMS.”

[Encl 555, 556]

372. After restoring AFFF, maintenance was not consistently performed. With no explanation provided, daily required maintenance on AFFF Station 3 was not accomplished from 25 – 27 May 2020 and 1 – 14 June 2020 (end of available records). Daily maintenance on AFFF Station 4 was not accomplished from 1 – 7 June 2020 with no explanation. [Encl 549]

373. The Repair Division LPO described his relationship with the Repair Division LCPO as tense because the Repair Division LCPO was too junior for the billet and lacked knowledge required for an LHD DC organization. He described his relationship with the ADCA as good and thought the ADCA was a good officer who tried his best to learn the job that he was “thrown into.” [Encl 243, 496]

374. While discussing maintenance, the Repair Division LCPO stated that there was a high likelihood the Repair Division LPO had given him false reports. Additionally, he thought the Repair Division LPO had been hiding “major things,” so the Repair Division LPO could fix discrepancies without anyone knowing. [Encl 415, 530, 531]

375. Approximately one week before the Repair Division LPO transferred from BONHOMME RICHARD, the Repair Division LCPO discovered the Repair Division LPO had told Sailors in Repair Division to “not talk to Chief” because they would be put on report if they talked to the Repair Division LCPO. The Repair Division LPO also told Sailors he would “handle everything.” [Encl 415, 530, 531]

376. The ADCA said the Repair Division LPO was the only Sailor within his division that he doubted his honesty. The ADCA thought the Repair Division LCPO, the ER04 LPO, and the ER04 WCS were upfront and honest. [Encl 70]

377. The ADCA stated that the Repair Division LPO would wink whenever he told the ADCA work had been completed, and the Repair Division LPO also made jokes about “hiding bodies.” In addition, the ADCA observed the Repair Division LPO not being receptive to criticism, and the ADCA did not know why the Repair Division LPO was selected to CPO in the calendar year 2021 E-7 advancement cycle. In the past, the ADCA had verbally counseled the Repair Division LPO, but did not document any counseling. [Encl 70]

Ship’s Force Awareness of AFFF System Status and Operation

378. After conducting AFFF maintenance in preparation for fuel onload in April 2020, the DCA thought AFFF Stations 3 and 4 could be activated from the DC Console and all remote push-buttons. He also understood the configuration of the stations had various discrepancies with AFFF SOPVs. [Encl 203]

379. The BONHOMME RICHARD CO and XO both thought AFFF Stations 3 and 4 were fully operational without discrepancies at the time of fuel onload and up to the day of the fire. [Encl 82, 131]

380. The BONHOMME RICHARD CDOs had varying understandings of the status of the ship’s AFFF system on 12 July 2020 — ranging from completely offline and unavailable to online and partially available. The daily CDO turnover report did not include the status or updates for firefighting systems. [Encl 169, 192, 261, 485, 557, 558]

381. The EDOs generally understood the AFFF system, at least for Stations 3 and 4, as being online and available as of 12 July 2020. [Encl 17, 81, 167, 173, 242, 245, 260, 264, 559, 560].

382. Junior ER04 members had conflicting understandings of the AFFF system’s availability and/or function. For example, (b) (6) was a fireman assigned to repair division as well as a Sounding and Security Watchstander who had qualified as an AFFF station operator; he understood AFFF was not available on his duty day, 11 July 2020. [Encl 553, 554, 561]

383. (b) (6), the assigned Inport Emergency Team (IET) AFFF operator on 12 July 2020, understood the AFFF system was “100% up and available,” meaning fully functional without discrepancies and capable of being operated from the conflagration stations. [Encl 44]

384. (b) (6), the DC Watch Supervisor on 12 July 2020, stated that he thought AFFF was completely inoperable on the day of the fire. [Encl 55]

385. DC Logs (maintained by the DC Watch Supervisor in DC Central) had a section listing “Major Damage Control Equipment Out of Commission.” The 0000 entry for 12 July 2020 only listed DCRSs and Aqueous Potassium Bicarbonate (APC) in the Galleys as OOC. No mention of AFFF systems, fire stations, halon, etc. was listed. [Encl 517]

386. The majority of those interviewed from the BONHOMME RICHARD crew considered the AFFF system to be being largely unavailable on 12 July 2020. [Encl 19, 64, 85, 105, 118, 214, 376, 380, 486, 490, 493, 498, 561, 562, 563, 564]

387. (b) (6) and (b) (6), SWRMC Contractor Fire Safety Officers (CFSOs), both stated that the AFFF system was tagged out or down on 12 July 2020 and thus, not available for use. [Encl 565, 566, 567]

388. According to the SWRMC CO, BONHOMME RICHARD's AFFF system was tagged out and not available for use at the time of the fire. [Encl 321]

389. (b) (6), the Commander, Naval Surface Force Pacific Fleet (CNSP) Port Engineer for BONHOMME RICHARD, was not certain of the AFFF system's status on 12 July 2020; in fact, the AFFF pumps may have been undergoing overhaul. [Encl 568]

Ship's Force AFFF System Operating Knowledge

390. The Repair Division LPO further expressed a limited understanding of the AFFF system aboard BONHOMME RICHARD. He understood AFFF would be provided to the entire loop if a single AFFF pump was active. Additionally, he was unaware of the status of the cross connection valves used to segregate or integrate the AFFF loop. [Encl 243, 496]

391. Duty Fire Marshals (b) (6) and (b) (6) stated that they were unfamiliar with the AFFF system, its operation, and their responsibilities as Duty Fire Marshal with respect to the AFFF system. [Encl 61, 62, 171, 174]

392. BONHOMME RICHARD CDO Job Qualification Requirements (JQR), require CDO candidates to demonstrate a thorough knowledge of areas protected by AFFF, activation, and securing locations to the CHENG. [Encl 569, 570, 571, 572, 573]

393. None of the 100 IET drills conducted from 23 July 2019 to 12 July 2020 employed AFFF. [Encl 44, 574]



Figure 29, Still photo of AFFF push-buttons for sprinkler groups 15 and 16 serving Lower V (16 on left; 15 on right). These push-buttons are in Upper V amidships. An open hatch obstructs visibility of the push-buttons.



Figure 30, Still photo of AFFF push-buttons for sprinkler groups 15 and 16 serving Lower V with covers closed (16 on left; 15 on right). These push-buttons are in Upper V amidships. The photo shows proximity to open hatch, which obstructs visibility of the push



Figure 31, Still photo of AFFF push-buttons for sprinkler groups 15 and 16 serving Lower V with covers closed (16 on left; 15 on right). These push-buttons are in Upper V amidships.



Figure 32, Still photo of AFFF push-buttons for sprinkler groups 15 and 16 serving Lower V with covers open (16 on left; 15 on right). These push-buttons are in Upper V amidships.



Figure 33, Still photo captured from GoPro video provided by San Diego Fire Department (SDFD) showing the location of AFFF push-buttons on 12 July 2020 after SDFD made entry into the vehicle stowage area via the sideport.

HALON Fire Extinguishing System

394. BONHOMME RICHARD’s installed HALON fire suppression system protects 13 spaces aboard BONHOMME RICHARD, primarily machinery and storage spaces, when in an operable status. HALON 1301 is a halogenated agent that extinguishes fires by inhibiting the chemical reaction of fuel and oxygen. The purpose of the ship’s HALON system is to completely flood the compartments protected with HALON 1301 chemical agent to extinguish fires beyond the capabilities of other extinguishing apparatus or agents. [Encl 5, 575]

395. All halon systems were placed in IEM status on 14 February 2019 and remained tagged out and non-operational from 14 February – 12 July 2020. [Encl 203, 243, 496, 499, 537, 576]

Portable Extinguishers

396. Per BONHOMME RICHARD’s Ship Information Book (LHD-6 SHIP INFORMATION BOOK, VOLUME 2, PART 2, dated 15 August 2014), the ship should have had 807 fire extinguishers, including CO2, PKP, and AFFF, located throughout the ship in various designated locations. [Encl 536]

NAVSEA 8010 7.1.7 The ship’s installed portable CO2, PKP, AFFF *fire extinguishers shall be retained onboard and shall remain throughout the availability for initial response to a fire.*

397. As of 25 June 2020, 792 of BONHOMME RICHARD's portable firefighting extinguishers were listed in IEM status, including CO2 bottles, PKP, and AFFF. All 792 were placed in IEM status on 25 January 2020. [Encl 537]

398. The placement of portable extinguishers in IEM status requires performance of a lay-up maintenance check in accordance with 3M maintenance procedures (MIP 6641/004-50, MRC LU-1 (48 G6LU N)). From 28 October 2019 through 4 July 2020, only one fire extinguisher (PKP bottle) was recorded as having completed the requisite lay-up maintenance check in accordance with MIP 6641/004-50, MRC LU-1. [Encl 541]

399. From 28 October 2019 – 4 July 2020, 292 start-up maintenance checks were performed on portable fire extinguishers. [Encl 541]

Fire Alarms and Sensors

400. The first FSC minutes, dated 8 August 2019, document that “various smoke, heat, and fire detectors will be OOC during DC Central upgrades and preservation of areas adjacent to sensor locations.” No mitigation plan is listed; instead, the FSC states that the mitigation plan would be revisited, as applicable. [Encl 577, 578]

NAVSEA 8010 Manual, 6.2.1 The ship's permanently-installed fire detection system shall be maintained in an operational condition during the availability.

401. On 12 July 2020, the 0000 entry on the BONHOMME RICHARD DC Central Log reported various alarms were in standby, cut-out, or OOC status. Specifically, seven fire, three flooding, two halon, ten sprinkling, and nine intrusion alarms were listed in standby, cut-out, or OOC status. One of the fire alarms identified in the log was located in Upper V (3-49-0-A), and another alarm identified in the log was located in Lower V (4-89-0-A). [Encl 517]

402. (b) (6) stated that five fire sensors in Upper V were in OOC because there was a cut cable near the Officer of the Deck (OOD) station on the port side of Upper V. In addition, sensors in the Hangar were in IEM due to contractor scaffolding for Joint Strike Fighter upgrades, which limited access to the sensors. [Encl 482, 483]

403. The BONHOMME RICHARD Command, Control, Communications, Computers, Combat Systems (C5I) Officer, (b) (6), stated that the ship did not have all available power prior to 12 July 2020, which affected fire alarms. On 12 July 2020, many power panels still had danger tags needing to be cleared. Due to COVID-19 social distancing restrictions, there were fewer NASSCO Supervisors clearing these tags, which delayed restoring power panels that affected fire alarms. [Encl 294]

404. The C5I Officer further stated that BONHOMME RICHARD leadership hesitated to move back aboard the ship due to power and alarm issues. However, Ship's Force was experiencing pressure to move back aboard the ship before a “drop-dead” date of 15 July 2020, because ABRAHAM LINCOLN required the berthing barge. [Encl 130, 294, 493, 579]

Communication Systems

405. Ship to ship. While berthed at NBSD throughout the availability, BONHOMME RICHARD communicated with other ships on the pier via person-to-person or by using Anti-Terrorism Tactical Watch Officer (ATTWO) radios. [Encl 77, 134, 454]

406. Ship to shore. For ship-to-shore communications during a casualty, BONHOMME RICHARD relied on dedicated radios to be provided by SWRMC Code 106. [Encl 327, 580]

407. Ship to barge. To communicate from the ship to the barge, BONHOMME RICHARD called the barge Quarterdeck. Announcements were then passed within the barge via a utilized independent barge 1 Main Circuit (1MC) announcing system connected to spaces inside the barge. [Encl 45, 172, 243, 496]

408. Intra-Ship. The ship's 1MC was the primary means of ship-wide communication and could be accessed in the following locations: both port and starboard Aircraft Elevator (ACE), DC Central, the Pilothouse, the 0-7 Conning Level, and Combat Information Center (CIC). [Encl 294]

409. An open Casualty Report (CASREP) (617) had existed on the 1MC since June 2017 for a "MAJOR IMPACT TO EFFECTIVE COMMUNICATION VIA THE 1MC." The message details various problems with the 1MC to include: inoperable channels; no volume on speaker groups; failed relays; a Computer Processing Unit (CPU) fault; inoperable Uninterrupted Power Supply (UPS) battery; inoperable optic isolator; and three cut cables. Ship's Force performed a range of temporary repairs. In addition, BONHOMME RICHARD requested Naval Surface Force, Pacific (CNSP) assistance to obtain antiquated parts and receive an expedited full 1MC system upgrade (scheduled for 2023). This CASREP on the 1MC remained open on 12 July 2020 with announcements not being clearly heard or understood in various spaces. [Encl 82, 130, 482, 483, 581, 582]

410. Hierarchical Yet Dynamically Reprogrammable Architecture (HYDRA)-Radios were not fully operational or had been tagged out at the time of the fire, and had not been utilized for some time before the fire. [Encl 294, 457, 578, 580]

411. Because an abundance of metal bulkheads obstructed radio signals and hindered communications within the ship, personal cell phones and BONHOMME RICHARD batt phones (an individual-to-individual call system using four digit "phone numbers") were the primary means of communication between watchstanders. Additionally, a routine practice by Ship's Force was to record the personal cell phone numbers on the watchbill of key personnel filling certain positions such as the OOD, CDO, and Fire Marshal to ensure Duty Section personnel had contact information in the event they needed to reach a particular person filling that position. BONHOMME RICHARD CO was unaware that duty sections coordinated via personal cell phones instead of radios. [Encl 42, 61, 62, 70, 171, 174, 247, 457, 583]

412. The BONHOMME RICHARD CDO, Section Leader, EDO, and Fire Marshal were provided radios, but these radios were reportedly ineffective when used on the ship. Duty

Department Heads and some watchstanders were equipped with battery-operated portable phones. Sounding and Security watchstanders were neither provided radios nor phones to communicate with DC Central. The OOD for 12 July 2020, (b) (6), explained that he would only be able to reach the fire marshal and other key duty section positions by personal cell phone. [Encl 27, 42, 61, 62, 64, 77, 131, 561, 583]

413. BONHOMME RICHARD ATTWOs, CDOs, and the Quarterdeck used Anti-Terrorism Force Protection (ATFP) encrypted radios owned and issued by the weapons department. [Encl 77, 294, 583]

414. DC radios from DCRSs had been placed in IEM prior to the fire. The DCA stated that during drills and actual casualties DCRS communications relied on phone nets and message blanks. BONHOMME RICHARD CO had no situational awareness to the unavailability and inoperability of DC radios prior to the fire. [Encl 82, 125, 203]

415. Communications during drills required use of messengers, sound-powered phones, or “salt-and-pepper” lines) because BONHOMME RICHARD’s phone nets were not operational. [Encl 125, 482, 483]

Self-Contained Breathing Apparatuses

416. The 8 January 2020 LHD Class SCBA Allowance Equipage List 2-330024110 allocates 556 SCBA bottles and 278 SCBA harnesses to LHD ships. [Encl 584]

417. BONHOMME RICHARD IEM Report listed a total of 275 SCBA bottles and 161 SCBA harnesses placed in IEM status. 144 SCBA bottles and 80 harnesses were originally placed in IEM on 13 December 2018, and an additional 131 SCBA bottles and 81 harnesses were placed in IEM on 22 January 2019. [Encl 537]

SCBAs are portable breathing apparatuses that should be worn by firefighting personnel within affected space(s) until atmospheric conditions are determined to be safe. SCBAs provide breathing air for up to 45 minutes with the ability to recharge bottles from either a permanently installed station aboard utilizing HP Air or a portable Emergency Breathing Air Compressor (EBAC).

418. Maintenance Records indicate ER04 consistently performed required monthly maintenance checks for 171 SCBA bottles (M-2) and 108 SCBA harnesses (M-1R) from November 2019 through May 2020. Records were not complete for the entire month of June 2020. At the time of the fire, there are no records to indicate that the ship had any more or any less than 171 SCBA bottles and 108 SCBA harnesses available for use. [Encl 549]

419. Based on the Allowance Equipage List (AEL), IEM Log, and Maintenance Records, there were approximately 210 SCBA bottles unaccounted for (neither actively maintained nor listed in IEM) at the time of the fire. [Encl 537, 549, 584]

420. The most recent Engineering 8 O’clock Reports available before the fire, dated 18 May 2020, indicated 0 of 5 SCBA recharging stations and 2 of 6 EBACs were available. BONHOMME RICHARD Engineering Log on 9 July 2020 listed High-Pressure Air Compressor (HPAC) 1 as being online, and HPAC 2 OOC. [Encl 99, 518]

421. IEM Logs from 25 June 2020 recorded 6 of 6 EBACs, 12 of 12 EBAC Flex Hoses, 3 of 3 Air Booster Pump Assemblies, and 5 of 5 HP Filter Assemblies were in IEM status. [Encl 537]

422. Contrary to the information recorded in the IEM Logs, the Engineering 8’O Clocks closest in time to before the fire, dated 18 May 2020, noted that 2 of 6 EBACs and 0 of 5 SCBA recharging stations were operational. [Encl 518]

423. ER04 Maintenance Records indicated these two EBACs contained serial numbers different from the six EBACs listed in IEM. Monthly maintenance was being performed on these two EBACs from 3 January – 4 April 2020. [Encl 243, 496, 518, 549]

Damage Control Repair Stations

424. FSC minutes from 8 November 2018 indicate that DCRS 2 Main (2M), 5M, and 3 were designated to be available for use throughout the availability. The 8 November 2018 FSC minutes also document that DCRS 4 was to be locked, with its inventory placed in IEM. Additionally, per the FSC minutes, DCRS 2 forward (2F), 6, and 7 were to be placed in lay-up and offloaded to storage for the duration of the availability. This is contrary to 8010 Manual, para. 3.4.8, which requires one DCRS be made available on Gallery Deck. [Encl 585]

425. The SWRMC PM did not recall any discussion at the FSC meetings concerning DCRSs not meeting 8010 Manual requirements. [Encl 190]

<i>NAVSEA 8010 Table 3-4. Minimum DCRS Number and Location Requirements</i>		
<i>Class</i>	<i>Min. DCRS</i>	<i>Location</i>
LHD	3	One on Gallery Deck (02-Level) One on DC Deck-Aft (Main Deck in the vicinity of Hangar) One on DC Deck-FWD (Fwd Main Deck)

426. On 23 April 2020, the FSC permitted DCRS 2M and 2F to be taken out of service to support a four-week deck install. As a mitigation, DCRSs 6F and 7F were to be placed in service. [Encl 586]

427. FSC minutes obtained by the investigation team do not indicate if and when DCRS 2F was returned to operational status, as the previous FSC minutes from November 2018 recorded DCRS 2F being placed in IEM status. [Encl 585, 586]

428. DC Central’s 0000 Log entry for 12 July 2020 recorded DCRSs 1H, 2F, 2M, 2A, 4, 5A, 6/7A as OOC, leaving only DCRSs 5M, 3, 6F, and 7F as active. [Encl 517]

429. The ADCA stated that the active DCRSs on 12 July 2020 were 2M, 5M, and 3. [Encl 46]

430. The DC Central Log for 12 July 2020 indicated DCRS 2M was inactive. [Encl 517]

431. Despite DCRS 3 being listed as active at 0000 on 12 July 2020 DC Central Logs, DCRS 3 was discovered to not have power by Sailors responding to the fire on 12 July 2020.

Consequently, responders had to work between DCRS 3 (an active locker with equipment, but no power) and DCRS 1H (an inactive locker with power, but no equipment). [Encl 27, 41, 46, 98]

Brow Access

432. Brows provide access from shore to ship and permit flow of crew and emergency responders both on and off-ship. NAVSEA establishes requirements for the number of brows while in maintenance availabilities as prescribed in the 8010 Manual. While at the NASSCO shipyard, BONHOMME RICHARD established three brow accesses. The primary access was from the port sideport door opening, a second access point was from the port ACE was installed on 25 June 2019, and a third access point was from the starboard Replenishment at Sea (RAS) station was established as an emergency access on 9 September 2019. [Encl 587]

8010 Manual 10.1.4 Shipboard Access

On surface ships, *one gangway* shall be located at the ship's Quarterdeck. *For ships 700 feet or over in length, two additional gangways shall be provided.* Each gangway shall be located in a separate fire zone unless an alternate arrangement is approved by the FSC.

433. On 11 December 2019, (b) (6), BONHOMME RICHARD Operations Officer (OPS), e-mailed NBSD Port Operations requesting brow arrangements for five time periods covering 19 December 2019 through Sea Trials. All five periods list only two brow locations. [Encl 588]

434. On 27 January 2020, Commander, Navy Region Maintenance Center (CNRMC) issued a Corrective Action Report (CAR) to SWRMC during a Fleet Maintenance Activity Assessment (FMAA) citing: "contrary to reference (a), para 10.1.4 [of the 8010 Manual], BONHOMME RICHARD did not have the required number of brows." [Encl 589, 590, 591]

435. The SWRMC CO stated that he was aware the three-brow requirement for a ship the size of BONHOMME RICHARD, but he was unaware of how the issue was resolved for BONHOMME RICHARD. He noted that while the requirement for three brows is generally understood, ships have not historically had three brows. He noted that "for whatever reason, we've just accepted that risk." [Encl 321]

436. On 29 January 2020, the BONHOMME RICHARD FSC notes a third brow would be impractical because of the limited footprint on Pier 2 for contractor operations and the need for increased watchstanding duties if three brows were to be used. Additionally, a hand-written note by the SWRMC FSC representative indicates the BONHOMME RICHARD CO concurred with the two brow arrangement beginning on 5 November 2018 due to the impracticability of having three brows. BONHOMME RICHARD CO confirmed that he accepted two brows as necessary to support ongoing work after discussing the issue with the NASCCO PM and her supervisor, (b) (6). BONHOMME RICHARD CO stated further that he relied on the assessment of SWRMC that having two brows was acceptable. [Encl 82, 592, 593]

437. The NASSCO PM for BONHOMME RICHARD stated that she understood there had been a waiver for the three brow requirement at NBSD, and she further stated that three brows would have interfered with critical work to finishing the availability. [Encl 236]

438. On 8 July 2020, BONHOMME RICHARD moved the egress brow from the port store door to the port ACE. As part of this move, the ship's Quarterdeck shifted from Upper V, at the sideport ramp, to the port ACE. [Encl 594, 595]

Material Storage

439. During BONHOMME RICHARD's availability, every department on the ship utilized Lower V as a mass storage area. A significant amount of ship's material was added to the Lower V during the week prior the fire to support non-skid replacement in the Hangar. On 12 July 2020, items stored in the Lower V included: dozens of tri-walls stacked two levels high in some areas filled with firefighting gear; CO2 bottles; battle lanterns; shoring timber; mooring lines; chains; boats; life-rings; plywood; lightbulbs; Purell hand sanitizer; publications; pressure washers; fueling hoses; tools; tables; a sewing machine; computers; printers; shredders; binders; office supplies; drywall; various contractor equipment; trolleys; an aerial man-lift; two fueled forklifts, and four boxes of unopened washer and dryer units. [Encl 5, 15, 35, 87, 171, 174, 190, 204, 220, 222, 243, 415, 493, 496, 499, 530, 531, 596, 597, 598, 599, 600, 601, 602, 603, 604]

440. Upper V had contractor materials stored in the forward part of the space in addition to Ship's Force material stored on the starboard side. In particular, Ship's Force materials included sixteen 50-gallon drums of 9250 Marine Engine Lubrication oil. [Encl 162, 190, 204, 214, 220, 489, 490, 493, 605, 606]

441. The BONHOMME RICHARD Auxiliaries Officer, (b) (6), as well as Auxiliaries Leading Chief Petty Officer (b) (6) stated that their division brought 16 barrels of the 9250 lube oil into the Hangar approximately a week before the fire for an expected two-day evolution to fill the EDGs. This evolution was first delayed due to a pump transfer casualty, and then delayed further due to a requirement to move the barrels from the Hangar to Upper V in preparation for upcoming non-skid work in the Hangar. He further stated that the auxiliaries division was in the process of moving the barrels and planned to continue on 13 July 2020. [Encl 93, 214]

442. The BONHOMME RICHARD XO, CMC, and CHENG were aware of the lube oil being stored in Upper V. The CHENG noted that HAZMAT Locker 10 (normally utilized to store lube oil) was unavailable, and he did not recall whether CO permission was required prior to transferring lube oil. [Encl 130, 131, 219]

443. BONHOMME RICHARD CO Standing Order Number 5 requires CO permission for "any on-loading/off-loading of Propulsion Fuels/Lube Oils." [Encl 607]

444. The BONHOMME RICHARD CO stated that the CHENG did not inform him of unloading oil drums prior to 12 July 2020. [Encl 82]

445. Upper V also contained 7 unidentified upright gas cylinders and 27 stacked refrigerant cylinders on 12 July 2020. [Encl 5, 264, 608]

446. Upper V overhead preservation had mostly been completed by 12 July 2020; specifically, the forward third of scaffolding was removed, the middle third was in the process of removal, and the aft third was fully erected. [Encl 82, 220]

447. The Hangar deck held two 60 cubic feet acetylene tanks, two 60 cubic feet oxygen tanks, and one 30-pound propane tank in a wooden box that were discovered in tact after the fire. [Encl 605]

8010 Manual 5.1.8 Portable flammable compressed gas cylinders shall not be placed below the main deck, in confined spaces, or under the overhanging decks. Locate supply on the pier and furnish gases from header to manifolds on the ship. In order to allow personnel to replenish their gas supply, additional gas cylinders, not to exceed one-half the number of in-use cylinders, may be located in a remote area on the ship's weather decks.

448. (b) (6), the Medical and Dental LCPO, stated that he ordered approximately 120 – 150 oxygen bottles during the March – April 2020 timeframe in preparation for a July 2020 underway. Approximately 50 – 60 of these oxygen bottles were laid and stacked in a pyramid on the medical ward deck on the 01-Level on 12 July 2020. [Encl 302]

449. The Senior Medical Officer, (b) (6) stated that it was his understanding the contractor had ownership of various medical spaces still undergoing maintenance work. (b) (6) was aware that oxygen bottles were stored in the medical ward but was unaware of their specific storage location or that Medical Department owned an Oxygen Cylinder Storeroom. BONHOMME RICHARD CO was not informed of any issues concerning the stowage of oxygen bottles prior to the fire. [Encl 82, 263]

450. The SWRMC Program Manager (Code 315) for LHA/LHD class ships, (b) (6), stated that while combustibles onboard ships are not tracked by project managers due to the volume of combustibles transported on and off-ship, it is the project manager's responsibility to raise a concern regarding improper storage of combustibles to the chain of command for correction. [Encl 519]

D. Fire Safety Council

451. The FSC responsible for BONHOMME RICHARD's availability was comprised of three core members: the Fire Safety Officer (FSO) (SWRMC Code 106B Government Contractor); the BONHOMME RICHARD DCA; and the BONHOMME RICHARD Availability PM (SWRMC Code 300, Operations). The FSC consistently maintained a minimum number of participants, even though the 8010 Manual permits greater participation. [Encl 190, 203, 609, 610, 611]

452. Contrary to the 8010 Manual, the Project Support Engineer (PSE) was not designated as a member of FSC and did not routinely participate in the FSC meetings. In addition, BONHOMME RICHARD's alternate representative was not a commissioned officer as required by the 8010 Manual. [Encl 321, 325, 609, 612, 613, 614, 615, 616, 617]

The 8010 Manual only requires Project Support Engineers (PSEs) to participate on the FSC in certain circumstances.

Section 2.1.1.7 (f) reads: "The PSE is not required to be a part of the FSC unless no one from the EPD (Engineering Planning Department) is available, the EPD does not exist or the SRCA requires it."

For the BONHOMME RICHARD availability, because SWRMC does not have an EPD (it is not a public shipyard), a PSE is required to attend the FSC.

453. (b) (6), the BONHOMME RICHARD PM and one of the FSC members for the availability, had six years of prior active-duty Navy experience as an Aviation Ordnanceman prior to joining SWRMC as a civilian Ship Building Specialist for five years. She then assumed responsibility as PM for BONHOMME RICHARD, even though she had not completed the required PM position certifications. The PM viewed the ship's representative as capable of waiving 8010 Manual requirements by assuming risk for the ship, which is contrary to the FSC structure requiring all FSC members to assess and evaluate risk for all 8010 Manual deviations and mitigations. The PM neither received formal DC nor 8010 Manual training prior to becoming the BONHOMME RICHARD PM. [Encl 190]

454. The PM for BONHOMME RICHARD's availability, stated that during the month before the fire, she was not on the ship frequently due to being in a high risk category for COVID-19. [Encl 190]

455. The BONHOMME RICHARD FSC meetings were not consistently scheduled, nor were they formally conducted to require members to gather and discuss issues as well as associated risks. Typically, the "meeting" was an ad hoc event that occurred after the daily availability production meeting. The ship's representative and PM usually signed the FSC minutes when the FSO walked with the ship's representative and PM throughout the ship. The FSC members were not always together when minutes were signed. [Encl 190, 566, 609]

456. On 12 July 2020, the primary FSO assigned to BONHOMME RICHARD was (b) (6), who had previous Federal Emergency Management Agency (FEMA) and civilian firefighting experience, but no prior experience with U.S. Navy vessels. In the two weeks prior to the fire, the primary FSO was on sick leave due to an injury restricting him from work. (b) (6), the alternate FSO for BONHOMME RICHARD, had four years of experience as a Fire

Control Technician in the submarine force before he left the Navy as a third class petty officer and was hired by United Support Services Incorporated (USS Inc.) in May 2019. [Encl 519, 565, 615, 618]

457. The BONHOMME RICHARD primary FSO's designation letter is dated before the primary FSO completed the FSO written test and oral board. [Encl 619, 620]

458. The BONHOMME RICHARD alternate FSO completed his FSO qualification oral board with a board member who had neither taken the oral board nor been FSO qualified. [Encl 619, 620, 621, 622, 623]

459. A letter of designation for FSOs assigned to BONHOMME RICHARD was digitally altered to replace the name of the alternate FSO, with no indication that the signatory (SWRMC Code 106 Department Head) authorized the change. SWRMC was unaware of this modification to signed Navy correspondence until it was identified by this investigation. [Encl 619, 620, 621, 624]

460. On 29 October 2019, (b) (6), the BONHOMME RICHARD then-CO, designated the DCA as the ship's FSC representative. The DCA had just reported to the BONHOMME RICHARD on 10 October 2019. [Encl 625]

461. (b) (6), then-ADCA and the Repair Division LCPO, continued to be listed as alternate FSC representatives. [Encl 626]

462. While the 8010 Manual does not clearly and consistently define the scope of the FSC's authority to waive 8010 Manual requirements, the 8010 Manual authorizes the FSC to approve various deviations and waivers of certain requirements with appropriate mitigations to risk. Per the 29 October 2018 FSC meeting minutes, the 8010 Manual requirement to maintain heat detection, sprinkling, AFFF, and halon systems online as much as possible was waived with no mitigations listed in the FSC minutes. Under the "Status of Detection Equipment (heat, smoke, and flooding sensors)" section, the FSC minutes state, "Concurrence: DCC will be affected due to industrial work. Sensors will remain OOC until DCC is reestablished." The minutes do not annotate an estimated date for when DC Central would be established. The FSC also concurred that halon, AFFF systems, and sprinkling systems, would be placed in lay-up. All SCBA charging stations, where SCBA bottles could be refilled, were also placed in lay-up with concurrence by the FSC. [Encl 566, 609, 618, 627, 628]

463. The second BONHOMME RICHARD FSC meeting on 8 November 2018 waived the 30-day requirement for the 8010 Manual Chapter 12 drill, which is contrary to the 8010 Manual's prohibition against the relaxation of drill frequency requirements. The FSC minutes indicate the reason for this delay was providing Ship's Force and Federal Fire Department (FEDFIRE) ample time to train together. [Encl 585, 609, 629, 630, 631, 632, 633]

464. Contrary to the 8010 Manual requirements, the FSC meeting held on 8 November 2018 designates DCRSs 2M, 5M, and 3 be maintained throughout the availability, but failed to require an additional locker on the 02-Level ("Gallery Deck"). A second unauthorized deviation from

the 8010 Manual occurred when the FSC failed to establish a DC CONEX box as a mitigation, which is required when the minimum number of DCRSs is not met. The FSC members were unaware that the selected DCRSs did not meet 8010 Manual requirements. Moreover, during her interview, the SWRMC PM failed to demonstrate knowledge about the minimum number of DCRSs required in the 8010 Manual. [Encl 190, 585]

465. In January 2020, a month after the ship transitioned from NASSCO to NBSD Pier 2, the FSC waived 8010 Manual requirements to maintain three brows for a ship greater than 700 feet in length. The waiver authorized BONHOMME RICHARD to maintain two brows without any listed mitigation, with the written comment, “[f]rom the beginning of avail, 5NOV18 BONHOMME RICHARD CO has concurred with 2 brow configuration vs 3 brow configuration.” The FSC meeting minutes state that a third brow was “impractical as Ship’s Force would have to add additional watch duties and there is limited footprint area available on NBSD Pier 2 for contractor operations.” Prior to docking at Pier 2, the ship maintained the required three brows at NASSCO. During the period the ship had two brows, the FSC authorized one of the two brows be physically locked with the duty Master-at-Arms retaining the key. [Encl 593, 609, 618, 628, 634, 635, 636, 637]

466. The DCA explained the purpose of the BONHOMME RICHARD FSC was to discuss the essential programs associated with fire prevention and response in accordance with the 8010 Manual, and mentioned that BONHOMME RICHARD would never deviate from these requirements. He further stated that the BONHOMME RICHARD CO had the authority to approve deviations; however, the CO stated that no items from the FSC were brought to his attention for approval or to highlight risks with the exception of discussing the 8010 Manual requirement for three brows. [Encl 82, 203]

467. The DCA recalled “mitigation measures” being discussed at the FSC, but could not recall whether this phrase was documented in the FSC minutes. He explained that the mitigation for onloading fuel was to secure hot work, but could not recall mitigation measures once fuel was aboard. He also did not recall mitigation measures for having two brows. [Encl 203, 638]

468. Per paragraph 5.4.1 of the 8010 Manual, the FSO is also required to conduct daily safety walkthroughs to find and document fire safety discrepancies. Contrary to the 8010 Manual requirements, BONHOMME RICHARD FSOs only searched for and recorded discrepancies generated by the maintenance contractors completing work aboard. If the FSO identified a Ship’s Force discrepancy, it may have been reported verbally to Ship’s Force; however, discrepancies were not tracked. The FSO’s daily fire safety walkthrough discrepancies were logged into a spreadsheet on the SWRMC share drive. The project team, including Ship’s Force, did not have access to these discrepancies, which is contrary to the 8010 Manual paragraph 5.4.1 requiring discrepancies be provided to the ship. [Encl 117, 618, 639, 640]

469. There was no formal review by a government employee of identified FSO discrepancies. FSO data was not consistently entered to enable trending analysis as required by Chapter 5 of the 8010 Manual. [Encl 117, 618, 641]

470. In the year preceding the fire, no safety discrepancies listed on the SWRMC FSO spreadsheet were the result of BONHOMME RICHARD's crew. Several United Support Services Corporation (USS Inc.)-employed FSOs stated that identified discrepancies were captured in the NASSCO-generated and disseminated general safety walkthrough report. [Encl 639, 642, 643]

471. From September 2019 to 12 July 2020, 14 of 2693 discrepancies on the NASSCO safety walkthrough report for BONHOMME RICHARD's availability were identified as Ship's Force issues. The FSO was listed as participating in walkthroughs 26 percent of the time, while Ship's Force participated 74 percent of the time. In the month prior to the fire, 2 of the 24 NASSCO daily safety walkthroughs listed a SWRMC FSO as being in attendance; neither of the walkthroughs occurred within two weeks of the fire. [Encl 324, 387, 643, 644, 645]

472. NASSCO produces a Temporary Service Diagram in accordance with NAVSEA Standard Items 009-08 3.23-3.23.2.9. SWRMC stated that the NASSCO Temporary Service Diagram meets 8010 manual requirements for a Temporary Services Isolation List (TSIL). Of note, during his interview, the SWRMC CO was unaware of requirements in the NAVSEA Standard Items for quick-disconnects for temporary services. NAVSEA Standard Items 0090-08 3.23-3.23.2.9, which largely match the language found from the 8010 Manual 10.4.5, also specify that the drawings are to be "updated weekly or immediately to reflect significant changes" and to include "location of quick disconnect fittings." NASSCO maintains a temporary service diagram that meets many of the Standard Items, but it is not updated weekly nor does it indicate the location of quick disconnect fittings as required in 3.23.2.4. NASSCO's Project Manager for BONHOMME RICHARD (b) (6) confirmed that 13 April 2020 was the most recent Temporary Service Plan available. (b) (6) further clarified that NASSCO creates an initial temporary service plan and updates as required. Additionally, there is no single list that captures all lines and leads that affect fire zone boundaries. NASSCO contractors are trained to set quick-disconnect fitting (QDF) if a line crosses a fire boundary but do not have to formally report the location. QDFs are then checked for compliance during safety walkthroughs. [Encl 321, 646, 647, 648]

473. On 8 August 2019, the FSC conducted its 32nd meeting of the availability and discussed various smoke, heat, and fire sensors that would be OOC during DC Central upgrades and other preservation work. Contrary to the 8010 Manual requirements, the minutes list no mitigation plan. Moreover, there is no evidence of a follow-on FSC meeting discussing and approving fire detection system mitigations. The FSC minutes dated 8 August 2019 note the permanently installed fire detection system shall be maintained in an operational condition with the FSC being made aware of and mitigating any impairments. Per the FSC minutes, a temporary detection system was discussed, but no specific mitigation measures were implemented. [Encl 577, 649]

474. The BONHOMME RICHARD FSC meeting minutes reflect a total of 65 meetings from 29 October 2018 to 8 July 2020, averaging one meeting every 9 – 10 days. A summary of the FSC meetings is included in Appendix E. [Encl 595, 627]

475. The final BONHOMME RICHARD FSC minutes prior to the fire, dated 8 July 2020, note concurrence with moving the Quarterdeck up and aft from Upper V and the port ramp access to

the port ACE. The sideport ramp was noted as an egress brow rather than the primary entry point “until further notice.” [Encl 595]

476. BONHOMME RICHARD leadership stated in their interviews with the investigation team that their exposure to the 8010 Manual and its requirements were limited prior to the fire. The BONHOMME RICHARD CO stated that he did not receive any specific 8010 Manual training during his command training pipeline and that he had not read the entire 8010 Manual before the fire, with his familiarity being limited to Chapter 12, which governs periodic fire drills. The BONHOMME RICHARD XO indicated that he thought the purpose of the FSC was to provide input to the CO about the ship’s fire safety posture (rather than waiving requirements outright); additionally, he expressed a belief that the 8010 Manual is written to address smaller fires. The XO had never had training on the 8010 Manual and thought the COMUSFLTFORCOMINST 4790.3 governed firefighting systems to be available during fueling operations. The DCA was unaware of 8010 Manual requirements regarding the availability of firefighting systems during fueling, smoke curtain mitigations, and the authorities granted to the FSC. [Encl 82, 131, 203, 219, 650, 651]

477. Additionally, multiple engineering department khaki leaders noted that an ambiguous superior subordinate relationship between the DCA and CHENG created a communication issues within engineering department. Both the Main Propulsion Assistant (MPA), (b) (6), and the Auxiliaries Officer noted that the CHENG’s leadership style, which emphasized that “everyone handle their portion of the pie and then inform me;” as a result, this led to communications difficulties within the department. When coupled with the DCA’s assertions that he was on a “XO special mission” assignment, this led to a perception that he functioned as an independent Department Head, rather than a principal assistant. This dynamic created friction within the department, which was noted by the MPA, Auxiliaries Officer, ADCA, 3MC, and the Engineering Department Leading Chief Petty Officer (DLCPO), (b) (6). [Encl 70, 194, 214, 260, 425]

E. 8010 Manual Fire Drills

478. Per section 4.5 of the NASSCO-BONHOMME RICHARD firm-fixed price maintenance contract and the 8010 Manual, a full-scale fire drill must be executed within the first 30 days of a ship’s arrival to the contractor’s facility. Per the terms of the contract, the contractor “shall coordinate the execution” of this drill, which would include at a minimum, the requirements of the drill specified in NAVSEA Standard Items 009-08 (Fire Protection at Contractor’s Facility; Accomplish) and 009-28 (Fire Prevention Requirements). The contract identifies that the government will conduct the drill using the evaluation criteria found in the 8010 Manual. Of note, the contract does not mention of the +180 day or +360 day follow-on fire drills in the contract, as required per the 8010 Manual Chapter 12. [Encl 476]

479. On 8 November 2018, the BONHOMME RICHARD FSC noted the 8010 Manual Chapter 12 “A+30” drill requirement would be deferred until January 2019 because FEDFIRE could not participate until then, and BONHOMME RICHARD would be switching from ship firemain to temporary firemain that same month. BONHOMME RICHARD’s availability began on 5 November 2018, and the A+30 date would have been 5 December 2018. [Encl 630]

480. On 27 November 2018, the BONHOMME RICHARD then-XO, CAPT Thoroman, signed BONHOMME RICHARD's drill package for the A+30 8010 Manual drill. The drill package was also signed by (b) (6), the Damage Control Training Team (DCTT) Coordinator, CHENG, and CO. Notes from the drill package indicate all firefighting systems were operational except AFFF. The drill consisted of a Class "A" fire in the Aviation Repair Shop with the following events unfolding: OOD/DC Central to call away the casualty over the 1MC; OOD to call the SWRMC CDO and report the fire; the CO to declare a major fire; the Flying Squad to execute rapid response to the casualty; and, off ship facilities (Fire and Emergency Service (F&ES) to be utilized for refilling SCBA bottles. [Encl 652]

481. On 14 December 2018, the FSC meeting minutes annotate practice drills on 16 and 23 January 2019 as well as a drill assessment on 31 January 2019. FSC notes indicate FEDFIRE had planned to participate. The minutes also annotate that SWRMC received the BONHOMME RICHARD drill package and that the Chapter 12 drill grading criteria was reviewed with BONHOMME RICHARD DCA and DCC. There was no further documentation referencing the 16 January 2019 practice drill, and no documentation regarding FEDFIRE's participation in the planned practice drills. [Encl 653, 654]

482. The maintenance availability start date +30 day (A+30) drill package from the 8010 Manual coordinated between SWRMC and BONHOMME RICHARD was consistent with other fire drill packages previously developed by SWRMC. [Encl 652, 654, 655]

483. The 23 January 2019 BONHOMME RICHARD training drill was observed by SWRMC Code 106 and documented in a 13-page summary, providing feedback and additional firefighting guidance. Comments note fire boundaries were neither properly set nor maintained. SWRMC specifically noted that Sailors assigned as Boundarymen had a low level of knowledge on heat transfer, effectively cooling surrounding spaces, correctly laying out hoses and overall required further training. Additionally, SWRMC noted BONHOMME RICHARD's crew response took more than 21 minutes to engage the fire after taking 15 minutes to call away the casualty over the 1MC. Overall, the simulated fire burned for more than 36 minutes before agent was applied. [Encl 656]

484. BONHOMME RICHARD FSC meeting minutes from 29 January 2019 annotate a tabletop exercise for the upcoming drill; however, FEDFIRE personnel were not present. On 31 January 2019, BONHOMME RICHARD conducted the A+30 8010 Manual fire drill at NBSD Pier 2. This drill was observed by the SWRMC Drill Monitor Team, BONHOMME RICHARD DCTT, SURFPAC Damage Control Team and NBSD FEDFIRE. The stated primary objective for the drill was to demonstrate Ship's Force, F&ES, shipyard, and SWRMC communication, integration, and firefighting efforts in combatting a fire aboard a vessel in an availability. The drill evaluated various performance criteria, including "ship initial actions," "F&ES Integration," and "[c]lear and concise communications between sites [in-hull, off-hull, and SWRMC Emergency Command Center (ECC)/NBSD Emergency Operations Center (EOC)]." The drill was graded as overall SAT, but "[e]stablish effective communication between Ship's Force, SWRMC ERT, F&ES, ECC, NBSD EOC" was graded as "requires improvement." [Encl 654, 655, 657, 658, 659, 660, 661, 662, 663]

485. SWRMC Code 106B also noted the following drill discrepancies for the A+30 8010 Manual fire drill:

- a. All personnel are required to identify their role and assignment at the off-hull Incident Command Post (ICP).
- b. Fourteen minutes for the fire party to engage the fire.
- c. Smoke control was not effective because curtains and blankets were not utilized in all required locations.
- d. Fire boundaries were neither set nor maintained in all required locations for fire
- e. Fire boundary personnel level of knowledge of duties and responsibilities was “very low.”

Additionally, the following areas were identified as requiring improvement:

- a. Fire boundary personnel knowledge.
- b. Smoke controlman knowledge of use of smoke curtains and blankets.
- c. SCBA donning.
- d. Donning of battle dress.

Recommended actions included

- a. Conduct training with DCTT to utilize props.
- b. Follow drill package and the 8010 Manual Chapter 12 drill requirements.
- c. Conduct training on battle dress for firefighting.
- d. Conduct training on SCBA donning and doffing.
- e. Conduct training on establishment, setting, and maintaining fire boundaries.
- f. Conduct training on smoke control.

[Encl 654, 655, 657, 658, 659, 660, 661, 662, 663]

486. In a letter dated 25 August 2020, FEDFIRE (b) (6) confirmed that FEDFIRE’s last recorded ship tour aboard BONHOMME RICHARD was 31 January 2019, when FEDFIRE participated in the last 8010 Manual Chapter 12 drill. [Encl 658]

487. BONHOMME RICHARD FSC meeting minutes from 3 May 2019 identify concurrence on the waiver of BONHOMME RICHARD’s 8010 Manual Chapter 12 +180 drill due to dry

docking scheduled in early June 2019. The notional +180 date was 4 May 2019. The documented justification for delaying the drill was to allow the ship and NASSCO to train and integrate in dry dock with SDFD. The FSC meeting minutes also reference the following paragraph from the 8010 Manual, Chapter 12: “SRCAs should note that section 12.5 of the 8010 Manual provides flexibility with drill frequency and complexity depending on the workload, and proficiency and availability of Firefighting resources. For example, the Navy has to be careful not to overload a city fire department providing support to multiple SRCAs in one area. SRCAs are encouraged to be judicious in implementing these requirements, leverage the flexibilities allowed to modify the scope, complexity, and frequency of these drills, and balance the need to maintain fire response proficiency with the impact to availability cost and schedule.” [Encl 664]

488. BONHOMME RICHARD FSC meeting minutes from 2 July 2019 annotate the BONHOMME RICHARD DCTT was briefed on the 8010 Manual drill grading criteria in preparation for the +180 fire drill planned for 23 July 2019. A training grade sheet titled “USS POSITIVE (+2) ‘8010’ FIRE DRILL EVALUATION (DCTT)” was used to review all areas. The grade sheet noted two attributes were not being met with four requiring improvement. The drill was overall graded SAT at a 90.3 percent. [Encl 665]

489. Per the SWRMC 8010 Manual drill grade sheet, the drill evaluation criteria is being developed from the following references: the 8010 Manual, NSTM 555, NSTM 074, NSTM 077, NSTM 079 and SWRMC Fire Response Plan (FRP). The criteria neither references the CNSP Surface Force Training and Readiness Manual (SFTRM) nor Afloat Training Group Repetitive Exercise (RE) 3. [Encl 666]

490. The BONHOMME RICHARD 8010 Chapter 12 drill package planned for 23 July 2019 was consistent with other 8010 Manual standard drill packages developed by SWRMC, to include the immediate action checklist. BONHOMME RICHARD’s drill package was prepared by the DCTT Coordinator and reviewed by the CHENG and Acting XO (OPS Officer). CAPT Thoroman, then-XO, was designated as the DCTT Leader but did not sign the drill package. The drill package was approved by (b) (6), BONHOMME RICHARD CO at the time. Notes from the drill package include: drill consists of a Class “A” fire in Troop Berthing; OOD/DC Central to call away the casualty over 1MC; OOD to call shipyard dispatch to report the fire; the OOD is to call the SWRMC CDO and report the fire; the CO declares a major fire; the Flying Squad responds with a rapid response to casualty; and, F&ES is to be utilized for refilling SCBA bottles. In advance of the drill, a 10 July 2019 walkthrough as well as a 16 July 2019 practice drill were planned; however, no formal written records confirm whether these were executed. [Encl 666, 667]

491. On 23 July 2019, BONHOMME RICHARD completed its A+180 fire drill at NASSCO with F&ES support provided by NASSCO Shipyard Fire Department. SWRMC evaluated this 8010 Manual Chapter 12 fire drill as “satisfactory,” with a score of 95.83 percent. The drill, which was conducted 50 days after the initial A+180 date of 4 May 2019, was observed by SWRMC’s Drill Monitor Team, the BONHOMME RICHARD DCTT, and CNSP DC Team. The FSC meeting minutes dated 24 July 2019 include SWRMC Code 106’s drill evaluation memorandum, which states that a drill out-brief was conducted with the BONHOMME RICHARD CO, XO, DCA and Repair Division LCPO. The drill report indicated that it took 16

minutes for the fire party to engage the fire; however, the timeline enclosed in the drill report notes that it took 23 minutes to engage the fire. All critical attributes were met with the exception of medical response, which required improvement. Other areas requiring improvement included: firefighting response time; DC firefighting strategy; and, coordination between the shipyard, Ship's Force, and F&ES. Additional observations and miscellaneous comments included: Ship's Force SCBAs were improperly donned, to include loose and twisted straps; SCBA cylinders were below 4,000 PSI; and, above and below boundaries for the first simulated fire were missing cooling agent after boundaries were declared set. The drill report notes training actions for all comments and observations were to be completed and due 24 November 2019 by report to the FSO. [Encl 668, 669, 670, 671, 672, 673]

492. The BONHOMME RICHARD FSC minutes from 13 November 2019 indicate BONHOMME RICHARD's +360 drill scheduled for November 2019 was moved to 19 February 2020. The FSC minutes state: "BONHOMME RICHARD would be due for the +360 Fire Drill November 2019. Due to the previous successful fire drills at NBSD and NASSCO with F&ES present, the scheduled undocking and shift to NBSD 20 Dec 2019, and the reduced presence of hot work aboard, FSC agrees to move the +360 fire drill until 19 Feb 2020." Additional scheduling considerations noted are: undocking preparations occurring November – December 2019; BONHOMME RICHARD holiday stand-down December 2019 – January 2020; and, 8010 Manual Chapter 13 fire drill preparations and execution January – February 2020 for SWRMC. The FSC members present were (b) (6) and (b) (6), SWRMC FSOs, and the DCA. [Encl 674, 675, 676]

493. The BONHOMME RICHARD FSC minutes from 20 February 2020 document approval of a second deferral of the ship's +360 drill (originally due November 2019) to an undetermined date in April 2020. The reasoning for movement of the drill included: SWRMC support being or having been limited due to supporting other U.S. Navy vessels on initial 8010 Manual Chapter 12 or 13 requirements; SWRMC would support to the best of their abilities the "sell back" of CIC and combat suites, which would take place in the month of March 2020; SWRMC would not be able to support 8010 Manual Chapter 12 requirements due to prior scheduled drills during February and March 2020; CFSO confidence that movement of drill to April 2020 would not greatly affect overall BONHOMME RICHARD fire response due to past 8010 Manual Chapter 12 drill scores; no major fire prevention concerns at the time warranted an immediate drill; and, the BONHOMME RICHARD DCA would be on a temporary duty assignment in March 2020 and would not have oversight of the drill. [Encl 677]

494. E-mail correspondence on 3 March 2020 between the SWRMC CFSO and NBSD Security Department Training LCPO shows a planned date for BONHOMME RICHARD +360 drill of 13 April 2020. [Encl 660, 678, 679, 680]

495. On 16 March 2020, the NBSD Installation Training Officer (ITO) recommended to the SWRMC CFSO that upcoming fire drills be cancelled on ships for the week (originally scheduled 16, 17, and 19 March 2020) while future drills would remain scheduled pending a further COVID-19 determination. [Encl 660, 681, 682]

496. On 19 March 2020, CNIC issued Fragmentary Order (FRAGO) 002 TO CNIC PLANORD FOR COVID-19 RESPONSE, restricting gatherings of more than 10 personnel. [Encl 683]

497. On 21 March 2020, Commander, Navy Region Southwest (CNRSW) Directive 20-002B was released to subordinate units addressing the limitations in Health Protection Condition (HPCON) C. In the “Base Security and Access” section, this directive addresses limitations during HPCON C. This includes guidance to “[c]ease Naval Security Force (NSF) training, drills and exercises, including NSF operational exercises and integrated drills. Maintain weapons qualifications required to stand posts.” [Encl 684]

498. On 23 March 2020, CNRSW Exercise Program Manager, N36X, forwarded the message to ITOs, highlighting sections to cease NSF training and drills. [Encl 684]

499. On 23 March 2020, NBSD ITO resent the message in an e-mail to the SWRMC CFSO, highlighting sections to pause “drills and exercises” with no highlight on the NSF portion of the original message. [Encl 684]

500. On 30 March 2020, CNIC N30 released Chief Alert 2020-17, which updated FEDFIRE fire chiefs on various COVID-19 updates to include NAVSEA and CNRMC cancellation of 8010 Manual Chapter 13 drills and authorization to curtail 8010 Manual Chapter 12 drills at the commander’s discretion. [Encl 685]

501. On 1 April 2020, CNIC-PLANORD COVID 19 was released, directing units and personnel to continue training within the imposed restraints and constraints. The Planning Order (PLANORD) further stated that COVID-19 would curtail some training opportunities, but “blanket training cancellations or qualification extensions should not be the standard.” CNRSW N36 neither released a new message nor e-mail emphasizing this update. [Encl 686, 687]

502. Minutes from a 23 April 2020 Reportable Fire Events Meeting between Southeast Regional Maintenance Center (SERMAC), Mid-Atlantic Regional Maintenance Center (MARMC), SWRMC, Puget Sound Naval Shipyard (PSNS), and Ship Repair Facility (SRF) Yokosuka noted all 8010 Manual Chapter 13 drills would be cancelled for the remainder of the year and pause 8010 Manual Chapter 12 drills until further notice. [Encl 688]

503. The BONHOMME RICHARD +360 drill was never executed. According to CNRMC Safety Manager, (b) (6), there is no requirement for CNRMC to be notified when a ship does not perform or reschedules an 8010 Manual fire drill. As a result of BONHOMME RICHARD’s +360 drill not being executed, the 23 July 2019 drill was the last fire drill observed and evaluated by any entity or person outside BONHOMME RICHARD. [Encl 131, 203, 580, 656, 660, 679, 689, 690, 691]

F. Damage Control Training, Drills, and Qualifications

504. BONHOMME RICHARD was last evaluated for certification in the Mobility-Damage Control (MOB-D) mission area by ATG Pacific on 9 December 2016. ATG recommended BONHOMME RICHARD for full MOB-D certification. [Encl 692]

505. On 16 December 2016, CNSP certified BONHOMME RICHARD in the MOB-D mission area with the certification set to expire in December 2018. [Encl 693, 694]

506. From 15 – 19 October 2018, BONHOMME RICHARD was evaluated by ATG Pacific during a Readiness Evaluation Three (READ-E 3) training event. Pursuant to COMNAVSURFPACINST/COMNAVSURFLANTIST 3502.7A, a READ-E 3 event is performed at the post-deployment stage of a ship's sustainment phase to set the groundwork for a successful maintenance and basic phase. While the READ-E 3 is not designed to certify nor decertify a ship in MOB-D based on assessed performance, ATG prepared a report documenting BONHOMME RICHARD's performance. In the report, ATG documented the evaluation and grades for IET response to three drills. BONHOMME RICHARD passed two drills, which included responses to toxic gas (88%) and flooding casualties (90%). However, the response to the non-main space fire (69%) failed because it was graded below the 80 percent benchmark. The following discrepancies were specifically noted for the non-main space fire drill:

- a. Rapid response/investigators did not take correct actions.
- b. Boundaries were not correctly identified, smoke control zone was not established or maintained.
- c. Smoke curtains/blankets were not installed on any opening to prevent smoke spread.
- d. Attack team did not begin fighting fire within 12 minutes.
- e. Correct Personal Protective Equipment (PPE) was not utilized.
- f. Report did not identify location of fire or material burning.

BONHOMME RICHARD had no other required COMNAVSURFPACINST/COMNAVSURFLANTIST 3502.7A externally monitored or assessed events since the October 2018 READ-E 3, which was the last DC event externally observed aboard BONHOMME RICHARD prior to the fire. [Encl 695, 696]

COMNAVSURFPACINST/COMNAVSURFLANTIST 3502.7A does not require DC-related assessments during the maintenance phase of the ship's training cycle until READ-E 4 is conducted at the end of the maintenance phase. Part of the READ-E 4 assessment is DCMA.

507. Between 26 March 2019 and 24 March 2020, BONHOMME RICHARD conducted 25 training evolutions for DCTT. (b) (6), BONHOMME RICHARD DCTT Coordinator, participated in 9 of 25 training events. Records do not show CHENG participating in any of these 25 evolutions. Records show the BONHOMME RICHARD XO was designated as the DCTT Leader; but he did not participate in any of the 7 DCTT training events occurring after he reported aboard 12 November 2019. [Encl 131, 219, 460, 609, 697, 698]

508. Not all DCTT members were qualified for their assigned duty in Fleet Training Management and Planning System (FLTMPS). [Encl 697, 698]

509. The BONHOMME RICHARD DCTT Coordinator had been SIQ since 28 May 2020. The

Repair Division LPO was the acting DCTT Coordinator in his absence. [Encl 531]

510. BONHOMME RICHARD IET teams were normally only manned by engineering department personnel. Some personnel outside engineering department were qualified in IET watchstations. On the day of the fire, all IET members were from the engineering department. [Encl 25, 27, 64]

511. BONHOMME RICHARD drill packages indicate that there were a total of eight IETs in the year leading up to the fire. To maintain 8 IETs, BONHOMME RICHARD would have needed to conduct a minimum of 48 RE-03 fire drills each year. BONHOMME RICHARD's DC Drills and Critiques Binder with the Training and Operational Readiness Information Services (TORIS) indicate only 37 RE-03 fire drills were completed over the last year (July 2019 – June 2020). Of note, the RE-03 drills, which involve an IET response to a reported fire, are not structured to incorporate 8010 Manual requirements for an integrated fire response, such as requesting assistance from external firefighting organizations, integrating ship hose teams with FEDFIRE/municipal firefighting teams, and developing a coordinated command and control structure. The DCA stated that from March 2020 until 12 July 2020, he rarely observed IET drills. [Encl 203, 699]

COMNAVSURFPACINST/COMNAVSURFLANTIST 3502.7A requires recurring training events for surface ships known as "Repetitive Exercises" (REs) to maintain proficiency after a TYCOM certification. Among the 15 REs for MOB-D, 6 are required to be maintained at all times. Those 6 REs include documentation review as well as a variety of drills to include responses to toxic gas, flooding, structural damage, and fire. RE-03 (Respond to Non-Main Space Fire), is required for each IET every 60 days. This 60 day RE-03 periodicity requirement for all IETs has been required since the first COMNAVSURFPACINST/COMNAVSURFLANTIST 3502.7A release on 1 November 2018.

512. Within the TORIS-Training Figure of Merit (TORIS-TFOM) system, which is a reporting and tracking program for RE requirements, the default number of duty sections is three. [Encl 399]

513. The 2018 USS OSCAR AUSTIN (DDG-79) fire report documents a problem with TORIS-TFOM, in that it allows a ship to report a fewer number of duty sections than a ship is actually in, and thereby fewer drills are required that do not train all duty sections. The report further recommended that CNSL review the drill frequency and reporting requirements for ships in the maintenance phase. [Encl 700]

514. Of note, BONHOMME RICHARD had only three duty sections listed in TORIS for events occurring the past year. [Encl 399]

515. Of the 37 RE-03 drills documented in TORIS and/or the DC Training Binder from July 2019 – June 2020, 16 of 37 BONHOMME RICHARD drills had failing scores ranging from 51 – 79 percent. [Encl 699]

516. The approved drill packages for all RE-03 fire drills covering July 2019 – June 2020 all simulated a Class “A” fire in 1 of 3 berthing spaces (1-L-0-L, 01-1-4-L, 1-25-3-Q) with the expected IET response supporting from the same DCRS (2M). [Encl 574, 697]

NSTM 079-20.1.1.3:
Training drills need to be repetitive, realistic and include all personnel who may become involved during an actual emergency.

517. Drill packages provided by Ship’s Force since September 2019 allowed simulated use of PPE/SCBA. The only documented drill requiring use of PPE/SCBA was the 8010 Manual Chapter 12 drill conducted on 23 July 2019. Some BONHOMME RICHARD personnel indicated 13 July 2019 was the last time they remembered any BONHOMME RICHARD personnel fully utilizing SCBAs for drills. [Encl 574]

518. Use of AFFF in response to a fire had not been drilled for over a year and were neither drilled nor simulated after AFFF stations 3 and 4 were brought to an increased state of readiness in April 2020 to support fuel onload. [Encl 697]

519. Several Sailors indicated that drills in their duty sections would be preceded by a walkthrough of the planned drill, in the exact location where the drill would be conducted. Several Sailors also reported that their duty sections had not donned FFEs or SCBAs in more than a year. [Encl 68, 81, 102, 121, 192, 203, 243, 245, 261, 457, 482, 483, 484, 496, 558, 701]

520. BONHOMME RICHARD IETs failed 11 consecutive RE-03 fire drills from 28 December 2019 – 22 February 2020, with no indication of additional remediation drills being scheduled or executed. According to the BONHOMME RICHARD DCA, the IET did not receive credit in TORIS-TFOM for a failed drill until it was run again and passed. [Encl 203, 574, 702, 703, 704]

521. The Repair Division LCPO recorded scores in TORIS once the duty Fire Marshal provided a drill grade sheet. Repair Division LCPO would then brief the BONHOMME RICHARD DCA and XO on drill execution. The ADCA stated that he would take pictures of DCTT training scores and provide them to the ship’s Training Officer to enter into TORIS. [Encl 70, 203, 415, 530, 531]

522. According to the BONHOMME RICHARD DCA, the Repair Division LCPO did not raise concerns regarding the quality of IET drills from March 2020 to 12 July 2020. [Encl 203]

523. The BONHOMME RICHARD DCA stated that from March 2020 until 12 July 2020, amidst COVID-19 mitigations, the ADCA often informed the DCA of his concerns with the quality of DC drills. According to the DCA, he raised concerns about DC drill training to the CHENG, XO, and CO. [Encl 70, 203]

524. The BONHOMME RICHARD CHENG stated that he did not receive any reports on training effectiveness nor did he receive any training critiques. Training critiques were routed from duty sections straight to the XO and CO. [Encl 219]

525. The BONHOMME RICHARD CO and XO were not aware of any specific issues with IET drills nor that BONHOMME RICHARD IETs failed 11 consecutive RE-03 fire drills between 28 December 2019 and 22 February 2020. [Encl 82, 131]

526. On 4 March 2020, the BONHOMME RICHARD CO signed the March – May 2020 drill package for IET sections 1-8 Fire Drill (RE-03). The drill package did not require actual use of SCBAs or FFEs. [Encl 574]

527. On 12 – 14 April 2020, BONHOMME RICHARD IETs 1, 2 and 3 passed RE-03 drills with scores of 80, 87, and 83 percent, respectively. [Encl 574, 702]

528. Within the TORIS system, failed scores (less than 80 percent) show “RED” and do not reset the 60-day periodicity requirement. Due to previous failures, the IET readiness showed “RED” in TORIS-TFOM for the 51 days before the April 2020 drills were entered, whereas IETs 2 and 3 were “RED” for the previous 106 days. [Encl 574, 702, 703]

529. On 17 April 2020, Commander, Pacific Fleet (PACFLT) published a “Surface Ship Underway Checklist for COVID-19 Environment,” which states, “[c]onsider walk-through, talk-through drills and detailed classroom training while maintaining social distancing in lieu of team drills that do not typically allow social distancing (DC and ATPF drills). Traditional drills will be required to run at some point for certification and/or proficiency.” [Encl 705]

530. Navy, PACFLT, and Type Commander (TYCOM) COVID-19 guidance did not remove DC training requirements or readiness requirements. [Encl 471, 706, 707]

531. BONHOMME RICHARD fire drills during and before COVID-19 were largely walkthrough evolutions without FFEs or SCBAs. Additionally, the command focus was on training for an operational environment and not the availability environment. [Encl 45, 70, 82, 192, 203, 261, 408, 498, 539, 559, 574, 697, 708]

532. On 4 – 6 June 2020, the last recorded IET fire drills prior to 12 July 2020 were conducted. IETs 1, 2, and 3 scored 80, 84 and 90 percent respectively. Each scoresheet recorded 10 of 10 points for the attack team fighting the fire within 12 minutes. [Encl 574, 702]

533. FLTMPS data as of 12 July 2020, reflects the following status for DC and firefighting training aboard BONHOMME RICHARD:

- a. 924 of 1034 personnel (89%) completed General Shipboard Firefighting.
- b. 32 of 6 personnel (more than 100%) required personnel completed Advanced Shipboard Firefighting. (Required for all Repair Locker Leaders and Fire Marshals).
- c. 32 of 10 required personnel (more than 100%) completed the Repair Party Leader course.
- d. 24 of 13 required personnel (more than 100%) completed the Gas Free Engineering School.

According to COMNAVSURFPACINST/COMNAV SURFLANTIST 3502.7A, the MOB-D RE-13 — “Combat a Major Conflagration” is required ship-wide every 180 days, but not required during the shipboard maintenance phase.

e. 119 of 100 required personnel (more than 100%) completed the Shipboard DC trainer, which is required for all IET and DCRS personnel.

[Encl 709, 710]

534. In July 2020, there were 141 personnel remaining assigned to BONHOMME RICHARD's crew since the ship's previous DC certification in December 2016, including 10 Chief Petty Officers (CPO) (2 assigned to engineering department) and 39 personnel assigned to engineering department. Of these 39, 3 personnel were on-duty and held key watchstanding positions on 12 July 2020: (b) (6) (Fire Marshal), (b) (6) (DC Supervisor Watch (0745 – 1345) and IET Electrician) and (b) (6) (Cold Iron Forward Watch (0745 – 1345) and IET Investigator 1). [Encl 25, 711]

535. Several BONHOMME RICHARD Sailors reported they had not participated in egress or EEBD training since they had checked onboard, with some asserting they had never received EEBD training. [Encl 17, 63, 102, 123, 194, 197, 200, 214, 260, 262, 305, 339, 484, 712, 713]

Fire Safety Watch Training

536. The SWRMC and BONHOMME RICHARD COs signed two separate Memorandums of Agreement (MOA) on 8010 Manual applicability for the availability on 17 October 2018 and 12 December 2019. The MOAs state that the FSW shall be trained by SWRMC in accordance with the 8010 Manual, while functions of the FSW would be carried out by the ship's duty sections, as directed by the BONHOMME RICHARD CO. Both MOAs note that the FSW shall continuously patrol all areas of the ship affected by industrial work to inspect for smoke, fire, and hazardous conditions. [Encl 82, 714, 715, 716]

The 8010 Manual defines the Fire Safety Watch as watchstanders assigned specific fire related duties, such as patrolling the ship and manning the Casualty Control (CASCON) Station, DC Central, or Quarterdeck. These watchstanders are usually Ship's Force personnel. Per the 8010 Manual, a course of instruction, provided by the SRCA within 30 days of the start of the availability, shall cover SRCA specific firefighting organization, communication and alarm system operation, fire prevention and response, housekeeping, and the ability to operate quick-disconnects.

537. The first FSC minutes on 29 October 2018 document that the 2018 MOA was reviewed and discussed. BONHOMME RICHARD CO stated he signed the 12 December 2019 MOA and recalled that it showed up in his administrative inbox as a document to be signed. He stated that no one briefed him or informed him of any major concerns, nor were there any conversations about updating the MOA when the BONHOMME RICHARD left the dry dock and returned to Pier 2. [Encl 82, 627]

538. SWRMC conducted initial FSW training on 29 October 2018, with 38 BONHOMME RICHARD personnel attending, to include the DCA, CDOs, Duty Section Leaders, EDOs, DC LPOs, and DC watchstanders. Training topics covered included how to operate "SRCA-provided temporary firefighting, communications, and alarm systems" and "Ability to Operate Quick-Disconnects." SWRMC conducted refresher training on 20 June 2019 with 25 new

attendees, including 13 safety petty officers. SWRMC conducted a third training session was held 21 January 2020 with 12 attendees. Several BONHOMME RICHARD Sailors reported they never received training on setting boundaries during a maintenance availability, including the use of quick disconnects. BONHOMME RICHARD (b) (6) acknowledged that the lack of quick disconnect training directly contributed to the ship not securing fire boundaries, which led to a large portion of the ship being destroyed by the fire. [Encl 13, 19, 42, 86, 89, 114, 124, 130, 200, 214, 244, 425, 717]

539. Of the 57 BONHOMME RICHARD personnel trained on FSW requirements, only four personnel were assigned to engineering department watches or were part of the IET on 12 July 2020: (b) (6) (Alternate EDO), (b) (6) (EDO), (b) (6) (AFFF Operator) and (b) (6) (DC Central Watch Supervisor and On-Scene Leader). (b) (6) (IET Boundaryman) had no documented FSW training. [Encl 25, 114]

G. Manning and Duty Section Organization

540. As of July 2020, BONHOMME RICHARD was manned to 89.46 percent Fit and 95.38 percent Fill in with a total of 971 enlisted personnel assigned, which was 36 fewer than the year prior when BONHOMME RICHARD was at 91.16 percent Fit, 98.92 percent Fill, with 1007 enlisted personnel assigned. [Encl 718]

541. Personnel data shows that as of 12 July 2020, 74 officers were assigned aboard BONHOMME RICHARD. BONHOMME RICHARD's reflected wardroom included 32 Unrestricted Line Officers (URL) (which included Aviator - 13XX designated or Surface Warfare Officers (SWOs) - 11XX designated officers) 17 Limited Duty Officers (LDOs), and 9 Chief Warrant Officers (CWOs). [Encl 719]

542. Of the 19 LCDRs/CDRs assigned aboard BONHOMME RICHARD on 12 July 2020, 8 were line officers, 7 of which were URL SWOs. Based on a list provided from BONHOMME RICHARD, officers not standing duty included the CO, XO, all six CDRs, four LCDRs (the CHENG, DCA, Main Propulsion Assistant (MPA), and Command, Control, Communications, Computers, Combat Systems & Intelligence (C5I Officer), three CWOs, and four O-3s to include the Chaplain and Medical Officers. [Encl 719, 720]

543. The BONHOMME RICHARD CDO assigned for 12 July 2020 was the ADCA. The ADCA is a URL SWO and was authorized promotion to LT on 1 June 2020. He reported to BONHOMME RICHARD in April 2019 and his first day as the CDO was 12 July 2020. [Encl 20, 70, 192, 721]

544. The CDO qualification board for the ADCA did not include participation by the BONHOMME RICHARD CO or XO. AATCO was the senior individual who chaired ADCA's CDO qualification board. [Encl 70, 82, 131, 192]

545. The BONHOMME RICHARD XO stated that he did not recall the ADCA's CDO qualification board, but presumed it took place before he arrived in November 2019. The

BONHOMME RICHARD CO also did not recall the ADCA's CDO qualification board, but thought it may have occurred before he assumed command in December 2019. [Encl 82, 131]

546. The BONHOMME RICHARD CO stated that the ADCA had stood as Assistant Command Duty Officer (ACDO) for months. The BONHOMME RICHARD CO also stated that he had high confidence in the ADCA's abilities as an officer. [Encl 82]

547. Although BONHOMME RICHARD duty sections contained multiple (2 to 3) CDO-qualified officers, it was common practice for only the assigned CDO for that duty day to muster and remain aboard overnight; thus, not all of a duty section's qualified CDOs necessarily stayed aboard for the duty day. The BONHOMME RICHARD CO was not aware of this practice. [Encl 70, 82, 192, 485, 557]

548. The policy of "off-duty" CDOs being permitted to depart on their duty days was a carry-over policy from the previous BONHOMME RICHARD CO, (b) (6). With respect to CDO qualifications, (b) (6) did not personally sit on CDO qualification boards. In addition to these CDO policies, (b) (6) instituted four-day work weeks upon BONHOMME RICHARD's entry into the availability, with parts of the crew taking off Mondays and other personnel taking off Fridays. Functionally, this meant the entire crew was only aboard three days per week. Under (b) (6), ER09 Sailors and maintenance personnel were transferred aboard into their original work centers, with the objective that those work centers would assume responsibility for their respective Damage Control Petty Officer (DCPO) maintenance. However, due to a significant backlog of DCPO maintenance, ER09 was reconstituted when CAPT Thoroman assumed command. [Encl 17, 70, 82, 125, 130, 171, 174, 203, 219, 244, 260, 501, 592, 722]

549. On 12 July 2020 Duty Section 6 had three additional officers assigned besides the ADCA. Two of these officers were also CDO qualified, while the third officer was listed as a prospective CDO (in training) and was assigned for a CDO watch on 18 July 2020. These three officers included an LDO O-4, an LDO O-3, as well as a SWO Line Officer O-4. All three had significantly more time in service than the ADCA; however, none of them were present when the fire started. [Encl 10, 20, 192]

550. On 12 July 2020, the ADCA was the senior officer present aboard BONHOMME RICHARD. [Encl 10]

551. The Billet Based Distribution (BBD) data provided by CNSP shows BONHOMME RICHARD had 87 CPO billets; 76 funded CPO billets; and 77 CPOs assigned on 12 July 2020. [Encl 723]

552. BONHOMME RICHARD enlisted personnel who did not stand duty included the Command Master Chief (CMC), eight additional Master Chiefs, and three U.S. Marine Corps (USMC) personnel. [Encl 720]

553. On 7 July 2020, BONHOMME RICHARD transitioned from an eight-section duty rotation to a six-section duty rotation. [Encl 20, 27, 485]

554. BONHOMME RICHARD maintained an eight duty section rotation prior to 7 July 2020, which was contrary to the OPNAVINST 3120.32 section 4.21, which states, “[s]hips moored pier side in U.S. ports should maintain 6 duty sections, or, if less, as many sections as Commanding Officer determines can be qualified in duty section responsibilities for safety and security.” [Encl 192, 485, 724]

555. For each duty day, BONHOMME RICHARD maintained multiple individual watchbills, to include the “top side” deck watches; an engineering department watchbill, (which included the associated IET); and the In Port Security Force (ISF) watchbill. The only watchbill in the Relational Administrative Data Management system (R-ADM) included “top side” watches such as the CDO, Section Leader, OOD, and other Quarterdeck watches. The Senior Watch Officer was unaware how the Engineering Watchbill, IET, and ISF watchbills were generated. Additionally, he was unaware how many duty sections the Engineering Department was in at the time of the fire or who had authority to sign off on “watch standers liberty” for duty personnel on their assigned duty day. [Encl 18, 21, 26, 27, 64, 67, 192, 485, 725, 726, 727]

Per COMNAVSURFPACINST/COMNAVSURFLANTIST 3502.7A, the Relational Administrative Data Management system (R-ADM) is designated as the authoritative database for afloat activities to capture individual unit-level training, including Personnel Qualification Standard (PQS), qualifications, and certifications. For ships with R-ADM, COMNAVSURFPACINST/COMNAVSURFLANTIST 3502.7A requires all watchbills be created, managed, and maintained in R-ADM.

556. BONHOMME RICHARD’s Plan of the Day for 12 July 2020 identified Duty Section 6 as the on-coming duty section with turnover occurring at 0745. [Encl 728]

557. If all personnel assigned to BONHOMME RICHARD on 12 July 2020 were placed on duty in a six section rotation (with the exception of the command triad), at a minimum each section would have had 12 officers, 12 CPOs, and 149 E-1 to E-6 personnel. [Encl 719, 723]

558. While the original BONHOMME RICHARD duty section rosters were lost in the fire, a Ship’s Force recreated Duty Section 6 of 6 roster lists 118 personnel in Duty Section 6, to include 8 officers, 7 chiefs, and 103 E-1 to E-6 personnel. Of note, no engineering department personnel are included in this list. [Encl 7]

559. BONHOMME RICHARD engineering department duty section numbering did not align with the ship’s duty section rotation. Specifically, on 12 July 2020, engineering department Duty Section 4 was on-duty with the ship’s Duty Section 6. [Encl 9, 728]

560. A BONHOMME RICHARD top side engineering department six-section duty roster shows 29 personnel assigned to Duty Section 4 of 6. [Encl 9]

561. CDOs were not directly involved in oversight of management of engineering department or IET watchbills. Likewise, the CDOs were not involved in or aware of engineering department or IET watchbill creation. Additionally, the IET watchbill was not maintained on the quarterdeck but only posted in Engineering Spaces. [Encl 27, 42, 70, 91, 192, 219, 485, 557]

562. Because the original engineering department watchbill for 12 July 2020 was not available,

BHR Section 6 - 12 July	
Present - on duty	115
LEAVE	13
ROM	4
SIQ	4
TAD	2
Off duty - other	7
Total	145

Figure 34 shows the total number of personnel from Duty Section 6 who were mustered at 0745 on 12 July 2020.

a recreated watchbill from notes and memory lists 23 engineering department personnel on-duty with one CPO, (b) (6), identified as EDO. However, next to (b) (6)'s name, the watchbill has "Signed as EDO 24 watch" with (b) (6) noted second as EDO. [Encl 25]

563. On 12 July 2020, engineering department had 8 of 13 personnel on leave. [Encl 10]

564. Based on Figure 34, 20 personnel from BONHOMME RICHARD's off-going Duty Section 5 were still aboard the ship on the morning of 12 July 2020. [Encl 7, 8, 9, 10, 11, 18, 20, 21, 22, 26]

565. Based on a comparison of BONHOMME RICHARD rosters with Naval Criminal Investigative Service (NCIS) evidence, 118 Duty Section 6 personnel were present on 12 July 2020. [Encl 7, 8, 9, 10, 11, 18, 20, 21, 22, 26]

566. Off going Duty Section 5 and oncoming Duty Section 6 comprised 138 personnel onboard the ship or barge at the start of the fire. [Encl 7, 8, 9, 10, 11, 18, 20, 21, 22, 26]

Duty Section	1/C	2/C	3/C	CPO	Officer	Total
7/11/2020	2	4	8	6	0	20
7/12/2020	15	26	67	6	4	118
Total	17	30	75	12	4	138

Figure 35 shows the breakdown of the ongoing and off going duty sections.

567. The BONHOMME RICHARD CO recalled that CNSP COS called to chide him for the crew having multiple close contacts as a result of a positive COVID-19 case and emphasized the need for proper social distancing. Following this direction from CNSP, the BONHOMME RICHARD CO instructed all Department Heads to evaluate daily activities to address COVID-19 risk and inform if a job or maintenance required close contact. (b) (6),

BONHOMME RICHARD First Lieutenant, recalled that the XO's direction was for each department to minimize personnel footprints to fight COVID-19. [Encl 82, 204, 261, 495]

568. The BONHOMME RICHARD CO stated that just prior to the fire, he contemplated adjusting the ship to four duty sections to account for the loss of multiple personnel because of COVID-19 close contacts and subsequent Restricted on Movement (ROM), but he had not made that change prior to 12 July 2020. [Encl 82]

Inport Emergency Team – 12 July 2020

569. BONHOMME RICHARD recreated the IET watchbill for 12 July 2020, listing 19 personnel serving on the IET, all from engineering department. Ten IET personnel were also on the engineering watchbill for either the first or second watch — the first watch was 0745 – 1345. The watchbill format was constructed around four six-hour watches. [Encl 25, 64]

570. Six members who were on duty 12 July 2020 did not know their IET assignment that was listed on the watchbill. These members included: Boundaryman ((b) (6)), Phone Talker ((b) (6)), Plotter ((b) (6)), Access Overhaulman ((b) (6)), Pipepatching ((b) (6)), and Dewatering ((b) (6)). Additionally, two other crewmembers stated that their assigned IET positions were different than listed on the watchbill. This included ((b) (6)) (assigned Investigator but thought he was Team Leader) and ((b) (6)) (assigned as Messenger but thought he was the Plugman). [Encl 19, 52, 67, 104, 122, 170, 563, 712, 713]

571. ((b) (6)) was assigned to the IET, but was not Basic DC qualified. However, he planned to take the test on 12 July 2020. [Encl 52]

572. ((b) (6)) was assigned to the IET, but had no recorded qualifications in FLTMPS. [Encl 697, 698]

573. On 12 July 2020, ((b) (6)) was designated as the IET Team Leader. There is no FLTMPS record of his Team Leader qualification. ((b) (6)) stated that he received his Team Leader qualification years ago, when BONHOMME RICHARD was stationed in Sasebo, Japan, but he could not recall who qualified him. He further stated that he had never been a Team Leader during a full firefighting drill and felt he was neither prepared nor properly trained to serve as a Team Leader. He also stated he was unfamiliar with NSTM 555. [Encl 19, 698]

574. Six Sailors on the engineering department watchbill are assigned both to a manned-space watch position requiring a relief (DC Supervisor, Cold Iron Watch) and an IET position that is expected to rapidly respond to a casualty. These IET positions include the On-Scene Leader, both Investigators, Duty Electrician, Hoseman, and Desmoking. [Encl 18]

575. ((b) (6)) was the Watchbill Coordinator (WBC) for Engineering Department Duty Section 4 of 6. He stated that he created the watchbill in Microsoft Excel and verified with ((b) (6)) and ER04 WCS that personnel were qualified to stand assigned watches. Only engineering department personnel were assigned to the IET watchbill. Other duty sections followed the same

practice of having an E-5 draft the Engineering and IET watchbills in Microsoft Excel then routing the watchbills through EDO and Engineering DLCPO for approval. [Encl 64, 206]

576. The assigned IET electrician for 11 July 2020, (b) (6), left the ship on his assigned duty day and went to his residence before returning back to the ship for duty turn-over the following morning. (b) (6) stated that he received permission from this Engineering Duty Officer, (b) (6), to do so. He further stated that it was common practice to leave the ship on duty days with permission, and he had done so approximately ten times before. Additionally, (b) (6) believed that the Commanding Officer would not object to this practice because the CDO did not object to it. [Encl 30, 446]

577. On 12 July 2020, the IET Team Leader did not enter NBSD until 0827. According to the IET Team Leader, he could not start his car, which caused him to arrive late to NBSD. Once arriving to Pier 2, he noticed smoke but was neither able to access the pier nor BONHOMME RICHARD until after 0900. [Encl 19, 30]

578. On 12 July 2020, (b) (6), the Main Propulsion Division LCPO, was the senior enlisted person from engineering department aboard. He was part of the off-going duty section from 11 July 2020. [Encl 245]

579. The 11 July 2020 engineering department watchbill, which was signed by (b) (6), Engineering Department LCPO, lists (b) (6) as EDO. (b) (6) and the Main Propulsion Division LCPO had coordinated an EDO duty swap on 11 July 2020 via the CHENG, and the Engineering Department LCPO. The CHENG acknowledged that the Engineering DLCPO was responsible for signing Engineering watchbills and managing duty swaps. The BONHOMME RICHARD CO believed that at the time of the fire the CHENG was signing all watchbills from engineering department and he was unaware that this responsibility had been delegated to the DLCPO. [Encl 18, 82, 219, 242, 245, 260]

580. On 11 July 2020, the Main Propulsion Division LCPO entered NBSD at 0602. [Encl 729]

581. On 12 July 2020, the Main Propulsion Division LCPO came onboard NBSD at 0551. [Encl 22]

582. The Main Propulsion Division LCPO recalled being aboard BONHOMME RICHARD late on 11 July 2020 and did not recall leaving NBSD. However, he later clarified that he went home at approximately 2100 on 11 July 2020 and returned at approximately 0530 on 12 July 2020. [Encl 245]

583. Engineering Department Logs for 10 – 12 July 2020 were lost in the fire. Additionally, many other logs and records were lost in the fire. [Encl 730, 731, 732, 733, 734, 735]

584. On 12 July 2020, the DC Central Log at 0740 noted all conditions were normal with firemain pressure at 200 PSI. The final entry at 0745 described the DC Central watch being properly relieved by (b) (6). [Encl 99, 510, 736]

585. When informed about the processes and practices by duty section personnel leading up to

12 July 2020, to include the IET, the BONHOMME RICHARD CO stated that he did not recall any negative trends, and with the exception of a few isolated incidents, he assessed there were no recurring issues with personnel missing duty, assuming watch stander duties, or any other related deficiencies. [Encl 82]

COVID-19 Impacts on Duty Sections

586. The investigation team was unable to determine an accurate number of duty section personnel impacted by COVID and in a SIQ or ROM status due to the conflicting information received. [Encl 7, 10, 737, 738, 739]

587. The BONHOMME RICHARD CO letter to the Safety Investigation Board (SIB) notes that during the work week prior to the fire, the ship typically mustered less than 800 of the 1,067 Sailors assigned (75%) due to COVID-19 mitigations. He further stated that 55 personnel were unavailable on 12 July 2020 due to COVID-19 related SIQ or Restriction of Movement (ROM). [Encl 739]

588. The COVID-19 tracker used by BONHOMME RICHARD to manage COVID-affected personnel and command reporting status indicates there were three positive COVID-19 cases and no personnel in ROM ship-wide on 12 July 2020. [Encl 737]

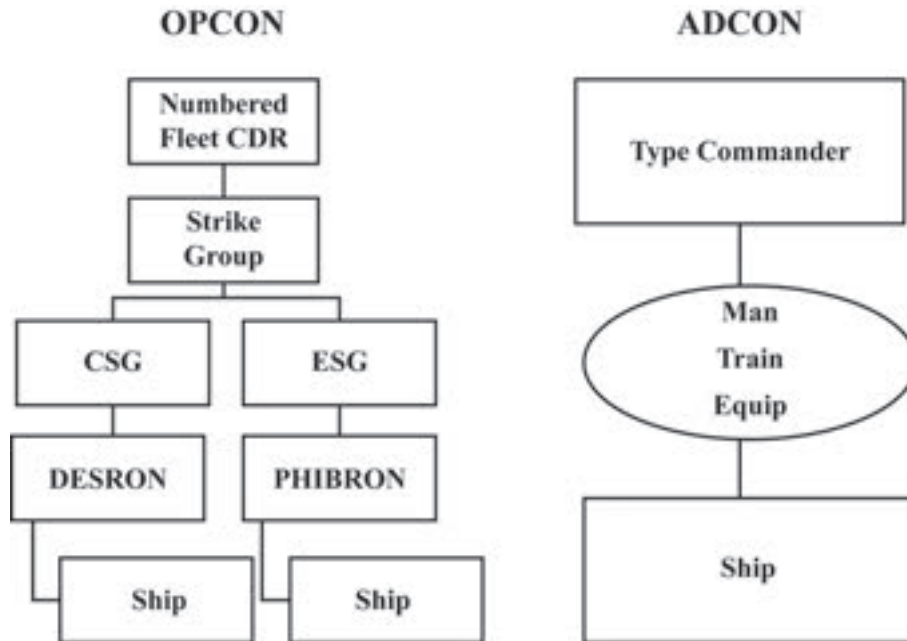
589. A BONHOMME RICHARD roster of all personnel in Duty Section 6 during 12 July 20 identified two personnel in ROM status. One of these personnel was also recorded on the COVID-19 tracker as a COVID-positive Sailor. [Encl 7, 737]

590. BONHOMME RICHARD's Medical 8 O'Clock Reports on 11 July 2020 showed one person in a 14-day ROM and another person SIQ (no names or ranks listed). [Encl 738]

591. A subsequent BONHOMME RICHARD Duty Section 6 roster listed four personnel in ROM and four personnel SIQ on 12 July 2020. Of these, only one person matched the COVID-19 tracker as being COVID-positive. [Encl 10, 737]

Section IV: ADCON and OPCON Oversight of BONHOMME RICHARD

Figure 36, which is derived from the Balisle report depicts the direction and exercise of authority over subordinates with respect to administrative and operational assigned missions.



A. PHIBRON

592. USS BONHOMME RICHARD (LHD-6) was assigned to Commander, Amphibious Squadron ONE (PHIBRON-1) from April 2019 to March 2020 and was then assigned to Commander, Amphibious Squadron FIVE (PHIBRON-5) in March 2020. [Encl 740]

593. CNSP Chief of Staff, (b) (6), stated that O-6 PHIBRON Commodores operate in oversight of the O-6 big deck amphibious ships, but he acknowledged that this ADCON relationship between PHIBRONs and big deck amphibious ships, to include BONHOMME RICHARD, is not delineated by written policy or instruction from SURFPAC. He acknowledged that the Standard Navy Distribution List (SNDL) lists BONHOMME RICHARD as a direct report under SURFPAC, but that in practice the PHIBRON is considered to be in between and provides daily oversight. He further stated that the SNDL should be updated to reflect his relationship. [Encl 334]

594. CNSP Chief of Staff stated that as the BONHOMME RICHARD moved through the phases of its availability, the PHIBRON was responsible to maintain ADCON oversight. He further stated that from the PHIBRON's perspective, the expectation is that the ADCON relationship then goes to TYCOM and not ESG-3, which is in the ship's OPCON chain of command. [Encl 334]

595. VADM Kitchener stated that the immediate superior in command (ISIC) oversight for an O-6 big deck amphibious ship is the PHIBRON. The PHIBRON should ensure training and

readiness are maintained. While the PHIBRON does not have the manning to provide deep technical oversight of maintenance, the PHIBRON does have the manning and expertise to go down to the ship and flag issues for the TYCOM to engage as needed. VADM Kitchener expects the PHIBRON to request support before the TYCOM acts. [Encl 741]

596. (b) (5)



597. When asked who was ultimately responsible as the ISIC for the BONHOMME RICHARD since the start of the availability up to the fire on 12 July 2020, VADM Kitchener stated that both the PHIBRON and CNSP were responsible. CNSP ultimately owned responsibility, but the PHIBRON was supposed to act on CNSP's behalf to keep CNSP apprised of any issues. [Encl 741]

598. VADM Kitchener explained that while ESG is in the operational chain of command for O-6 big deck amphibious ships, ESGs also have responsibility for maintenance and safety oversight. ESGs are expected to track the readiness of their ships, evaluate what is occurring onboard, and call in the TYCOM for support as needed. [Encl 741]

599. When asked about the roles and responsibilities between the TYCOM, PHIBRON, and O-6 big deck amphibious ships during the maintenance availability phase and whether there was confusion that contributed to a lack of oversight of BONHOMME RICHARD, the former Commander of Naval Surface Force Pacific Fleet, VADM Richard Brown stated that the operational and administrative chains of command are clear and the current command and control structure should be followed. He stated further that the commanding officer has overall responsibility for the ship regardless of the phase of the OFRP cycle. Finally, he assessed that the ESG commander, and not the PHIBRON, in conjunction with the TYCOM is best postured to provide oversight of the O-6 big deck amphibious ships. [Encl 742]

600. When asked about the administrative and operational command relationships between the ships, PHIBRON, TYCOM, and ESG-3, the Commodore of PHIBRON-5, CAPT Tony Rodriguez, stated that the command and control "structure is interesting" with ships reporting in parallel to the PHIBRON, ESG-3, and CNSP and noted "there are problems with this current construct." The Commodore of PHIBRON-5 stated that "on paper he is the ISIC of the BONHOMME RICHARD" as the operational commander but stated that because the BONHOMME RICHARD is a big deck amphibious ship, they also have a direct line to CNSP on paper. But despite this direct line, the Commodore stated "BONHOMME RICHARD will always funnel their reports" through the PHIBRON. [Encl 458]

601. (b) (6), PHIBRON-1 Maintenance/Material Readiness Officer (N4), stated that she did not visit BONHOMME RICHARD often, as most meetings with BONHOMME RICHARD were held on the barge. She stated that PHIBRON had a designated hull manager for

the Landing Helicopter Deck (LHD) Class. (b) (6), PHIBRON-1 LHD Hull Manager (N4C), visited BONHOMME RICHARD at least once a week and communicated items of concern from weekly production Situation Reports (SITREP) and meetings, particularly focusing on issues impacting schedule and certification. [Encl 740, 743]

602. The PHIBRON-1 Maintenance/Material Readiness Officer (N4) was neither familiar with the 8010 Manual nor the Fire Safety Council (FSC). [Encl 740]

603. The PHIBRON-1 LHD Hull Manager (N4C) oversaw USS ESSEX (LHD 2) and USS BONHOMME RICHARD (LHD-6) maintenance. He had previous steam plant experience and was familiar with the requirements to prepare ships for events leading up to Light-Off Assessment (LOA). He stated that he tracked the status of repairs and requirements on BONHOMME RICHARD for restoring the Main Machinery Rooms (MMRs). PHIBRON-1 LHD Hull Manager (N4C) stated he did not have full visibility on all system status and repairs, but understood major jobs involved in the repair period. [Encl 743]

604. The PHIBRON-1 LHD Hull Manager (N4C) stated that he went aboard the BONHOMME RICHARD berthing barge for weekly production meetings. [Encl 743]

605. The PHIBRON-1 LHD Hull Manager (N4C) was generally aware of firemain availability, but not other Damage Control (DC) systems on BONHOMME RICHARD. [Encl 743]

606. During visits to BONHOMME RICHARD, the PHIBRON-1 LHD Hull Manager (N4C) noted the industrial work environment was significantly more in depth than what he had experienced on USS ESSEX (LHD-2). [Encl 743]

607. The PHIBRON-1 LHD Hull Manager (N4C) was not familiar with the 8010 Manual or fire drill requirements during an availability. [Encl 743]

608. The PHIBRON-5 Maintenance/Material Readiness Officer (N4), (b) (6), completed multiple engineering tours and was a licensed United States Coast Guard (USCG) Third Assistant Engineer. [Encl 307]

609. (b) (6), a member of the PHIBRON-5 N4 office, stated that he was the deck plate liaison for PHIBRON-5 ships. He had previous experience aboard BONHOMME RICHARD from 2011 – 2015 and also taught in the main propulsion pipeline at the Surface Warfare Officer's School (SWOS)-San Diego before his assignment to PHIBRON-5. [Encl 202]

610. (b) (6) had not heard of the 8010 Manual until after the BONHOMME RICHARD fire and had not participated in an 8010 Manual fire drill while attached to PHIBRON-5. [Encl 202]

611. The PHIBRON-5 Chief Staff Officer (CSO), (b) (6), has served in numerous shipboard engineering positions. He stated that he and PHIBRON-5 Maintenance personnel (N4) visited BONHOMME RICHARD every 2 – 3 weeks from March – May 2020. Visits in March and April 2020 were primarily to ensure BONHOMME RICHARD was ready to take on

fuel. Visits focused primarily on the engineering department spaces and associated material condition, tag out status, and DC equipment/systems. The PHIBRON-5 CSO stated that during his initial visit to BONHOMME RICHARD, engineering department spaces were dirty and there were multiple discrepancies, including significant amounts of Hazardous Material (HAZMAT). The PHIBRON-5 CSO provided his feedback directly to the BONHOMME RICHARD XO as well the DCA, CHENG, and MPA. The PHIBRON-5 CSO noted improvements on follow-up visits prior to the fuel onload in April 2020. He stated that he did not visit BONHOMME RICHARD in May 2020; instead, PHIBRON-5 N4 completed a walkthrough. The PHIBRON-5 CSO received feedback from the N4 about many of the same discrepancies; however, there was some improvement. [Encl 459, 548]

612. Both the current and previous PHIBRON-5 Commodores stated that there were no major issues or concerns raised to them in regard to BONHOMME RICHARD's availability other than the expected extensions and overall length of the availability. [Encl 458, 548]

613. PHIBRON, Expeditionary Strike Group THREE (ESG-3), and CNSP maintenance personnel attended weekly maintenance meetings at Southwest Regional Maintenance Center (SWRMC) in support of BONHOMME RICHARD and other ongoing availabilities. [Encl 130, 414, 459, 744]

B. CNSP

614. From July 2019 to June 2020, 16 of 37 BONHOMME RICHARD duty section fire drills received a failing grade with no indication of additional drills being conducted to remediate and achieve satisfactory (SAT) grades. COMNAVSURFPACINST/COMNAVSURFLANTIST 3502.7A allows for a validation exercise when a loss or concern of proficiency warrants the need after certification; however, COMNAVSURFPACINST/COMNAVSURFLANTIST 3502.7A does not establish any limit, requirement, or threshold that would drive action from outside the lifelines of the ship. No evidence suggests an external assessment was considered or requested by BONHOMME RICHARD, PHIBRON, ESG-3 or CNSP. [Encl 82, 131, 332, 460, 548, 699]

615. In the maintenance phase, a ship is required to perform a fire drill for each duty section every 60 days, as required by COMNAVSURFPACINST/COMNAVSURFLANTIST 3502.7A. The drill is graded by other Ship's Force training team representatives, such as the DCTT. The resulting drill grades must be entered by the duty section into the TORIS/TFOM database. BONHOMME RICHARD maintained eight duty sections through the entire availability with the exception of holiday periods, and the week prior to the fire, when BONHOMME RICHARD shifted to a 6 section duty rotation. At no point did more than three duty sections have graded fire drills in the TORIS database—an issue the OSCAR AUSTIN fire investigation recommended be addressed by the Type Commander (TYCOM). [Encl 574, 702, 724]

616. CNSP N7 (Training and Readiness Directorate) is led by (b) (6), who has been in his position since June 2018. In this role, he developed COMNAVSURFPACINST/COMNAVSURFLANTIST 3502.7A that was signed out by VADM Richard Brown in November 2018. This manual codifies the DC certification process for Ship's

Force. Though DC certification (MOB-D) occurs during the basic phase, COMNAVSURFPACINST/COMNAVSURFLANTIST 3502.7A requires DC Repetitive Exercises (REs) to continue throughout the maintenance phase. [Encl 460]

617. CNSP N7 stated that CNSP has the responsibility to ensure the DC readiness of Sailors within its chain of command and that CNSP relies on Immediate Superiors in Command (ISIC) to act on CNSP's behalf to carry out oversight regarding this responsibility. He stated that the Administrative Control (ADCON) ISIC for a Landing Helicopter Deck (LHD) is the Amphibious Squadron (PHIBRON). [Encl 460]

618. CNSP N7 stated that the CNSP N7 does not track REs via TORIS/TFOM for a ship during an availability, nor do they track 8010 Manual drills. CNSP N7 relies on ISICs to follow each ship. [Encl 460]

619. The CNSP N43 (Ship's Maintenance Directorate), is led by (b) (6), who has been in his position since August 2018. The N43 resides within the CNSP Engineering Readiness department (N4). The N43 manages funding for surface ships within ships' Maintenance Phase, which encompasses TYCOM modernization and growth work. In this role, CNSP N43 supervises the Port Engineers (PEs), who work for the N43 on all maintenance availabilities. [Encl 299, 464, 745]

620. Describing the day-to-day role of the Port Engineer, CNSP N43 stated, "[i]n execution they are monitoring work and looking at new and/or growth work . . . looking [at] the budget and making recommendations to the NSA [Naval Supervisor Authority] . . . they are always in an execution or planning status, 'what is the critical path work?', 'where do you need assistance?', etc." [Encl 745]

621. Discussing the role of the Port Engineer with respect to fire prevention, CNSP N43 stated, "[t]hey don't have a specific role but they have a responsibility to correct safety deficiencies onboard when they observe them." [Encl 745]

622. When asked about the visibility of work Port Engineers should have, CNSP N43 responded by saying, "[I]ook the scope of work is great, I don't know if they would have the full scope of what is going on . . . Ship's Force tagged it out [with regard to Emergency Diesel Generators (EDG) aboard BONHOMME RICHARD], there should have been a discussion at that level, I would have expected the Fire Safety Council to adjudicate that as well." [Encl 745]

623. CNSP N43 described the working relationship between Port Engineers and himself, stating, "[t]he Port Engineer works for me, they are the person on the maintenance team that I call first to get a status . . . I expect them to be familiar with 8010 [Manual] requirements . . . walk the ship with the leadership . . . knowledgeable in Fire safety . . . Project Manager and Port Engineer should be tied at the hip . . . I felt like that was the case on BONHOMME RICHARD and also the NASSCO rep[resentative]." [Encl 745]

624. When CNSP N43 was asked about the BONHOMME RICHARD Port Engineer's familiarity with the lack of alternate power source aboard, he responded, they are "forceful back-

up, I would expect the ship to have the best knowledge on that decision. . . I would hope and accept that he/she would discuss it with the CO . . . in the grand scheme of things, I would see the responsibility with the ship . . . if the Port Engineer felt there was a concern I would expect them to raise it up through the chain of command (including N43).” [Encl 745]

625. The CNSP N43 Deputy, (b) (6), stated that a ship’s commanding officer has the responsibility to ensure the ship is safe whereas the Port Engineer’s job is to ensure maintenance completed safely and efficiently. He stated that Port Engineers are deeply involved in ship maintenance and focus on getting assigned ships out of an availability on time and in accordance with technical requirements because completing availabilities on time is a Chief of Naval Operations (CNO) priority and what Port Engineers are focused on. [Encl 464]

626. Commander, Naval Surface Force Pacific Fleet, VADM Kitchener, views the 8010 as a good document but one that was never institutionalized in the non-nuclear fleet. His command is currently working to ensure ship Commanding Officers better understand how they are empowered to fulfill safety requirements through 8010 Manual requirements. [Encl 746]

627. VADM Kitchener stated that he would like to add additional Recurring Events for Damage Control to ensure that ships are not going for long periods without training events. He is also focusing on how firefighting actions change in the shipyard, and spot checking that training. [Encl 746]

628. The CNSP N43 Deputy stated that walking the ship every day and looking at safety and fire prevention is not the expectation of the PE, as there are safety officers at maintenance centers for this role. CNSP N43 Deputy stated that as an example, safety officers would not be expected to look at the status of work in tanks and voids because this is the PE’s role. [Encl 464]

629. The CNSP N43 Deputy stated that Port Engineers are expected to feed information back to the TYCOM if they are aware of a known issue not in compliance with the NAVSEA Standard Items or the 8010 Manual; however, it is difficult for a single person to maintain complete cognizance of all details occurring on the ship, and recognizing whether or not they add up to something not in compliance with the Standard Items or 8010 Manual — to understand the impact of second and third order effects of decisions on the ship and then connect the dots for how all things are impacted across the ship—requires the entire ship’s maintenance team, which includes the experience of the Department Heads, Limited Duty Officers (LDO), Damage Control Assistant (DCA), and Commanding Officer (CO). [Encl 464]

630. The CNSP Force Damage Control Officer, (b) (6), assessed that ships are training to an objective associated with passing 8010 Manual drills, rather than exercising a competent, integrated fire response. During his turnover in 2018, (b) (6) was told by his predecessor that ships were not allowed to fail 8010 Manual drills because it would impact production schedules associated with their availabilities. [Encl 747, 748]

631. (b) (6) and (b) (6) were co-Port Engineers for BONHOMME RICHARD, sharing duties from November 2019 until 12 July 2020, when (b) (6) then assumed the official role as Port Engineer. [Encl 299, 464, 568]

632. The BONHOMME RICHARD Port Engineer did not routinely attend FSC meetings or receive FSC meeting minutes. FSC minutes show (b) (6) attended the first 4 FSC meetings. There is no record of (b) (6) attending a FSC meeting. [Encl 41, 299, 568, 630, 749, 750]

633. Port Engineers stated that they visited BONHOMME RICHARD on a daily basis prior to COVID-19. (b) (6) stated that he had not visited the ship since March 2020 due to COVID-19 mitigation measures and his pending transfer to Japan. (b) (6) stated that he reduced visits to 1 – 2 times per week after March 2020. [Encl 299, 568]

634. (b) (6) stated that the CNSP N43 branch was actively engaged in coordination of BONHOMME RICHARD berthing barge turnover. [Encl 299]

635. CNSP N43 Deputy stated the barges are controlled by PACFLT and CNSP does have discussions with SWRMC on barge dates. [Encl 464]

636. CNSP N43 stated he was not made aware of any scheduling issues with BONHOMME RICHARD's berthing barge. [Encl 464, 745]

637. Within CNSP N43, the Force Damage Control Officer is responsible for manning, equipping, and training the fleet on DC. He also maintains Damage Control Repair Station (DCRS) equipment inventories, oversees the DC equipment warehouse, and observes 8010 Manual drills as a TYCOM representative. He has served in this role since 2018. [Encl 747, 748]

638. CNSP N43 acknowledged that the Force Damage Control Officer does not look at ship's Inport Emergency Team (IET) drills during availabilities, stating, "I don't know who is doing that or if it is being done ... [CNSP] N7 is forming plans for Basic Phase/Certifications ... (b) (6) looks at performance of 8010 Drills ... not really sure if anyone is [looking at IET drills], maybe the ISIC." [Encl 745]

639. CNSP N43 discussed the role of CNSP with regard to BONHOMME RICHARD in an availability, stating, "[t]heir PHIBRON is their ISIC then to ESG3 . . . it would be news to me if TYCOM had taken on that ISIC role . . . I have never seen any document that shows BONHOMME RICHARD reports directly to TYCOM." [Encl 745]

C. ESG-3

640. RDML Phillip Sobeck, the ESG-3 Commander, took command in April 2020. Regarding ESG-3 situational awareness of assigned ships' maintenance availabilities, RDML Sobeck stated he primarily relied on PHIBRON staff to track and report maintenance concerns, keeping ESG-3 informed of issues and assistance if needed. [Encl 72]

641. RDML Sobeck recalled that BONHOMME RICHARD's availability was experiencing delays and the crew was transitioning from the berthing barge and preparing for crew move aboard. RDML Sobeck stated that there were not any specific availability issues, including the number of brows, raised to his level for BONHOMME RICHARD. [Encl 72]

642. The ESG-3 Deputy Commander, (b) (6), stated that he received a weekly email from SWRMC with information regarding the status of ships in maintenance, and he did not recall any specific issues with BONHOMME RICHARD's availability that were brought to his attention. [Encl 335]

643. The ESG-3 Deputy stated that prior to the BONHOMME RICHARD fire, he was not familiar with the 8010 Manual or the OPNAVINST 3440.18. [Encl 335]

644. RDML Sobeck stated that he neither had damage controlmen nor hull maintenance technicians on staff. He stated DC was not a focal point for his staff prior to the BONHOMME RICHARD fire. [Encl 72]

645. Based on the OPNAVINST 5400.45 depicting administrative control of naval forces and the ROC/POE depicting the required operational capabilities, RDML Sobeck did not identify ESG-3 having a direct role under the 8010 Manual, but his staff worked in an advocacy role. With regard to 8010 Manual drills, RDML Sobeck stated that ESG-3 does not participate in 8010 Manual drills and does not have a prescribed role, but ESG-3 now receives reports of fire drills from SWRMC at RDML Sobeck's request. [Encl 72]

646. RDML Sobeck stated that ESG-3 does not have a planned response to shipboard fires nor are they required to maintain such a plan. He stated that he has a tangential understanding of OPNAVINST 3440.18, having had some familiarity with it in the aftermath of the fire aboard USS MIAMI (SSN-755). Though not familiar with the 8010 Manual prior to this fire, he described the 8010 Manual and OPNAVINST 3440.18 as instructions working with each other in fire response planning and non-nuclear shipboard emergencies. [Encl 72]

647. The ESG-3 Maintenance Officer (N4) works directly with the N4s of PHIBRONs 1, 3, 5 and 7 to manage and support the material readiness of the ESG-3 ships. Both ESG-3 and PHIBRON-5 have one officer assigned to N4. [Encl 414, 744]

648. The current ESG-3 N4, (b) (6), assumed his role in May 2020. He stated that he was familiar with the 8010 Manual and the FSC from his tours as a Chief Engineer (CHENG) on three different ships. He stated the ESG-3 N4 has no visibility on 8010 Manual issues and that SWRMC should be the entity providing assistance for any issues that arise relating to an availability. [Encl 414]

649. The previous ESG-3 N4, (b) (6), was familiar with the 8010 Manual and stated if BONHOMME RICHARD was unable to comply with an 8010 requirement, he would expect the CO to reach to their SWRMC Project Manager (PM) and CNSP Port Engineer. He described the Port Engineer as the ship's "first line of defense." According to (b) (6), ships should also coordinate major issues with CNSP N43, ESG-3, and their PHIBRON N4. [Encl 744]

D. C3F

650. The primary mission of the U.S. THIRD Fleet is to plan and execute naval operations in the Pacific Ocean, with various operational requirements. As part of their operational requirements, they serve as the immediate superior over ESG-3. [Encl 568]

E. PACFLT

651. OPNAVINST 3440.18 designates PACFLT and Commander, U.S. Fleet Forces Command (USFF) as “Primary Commands” with responsibility for “controlling, directing, and coordinating all Navy response to major shipboard non-nuclear casualties at a U.S. naval installation or at a U.S. ship repair or construction activity.” Primary Commands are specifically required to ensure: emergency response plans are established and supported at all installations; all designated responders are trained to carry out their duties; facilities necessary for response are established; periodic drills to exercise the response are conducted; and, overall leadership for any response is provided. Prior to the BONHOMME RICHARD fire, PACFLT had not taken any action to: “designate alternate area commands; ensure custodial commands were trained and equipped to respond to major casualties; provide oversight and evaluation of area and custodial commands, or support major casualty drills” as directed in OPNAVINST 3440.18. [Encl 481, 751]

652. The Fleet Maintenance Officer (N43) at COMPACFLT, RDML Scott Brown, was not aware of OPNAVINST 3440.18 until after the BONHOMME RICHARD fire. The Fleet Maintenance Officer (N43) at U.S. Fleet Forces (USFF), RDML William Greene, was also not aware of OPNAVINST 3440.18 until after the fire. [Encl 481, 752]

653. In 2019, RDML Brown reviewed implementation of the 8010 Manual in private shipyards. Naval Surface Warfare Center (NSWC) personnel worked to cross reference the 8010 Manual with any current NAVSEA Standard Items (NSI). RDML Brown stated that COMPACFLT was well-covered by the 8010 Manual requirements in the NSIs. [Encl 481]

654. RDML Brown stated that he did not receive any reports from SWRMC, Commander, Navy Region Maintenance Center (CNRMC), or the TYCOM regarding an inability to meet 8010 Manual requirements due to insufficient funding or resources. [Encl 481]

655. PACFLT manages the Navy’s berthing barge program in San Diego via (b) (6) [REDACTED], who operationally reports to PACFLT N43 but works within SWRMC spaces. The barges support crew berthing during ship maintenance availabilities. (b) (6) [REDACTED] stated he manages 13 barges in San Diego, which he assigns to ships based on SWRMC-provided availability schedules. [Encl 579]

656. Currently, all 13 berthing barges in San Diego are being used for availabilities. [Encl 579]

657. On 12 July 2020, the BONHOMME RICHARD crew was in the process of moving from their assigned barge back to their ship. [Encl 190, 464, 579]

658. According to (b) (6), a barge move-off requires the ship to: remove all equipment and personal gear off the barge; execute a field day; and, perform a walkthrough with (b) (6). If the barge looks presentable, the ship signs a turnover MOA. The barge then undergoes maintenance on required areas and is fully cleaned before use by the next ship. If there is not enough allotted time to complete a deep clean, a COVID-19 wipe-down is completed to clean all surfaces in keeping with a PACFLT requirement. (b) (6) stated that COVID-19 has not affected barge availabilities. While it normally takes 30 days to transfer a barge between availabilities, (b) (6) stated that if necessary, he could turn a barge around in less than a week by deferring much of the cleaning and maintenance. (b) (6) stated that barges are not removed from ships in an extended availability. [Encl 579, 753]

659. BONHOMME RICHARD's availability end date was originally 5 May 2020. Two extensions for barge support to BONHOMME RICHARD were granted by (b) (6) after requests from SWRMC's Project Team. These extensions provided BONHOMME RICHARD the barge until 15 July 2020, and possibly as late as 5 August 2020, if absolutely necessary. [Encl 190, 519, 579, 754]

660. The barge supporting BONHOMME RICHARD's availability, APL-65, was next scheduled to support USS ABRAHAM LINCOLN (CVN-72) on Naval Air Station North Island (NASNI) beginning on 15 August 2020. ABRAHAM LINCOLN had a Planned Increment Availability (PIA) official start date on 15 September 2020, but according to (b) (6), carriers tend to start availability work earlier. This gave APL-65 a notional 30-day window to be cleaned and undergo maintenance prior to transfer. (b) (6) stated that he would have found a way for BONHOMME RICHARD to keep the barge if another extension had been requested. [Encl 464, 579, 745, 753]

661. After the fire, (b) (6) spoke with BONHOMME RICHARD and ABRAHAM LINCOLN leadership. There were multiple barges available, so APL-65 continued to be assigned to BONHOMME RICHARD with two other barges (APL-5 and YRMB-20) being sent to support ABRAHAM LINCOLN. [Encl 579]

662. The BONHOMME RICHARD CO, CAPT Gregory Thoroman, stated that he encountered issues in maintaining BONHOMME RICHARD's berthing barge and that SWRMC informed him that the barge would have to be relinquished by mid-July 2020, before the habitability milestone was complete. The BONHOMME RICHARD CO discussed potential extensions of the berthing barge with the SWRMC CO, CAPT David Hart, and the SWRMC Code 315 Program Manager, (b) (6). Because an extension seemed impossible, the BONHOMME RICHARD CO focused on ensuring specific berthing areas of the ship were habitable. [Encl 82]

663. The BONHOMME RICHARD CO stated that he would have delayed the crew move aboard date if he knew that he could have received an extension on the berthing barge from PACFLT Berthing Barge Coordinator. [Encl 82]

664. The BONHOMME RICHARD CO stated that there was a comprehensive plan for crew move aboard process, but it was not written down. [Encl 82, 130]

665. The BONHOMME RICHARD XO, (b) (6), stated that the crew moved aboard BONHOMME RICHARD before the habitability milestone was complete because they were going to lose the berthing barge; however, BONHOMME RICHARD leadership wanted the crew to take more ownership of BONHOMME RICHARD and he felt getting the crew back aboard and working on the ship outweighed the risks. He did not think the crew rushed moving back aboard. [Encl 131]

666. The BONHOMME RICHARD XO stated that there were many written plans for crew move aboard once the decision was made to move back aboard the ship and most of it was managed at the Leading Chief Petty Officer (LCPO) level. [Encl 131]

667. The BONHOMME RICHARD triad did a walkthrough before moving the crew aboard, including a walkthrough of the berthing spaces, to ensure the ship's material condition was ready for crew move-aboard. [Encl 82, 90, 130]

668. RDML Brown stated that he did not receive pressure to expedite the transfer of BONHOMME RICHARD's crew from the barge back to the ship and that any perceived pressures to expedite the crew's move aboard date did not reach his level. [Encl 481]

Section V: SWRMC Execution of Requirements

A significant duration of the USS BONHOMME RICHARD (LHD-6) availability was conducted in a private shipyard run by General Dynamics National Steel and Shipboard Company (NASSCO), with the remainder conducted at Naval Base San Diego Pier 2. Southwest Regional Maintenance Center (SWRMC) oversaw this availability and was responsible for the enforcement of fire safety requirements. Naval Sea Systems Command (NAVSEA) held overall responsibility for this availability via SWRMC's Immediate Superior in Command (ISIC), Commander, Navy Region Maintenance Center (CNRMC).

A. Structure and Manning

SWRMC is manned and funded in accordance with the expected number of availabilities SWRMC would oversee based on the number of ships homeported in SWRMC's Area of Responsibility (AOR). SWRMC is structured to carry out a variety of maintenance missions across these availabilities. BONHOMME RICHARD's maintenance availability was among the largest availabilities SWRMC was overseeing.

669. SWRMC is the Naval Supervising Authority (NSA) for assigned maintenance and repair oversight of ships homeported and visiting San Diego, California. The SWRMC Commanding Officer (CO) has overall responsibility for efficient planning, brokering, and execution of all ship maintenance and modernization for assigned ships. As SWRMC's ISIC, CNRMC manages Regional Maintenance Centers (RMC). Specific to Chief of Naval Operations (CNO) availabilities, the NSA is tasked with providing oversight required to ensure all work in the assigned availability is authorized and completed in compliance with applicable technical requirements and maintenance and modernization policies. The NSA is also tasked with ensuring that all work meets schedule, quality, environmental, and safety requirements. In accordance with COMUSFLTFORCOMINST 4780.3, an NSA representative must sign Memoranda of Agreements (MOAs) as assurance that any civilian contractor requirements detailed in the MOA are contained within applicable contracts. [Encl 755, 756]

670. As the NSA, SWRMC has additional responsibilities further detailed throughout COMUSFLTFORCOMINST 4790.3, including specific responsibilities for the Project Team (PT), which is jointly overseen by the NSA and Type Commander (TYCOM). COMUSFLTFORCOMINST 4790.3, Volume VI, Section 41.3.1 clearly delineates responsibilities and accountability for each PT member; however, responsibility for the safe execution of the availability is common to all PT members. [Encl 190, 324, 618, 628, 757]

671. SWRMC also executes some duties belonging to the Ship Repair and/or Construction Activity (SRCA), despite the 8010 Manual defining the SRCA to be the Lead Maintenance Activity (LMA), which would be the private shipyard for availabilities such as BONHOMME RICHARD's. Specifically, SWRMC has assumed the SRCA responsibility to provide Fire Safety Officers (FSO) and a Fire Response Plan (FRP). [Encl 321, 325]

672. VADM William Galinis, Commander, Naval Sea Systems Command (NAVSEA) noted that the Navy changed the organizational structure of the surface maintenance community just

prior to 2000. He assessed that this change was a gradual consolidation of functions from across the maintenance community that today reside under the RMCs. Based on this change, the present day RMCs are performing the maintenance work that was previously spread across other organizations. This change and the associated impacts was reviewed and documented in the 2010 Balisle report. [Encl 470, 758]

673. Fire prevention and response responsibilities are shared among the entities described in the 8010 Manual, with additional risk and ownership placed on the SRCA. In accordance with the 8010 Manual, the SRCA has discrete areas of accountability and responsibility; throughout the 8010 Manual, specific language such as “shall ensure, implement or develop” and “consistent with requirements” denotes these areas. Additionally, the SRCA is directed to develop and implement written Fire Safety and Fire Response Plans, as well as documenting assigned roles and responsibilities in MOAs. SWRMC, having assumed SRCA responsibilities, has established and maintained these required documents in SWRMCINST 5100.11C, Fire Response Plan and SWRMCINST 5100.2B, Fire Safety Plan (FSP). [Encl 309, 324, 470, 474, 759, 760, 761, 762]

674. To support the requirements levied by COMUSFLTFORCOMINST 4790.3 and the 8010 Manual, SWRMC has various departments that provide both direct and indirect support to availabilities. Each department is situated in one of four functional areas within SWRMC: (1) contract management oversight; (2) engineering; (3) fleet technical assistance; or, (4) operations. Although structural and organizational differences exist between the five RMCs falling under CNRMC, the SWRMC organization is analogous to its peers. [Encl 317, 321, 325, 613, 763, 764]

675. (b) (6), the SWRMC Code 300 Waterfront Operations Department Head, is responsible for all depot-level maintenance work on ships in San Diego. (b) (6), SWRMC Code 300 Waterfront Operations Director, reports to the Code 300 Department Head and is responsible for all depot-level maintenance contractor oversight and the professional development of the Code 300 Project Managers (PMs). (b) (6), SWRMC Code 315 Program Manager for Landing Helicopter Assault (LHA)/Landing Helicopter Dock (LHD) Class Ships, is responsible for contract enforcement during LHD class maintenance availabilities and is the direct supervisor of the BONHOMME RICHARD PM, (b) (6). [Encl 309, 519, 765]

676. SWRMC Code 106 (safety department) is split into two separate divisions, 106A and 106B. Code 106 reports directly to the SWRMC CO, but coordinates closely with Code 300 (waterfront operations). Code 106 is primarily responsible for oversight of private repair contractors while assigned ships are in availabilities. Additionally, Code 106 is responsible for SWRMC production safety, Navy Occupational Safety and Health (NAVOSH), environmental compliance, and administration of the FSO program. The SWRMC Code 106 Department Head is also a member of the SWRMC Emergency Control Center (ECC) team, which is activated in case of a major fire in accordance with SWRMCINST 5100.2B. Contractors, including Environmental Safety and Health (ESH) Specialists and Contractor Fire Safety Officers (CFSO), report to the Code 106 Department Head and are tasked with daily shipboard walkthrough inspections to ensure fire prevention and safety requirements. Additionally, Code 106 oversees

drill requirements outlined in 8010 Manual Chapters 12 and 13. [Encl 321, 324, 618, 670, 766, 767, 768]

677. Code 106A operates as a division under the Code 106 department and is primarily responsible for SWRMC personnel safety, both military and civilian. This includes all production personnel that conduct maintenance or repair work while aboard ships on the waterfront, including NAVOSH, fall safety, and production safety. Safety Specialists within Code 106A ensure compliance with regulatory requirements and OPNAVINST 5100.23H. [Encl 321, 326, 618, 641, 769]

678. Code 106A Safety Specialists work closely with assigned FSOs to conduct daily safety walkthroughs with contractor personnel, but Safety Specialists focus their attention primarily on shipboard safety, not fire prevention. [Encl 644, 770, 771]

679. Code 106B operates as a division under the Code 106 department. Code 106B is primarily responsible for ship repair contractor oversight, the FSO program, and environmental compliance. The division head billet (Code 106B) has been vacant for approximately one year, after the individual serving in the Code 106B billet was promoted to Code 106 Safety Department Head, where he currently serves. There are seven ESH specialists working in Code 106B and are assigned to execute their duties on ships in availabilities. In the execution of these duties, ESHs are tasked with formalizing Corrective Action Requests (CARs), investigating safety issues, releasing held scenes, documenting and tracking shipboard mishaps, and performing shipboard inspections. ESH specialists routinely interface with Ship's Force, contractors, Navy installation ESH personnel, and representatives from regulatory agencies to resolve ESH issues, while also providing administrative support to the contractor ESH oversight program. [Encl 618, 644, 746, 770, 772, 773, 774, 775, 776, 777]

680. Additionally, Code 106B is responsible for meeting the FSO program requirements from the 8010 Manual. In support of the maintenance being supervised by SWRMC, there are 20 CFSOs assigned specific fire prevention and response duties and responsibilities in accordance with the 8010 Manual and SRWMCINST 5100.2B. [Encl 325, 327, 618, 644]

681. Within Code 106B, the Government Fire Safety Officer (GFSO) is a government civilian position which was created to address 8010 Manual requirements. GFSO duties include interfacing with Code 300, Code 200, and senior shipyard management in all matters pertaining to shipboard fire prevention and response while in shipyard availabilities. The GFSO also leads the CFSO program in coordinating with and training Ship's Force in preparation for 8010 Manual, Chapter 12 and 13 drills. As noted above, the GFSO position has been vacant since September 2019. [Encl 325, 327, 618]

682. CFSOs are contract employees hired by SWRMC to perform daily safety inspections, provide verbal and written reports during availabilities to the ship's PM, Ship's Force personnel, and Safety Specialists. The 8010 Manual also designates the FSO as the Fire Safety Council (FSC) Chairperson and authorizes him/her, with the concurrence of all FSC members, to ensure compliance with fire safety requirements prescribed in the 8010 Manual. Additionally, each FSO (and assigned member) is expected to initiate approval actions for each specific ship

regarding work, schedules, hull cuts, fire zones, access/egress routes, alarms, firefighting, temporary services routing, and other matters affecting fire safety. [Encl 327, 618]

683. During interviews with the investigation team, multiple SWRMC personnel described SWRMC's safety organization as reactive, vice proactive, and that the command's priority focused on production schedules over safety. The SWRMC CO receives a weekly CNO Availability Brief that focuses on keeping availabilities on schedule. While the SWRMC Safety Department Head attends this brief, SWRMC personnel stated in their interviews that they could not recall a time when safety concerns were raised. [Encl 190, 322, 324, 327, 566, 613, 639]

684. Code 200 (engineering department) consists of several divisions and is primarily responsible for ensuring technical integrity and reliability of availabilities through Fleet Technical Assistance (FTA), Integrated Class Maintenance Plan Assessments, and support of Intermediate level (I-level) and Depot level (D-level) work. FTA support is provided to ships preparing for or conducting an availability. While Code 200 encompasses multiple engineering disciplines and associated support personnel, there are several disciplines directly related to BONHOMME RICHARD's availability and subsequent fire event. [Encl 769]

685. The SWRMC Chief Engineer (CHENG) has been designated as the lead for all technical matters within her assigned activity/activities. She is the local NAVSEA Technical Warrant Holder (TWH) for SWRMC; in this role, she is responsible and accountable for leading and focusing NAVSEA technical efforts on the waterfront to support maintenance, modernization, and repair. Additionally, she is tasked with making technical decisions, allowing NAVSEA to quickly respond to fleet needs. The SWRMC CHENG provides a technical support role for the NSA, including certification. As TWH, the CHENG's primary roles and responsibilities at the RMC are codified in NAVSEAINST 5400.95G. [Encl 613]

686. The SWRMC CHENG's responsibilities specific to fire prevention and response are largely programmatic, with daily functions relegated to subordinate engineers working in several divisions within Code 200. CHENG provides guidance and decision authority on qualifying technical issues, but relies on established engineering practices enforced by various Code 200 engineers. The SWRMC CHENG is also a designated member of the SWRMC ECC team, activated in case of a major fire, with additional responsibilities outlined in SWRMCINST 5100.2B. [Encl 613, 762]

687. SWRMC Code 222 (Project Support Engineers (PSEs)) are considered to be a critical part of availability certification and work closely with the PM and CHENG to certify the availability. The PSEs serve as part of the PT. Their duties include: providing engineering/technical services during the availability; and reviewing contract work specifications to ensure the requirements of tasking documents are met, naval standards are invoked, and final acceptance testing would validate work performed. Additionally, PSEs coordinate resolution of technical issues during availability execution (i.e., Departures From Specification (DFS), Condition Reports and Liaison Action Requests). PSEs also attend all production meetings to assist and advise the PT in matters concerning the repair and modernization of shipboard systems. [Encl 762, 778, 779, 780]

688. PSEs also have responsibilities for fire prevention and response, as detailed in the 8010 Manual. In this capacity, the PSE operates as a technical liaison between SWRMC Code 300 (waterfront operations) and Code 200 (engineering) to address engineering questions. The 8010 Manual requires the PSE to be a FSC member whenever the Engineering Planning Department (EPD) does not exist or if SRCA required. As part of the FSC, PSEs are empowered to address fire prevention, as well as fire response requirements and objectives. The SWRMC PSE is also a member of the SWRMC ECC team, which is activated in the event of a major fire, with additional responsibilities outlined in SWRMCINST 5100.2B. [Encl 762, 769, 778]

689. Across the RMCs, FSO jobs are filled by contractors, government civilians, and active-duty military, with no uniform direction from CNRMC. Beginning in Fiscal Year (FY) 18, Forward Deployed Regional Maintenance Center, Southeast Regional Maintenance Center (SERMAC), Mid-Atlantic Regional Maintenance Center (MARMC), and SWRMC all identified a need for additional funding to hire additional full time FSOs to satisfy 8010 Manual requirements. In each Program Objective Memorandum (POM) request, the RMCs noted that the 8010 Manual requires a FSC for every availability. [Encl 580, 746, 781, 782, 783, 784, 785, 786, 787, 788]

A Program Objective Memorandum (POM) is a recommendation from Department of the Navy (DON) to the Office of the Secretary of Defense (OSD) concerning resource allocation (funding) for specific programs to meet the Service Program Guidance (SPG) and Defense Planning Guidance (DPG). The POM is part of the Programming phase of the annual Program, Planning, Budget and Execution (PPBE) process, which serves as the framework for DOD civilian and military leaders to decide which programs and force structure requirements to fund based on strategic objectives.

690. The RMC overseeing the availability is responsible for providing one member to serve on the FSC as the FSO for the duration of the availability. In accordance with the 8010 Manual, the FSO should not be concurrently assigned to more than one availability, unless the availability is less than six months in duration and work being performed aboard the ship does not require full time FSO support. All four RMCs requested additional funding for additional FSOs based on the number of availabilities being executed. [Encl 781, 782, 783, 784, 785, 786, 787, 788]

691. Office of the Chief of Naval Operations (OPNAV) N43 did not concur with the RMC funding request on the grounds that the FSO requirement increase was not mandated by the 8010 Manual. OPNAV N43's non-concurrence stated, "[n]on-concur with requirement increase based on the determination that dedicated FSOs are not required by S0570-AC-CCM-010/8010." OPNAV N43 reported that they requested technical adjudication from NAVSEA 04, who did not interpret the 8010 Manual as requiring dedicated FSOs. OPNAV N43 relied on NAVSEA 04's determination when denying this request. As there is no single resource sponsor for FSOs at OPNAV, the decision to fund these billets falls to overall contract management funding decision-makers. [Encl 781, 782, 789]

692. After SWRMC's POM submission was rejected by OPNAV N43, SWRMC received the necessary funding from Commander, U.S. Pacific Fleet (COMPACFLT). According to (b) (6), SWRMC's Business Operations Manager, it was assumed COMPACFLT reprogrammed internal funding and "took the additional hit elsewhere in their maintenance portfolio." [Encl 746]

693. As part of its day-to-day operations, SWRMC maintains a Command Duty Officer (CDO) program. Personnel between the paygrades of E-7 to O-3 must qualify as CDO within 90 days of arriving onboard SWRMC. The SWRMC Job Qualification Requirement (JQR) requires personnel to stand three under-instruction (U/I) watches and pass an oral board prior to qualifying as CDO. The SWRMC Senior Watch Officer (SWO), (b) (6), stated that there are no “required” members for an oral board. The oral board is chaired by the SWO, and the SWRMC CO, Executive Officer (XO), and Department Heads do not participate. SWRMC has approximately 90 qualified CDOs; of this number, approximately 5 – 6 are officers. Of note, the qualification process includes no formal training on how to establish and activate the SWRMC ECC, but the SWO stated that there is a checklist for CDOs to follow. On weekends, turnover is conducted on the SWRMC Quarterdeck; however, CDOs are not required to remain on-site for all 24-hours of their duty but are authorized to return home after turnover. [Encl 237, 759]

B. Fire Safety Council Practices

The 8010 Manual vests SWRMC with roles and responsibilities concerning fire safety on ships undergoing availabilities they oversee. One of the primary mechanisms by which SWRMC carries out these duties is through each ship’s FSC.

694. The FSCs at SWRMC are comprised of three core members: CFSO (SWRMC Code 106B Government Contractor), Ship’s Damage Control Assistant (DCA), and SWRMC PM for the availability (SWRMC Code 300). Although the 8010 Manual permits greater participation, FSCs during availabilities generally maintain a minimum number of participants. [Encl 190, 327, 333, 566, 609, 610]

695. Of note, the SWRMC PM for BONHOMME RICHARD’s availability is a prior Aviation Ordnanceman who served for six years in the Navy before transitioning to a civilian position at SWRMC, where she worked for five years before being assigned as a PM. While SWRMC maintains a JQR for the PM position, she did not complete the JQR prior to the fire, nor was there a formal requirement for her to complete it prior to serving as a PM. In her interview with the investigation team, the SWRMC CHENG expressed that the background and training for PMs at SWRMC may not be sufficient for the execution of availabilities worth hundreds of millions of dollars. While expressing a high opinion of the SWRMC PM for BONHOMME RICHARD’s performance, the SWRMC CHENG assessed that the PM position for large availabilities should be more senior level, such as General Schedule (GS)-14. Raising the paygrade to this level would render the SWRMC PM seniority similar to that of a Naval Shipyard PM. [Encl 190, 519, 613]

The 8010 Manual requires PSEs participate on the Fire Safety Council in certain circumstances.

Paragraph 2.1.1.7 (f) reads: “The PSE is not required to be a part of the FSC unless no one from the EPD is available, the EPD does not exist or the SRCA requires it.”

For the BONHOMME RICHARD availability, because SWRMC does not have an EPD (it is not a public yard), a PSE is required to attend the FSC.

696. On 5 October 2018 the SWRMC PM and Assistant PM, (b) (6), were assigned by the Code 106 Department Head, (b) (6), to the FSC by the direction of the SWRMC CO. The letter of designation instructs designees to familiarize themselves with the 8010 Manual, though no formal training or validation of this is included in the Ship-Building Specialist (SBS) or PM qualifications. The Navy Code 300 Department Head who oversees the Project Managers, (b) (6), stated that she was uncertain of which 8010 Manual items are required to be in contracts or what training the PMs should receive on 8010 Manual requirements. The Civilian Code 300 Department head, (b) (6), explained that the FSC is comprised of multiple entities, and PMs bring their knowledge to the meeting, but are not expected to understand everything on a ship's status, such as a diesel generator being tagged out, because this knowledge should come from the ship's force representative. [Encl 309, 519, 610, 765]

697. Contrary to the 8010 Manual, the PSE was not designated as a member of SWRMC FSCs, nor did the PSE routinely participate in the FSC meetings. After reviewing BONHOMME RICHARD FSC composition after the fire, the SWRMC Executive Director (ED) and SWRMC CO both acknowledged that the 8010 Manual required PSE presence at the FSC for this availability. [Encl 203, 321, 325, 609, 612, 614, 615, 617]

698. The 8010 Manual states the assigned FSO is responsible for implementing applicable fire safety requirements during a ship's availability. The 8010 Manual requires the FSO to be designated in writing by the Operations Officer (if in a Naval Shipyard) or the Operations Manager (if in another SRCA). Additionally, the 8010 Manual specifies that the FSO should be assigned to the repair department at an RMC or the operations department at a shipyard. Pursuant to the MOAs between SWRMC and BONHOMME RICHARD signed on 17 October 2018 and 12 December 2019, SWRMC agreed to provide the FSO who "shall be responsible for implementing the safety requirements of the 8010." The primary and alternate FSOs assigned to BONHOMME RICHARD were contract employees from United Support Services Corporation (USS Inc.) who worked within the SWRMC safety department (Code 106B). These CFSOs stated in their interviews that as contractors, they lacked authority to stop contractor or Ship's Force work that was creating fire safety hazards unless the work was an immediate threat to life. Several CFSOs further indicated that their contractor status made compliance enforcement difficult with the prime maintenance contractor. [Encl 324, 387, 617, 644, 645, 714, 715]

699. One of the FSO's primary duties is to chair the FSC. The 8010 Manual requires all FSC decisions be unanimous, indicating that all required members must formally vote on every proposed deviation and mitigation. SWRMC CFSOs consider themselves non-voting FSC members because they are not government employees, a discrepancy also highlighted by the NAVSEA Failure Review Board (FRB). Their perceived role in the FSC was to facilitate decisions by the ship's representative and the PM. The PM and ship's representative — the "voting" FSC members — were unaware the CFSO was not formally "voting" because decisions were captured by signing FSC meeting minutes, and CFSOs always signed their dedicated signature blocks. [Encl 190, 203, 565, 609, 615]

700. The BONHOMME RICHARD FSC meetings were not formally conducted in an environment that required members to gather and discuss fire safety issues and associated risks. The “meeting” was usually an ad hoc event after the daily availability production meeting, with no pre-established periodicity. After the production meeting, the CFSO would walk the FSC minutes to the BONHOMME RICHARD representative and SWRMC PM, who would physically sign the minutes. On some occasions, the FSC members were not physically located together when the CFSO located them to sign the minutes. The NAVSEA FRB also noted many of these deficiencies with the BONHOMME RICHARD FSC meetings. [Encl 190, 203, 565, 609, 615]

701. As noted above, USS Inc. manages the FSO program for SWRMC. USS Inc. is contracted to assist “the GFSO with Fire Safety Program development, implementation, inspection, and training, in order to ensure safe industrial repair operations for U.S. Navy ships during maintenance availabilities under SWRMC’s cognizance.” During the most recent contract review, SWRMC evaluated the company’s performance on this contract as “Exceptional.” [Encl 790, 791, 792]

702. Due in part to the vacant GFSO position at SWRMC, no government employee ever conducted a formal review of FSO discrepancies generated by CFSOs. Additionally, fire safety data generated by CFSOs was not consistently recorded, inhibiting trend analysis required by the 8010 Manual. [Encl 117, 618, 641]

703. While Code 300 personnel stated in their interviews that all SWRMC personnel are responsible for reporting safety violations, many also stated that their primary focus is on schedule and cost, with Code 106 maintains primary responsibility for tracking adherence to safety requirements. [Encl 190, 309, 519, 628, 765]

704. In 2017, SWRMC hired (b) (6) as the SWRMC GFSO. Part of his responsibilities included implementation of the 8010 Manual requirements. Despite his title as the GFSO, (b) (6) did not strictly execute 8010 Manual FSO requirements; instead, he managed the overall fire safety program. [Encl 327, 618]

705. In early 2018, the Code 106B Branch Head position was filled by (b) (6). As GFSO, (b) (6) reported to (b) (6); in turn, (b) (6) reported to (b) (6), the Code 106 Department Head. Government ESH specialists reported to (b) (6), while a USS Inc. supervisor and assistant supervisor liaised with (b) (6) as the principal points of contact for the CFSOs. Further complicating this structure, if a CFSO identified a specific fire safety issue that could not be resolved, they reported the issue to the government ESH specialist also assigned to the same availability. Of note, each government ESH specialist was typically simultaneously assigned to 3 – 4 availabilities. [Encl 117, 327, 618]

706. On 17 August 2019, (b) (6) replaced (b) (6) (who had retired) as the Code 106 Department Head. On 27 September 2019, (b) (6) resigned his position as the GFSO. Both the Code 106B and GFSO billets remained unfilled for more than nine months. As of 12 July 2020, neither billet had been posted for solicitation on USA Jobs. [Encl 117, 324, 361, 618, 644, 793]

707. In September 2017, the SWRMC CHENG submitted a written recommendation to NAVSEA 04 concerning the FSC's authority to waive technical 8010 Manual requirements; specifically, the SWRMC CHENG recommended a formalized deviation policy for 8010 Manual requirements at a higher level than the FSC. NAVSEA 04 rejected this recommendation, stating that the FSC was the appropriate level for adjudication. In June 2017, SWRMC leadership discussed via e-mail whether it may be necessary to establish an "Executive FSC" comprised of SWRMC Codes 300, 200, and 106, as well as NAVSEA 04 and 05, to raise awareness of FSC-approved 8010 Manual deviations to a more experienced group of maintenance leaders; however, such an organization was never established. [Encl 794, 795, 796, 797]

C. Fire Response Planning and Drilling

Each ship in an availability, including BONHOMME RICHARD, is required to conduct periodic fire drills with SWRMC. Additionally, SWRMC is required to develop a FRP and conduct an annual drill to test SWRMC's capacity to respond to major fires.

708. The 8010 Manual, Chapter 3, requires every SRCA to develop a FRP "to deal with fire casualties in their facilities including Navy vessels under construction or repair." SWRMC created a standing FRP that governed BONHOMME RICHARD when it was undergoing maintenance at Naval Base San Diego (NBSD) Pier 2. The FRP is required to include plans for several key aspects of a fire response, to include command and control framework; designations of responsibility for each responding party; plans for integrating civilian firefighters with Ship's Force; logistical factors; interoperable communications plan; and other plans for bringing in needed resources throughout an incident. The SWRMC Fire Response Plan lacked many of these requirements:

- a. Contrary to the 8010 Manual, section 3.2.2.3, the SWRMC Fire Response Plan does not provide an alternate command post location if wind and smoke plume is in the direction of the primary command post location and affecting operations.
- b. Contrary to the 8010 Manual, section 3.2.5, there is no strategy identified in the SWRMC FRP for establishing integrated hose teams between ship's crew and responding fire and emergency services organizations, nor is there an identified integrated hose team relief process.
- c. Contrary to the 8010 Manual, section 3.2.9, there is no logistics plan identifying quantities and location of material and equipment that would be needed during a fire. Further, no facility is identified to store and provide Ship's Force access to Damage Control (DC) equipment, including Firefighting Ensembles (FFE) and Self-Contained Breathing Apparatuses (SCBA).
- d. Contrary to the 8010 Manual, section 3.2.10, there is no discussion regarding the availability of 45-minute SCBAs or identification of a plan to recharge SCBA cylinders on-scene.

e. Contrary to the 8010 Manual, section 3.2.11, there is no discussion of a plan for medical triage and treatment of injured personnel at the scene, as well as transportation of injured personnel to medical facilities.

f. Contrary to the 8010 Manual, section 3.2.16, the FRP does not address changing conditions brought about by the various stages of a ship's maintenance, such as transitioning from pierside to dry dock (and vice versa).

g. Contrary to the 8010 Manual, section 3.2.20, there is no plan to assemble and store information gathered during an accident for the purpose of enabling an accurate reconstruction of the event for review.

h. Contrary to the 8010 Manual, section 3.2.22, the SWRMC Ship Interoperability Radio Communication Plan (IRCP) is a generic three-sentence paragraph designed to be used for any ship. The SWRMC IRCP does not incorporate the following requirements:

- (1) The IRCP does not identify a specific radio system to be used during a response to a fire casualty.
- (2) The IRCP does not list locations on the ship where radio operability could not be validated and a means to mitigate such with solutions.
- (3) The IRCP does not identify the means for interoperable communications between Ship's Force and responding Fire and Emergency Services (F&ES) agencies to exist at the ICP and at the physical location of the In-Hull Operations Section Chief.
- (4) The IRCP does not include an estimate of the number of portable radios necessary to equip all functional areas of the incident management structure for shipboard fire emergency and all teams or personnel anticipated to enter the Inherently Dangerous to Life and Health (IDLH) atmosphere.

[Encl 474]

709. SWRMC maintains its emergency response radios for casualties in a designated building, and radios are to be delivered to ships in the event of an emergency. This is done in lieu of providing radios directly to ships in availabilities because of the significant expense for each radio and the challenge to maintain accountability. These radios are commercial off-the-shelf products that are neither interoperable with Federal Firefighting Department (FEDFIRE) nor municipal fire departments' radios. Additionally, there is no plan to rapidly deliver these radios to a ship during an emergency, as the SWRMC CDO is not required to remain on NBSD during non-working hours and weekends.

[Encl 237, 266, 327, 759]

8010 paragraph 3.2.22 reads:
"The FRP shall include an Interoperable Radio Communication Plan (IRCP). The IRCP shall identify the radio system(s) that will be used during response to a fire casualty. The radio system(s) identified in the IRCP shall be tested to validate operability throughout the entirety of the vessel."

710. SWRMC conducts daily radio checks by simply turning the radios on, but does not conduct an operational test. [Encl 327, 617]

711. The CNRMC Safety Manager acknowledged that the practice of maintaining radios at the RMC is standard practice for all RMCs, due to lack of funding to provide a radio (costing approximately \$5,000) to every single ship in an availability. The CNRMC Safety Manager stated that Commander, Navy Installations Command (CNIC) is aware of this is a long-standing issue. [Encl 580]

712. All SWRMC safety employees interviewed by the investigation stated that integration between U.S. Navy vessels undergoing overhaul or availability, SWRMC, and FEDFIRE or civilian fire departments is generally limited to the requisite 8010 Manual Chapter 12 and 13 drills. SWRMC safety employees noted that the greatest challenge to the practice of integration between FEDFIRE and Ships' Forces is asset availability and FEDFIRE leadership priorities. In the past, FEDFIRE leaders have been unable or unwilling to have their personnel participate in integration exercises due to other competing requirements. SWRMC safety employees also understood FEDFIRE to be required to participate in only a single exercise per quarter to satisfy internal FEDFIRE training requirements. [Encl 310, 333, 798]

713. In addition, when FEDFIRE is present, they do not drill with the same methods that would be employed for an actual fire. To mitigate issues with FEDFIRE's availability, SWRMC and FEDFIRE leadership have simulated FEDFIRE participation by either having SWRMC employees or a FEDFIRE chief stand in during drills and practice evolutions. [Encl 310, 333, 798]

8010 Manual paragraph 12.2.3 explicitly prohibits the SRCA or RMC from deviating from the drill frequency requirements prescribed in paragraph 12.5: "Note: This relaxation [the FSC waiver authority] does not allow deviation from the drill frequency requirements prescribed in paragraph 12.5."

714. Based on the number of ships in an availability at SWRMC since 17 July 2018, when the third revision to the 8010 Manual was released, SWRMC should have conducted 82 periodic fire drills. Contrary to this requirement, SWRMC conducted only 31 periodic fire drills between 17 July 2018 and 12 July 2020. Appendix F identifies the required and completed drills between 17 July 2018 and 12 July 2020. [Encl 310, 768, 799, 800, 801, 802, 803]

The only allowable waiver for drill requirements is listed in paragraph 12.5.2, which grants the FSC waiver authority after a Phase 1 Crew Certification. Per COMNAVSURFPACINST/COMNAVSU RFLANTIST 3502.7A, Phase I Crew Certification occurs approximately three weeks prior to the end of an availability.

715. According to SWRMC records, some fire drills were outright waived and others routinely delayed. Between 17 July 2018 and 12 July 2020, 15 initial drills were performed after day 30 of the availability and 4 drills were performed after the 180-day mark, which is contrary to the 8010 Manual requirement for drills to be performed within 30 days of starting the availability and every 180 days thereafter for surface ships. [Encl 768, 800, 803]

716. From January 2016 through February 2020, SWRMC conducted a total of 61 8010 Manual Chapter 12 drills. Of these, 10 drills were conducted in 2016; 14 were conducted in 2017; 17

were conducted in 2018; 19 were conducted in 2019; and 1 drill was conducted in 2020 prior to 12 July 2020. [Encl 768, 800, 803]

717. Of the 61 8010 Manual Chapter 12 drills conducted, three drills were graded as “unsatisfactory” (UNSAT): USS STOCKDALE (DDG-106) on 9 November 2016; USS DECATUR (DDG-73) on 15 March 2017; and most recently, USS PORTLAND (LPD-27) on 9 May 2019. Despite failing the drill, PORTLAND did not conduct a subsequent 8010 Manual Chapter 12 drill. [Encl 768, 792, 800, 803, 804, 805, 806]

8010 Manual, Chapter 13, requires one major fire drill per calendar year at each SRCA. A drill may be deferred into the following calendar year “as long as the time since the last major fire drill does not exceed 18 months.”

8010 Manual, Chapter 13, also recognizes the impact major drills would have on “cost and production schedules,” and notes that SRCAs “are encouraged to be judicious and careful in their planning to balance the objectives of learning and demonstrating capabilities with minimizing cost and schedule impact.”

718. From January 2016 through February 2020, SWRMC executed five 8010 Manual Chapter 13 drills. Per 8010 Manual, section 13.3.11, SRCAs located in the same region and supported by the same fire department may satisfy the annual requirement by conducting the drill at 1 SRCA, while other SRCAs observe or participate under RMC guidance and approval. To ensure all SRCAs experience the drill, the drill location should be rotated among different SRCAs each year. [Encl 768, 800, 803]

719. On 24 February 2016, SWRMC conducted an 8010 Manual Chapter 13 drill aboard USS CAPE ST GEORGE (CG-71) while the ship was dry docked at BAE Systems Ship Repair. SWRMC graded the February 2016 CAPE ST GEORGE 8010 Manual Chapter 13 drill as “satisfactory” (SAT); however, the CNRMC evaluation team graded the drill as UNSAT due to the drill missing several required attributes. [Encl 807]

720. SWRMC conducted an 8010 Manual Chapter 13 drill aboard USS ESSEX (LHD-2) while pierside at NBSD on 20 April 2016. The 8010 Manual Chapter 13 drill on ESSEX was prompted by the UNSAT 8010 Manual Chapter 13 drill conducted on CAPE ST GEORGE. SWRMC and the CNRMC evaluation team graded the April 2016 ESSEX drill as SAT. [Encl 807]

721. On 2 August 2017, SWRMC conducted an 8010 Manual Chapter 13 drill aboard USS HARPERS FERRY (LSD-49) at Continental Maritime of San Diego. SWRMC and CNRMC both graded the drill as SAT. The drill included participation from Ship’s Force, San Diego Fire Department (SDFD), NBSD FEDFIRE and Continental Marine. [Encl 808, 809]

722. On 31 October 2018, SWRMC conducted an 8010 Manual Chapter 13 drill aboard USS MAKIN ISLAND (LHD-8) while pierside at NBSD. SWRMC graded the drill as SAT. Participants included Ship’s Force, NBSD FEDFIRE, NBSD Emergency Operations Center (EOC), and General Dynamics National Steel and Shipbuilding Company (NASSCO). Of note, published milestones prior to the MAKIN ISLAND major drill included a tabletop exercise on 20 September 2018, stakeholder training on 3 and 9 October 2018, and an exercise rehearsal on 22 October 2018. [Encl 810, 811]

723. CNIC headquarters participated in the MAKIN ISLAND drill on 31 October 2018. This was the only 8010 Manual Chapter 13 drill within the last three years that included CNIC headquarters participation; however, there is no 8010 Manual requirement for CNIC headquarters participation in 8010 Manual Chapter 13 drills. [Encl 812]

<u>Year</u>	<u>Day-Month</u>	<u>Ship</u>	<u>SRCA</u>	<u>Location</u>	<u>F&ES</u>	<u>Pass/Fail</u>
2016	24-Feb	CAPE ST GEORGE	BAE	BAE	San Diego Fire Dept	Fail
2016	20-Apr	ESSEX	NASSCO	NBSD	SD Federal Fire & National City Fire Dept	Pass
2017	2-Aug	HARPERS FERRY	BAE-HII CMSD	HII-CMSD	SD Federal Fire & National City Fire Dept	Pass
2018	31-Oct	MAKIN ISLAND	NASSCO	NBSD	SD Federal Fire Dept	Pass
2020	5-Feb	STOCKDALE	NASSCO	NASSCO	San Diego & Coronado Fire Dept	Pass

Figure 37 provides a summary of the 8010 Manual Chapter 13 Drills SWRMC has overseen since 2016.

724. Following the MAKIN ISLAND 8010 Manual Chapter 13 drill, CNRMC concurred with SWRMC’s SAT grade. However, paragraph 3 of CNRMC’s endorsement states, “[th]e evaluation team expected more participation by NBSD, unaffected ship’s Rescue & Assistance teams, and MAKIN ISLAND. Communications continue to challenge drill effectiveness both shipboard and off ship.” The CNRMC endorsement was signed by (b) (6) (by direction). [Encl 813]

725. Though no 8010 Manual Chapter 13 drill was conducted by SWRMC in 2019, SWRMC conducted an 8010 Manual Chapter 13 drill aboard the USS STOCKDALE (DDG-106) while the ship was dry docked at NASSCO on 5 February 2020. The deferral of the 2019 drill was authorized under 8010 Manual Chapter 13, paragraph 13.1, which permits major drills be deferred into the next calendar year, so long as no more than 18 months have elapsed since the last major drill. SWRMC graded the STOCKDALE drill as SAT. Participants included Ship’s Force, San Diego and Coronado Fire Departments, and NASSCO. [Encl 333, 799]

726. CNRMC’s endorsement of the STOCKDALE 8010 Manual Chapter 13 drill also assessed the drill as SAT, but noted the drill lacked an integrated battle rhythm to effectively combat a fire over an extended period of time. [Encl 799, 814]

727. FEDFIRE was invited to participate in the STOCKDALE 8010 Manual Chapter 13 drill; however, FEDFIRE did not participate due to conflicting NBSD drill commitments. However, a summary of FEDFIRE 2020 training events provided to the investigation claims credit for participation in both practice drills and the assessed STOCKDALE drill. [Encl 333, 815]

728. Regarding the training, coordination, execution and assessment of 8010 Manual drills, the initial release of the 8010 Manual prompted SWRMC to assign Code 106 (safety department) to implement fire drill requirements for both Chapter 12 and Chapter 13 drills. Interview, email, and electronic records since indicate SWRMC Code 106B worked with maintenance teams, ships, and F&ES to coordinate and execute 8010 Manual training and drills. As noted above, Code 106B employs both government civilians and contractor personnel. Employees heavily involved in 8010 Manual drill planning and execution included (b) (6), a USS Inc. FSO who had been employed in that position since 2016, and (b) (6), who participated as the GFSO until resigning in 2019. (b) (6) and (b) (6) both have previous active-duty Navy experience as a Senior Chief Damage Controlman (DCCS) and a Limited Duty Officer (LDO), respectively, and coordinated the majority of 8010 Manual drills on SWRMC's behalf from 2016 – 2019. [Encl 310, 327, 333, 618]

729. Email records from 2017 – 2019 show (b) (6) and (b) (6) worked with Ship's Force representatives to build drill packages incorporating required aspects of 8010 Manual Chapter 12 drill requirements. In his interview, (b) (6) noted that PMs for LHD and LHA-class ships were under the most pressure and would often push back on lengthy fire drills. [Encl 327, 333, 816, 817, 818, 819, 820, 821]

730. The SWRMC standard drill package for all 8010 Manual Chapter 12 drills includes performance criteria addressing communications, firefighting, integration, rehabilitation and termination of fire. Specific portions of each drill package include an immediate and controlling actions checklist, a depiction of the incident management command and control structure, developed shipboard fire attack timelines, the ten principles of emergency response for a shipboard fire, and a Ship's Force generated drill package for the event. [Encl 655, 822, 823, 824, 825, 826, 827, 828, 829, 830]

731. For SWRMC fire drill packages, the page listing "immediate and controlling actions checklist," roughly follows a sample checklist in the 8010 Manual appendices, including the below steps:

- a. Active Fire Detected / Reported to Quarterdeck.
- b. Ship commences immediate and controlling actions: report the fire to F&ES, shipyard, and SWRMC Ship PM who reports to vessel, and SWRMC CDO.
- c. Announce over 1 Main Circuit (1MC): "Fire-Fire-Fire, Cease all Hot Work Operations aboard USS XXX ... Evacuate all Non-Ship's Force Personnel and Muster at Designated Stations and Report Status."
- d. Ship's Force commence immediate firefighting response.

- e. F&ES arrives on-scene and F&ES offers assistance to Ship's CO.
- f. Ship's CO/Designated Representative accepts F&ES offer for assistance.
- g. Security arrives to scene, and receives direction from Ship CO.
- h. Ship CO establishes Incident Command Post (ICP) with F&ES.
- i. Ship's Force and F&ES fighting the fire in-hull.
- j. F&ES along with Ship's Force, SWRMC, and SY [Shipyard] support establish off-hull incident command.
- k. F&ES and Ship's Force continue with integrated in-hull firefighting.
- l. Ship's CO acts as Incident Commander (IC) at all times. Directs the Ship Fire Response Attack Plan.

[Encl 655, 822, 823, 824, 825, 826, 827, 828, 829, 830]

732. According to (b) (6) and (b) (6), they coordinated with both FEDFIRE and municipal F&ES to secure their participation in 8010 Manual drills. [Encl 327, 333, 799, 831, 832, 833, 834]

733. Despite these efforts to secure participation, SWRMC routinely simulated municipal F&ES support, as well as FEDFIRE participation. (b) (6) assessed that FEDFIRE's participation was simulated in approximately 50 percent of the 8010 Manual drills he coordinated. [Encl 835, 836, 837, 838, 839, 840, 841, 842]

734. Email records from 2018 – 2019 show FEDFIRE often limited their participation in 8010 Manual drills to one drill per quarter. As a result, SWRMC Code 106B would invoke 8010 Manual paragraph 12.2.3, which states that an excessive burden on F&ES may allow some attributes for 8010 Manual Chapter 12 drills to be relaxed. This "relaxing" of requirements must be formally proposed by the SRCA or RMC and is permitted so long as one drill is conducted each quarter that meets Chapter 12 requirements. [Encl 838, 842, 843, 844, 845, 846, 847]

735. SWRMC CFSOs also simulated the F&ES and Incident Command Structure when the fire department or shipyard were not available for drills. According to (b) (6), if a shipyard does not have a fire department for drills, then SWRMC CFSOs will simulate F&ES participation in drills. [Encl 333, 747, 748, 831]

736. As noted by (b) (6) above, FEDFIRE previously participated in one drill per quarter, which (b) (6) assessed as meeting the minimum 8010 Manual requirements. If multiple ships were required to conduct 8010 Manual Chapter 12 drills in the same quarter, FEDFIRE would ask (b) (6) to choose a single ship for FEDFIRE to participate in their quarterly drill. (b) (6) noted that by October 2019, integration with FEDFIRE improved after he began attending monthly planning boards to better deconflict their schedules. [Encl 333]

737. The BONHOMME RICHARD CFSO, (b) (6), asserted 8010 Manual drills were pre-staged and not realistic, noting that no drills occurred on a weekend or without prior notice to all parties. Numerous FEDFIRE personnel expressed similar concerns about the nature of the 8010 Manual drills. [Encl 189, 257, 310, 327, 333, 363, 566]

738. The SWRMC Executive Director explained that 8010 drills never practiced the command and control framework that was necessary during the BONHOMME RICHARD fire. He assessed that drill scenarios have not included a major conflagration that completely knocks out the in-hull command and control structure. During normal fire drills, the ship practices a central command and control construct from aboard the ship, and information flows from the ship to the off-ship command center for support. [Encl 325]

739. In February 2019, SWRMC presented a brief on the 8010 Manual requirements and specifically detailed the implementation of these requirements on ships in maintenance availabilities. The section covering Chapter 12 periodic drills stated, “[t]he drill will be run at approximately 1400 to ensure we do not significantly disrupt the avail production schedule.” [Encl 848]

740. According to SWRMC Code 106B members, practice drills were conducted to help ships succeed before being assessed on the 8010 Manual drill, especially since Ship’s Force tended to be the weakest link during drills. Prior to running an 8010 Manual Chapter 12 drill, (b) (6) would organize and provide feedback to a ship on practice drills. According to (b) (6), ships would sometimes completely fail practice drills. [Encl 327, 839, 849, 850, 851, 852, 853, 854]

741. BONHOMME RICHARD CFSO, (b) (6), acknowledged the 8010 Manual does specifically authorize extra preparation training for drills, but CFSOs encouraged extra preparation to “get the ball rolling and get [Ship’s Force] in the right mindset.” [Encl 566]

742. The 29 – 30 September 2019 Contractor Performance Assessment Report from USS Inc., noted, “[a]lthough not required by the 8010 Manual milestones, the contractor has determined that the additional training not only benefits [Ship’s Force], it benefits the Government in not having to redo failed fire drills.” [Encl 792]

743. Despite these observations, SWRMC subsequently discontinued its practice of offering extra preparation drills, due to the inability to offer all ships the same opportunity in light of manning and scheduling constraints. [Encl 333]

744. SWRMC CFSOs generate detailed feedback reports of completed 8010 Manual fire drills. These reports are addressed to the SWRMC Code 106 Director and note that copies should be provided to the ship, SWRMC, prime contractor, CNRMC, and Commander, Naval Surface Force Pacific Fleet (CNSP). These reports list numerous observations and recommend areas for improvement, as well as noting whether actions were in compliance with various manuals, including

- a. NAVSEA Industrial Ship Safety Manual for Fire Prevention and Response, S0570-AC-CCM-010/8010

- b. Naval Ships Technical Manual, Chapter 555, Volume 1, Surface Ship Firefighting.
- c. Naval Ships Technical Manual, Chapter 074, Volume 3, Gas Free Engineering.
- d. Naval Ships Technical Manual, Chapter 077, Personnel Protection Equipment.
- e. Naval Ships Technical Manual, Chapter 079, Volume 2, Practical Damage Control.
- f. Navy Tactics, Techniques, and Procedures, 3-20.31.
- g. SWRMCINST 5100.11a, SWRMC Major Fire Response Plan.

[Encl 855, 856, 857, 858, 859, 860, 861, 862, 863]

745. Numerous SWRMC fire drill reports, despite SAT drill grades, identify concerns with the evaluated ship's slow response to attack the fire. NSTM 555 directs fire attack to occur as soon as possible. The Afloat Training Group (ATG) grade sheet for Repetitive Exercise (RE) 03 requires the fire attack to occur within 12 minutes. [Encl 806, 859, 861, 864, 865, 866, 867, 868, 869, 870, 871]

746. (b) (6), the CNSP Force Damage Control Officer, reviews all 8010 Manual Chapter 12 drill performances. In his interview, he stated that although SWRMC grades 8010 Manual Chapter 12 drills, he does not agree with this construct and believes the Type Commander (TYCOM) should participate in grading. He stated that in the present construct, he receives copies of completed drills with grades. (b) (6) stated that if Ship's Force did not integrate with outside entities, failed to effectively communicate through the response, or set boundaries, he would consider that drill a failure. [Encl 745, 747, 748]

747. Email records from October 2017 to December 2018 indicate that SWRMC Code 106B coordinated with the N43 and safety departments of CNSP to discuss 8010 Manual Chapter 12 and 13 drill implementations. In these e-mails, these organizations mention preparations, evaluations, and the overall importance of 8010 Manual drills. During a later meeting in December 2018, (b) (6) proposed that ATG should have a role in a ship's Maintenance Phase for 8010 Manual training; however, the CNSP N43 noted DC readiness in availabilities was not ATG's function, because the responsibility for DC readiness ultimately falls on the ship's CO. In the minutes, CNSP proposed greater TYCOM involvement for six months to improve ship performance in 8010 Manual drills. [Encl 327, 872, 873, 874]

748. In September 2018, (b) (6) prepared a summary of lessons learned from 8010 Manual fire drills, identifying common drill discrepancies and areas to improve planning, execution, Damage Control Training Team (DCTT) effectiveness, and firefighting. These lessons were based on his direct observations of 8010 Manual drills. (b) (6) identified several concerns to improve and enhance ship firefighting response during availabilities

- a. Drills are not fully developed to challenge or to identify capabilities and vulnerabilities of ship firefighting and preparedness by only conducting minimum anomalies with too many simulations.

- b. Drills do not fully demonstrate proper firefighting techniques, communication, and integration with responding entities, and rehabilitation, to include SCBA refill and medical, monitoring, and triage.
- c. All personnel must take immediate and controlling actions based on the SWRMC FRP and Ship's Force Repair Party Manual in port protocols to include, immediately attack fires.
- d. Rapid response, firefighting teams, investigators, and boundary personnel are unable to properly fake out firefighting hoses and charge fire stations.
- e. DCTT teams default to training modes versus evaluation and assessment to ensure battle flow of drills.
- f. DCTT lacks knowledge to train watchstanders in duties and responsibilities.

[Encl 875, 876]

749. Email records from November 2018 indicate this document was shared with (b) (6) [REDACTED], the CNSP Force Industrial Hygiene Officer, who was working to disseminate information about drills after the 31 October 2018 drill on MAKIN ISLAND. [Encl 798]

750. On 30 December 2019, a joint message from CNSP and Commander, Naval Surface Force Atlantic (CNSL), titled "CNO Availability Best Practices," was released. The message references the 8010 Manual (though not the most recent version released on 17 July 2018). The message highlighted the increased risk of fire during availabilities and reinforced familiarity with 8010 Manual requirements. The message specifically stated, "[t]here is an increased risk of fire during maintenance availabilities. Ship's Force are expected to review the 8010 Manual fire prevention and response manual and ensure all requirements are met and maintained throughout the availability. Conduct internal training on fire prevention, hot work awareness, emergency response plans and training requirements." [Encl 877]

Section VI: NAVSEA and CNRMC Oversight of SWRMC

A. CNRMC

751. Commander, Navy Region Maintenance Center (CNRMC) is the Immediate Superior In Command (ISIC) for the Navy's Regional Maintenance Centers (RMC). CNRMC is dual-hatted as Naval Sea Systems Command (NAVSEA) 21, which is responsible for surface ship modernization. CNRMC Commander, Deputy Commander, and Executive Director (ED) are located in Washington, D.C., while the Deputy Director overseeing all the RMC activities is located in Norfolk, Virginia. [Encl 463, 878]

752. The current and former CNRMC Technical Directors (Code 200) assessed that the physical move of the CNRMC Commander and ED from Norfolk to Washington, D.C. created communications struggles between CNRMC leadership and the rest of the organization. They noted that the Washington, D.C. location of the Commander and ED directs their attention to issues concerning the administration of NAVSEA 21 (the Commander's "dual-hatted" role), with significantly less time to focus on the RMCs. The former ED also noted that her previous location in Norfolk facilitated connections with the Fleet and Type Commander (TYCOM). [Encl 878, 879, 880, 881]

753. CNRMC has one employee, (b) (6) (General Schedule (GS)-14), within its Safety Code who oversees Occupational Safety and Health, Environmental Safety and Health (ESH) and fire safety at all of the RMCs. Additionally, he coordinates fire drills for Ship Repair Facility-Japan RMC. In total, CNRMC has a total of 48 GS billets. In 2018, a NAVSEA Inspector General evaluation listed the existing Safety Code manning as a high severity issue, noting that the Safety Code could not execute its functions without additional personnel support. As of 12 July 2020, (b) (6) was still the only CNMRC employee in the Safety Code. RDML Ver Hage, CNRMC, acknowledged that his office was not providing effective safety oversight due to the "amount of things on (b) (6)'s plate at the time." [Encl 463, 465, 580, 878, 882]

754. (b) (6) conducts RMC safety audits on his own, with occasional assistance from another safety professional in the local area of the RMC being audited. In January 2020, (b) (6) conducted a safety audit of Southwest Regional Maintenance Center (SWRMC) with the assistance of (b) (6) from CNRSW. This audit identified two discrepancies: only two access brows on USS BONHOMME RICHARD (LHD-6) at Naval Base San Diego (NBSD) Pier 2 and inadequate completion of National Incident Management System (NIMS) training by SWRMC Code 106 (safety department) personnel. The 218 CNRMC safety audit of SWRMC identified no written discrepancies. Of note, SWRMC typically conducts 10 – 13 Chief of Naval Operations (CNO) availabilities across four private shipyards in San Diego and as well as multiple ongoing Continuous Maintenance Availabilities (CMAVs) onboard NBSD at any given time. In contrast, Puget Sound Naval Shipyard (PSNS), a public shipyard, conducts one Carrier, Fixed Wing, Aircraft, Nuclear (CVN) availability and 2 – 4 submarine availabilities at any given time. For PSNS safety audits, NAVSEA Industrial Operations (04) routinely has 12 – 15 people on the audit team. [Encl 580, 878, 883]

755. Regarding the process for incorporating the 8010 Manual requirements into NAVSEA Standard Items (NSI) for maintenance contracts, SWRMC's ED explained that prior to the fire aboard BONHOMME RICHARD, if an 8010 Manual requirement was not listed in the NSIs, it was assumed the exclusion was intended. [Encl 325]

756. Organizationally, the Standard Specification for Ship Repair and Alteration Committee (SSRAC) ultimately decides what items are included in the NSIs. Representatives from the TYCOMS, RMCs, and technical community annually meet via the SSRAC to review NSI requirements. [Encl 325, 879]

757. The Acting Director of NAVSEA 04 stated that NAVSEA assumes the NSIs meet the needs of the various stakeholders; if there are issues, she would expect SWRMC to notify CNRMC Engineering (Code 200), who would raise the issue with the appropriate Technical Warrant Holder (TWH) who would then address the concern with NAVSEA04/05. [Encl 878]

758. CNRMC's Code 200 Department Head serves as the SSRAC Director. In this capacity, he receives NAVSEA 05 and 04 technical requirements and translates these requirements into RMC business and policy. [Encl 881]

759. CAPT David Hart, SWRMC's Commanding Officer (CO), acknowledged that a gap exists between the 8010 Manual requirements and NSIs; however, he assessed that CNRMC "owns" this gap for coast-wide contracts, because CNRMC is responsible for coast-wide availability bids. He also noted that SWRMC could propose changes to the SSRAC, but stated that he could not recall ever directing SWRMC representatives to advocate for fire safety-related requirements. [Encl 321]

760. CNRMC's Code 200 Department Head noted that after the BONHOMME RICHARD fire, he was informed about previous Flag-level decisions regarding which NAVSEA 8010 Manual requirements would be incorporated into NSIs, with potential costs strongly impacting the outcome. As an example, he relayed that Huntington Ingalls Industries estimated it would cost more than \$100 million to fully implement all 8010 Manual requirements. [Encl 881]

761. RDML Eric Ver Hage, CNRMC, acknowledged that all 8010 Manual requirements have not been implemented in the NAVSEA Standard Items. He attributed this fact to implementation expenses, but stated that he is currently working to better understand the cost to implement 8010 Manual requirements. [Encl 463]

762. In his interview with the investigation team, RDML Eric Ver Hage, CNRMC, stated that he does not view the 8010 Manual as a "technical requirements document," but rather as a "leadership document." He stated that if he planned to deviate from the 8010 Manual requirements, he could do so with support from his safety department and, if there were technical deviations, NAVSEA 05. [Encl 463]

763. Beyond its SSRAC role, CNRMC also issued technical guidance on 8010 Manual compliance for SWRMC. Between 7 April 2016 and 24 June 2016, the CNRMC Safety Director, (b) (6), CNRMC Technical Director, (b) (6), NAVSEA 05P5

TWH for Fire and Recoverability, (b) (6), SWRMC Safety Director, (b) (6), and the President of the Port of San Diego Ship Repair Association, (b) (6), all participated in an e-mail exchange regarding the type of material used to hang temporary services aboard ships in availabilities. (b) (6) informed SWRMC and CNRMC that during a fire flash-over, temperatures could exceed 600 degrees Celsius, consuming the material that suspended the temporary services and causing them to fall to the deck, where they could entangle firefighters and threaten their safety. However, (b) (6) informed SWRMC that CNRMC's position was that aramid straps, failing to meet the specifications of NSI 009-74, were nevertheless acceptable. No formal waiver for this requirement was submitted to NAVSEA 05, even though the CRNMC Technical Director has no designated technical authority to make this determination. [Encl 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896]

764. As a result of CNRMC's direction on this issue, two standards exist at SWRMC regarding the use of aramid line to suspend temporary services on surface ships. For CVN availabilities overseen by SWRMC, temporary services are suspended using wire coated in plastic, which is compliant with NSI 009-74; however, for all other surface ship availabilities overseen by SWRMC, aramid line is used. [Encl 885, 888, 889, 890, 891, 892, 897]

765. RDML Dave Gale, when serving as CNRMC, established NAVSEA Regional Maintenance Office (NRMO) through CNRMCINST 5440.1 on 23 May 2013 to provide third-party independent oversight of RMCs. Particular areas of oversight included safety compliance and fire safety. To meet this responsibility, NRMO representatives collocated with the RMCs and made reports directly to the NAVSEA Commander on areas of concern. VADM Kevin McCoy, the NAVSEA Commander, supported creation of NRMO to ensure direct feedback on critical issues, establishing an organization analogous to oversight organizations in public shipyards conducting nuclear work, such as the Naval Reactors Representative Office (NRRO) and NAVSEA Shipyard Representative Office (NSRO). [Encl 327, 878, 879, 898]

766. NRMO routinely raised safety concerns and identified areas of safety non-compliance, including 8010 Manual requirements. In particular, the Southwest NRMO, assigned to oversee SWRMC, identified non-compliance with 8010 Manual temporary firemain requirements. Southwest NRMO reported temporary firemain issues to NAVSEA and drove technical resolution and modifications to NAVSEA Standard Items through the SSRAC process, ensuring temporary firemain requirements were fully integrated into contractual agreements with private shipyards. In this effort, Southwest NRMO worked closely with SWRMC Code 106, SWRMC Code 200, CNRMC, and NAVSEA 04/05. [Encl 321, 327, 879, 899, 900, 901, 902, 903]

767. The SWMRC CO noted that he was introduced to the 8010 Manual and various failures to comply with fire safety requirements in a Southwest NRMO-initiated meeting shortly after assuming command. [Encl 321]

768. NRMO identified a wide range of 8010 Manual compliance issues and reported them to CNRMC and NAVSEA to include: brow requirements for large ships; disconnect locations for temporary services running through fire boundaries; storage of materials aboard during availabilities (combustibles, flammables); redundant power sources of firefighting systems; materials used for pallets and ventilation ducting; misalignment of water to fire stations;

misalignment of temporary acetylene gas systems; lack of firefighting water systems in dry docks; fire safety concerns with rental and combustion engine equipment aboard a ship in an availability; and lack of ship's Damage Control (DC) plates staging and availability. [Encl 321, 327, 551, 878, 879, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919]

769. While in operation, Southwest NRMO actively participated in critique events to improve the quality of its oversight process and ensure root causes were identified, documented, and resolved. Southwest NRMO efforts assisted SWRMC's leadership in gaining awareness of 8010 Manual non-compliance. [Encl 761, 913, 920, 921]

770. On 17 October 2018, the previous CNRMC, RDML James Downey, cancelled CNRMCINST 5440.1. This cancellation occurred shortly after NAVSEA disbanded the similarly-structured NSRO. Upon cancellation, no organization was designated to independently assume similar oversight responsibilities. The former Technical Director and ED of CNRMC, who were involved with the decision to disband NRMO, stated that it occurred partially because the previous CNRMC did not want NRMO to submit reports directly to the NAVSEA Commander without CRNMC review. In his interview with the investigation team, the previous CNRMC stated that the decision to disband the NRMOs was made in consultation with VADM Thomas Moore (the NAVSEA Commander) based on RDML Downey's perception that the NRMO structure was ineffective to accomplish change at RMCs. Southwest NRMO representatives were informed about the disbanding of NRMO by the previous CNRMC in a meeting where RMC representatives were gathered to discuss program compliance. [Encl 878, 879, 922, 923]

771. Multiple individuals considered the NRMOs to have added value to the RMCs by providing effective oversight. Additionally, multiple individuals assessed the NRMOs should be restored. [Encl 879, 924, 925]

772. VADM Galinis assessed that NRMO is not worth the return on investment. He stated that many of the issues they reported on were already coming up from the RMCs, so they were mostly duplicative. He agreed that NRMO occasionally raised good issues, but as a whole, he does not see the overall benefit given the billets they require. He also noted that NRMO did not provide substantive feedback and feels it would be better to plus up Code 106 at the RMCs or give them more support at the RMC level to help with implementing requirements. [Encl 470]

B. NAVSEA

773. Regardless of 8010 Manual requirements, contractors performing maintenance work on ships during availabilities are only bound by the provisions invoked in an individual contract. To ensure contractor compliance with the 8010 Manual, NAVSEA includes fire prevention language in the NSIs, which are invoked in each maintenance contract. [Encl 765, 781, 878, 925, 926, 927]

774. Each maintenance contract includes Category 1 NSIs, which are automatically invoked. Fire Protection requirements are part of this category and fall under the 009-08 section of the

NSIs. The Naval Supervisory Authority (NSA) for an availability is responsible for enforcing these requirements and holding contractors accountable for complying with NSIs incorporated into contracts. [Encl 255, 324, 325, 333, 878]

775. NSI items change annually; consequently, it is possible to have multiple ships in availabilities that simultaneously invoke different versions of the NSIs (and therefore, different 8010 Manual requirements), even within the same private shipyard. [Encl 327, 333]

776. The NSI fire prevention requirements do not cite to the 8010 Manual, exacerbating discrepancies between the NSIs and 8010 Manual. [Encl 321, 325, 596]

777. The 8010 Manual, section 1.2.3 states: “[f]or new construction ships and repair availabilities in private shipyards, the requirements apply in whole or in part when invoked in shipbuilding or repair contracts.” This paragraph enables RMCs to assume that 8010 Manual requirements not listed in the NSIs are not applicable to an availability. [Encl 325, 765]

778. For maintenance availabilities scheduled for less than 10 months in San Diego, SWRMC’s Contracting Office (Code 400) is responsible for soliciting bids from local shipyards, awarding the contract, and administering the contract. For maintenance availabilities longer than 10 months, NAVSEA 02 solicits bids from all shipyards along the west coast and awards the contract. If the contract is awarded to a shipyard within the Southwest area of responsibility, SWRMC is assigned to execute the contract. [Encl 480, 757, 763, 928, 929, 930]

779. NAVSEA 02 assembles an availability contract approximately 520 – 560 days in advance of the performance start date. While SWRMC receives an advanced look at the period of performance start dates, it does not have representation during the initial contract planning. [Encl 475, 763]

780. (b) (6), NAVSEA 05B, stated in his interview that he was not aware of any interaction between NAVSEA 05 and NAVSEA 02 to determine whether the 8010 Manual requirements are included in contract planning. He assessed that NAVSEA ultimately owns the risk when 8010 Manual requirements are not included in contracts based on the fact that the RMCs and CNRMC are part of the NAVSEA organization. [Encl 931]

781. Approximately three years ago, the Navy switched from cost plus-reimbursement contracts under the Multi-Ship Multi Option (MSMO) format to firm-fixed price contracts under the Multi Award Contract/Multi-Order format (MAC-MO). The MSMO construct consisted of a single contract award for multiple availabilities, resulting in a single competition for all availabilities related to a ship class or group of ship classes. This structure required the prime contractor to coordinate the planning of work package specifications for each availability. This contracting format was discarded because it led to excessive costs and schedule delays. In contrast, MAC-MO contracting utilizes a firm-fixed price format where the prime ship repair contractor is contracted a single availability on a cost-reimbursement contract and a separate contractor, QED Systems, Inc., is given a contract for coordinating the work package specifications. [Encl 464, 757]

782. MAC-MO contracting, in its firm-fixed price format, focuses primarily on cost control and transferring cost risk to the prime contractor, regardless of initial bid proposal. This results in less flexibility in adding contracted work to an availability after the initial contract is closed. It also awards the contract much later in the process and thus results in the assignment of a Lead Maintenance Activity (LMA) to an availability much later in the process, which negatively impacts planning. [Encl 190, 475, 757, 928]

783. After the maintenance contract is delivered, SWRMC ensures contract requirements and milestones are followed by the LMA throughout the availability. [Encl 475, 763]

784. If SWRMC identifies a contracting problem, they communicate with the assigned NAVSEA Procurement Contracting Officer (PCO). Upon notification of an issue, the PCO can either delegate the authority to SWRMC to make contract changes or make changes themselves. For issues beyond the basic contract, such as growth work, SWRMC must submit a Request for Contract change. For some items, NAVSEA delegated authority for SWRMC to perform certain contract modifications. [Encl 475, 763, 928]

785. The SWRMC CO noted that there is no notification method for informing SWRMC of potential requirement gaps if CNRMC accepts contractual terms that fail to conform with 8010 Manual requirements. [Encl 321]

786. Similarly, the CNRMC Safety Manager noted that there is no formal feedback mechanism for CNRMC if a ship is part of a NAVSEA-generated contract that fails to comply with 8010 Manual requirements. [Encl 580]

787. (b) (5)



788. The Naval Shipyard Operations Department (NAVSEA 04X) manages Naval shipyards. NAVSEA 04X holds the technical warrant for certification of all commercial and Navy dry docks that conduct docking of U.S. Navy vessels. [Encl 932]

789. NAVSEA 04X conducts audits to verify compliance with the 8010 Manual for Naval Shipyards and NAVSEA Technical Publication, Industrial Ship Safety Manual for Submarines, S9002-AK-CCM-010/6010 (hereafter "6010 Manual") for submarine availabilities. These audits include Hawaii Regional Maintenance Center (HRMC) and Northwest Regional Maintenance Center (NWRMC) since they exist within Naval Shipyard commands. All other RMCs have 8010 Manual audits conducted solely by CNRMC. [Encl 933, 934]

790. NAVSEA 04X owns both the 6010 Manual and 8010 Manual, and NAVSEA 04X signed the most recent revisions of both manuals. No technical warrant exists directing this ownership; however, NAVSEA 04X6 (Director of Oversight and Performance Assessment Division) stated in his interview that he thinks he has technical authority of the manual. [Encl 191, 883, 934]

791. The Secretary of the Navy (SECNAV) delegates technical aspects of his authority through NAVSEAINST 5400.97C, which assigns responsibility to systems command commanders to

serve as the technical authority and operational safety and assurance certification authorities. NAVSEA Notice 5400 assigns a list of all NAVSEA Technical authorities, which include Deputy Warranting Officers and TWH for specific technical domains. [Encl 931, 932, 933]

792. NAVSEA Surface Ship Design and Systems Engineering (05D), (b) (6), is designated the Chief Systems Engineer for Ships. Falling under this purview are the following: technical warrants Ship Design Manager, NAVSEA 05D5; for LHA, LHD and LCC class ships, (b) (6) and the SWRMC Waterfront Chief Engineer (CHENG), SWRMC Code 240, (b) (6). [Encl 932]

793. The LHD Ship Design Manager (SDM) (formerly (b) (6)) primarily focuses on design issues related to the class, but also adjudicates major Departure From Specification (DFS) routed to him by waterfront CHENGs. He reviewed no fire safety DFSs associated with BONHOMME RICHARD's availability. [Encl 935]

794. NAVSEA 05P, (b) (6), is the designated Technical Domain Manager for ship integrity and performance engineering. Falling under this purview are the following: the TWH for damage and fire recoverability, (b) (6), NAVSEA 05P; DC and personnel protection — ships, (b) (6), NAVSEA 05P5; and, fire protection systems — ships, (b) (6), NAVSEA 05P5. [Encl 932]

795. None of the 05P5 TWH reported receiving a DFS regarding noncompliance with 8010 Manual requirements. In interviews with the investigation team, they indicated they would only have had visibility of such a DFS if it was received by either a SDM or waterfront CHENG. [Encl 191, 340, 893]

796. VADM Galinis stated that NAVSEA is currently evaluating how to handle 8010 Manual technical authority. He is leaning towards making the responsible party a designated tech warrant holder in NAVSEA 04, which currently owns the 8010 Manual without this designation. He cited the dry dock ownership construct within NAVSEA as a similar model to follow and assessed it would be a relatively easy solution. But the team is still assessing this issue to determine how best to clarify these lines of authority from the waterfront up to NAVSEA. [Encl 470]

Section VII: NBSD and FEDFIRE Execution of Responsibilities

A. FEDFIRE

Metro Area Organization

797. Federal Fire Department — San Diego Metro (FEDFIRE Metro) is a consolidated, all hazards fire department serving the Department of Defense (DoD) in the greater San Diego area. The department began as nine individual fire departments serving multiple naval and Marine Corps installations. In 1983, the San Diego area fire departments consolidated into one large fire department. FEDFIRE Metro is currently comprised of four battalions, including 12 stations and over 200 employees across 8 installations: Naval Base San Diego (NBSD), Naval Air Station North Island (NASNI), Naval Medical Center San Diego (NMCSD), Naval Base Point Loma (NBPL), Naval Outlying Landing Field Imperial Beach (NOLF), Marine Corp Recruit Depot San Diego (MCRD), Naval Auxiliary Landing Field San Clemente Island (SCI), and Naval Base Coronado (NBC). (See Figure 38). [Encl 188, 193, 363, 936, 937]

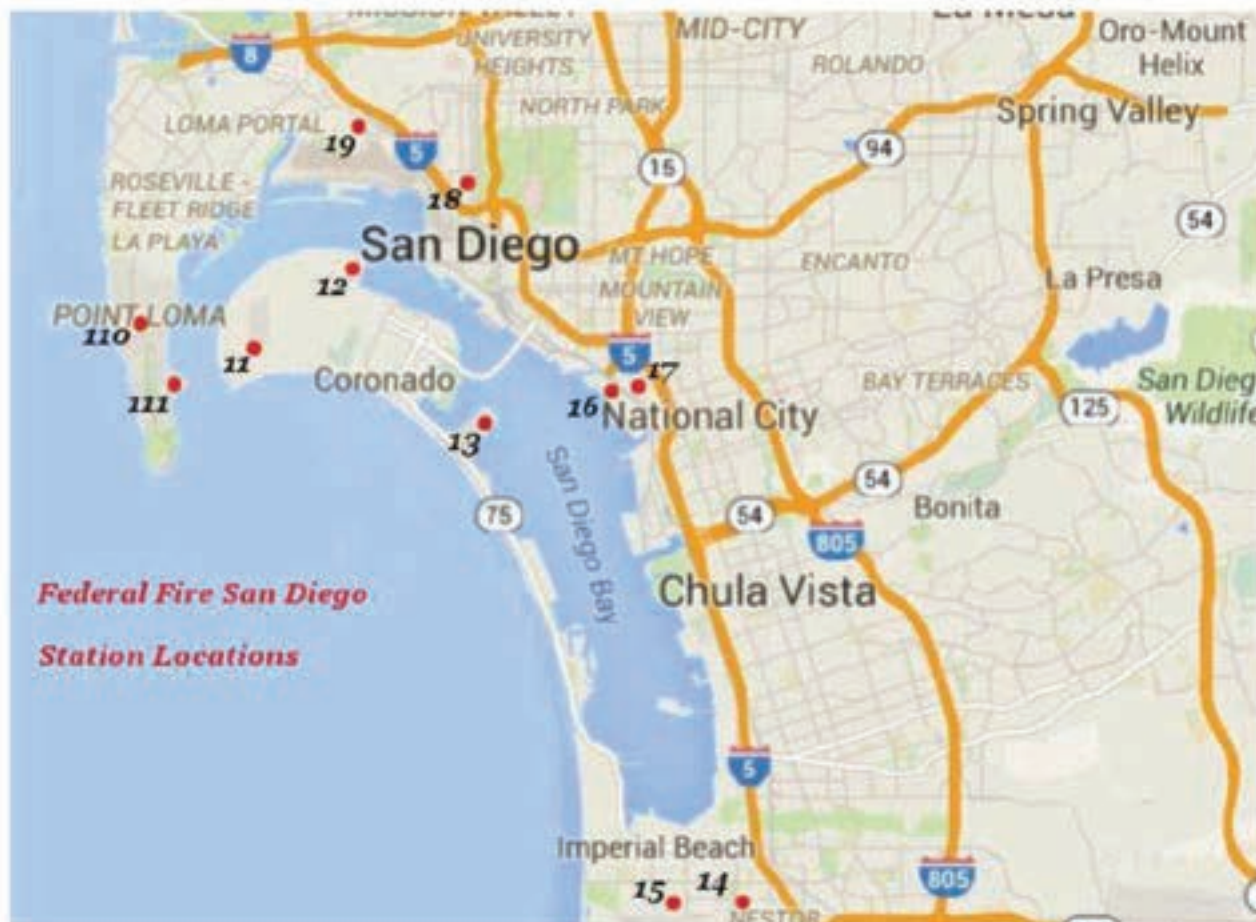


Figure 38, Map of FEDFIRE San Diego Station Locations (Excluding San Clemente Island)

798. FEDFIRE Metro is led by FEDFIRE Metro [REDACTED], who is responsible to support commanding officers (CO) of four commands: NBSD, NBC, NBPL, and MCRD. FEDFIRE Metro (b) (6) is supported by FEDFIRE Deputy Fire (b) (6) and seven assistant fire chiefs. FEDFIRE Metro (b) (6)'s office is located on NBC. The NBSD Battalion Chief, as well as the Fire Prevention Office, are located on NBSD. (See Figure 39). [Encl 188, 193, 348, 363, 937]

799. FEDFIRE Metro (b) (6) reports administratively to Commander, Navy Region Southwest (CNRSW) FEDFIRE (b) (6), who reports directly to the CNRSW Director of Operations (N3), (b) (6). A command structure from FEDFIRE Metro (b) (6) to the individual battalions consists of a fire chief, deputy chief, assistant chief of safety and emergency medical services, assistant chief of training, battalion chief of training, assistant chief of prevention, four assistant chiefs of operations, and four battalion chiefs. [Encl 188, 193, 348, 363]

800. FEDFIRE Metro is responsible for meeting requirements and tasking aligned with each installation's priorities, and each installation CO is expected to coordinate these priorities with their respective fire chief. The NBSD CO, CAPT Mark Nieswiadomy, noted that FEDFIRE operates in support of the installation and FEDFIRE has an Operational Control (OPCON) relationship to the installation. [Encl 188, 193, 314, 363]

801. The FEDFIRE command and control construct in San Diego is unlike any other in Region Southwest, because there is a single FEDFIRE Chief that oversees multiple installations and bases — FEDFIRE Metro (b) (6). [Encl 363, 937]



Figure 39, FEDFIRE Metro Area Organizational Structure

802. The requirements and functions for the consolidated Metro area are not codified in CNRSW policy or instruction, though formal designation is not required under OPNAVINST 11320.23G. Of note, under this construct, the FEDFIRE Metro Chief is directly responsible to all four installation COs. [Encl 348, 363, 937]

803. Under the Metro area construct, FEDFIRE is able to shift personnel to various installations to fill short-term manning gaps. CNRSW FEDFIRE (b) (6) noted that FEDFIRE stations generally respond to fires within their respective installations, but if there are multiple incidents or a FEDFIRE engine is otherwise occupied, a FEDFIRE engine from another installation can respond and provide coverage as necessary. [Encl 188]

804. OPNAVINST 11320.23G requires each installation to have its own FEDFIRE chief, but authorizes regions and installations to merge assets under a single FEDFIRE chief to support multiple installations within 50 miles. Commander, Navy Installation Command (CNIC) N30, (b) (6), stated in his interview that he was aware CNRSW combined installations under a single FEDFIRE Metro Chief for the San Diego metro area, but could not identify any written policy approving this construct or outlining the requirements and functions for how the Metro area would operate. [Encl 687]

805. FEDFIRE Metro (b) (6) assessed she is unable to meet all of the requirements of OPNAVINST 11320.23G because of the significant number of demands placed on her by the metro area construct. [Encl 363]

806. The CNRSW FEDFIRE (b) (6) assessed this the Metro area construct, in which one General Schedule (GS)-11 Chief covers many different fire stations, is unsupportable. [Encl 188]

807. The CNRSW N3 explained that FEDFIRE is an internal CNRSW asset that is operationally assigned to a base or installation while retaining a relationship to CNRSW for administrative and policy matters. [Encl 348]

808. The NBSD CO assessed that he has authority to task FEDFIRE Metro (b) (6) as a Department Head, but acknowledged that she also supports numerous other installation COs in the San Diego area. [Encl 314]

809. The NBSD Executive Officer (XO), (b) (6), stated that the FEDFIRE Metro Chief is considered a Special Department Head within the NBSD command and control organization. In that sense, he considers FEDFIRE both an internal asset as a Special Department Head and an external entity as a CNRSW asset. [Encl 938]

810. FEDFIRE San Diego’s battalions are aligned with the three large naval installations in San Diego, with Battalion 11 covering NBC, Battalion 12 covering NBSD, and Battalion 13 covering NBPL and MCRD San Diego. [Encl 188, 937]

811. Battalion 12 includes Stations 16, 17, and 18, and has a minimum daily staffing requirement of 19 personnel. Stations 16, 17, and 18 have a total combined authorized workforce of 58 billets. [Encl 937]

812. According to FEDFIRE, Battalion 12 does not include a shipyard inspector because the current shipboard fire risk classification of NBSD. In accordance with CNIC N30 HPD Advisory 2015-02, NBSD is designated as a Level 4 shipboard fire risk category, which is the fire risk category assigned to “Major/Intermediate/Minor Ports and Piers/Wharves.” According to FEDFIRE Metro (b) (6), a shipyard inspector billet would be required if NBSD was classified differently (as a Level 2 shipyard). [Encl 188, 363, 687, 939]

FEDFIRE Assets for Battalion 12, Stations 16, 17 and 18:

Station	Apparatus/Function	Personnel
Station 16 (32 nd St. – Wet Side)	Engine 16	Captain, Engineer, 2 – Firefighters (FF)
	ALS Ambulance	2 - Firefighter/Paramedic
	Engine 161	Captain, Engineer, 2 – Firefighters
	Brush 16	Cross-staffed by Engine 16
	Fire Inspection	3 – Fire Inspectors

Station 17 (32 nd St. – Dry Side)	Truck 17	Captain, Engineer, 2 – Firefighters
	HAZMAT/Rescue 17	Cross-staffed by Truck 17
	Battalion 12 Command SUV	Assistant Chief of Operations
Station 18 (NMC, SD – Balboa)	Engine 18	Captain, Engineer, 2 – Firefighters
	BLS Ambulance	Cross-staffed by Engine 18 (2 - FFs)

Battalion 12 – Minimum Staffing (Daily Staffing: 19)

Apparatus	Location	Staffing
Engine 16	Fire Station 16	4
Engine 16	Fire Station 16	4
Brush 16	Fire Station 16	Cross-staff with Engine 16/161
Medic 96	Fire Station 16	2
Truck 17	Fire Station 17	4
Hazmat 17	Fire Station 17	Cross-staff with Truck 17
Battalion 12	Fire Station 17	1
Engine 18	Fire Station 18	4
Basic Life Support (BLS) 98	Fire Station 18	Cross-staff with Engine 18

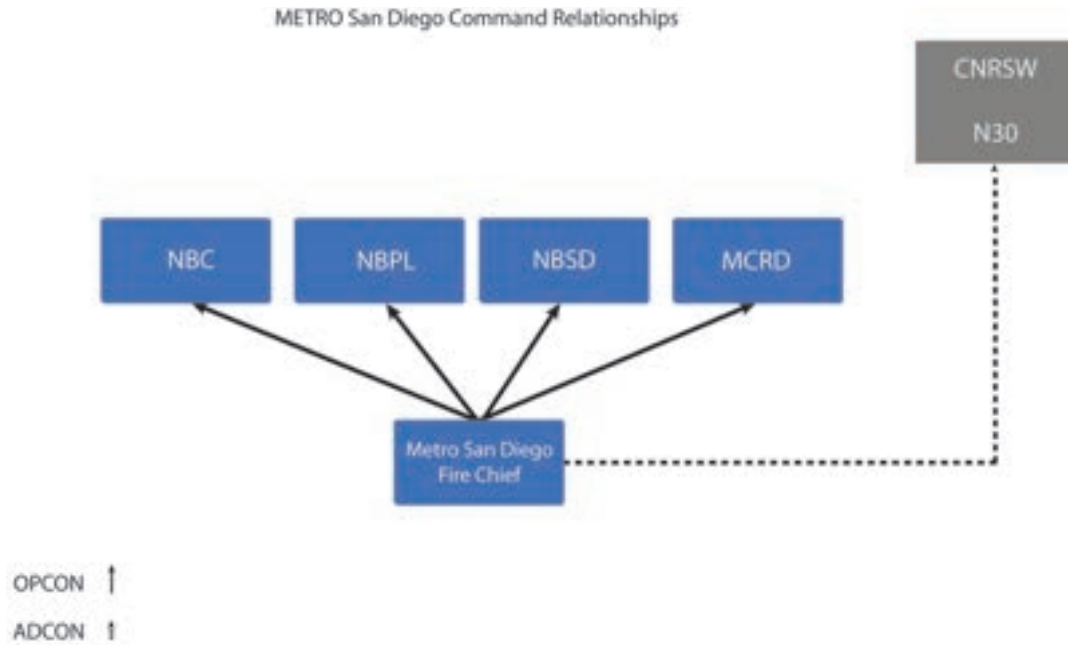


Figure 40 shows the FEDFIRE Metro command relationships.

Practices for Shipboard Fire Response

813. FEDFIRE Metro Standard Operating Guideline (SOG) 176 outlines practices for shipboard firefighting. SOG 176 has not been revised since it was issued on 10 October 2012. [Encl 940]

814. Per SOG 176, Ship's Force is expected to be equipped and manned to manage a fire without outside assistance. FEDFIRE responders are considered to be a secondary response team to assist Ship's Force in the event of a large-scale incident beyond the scope of the ship's capability. [Encl 940]

815. SOG 176 does not dictate practices for integration with Ship's Force. FEDFIRE Metro (b) (6) assessed that on-scene chiefs and Incident Commanders (IC) are expected to make detailed decisions as to what and how integration would occur for a particular incident. [Encl 363, 940]

816. Navy Fire & Emergency Services (F&ES) personnel are generally not required to risk their own safety when there is no risk to life and activities are limited to defensive operations. However, in accordance with OPNAVINST 11320.23G for shipboard fires, the FEDFIRE IC shall balance risk to responders with the need to attack the fire in order to save the ship or submarine. FEDFIRE personnel acknowledged that a U.S. warship is unique from other property and therefore warrants greater protection and several FEDFIRE personnel also assessed they would risk their lives to protect the Sailors who are protecting their ship. [Encl 257, 310]

817. Per SOG 176, FEDFIRE will not support Ship's Force personnel who engaged in fire suppression activities when there is a risk of imminent danger to FEDFIRE personnel due to explosives. SOG 176 indicates that the IC shall assess the risk prior to committing FEDFIRE

resources. SOG 176 states, “Ships forces engaged in fire suppression activities at [incidents where explosives are known to be involved] shall not be supported if imminent danger to F&ES personnel is anticipated. The operation shall be meticulously “risk assessed” [sic] by the IC prior to committing F&ES resources.” [Encl 940]

818. In response to a shipboard fire, FEDFIRE’s policy sets “One Alarm” as the initial Effective Response Force (ERF). An alarm consists of three engines, one truck, and one ambulance, with the minimum manning of one chief officer and four personnel per engine, including the captain. A minimum of 12 FEDFIRE members from 3 Engine/Ladder Companies is required prior to initiating offensive firefighting operations. [Encl 181, 257, 940]

819. FEDFIRE’s target response for the first engine arrival on-scene is within 7 minutes, with the initial ERF of 25 firefighters and officers arriving within 12 minutes. Per FEDFIRE policy, a “Second Alarm” should be requested for additional manpower if there is smoke or flames present upon arrival of the first apparatus. [Encl 257, 937, 940]

FEDFIRE Marine Services ERF – *Working a Shipboard Fire:*

Role	No. of Personnel
Command	1
Safety	1
Accountability	1
Damage Control Central	1
Pump Operator	1
Fire Attack	4
Backup Line	4
Search & Rescue	4
Rapid Intervention Crew	4

Ventilation	2
Water Supply	1
Medical Standby	1
TOTAL	25

820. Per FEDFIRE policy, the first arriving Engine Captain should proceed to the Quarterdeck to meet the Command Duty Officer (CDO) or another ship representative and gather information about the emergency situation. FEDFIRE personnel interviewed by the investigation stated that FEDFIRE policy does not establish a specific series of questions; however, in general, variants of the following questions are asked:

- a. What assistance, if any, do you need from FEDFIRE?
- b. What is the class of fire?
- c. Where is the fire located?
- d. What firefighting actions have been done and are ongoing?

[Encl 149, 164, 257, 940]

821. FEDFIRE Metro (b) (6) stated that the Metro area's pre-incident plan for a shipboard fire is standardized for all ships, with the exception of radiological vessels. FEDFIRE Metro (b) (6) acknowledged that this means there are no ship-class specific pre-incident plans. [Encl 149, 164, 188, 229, 257, 363]

822. FEDFIRE Metro does not train to search for a shipboard fire, but rather, they rely on Ship's Force to inform them of the fire's location. Per SOG 176, standard procedure requires FEDFIRE to obtain the "location and class of fire" from Ship's Force at the quarterdeck. [Encl 156, 161, 940]

823. FEDFIRE Metro does not have Damage Control (DC) plates for any ships berthed at NBSD. Upon arrival to the scene, FEDFIRE expects Ship's Force to provide DC plates to them. FEDFIRE personnel reported that they have requested DC plates for ships to have in advance, but have been denied the DC plates with the justification that the DC plates are classified. In contrast, FEDFIRE maintains plans in binders for all buildings in each truck. [Encl 164, 257, 310, 363]

824. CNRSW FEDFIRE (b) (6) stated that he expects Ship's Force to meet FEDFIRE personnel at the ship's brow or the pier to articulate the commander's intent in the event of a shipboard fire. He commented that FEDFIRE needs to have a solid understanding of what casualty a ship is confronted with so FEDFIRE can effectively support the ship's firefighting efforts. [Encl 188]

825. Per FEDFIRE Metro SOG 176, the first arriving engine company "should" establish a primary water source. If a water source is not established by the first-in engine company, the Company Officer is to coordinate a water supply relay operation with additional incoming units. The Company Officer "shall not engage in offensive fire suppression activities until a water source is established." [Encl 940]

826. According to FEDFIRE Truck 17 (b) (6), who has served as a FEDFIRE training instructor for seven years, the first arriving engine parks on the pier near the brow access to the ship and connects to the potable water riser on the pier for the primary water supply, as it is closer to the ship entry than the hydrant at the head of the pier. The potable water riser provides up to 400 Gallons-Per-Minute (GPM) to the engine and support up to three attack lines. From the engine, a 3-inch line with a gated "Y" would be run to the ship. From this gated "Y", a 1.75-inch line would be used as an attack line, with a second 1.75-inch line to be available as a backup if needed. The Company Officer may elect to utilize Ship's Force hose lines for immediate attack. [Encl 257, 940]

827. Upon arrival to the scene, FEDFIRE would ask the ship for a radio. FEDFIRE personnel report that they do not all have radios are compatible with Ship's Force radios. [Encl 149, 156, 164, 229]

828. Due to the steel construction of a ship and the inability of some radio communications to penetrate the hull, the IC or Operations (OPS) Officer would assign a channel as the operational tactical channel, with the Rapid Intervention Crew (RIC) team and OPS staying within close proximity to the point-of-entry to monitor and facilitate communications. [Encl 156, 164, 363, 940]

829. The second arriving engine connects to the hydrant at the head of the pier uses a 4-inch line, providing 1,200 GPM to the engine. The crew from the second engine would be the first attack team. They would either relieve the Ship's Force on their hose or run a separate attack line set up from the first arriving engine's crew. [Encl 257, 940]

830. The third arriving engine crew would be the backup attack team and serve as the RIC to meet FEDFIRE's requirement of "2-in, 2-out." A FEDFIRE hose team needs to have a RIC established before proceeding. [Encl 257]

831. FEDFIRE Truck 17 (b) (6) stated that it is preferred to have a Sailor go with the FEDFIRE hose team as a runner or guide, but not to be integrated as part of the hose team. [Encl 257]

832. Several San Diego Metro FEDFIRE personnel interviewed stated that they would secure their own water source and lay their own line for attacking the fire without using shipboard hoses, regardless of the status of Ship's Force firefighting efforts. FEDFIRE personnel explained that they would utilize their own hose and water source, because they know they are reliable for the response. [Encl 149, 153, 156, 157, 161, 164, 229, 257, 265, 310, 378, 941, 942]

833. According to FEDFIRE Metro (b) (6), FEDFIRE could respond to a shipboard fire without their own hose if the circumstances required; however, she acknowledged that FEDFIRE has never trained to send people on a ship without FEDFIRE's own hose. FEDFIRE Metro (b) (6) acknowledged that it is a problem that FEDFIRE is not training the way they actually fight fires. CNRSW FEDFIRE (b) (6) asserted that there is no established policy on which fire hoses or water sources FEDFIRE must use, and water usage is based on what is present when FEDFIRE arrives on-scene. He stated that as part of fire and emergency services efforts, all FEDFIRE personnel must be flexible in their responses to each scenario. If there is an ongoing fire attack by Ship's Force, CNRSW FEDFIRE (b) (6) stated that FEDFIRE would likely use the ship's fire hoses or water. However, FEDFIRE would always have backup fire hoses and water available. [Encl 188, 363]

Incident Command Structure

834. FEDFIRE follows the National Incident Management System (NIMS) Incident Command System (ICS), in accordance with OPNAVINST 11320.23G, which directs use of established ICS procedures. [Encl 363]

835. Upon responding to an incident, the first arriving FEDFIRE engine captain serves as the IC until the first chief arrives on-scene. The first arriving chief assumes the role of IC upon arrival, and the Captain becomes the OPS Officer. Per OPNAVINST 11320.23G, the F&ES IC for shipboard incidents directs firefighting operations, equipment, resources and personnel for combating a shipboard fire and provides tactical firefighting direction, as required, using established ICS procedures. [Encl 257]

836. While OPNAVINST 11320.23G does not establish any formal relationship between the FEDFIRE IC and the ship's CO during a shipboard fire, SOG 176 clarifies that the Fire Department Company Officer serves as a firefighting advisor and technical specialist to the ship's Staff Duty Officer/CDO, who is responsible for operational control of "all" firefighting activities. However, SOG 176 also states that "[o]utside the boundary of the ship, the operational control (strategic, tactical) for firefighting activities rest with the FEDFIRE IC." 8010 Manual paragraph 3.2.2.3 also clarifies that the senior F&ES Chief is expected to provide expertise and guidance for the overall response effort as part of the IC Staff. Per paragraph 3.2.3.2 of the 8010 Manual, the Ship's CO or his designated representative is responsible for all actions on the ship during the emergency and is the IC per NIMS. The 8010 Manual also refers to the ship's CO as the in-hull IC. [Encl 940]

837. FEDFIRE Metro (b) (6) assessed that the “incident commander” terminology is confusing. FEDFIRE Deputy Metro (b) (6) also noted that the off-hull IC terminology does not align linearly under NIMS. [Encl 193, 363]

838. Several FEDFIRE personnel at the assistant battalion chief level and above assessed that the FEDFIRE IC provides support to the ship’s CO, who serves as the ultimate decision maker for firefighting efforts. CNRSW FEDFIRE (b) (6) stated that he would rely on the ship’s CO to establish the commander’s intent for response efforts in the event of an emergency or crisis per OPNAVINST 11320.23G because a CO of a U.S. Navy ship retains absolute responsibility for the safety of his or her command as well as “overall control of the shipboard emergency response,” with F&ES filling a supporting role. [Encl 188, 265, 363, 941]

839. Other FEDFIRE personnel described the FEDFIRE IC as being responsible for directing firefighting efforts. One FEDFIRE Captain explained that FEDFIRE “takes over” once a ship indicates they need assistance from FEDFIRE, and he viewed Ship’s Force as supporting FEDFIRE. [Encl 152, 164]

840. FEDFIRE Assistant Chief of Prevention (b) (6) stated that FEDFIRE is in charge while fighting a shipboard fire, and FEDFIRE would set priorities for firefighting. He explained that he would expect the ship’s CO to provide information to the FEDFIRE IC. [Encl 842]

841. CNRSW N3, (b) (6), explained that when FEDFIRE responds to a shipboard casualty, a unified command would be established with the ship’s CO as IC, which is consistent with NIMS. (b) (6) stated that FEDFIRE would take initial Incident Command when they arrive on-scene, and FEDFIRE would assume a supportive role once the ship’s CO arrived at the ICP. [Encl 348]

842. CNRSW FEDFIRE (b) (6) and FEDFIRE Metro (b) (6) explained that the ship’s CO and the FEDFIRE IC coordinate through the unified command process in accordance with the NIMS. CNRSW FEDFIRE (b) (6) stated that if there is a unified command structure in place, the ship’s CO has 100 percent authority over the ship. [Encl 188, 363]

843. FEDFIRE Metro (b) (6) explained that under NIMS, there is either a Unified Command or IC. FEDFIRE (b) (6) explained that under a unified command, the IC and CO are both in command of their respective branches and communicate with their people through a unified message. [Encl 257, 363]

844. When asked whether the 8010 Manual mirrors the NIMS ICS with the designation of off-hull and on-hull incident commanders, CNRSW FEDFIRE (b) (6) stated he thinks NIMS is broader. He stated that the in-hull and off-hull designator could be a conflict of interest and essentially erase NIMS compliance. He assessed there should be an IC, and anything above that could be grouped by geographical or regional commands. He added that validating the nomenclature in the 8010 Manual could be beneficial. [Encl 188]

Training

845. Per FEDFIRE's SOG 176, FEDFIRE considers shipboard firefighting a special operations service requiring frequent training for crew proficiency. FEDFIRE personnel assigned to Metro San Diego fire companies are required to be thoroughly familiar with waterborne vessel terminology and anatomy. [Encl 940]

846. FEDFIRE San Diego Metro has two training chiefs: a Deputy Chief and a Battalion Chief. FEDFIRE Metro (b) (6) stated that she did not have a sufficient number of training chief billets and should have a Deputy Chief and two Battalion Chiefs for training per the requirements. However, she noted that ideally, she saw the need for three Battalion Chiefs to meet the training demands. [Encl 363]

847. FEDFIRE Metro's Master Annual Training Plan identifies requirements for shipboard firefighting, including "monthly" shipboard familiarization and firefighting as well as live fire training "as available." The plan does not reference any required number of hours per year or make reference to any training specific to Southwest Regional Maintenance Center's (SWRMC) Fire Response Plan (FRP) or any Individual Action Plans (IAPs)/pre-incident plans. [Encl 943]

848. FEDFIRE uses the Enterprise Safety Application Management System (ESAMS) to track and coordinate training within FEDFIRE. "Duty tasks" are assigned within the ESAMS system for various training requirements, such as Wildland Firefighter, Structural Firefighter, and Safety Training. Shipboard firefighting training is listed under the F&ES 09 Shore-Base Shipboard Firefighter Duty Task. [Encl 310, 944]

849. FEDFIRE's 2020 Metro Annual Training Plan spreadsheet identifies 12 different trainings under the F&ES 09 Shore-Base Shipboard Firefighter duty task to include: "Shipboard F&ES Responder Training — Classroom Sessions EQUIVALENCY;" "Shipboard F&ES Responder Training — Practical Drills;" "Shipboard F&ES Responder Training — On Board Vessel Familiarization;" various Marine Firefighter Multimedia courses, and Shipboard Live Fire Training EQUIVALENCY. [Encl 944]

850. According to FEDFIRE's 2019 Community Risk Assessment Standards of Cover document, all FEDFIRE Metro personnel participate in shipboard firefighting training using a shipboard firefighting training prop located at FEDFIRE's regional training center. In addition, FEDFIRE is currently in the process of requiring all personnel assigned to fire stations with a shipboard firefighting mission to be certified at the DoD Marine Firefighter certification level, which is a new addition to DoD firefighting certifications as of 2016. [Encl 937]

851. FEDFIRE Metro Assistant Training (b) (6) stated that the trainer at Coronado is helpful for getting firefighters some level of awareness of a ship's layout but could be improved to provide a more realistic representation of a ship's layout. FEDFIRE (b) (6), who has served as FEDFIRE training instructor for seven years, explained that the trainer does not include integration training with Ship's Force. [Encl 257]

852. Per CNIC N30 Headquarters Policy Directive (HPD) Advisory 2014-01, all CNIC F&ES personnel (firefighters, fire officers, fire chiefs, and support personnel) “subject to respond to shipboard emergencies” shall be assigned F&ES 09-Shore-Base Shipboard Firefighter duty task in the ESAMS training system. [Encl 945]

853. CNRSW stated that all FEDFIRE personnel “with a shipboard mission” are assigned to F&ES 09 (Shore-Base Shipboard Firefighter) in ESAMS. [Encl 946]

854. FEDFIRE Metro (b) (6) is not assigned the F&ES 09 Shore-Base Shipboard Firefighter duty task in ESAMS, nor is the FEDFIRE Division Chief. Likewise, while captains, engineers, and firefighters at Stations 16 and 17 are all assigned the F&ES 09 Shore-Base Shipboard Firefighter duty task in ESAMS, FEDFIRE Metro personnel at other stations outside of NBSD are not all assigned the F&ES 09 Shore-Base Shipboard Firefighter duty task. [Encl 947, 948, 949]

855. CNRSW FEDFIRE (b) (6) stated that the 8010 Manual, OPNAVINST 11320.23G, and NSTM 555 have conflicting requirements for shipboard firefighting. CNRSW FEDFIRE (b) (6) agreed that the specific shipboard training requirements for FEDFIRE need to be clarified due to ambiguity. [Encl 188, 950]

856. FEDFIRE Metro (b) (6) was unaware of any CNIC plan regarding frequency of shipboard training. FEDFIRE Metro (b) (6) stated that OPNAVINST 11320.23G’s requirements for shipboard training are satisfied by FEDFIRE’s training at their Coronado shipboard trainer. Of note, the North Island trainer does not include any participation with Sailors for integrated training. The Coronado trainer is part of FEDFIRE’s marine firefighting course, which is a recent requirement for FEDFIRE firefighters and also includes a multimedia course. [Encl 257, 310, 363]

857. CNRSW FEDFIRE (b) (6) was unsure of the periodicity required to execute the shipboard requirements from OPNAVINST 11320.23G. He stated that he had not received additional guidance regarding these requirements. When asked whether he was aware of any formal requirements for shipboard familiarizations, outside of 8010 Manual drills, CNRSW FEDFIRE (b) (6) stated that he was unaware of how these events are coordinated at NBSD. [Encl 188]

858. CNIC N30, (b) (6), stated that the OPNAVINST 11320.23G shipboard training requirement could be satisfied by conducting 8010 Manual drills and any duty-task specific requirements in ESAMS. However, he stated that OPNAVINST 11320.23G contains a training requirement separate from the 8010 Manual requirement. [Encl 687]

859. CNRSW FEDFIRE (b) (6) commented that he thinks firefighting proficiency is more important than training for specific casualty categories (i.e., shipboard). He commented that proficiency in firefighting fundamentals of is not specific to categories of fires, and in fact a shipboard fire is somewhat no different than a structural fire. CNRSW FEDFIRE (b) (6) stated that the process of stretching a hose line is the same on a ship as it is anywhere else, and a person could simulate shipboard training anywhere. [Encl 188]

860. FEDFIRE Metro (b) (6) stated that FEDFIRE does not conduct any additional integrated training with Ship's Force beyond 8010 Manual drills, unless a ship asks FEDFIRE. [Encl 363]

861. When asked about training for proficiency integrating with Ship's Force, CNRSW FEDFIRE (b) (6) stated that integration tends to occur at the strategic level — the ICP — not at the level trained to during shipboard drills. [Encl 188]

862. CNIC N30 HPD Advisory 2014-01 establishes a minimum requirement for shipboard F&ES training of 28 hours per year for CNIC F&ES personnel “subject to respond to shipboard emergencies” to include “10 hours on board the class of ship(s) on the installation or supported by the installation to meet familiarization and integrated response task proficiency.” The advisory further elaborates this specific training “is in addition to other supporting F&ES proficiency training requirements.” Per the CNIC HPD advisory, this proficiency training must incorporate the following requirements (among other requirements):

- a. Common terminology to locate and access an incident location aboard the vessel.
- b. Practical exercises with the Ship's Force to practice integrated firefighting proficiency.
- c. Capabilities of the ship's onboard firefighting systems and practical strategies to use the ship's on-onboard standpipes as a first resort.
- d. Firefighting procedures when the ship is in an industrial maintenance environment with associated industrial hazards/impediments.
- e. Practical hose line deployment and advancement to specific ship space location identification (bull's eye) and common location names.
- f. Strategies for establishing integrated hose teams of Ship's Force, F&ES, and mutual aid personnel early in the incident to ensure safe and effective long duration suppression operations.
- g. Hose team relief process to keep hoses staffed during extended operations.
- h. Ship space familiarization training will be approved by and conducted in accordance with the ship repair and construction authority policies. Training will be conducted by a Ship's Force member or shipyard/maintenance project representative.
- i. Training for CNIC F&ES Chiefs and other F&ES response personnel are required on installation response plans to include the local incident management policy reflecting the role of the ship's CO, senior fire officer and the shipyard commander and/or tenant command responsibilities in relationship with incident management system principles.

[Encl 945]

863. In response to a Request for Information from the BONHOMME RICHARD investigation team, CNRSW reported that all firefighters assigned to NBSD (wet side) had 100 percent completion of shipboard training requirements as of December 2020, and an additional 50 personnel assigned throughout San Diego Metro met 100 percent of the training, while another 10 personnel met 90 percent of the training requirement. CNRSW interpreted the 28 hour per year requirement as equivalent to 112 hours total for 4 years from 2016 – 2020. [Encl 946]

864. CNRSW documentation indicates that in 2019, less than 5% of the reported 145 FEDFIRE personnel assigned throughout San Diego Metro completed 28 hours or more of shipboard training (including classroom training and walkthroughs). [Encl 947]

865. CNRSW documentation indicates that in 2020, less than 5% of the reported 145 FEDFIRE personnel assigned throughout San Diego Metro completed 28 hours or more of shipboard training (including classroom training and walkthroughs). [Encl 947]

866. Regarding CNIC N30 HPD Advisory 2014-01's requirement for a minimum of 10 hours of shipboard F&ES training aboard the class of ships on the installation to meet familiarization and integrated task proficiency, CNRSW stated that classroom training may satisfy shipboard walkthrough requirements. CNRSW explained that anytime a station crew is given the opportunity to go to a ship for training, extra time is allotted for shipboard familiarizations or walkthroughs. [Encl 946]

867. FEDFIRE Metro Area personnel reported they participate in ship familiarization walkthroughs to gain familiarity of ships on an ad hoc basis. Sometimes, ships contact FEDFIRE to request a walkthrough, and other times, FEDFIRE requests walkthroughs. FEDFIRE requests walkthroughs when a new ship arrives to NBSD, as well as when there are new firefighters having joined a station without previously participating in familiarization walkthroughs. When a new ship class arrives, FEDFIRE Station 16 (located at 32nd Street, Wet Side) reaches out to nearby supporting stations to schedule ship familiarization walkthroughs. [Encl 164, 188, 193, 363]

868. FEDFIRE Deputy Metro (b) (6) stated that ship familiarizations may also be included among requirements released by CNIC in ESAMS. He explained that CNIC releases training requirements based on job taskers and the responsibilities of each station. [Encl 193]

869. FEDFIRE personnel within the San Diego Metro Area consistently reported having never been asked to participate in any fire safety walkthroughs, as required by the 8010 Manual. [Encl 161, 257, 363]

870. When FEDFIRE Metro (b) (6) was asked what pushed for the shipboard walkthrough requirement, she stated, “[t]here is no requirement.” Upon further review, she acknowledged there is a requirement in the OPNAVINST 11320.23G, which is the responsibility of FEDFIRE captains of the crews to schedule without any additional oversight. [Encl 363, 951]

871. Both CNRSW and CNIC acknowledged that all FEDFIRE personnel assigned to a consolidated area like San Diego who are all subject to respond to a shipboard fire should be

assigned shipboard fire training requirements. CNIC assessed that Region SW and other similar Regions must review their scope of services, determine response coverage and duty task skills required to execute the response objectives, and in turn assign the required shipboard training requirements for each responder who may be required to respond to a shipboard fire. [Encl 350, 471]

Participation in Shipboard Drills

872. FEDFIRE Metro (b) (6) stated that FEDFIRE participates in 8010 Manual Chapter 12 and Chapter 13 drills when requested by a ship. She noted that FEDFIRE accommodates shipboard drill requests as able, but there are numerous ships. In addition, FEDFIRE Metro (b) (6) stated that COs sometimes desire FEDFIRE's participation in more drills than FEDFIRE is able to support. [Encl 363]

873. FEDFIRE Metro Deputy (b) (6) stated that there is no set minimum or maximum number of shipboard drills FEDFIRE is required to complete. FEDFIRE Metro Deputy (b) (6) stated that FEDFIRE attempts to support shipboard drills as much as possible, while balancing internal requirements. [Encl 193]

874. FEDFIRE Metro Assistant Training (b) (6) stated that the minimum training requirement for FEDFIRE is to conduct at least one 8010 Manual Chapter 12 drill per quarter. [Encl 310]

875. FEDFIRE's participation in 8010 Manual drills has been scheduled during monthly meetings with the Installation Training Officers (ITOs) and SWRMC to minimize scheduling conflicts. FEDFIRE Metro (b) (6) reported that there have been times when multiple drills have occurred on the same day, which has challenged FEDFIRE's ability to fully participate. [Encl 363]

876. FEDFIRE Metro Assistant Training (b) (6) explained that drills are not as beneficial to FEDFIRE because drill packages are primarily structured to benefit a ship. FEDFIRE Metro Assistant Training (b) (6) stated that a majority of the drill packages involve minimal FEDFIRE involvement. When a drill package does not call for major integration with FEDFIRE, FEDFIRE Metro Assistant Training (b) (6) explained that FEDFIRE would send a Battalion Chief, who simulates other FEDFIRE forces. [Encl 310]

877. FEDFIRE Metro (b) (6) was asked to clarify what a simulated FEDFIRE drill participation entails, she stated that a Chief could be sent to participate in the drill rather than a FEDFIRE crew. [Encl 363]

878. When informed that SWRMC was simulating FEDFIRE participation about 50 percent of drills, FEDFIRE Metro (b) (6) stated that 50 percent did not seem high, and that this estimate seemed accurate. [Encl 363]

879. FEDFIRE reported ship COs occasionally request multiple drills preceding an 8010 Manual drill to ensure Ship's Force is proficient before the graded drill; however, FEDFIRE has not been able to support this extra demand due to other training commitments and real-world

emergencies requiring FEDFIRE resources. FEDFIRE Metro (b) (6) and CNRSW FEDFIRE (b) (6) assessed FEDFIRE could not support weekly 8010 Manual drills, and noted FEDFIRE personnel are not brought in from off-duty to conduct drills. [Encl 188, 363]

880. CNRSW N3, (b) (6), stated that in accordance with the 8010 Manual, the NBSD CO has authority to direct FEDFIRE to participate in and accomplish shipboard firefighting drills. [Encl 348]

881. The NBSD CO stated that ship COs have not reached out to him requesting increased support for 8010 Manual drills. Likewise, the NBSD CO stated that COs have not reached out to him about a lack of FEDFIRE support. [Encl 314]

882. The NBSD XO stated he did not have any information on FEDFIRE's participation in shipboard fire drills. He understood FEDFIRE to be a regional asset without NBSD involvement in FEDFIRE's participation in shipboard drills. The NBSD XO explained that FEDFIRE training and participation in drills falls under CNRSW responsibility — if FEDFIRE is unavailable for a drill, a ship would report to CNRSW. [Encl 938]

883. During 8010 Manual drills, FEDFIRE would generally relieve Ship's Force on the ship's hose lines. FEDFIRE does not secure their own water source or lay their own lines during 8010 Manual drills, due in part to insufficient manpower. [Encl 149, 157, 257, 265, 310, 363]

884. FEDFIRE Metro (b) (6) stated that during shipboard drills, FEDFIRE would use Ship's Force hoses, but this practice would depend on how the drill package had been written. She added that she thinks ship COs do not want FEDFIRE to use FEDFIRE hoses in order for Ships' Forces to become better familiarized with the ship's hoses. [Encl 363]

885. CNRSW FEDFIRE (b) (6) stated that he could not answer whether or not FEDFIRE utilizes their own backup fire hoses during 8010 Manual drills. He stated that a drill package's specifics would determine whose hoses would be employed. On a large vessel fire — like a Landing Helicopter Deck (LHD) or Landing Helicopter Assault (LHA) — he stated that FEDFIRE would likely use the ship's available water sources. [Encl 188]

886. CNRSW FEDFIRE (b) (6) acknowledged that 8010 Manual drills are conducted differently than real-life execution. He noted that there has been a significant difference between how FEDFIRE arrives to support an 8010 Manual drill as compared to a real-world shipboard fire. In response to a real-world shipboard fire, FEDFIRE would arrive with at least 2 – 3 times the number of personnel than would typically respond to an 8010 Manual drill. [Encl 188]

887. For graded 8010 Manual Chapter 13 drills, FEDFIRE crews have been committed to participate until the end of a drill; however, for non-graded 8010 Manual Chapter 12 drills, there have been times when FEDFIRE departed drills early to support real-world emergency commitments. FEDFIRE chiefs stated that fully responding to an 8010 Manual drill creates risk to FEDFIRE's real-world emergency responses. [Encl 156, 363]

888. After 8010 Manual drills, FEDFIRE has often participated in a hot wash debrief, providing feedback to a ship, if appropriate or requested. The FEDFIRE training department assesses an

engine's performance against a standard set of criteria for aggregated response times, and, corrective actions are implemented, as required. [Encl 310]

889. FEDFIRE assessments have time-based criteria (aggregate response times), but these generally evaluate the time required to respond to the incident. FEDFIRE does not have a pre-established "agent on fire" evaluation time because each situation differs and the amount of time it could take to put agent on fire could vary. [Encl 229]

890. According to FEDFIRE Metro (b) (6), CNIC grades and evaluates FEDFIRE during 8010 Manual Chapter 13 drills. However, CNRSW FEDFIRE (b) (6) stated that 8010 Manual drills have "teachable moments," but FEDFIRE is not graded on 8010 Manual drills with the same rigor as on Anti-Terrorism Force Protection (ATFP) drills. CNRSW FEDFIRE (b) (6) further stated that ATFP drills are "on a podium," and are more heavily scrutinized, because ATFP drills are focused on securing the naval installation, while 8010 Manual drills are only perceived as assisting NBSD tenants. [Encl 188, 363]

891. Several FEDFIRE personnel stated that 8010 Manual drills are not effective for integrated training, in part because 8010 Manual drills are neither realistic nor challenging. One firefighter described an 8010 Manual drill as follows: "[i]n a drill, usually a guy with a fire flag simulates a flame and the nozzleman says, 'I'm squirting you,' and then they say the fire is out." [Encl 157, 257, 397]

892. FEDFIRE (b) (6), who has served as a FEDFIRE training instructor for seven years, assessed 8010 Manual drills as a "check in the box" for compliance to a requirement, but 8010 Manual drills do not constitute not good training for FEDFIRE, and there is room for improvement with integration. [Encl 257]

893. FEDFIRE Division (b) (6) assessed that the value of 8010 Manual drills is limited to the foundations of arriving on-scene in response to a fire. [Encl 156]

894. CNRSW FEDFIRE (b) (6) stated that most 8010 Manual Chapter 12 and 13 drills are ineffective. He explained that drills are normally rehearsed beforehand, and participants can easily guess what happens next, without any curveballs thrown out during the drill that would be expected in a real-world shipboard fire. He thought the drills needed to be more realistic and not staged. [Encl 952]

895. CNRSW FEDFIRE (b) (6) commented that 8010 Manual drills need to be more diverse; otherwise, FEDFIRE repeats the same casualty, which reduces drills to a checklist. CNRSW FEDFIRE (b) (6) stated that FEDFIRE does not provide input to 8010 Manual drill packages, and he viewed the 8010 Manual drills as assisting the base tenants. [Encl 188]

896. Several FEDFIRE Metro personnel concluded that the 8010 Manual drills are for Ship's Force training, primarily benefiting Ship's Force. [Encl 149, 156, 265, 363, 397]

897. Aside from participation in 8010 Manual drills, FEDFIRE Metro does not participate in any other shipboard drills. [Encl 363]

898. FEDFIRE Metro (b) (6) stated that Coronavirus Disease-2019 (COVID-19) impacted FEDFIRE's participation in 8010 Manual drills. She noted that on 16 March 2020, CNIC (through CNRSW) put all training on hold until further notice. FEDFIRE Metro (b) (6) also received an email notification from SWRMC noting all drills were cancelled for 60 days as a COVID-19 mitigation. [Encl 363, 953]

899. FEDFIRE Metro Deputy (b) (6) stated that the majority of drills FEDFIRE conducts in conjunction with naval installations are ATFP drills due to the numerous annual program requirements. CNRSW FEDFIRE (b) (6) commented that ATFP drills are more heavily scrutinized as compared to 8010 Manual drills. CNRSW FEDFIRE (b) (6) explained that during ATFP drills, FEDFIRE has a grading criteria, but 8010 Manual drills are not similarly graded for FEDFIRE. Instead, he characterized 8010 Manual drills as having "teachable moments." [Encl 188, 193]

900. CNIC assessed that CNRSW should work with the Metro F&ES team to ensure participation is being met for shipboard drills under the 8010 Manual. CNIC expects all F&ES departments to participate in shipboard drills but stated that "the large number of ships" in San Diego "presents a scheduling and ship availability challenge for the limited number of FEDFIRE staff" but that these issues should be addressed between CNRSW and SWRMC. [Encl 350]

Mutual Aid Coordination and Interoperability Concerns

901. NBSD borders the City of San Diego as well as National City and accounts for a large portion of the waterfront. NBPL borders land owned by the City of San Diego as well as the National Park Service and Veterans Administration. NBC's assets adjoin the City of Coronado, City of Imperial Beach, as well as unincorporated areas of San Diego County. Mutual Aid Agreements (MAAs) are in place with surrounding cities, including San Diego and Coronado. There are also agreements with the United States Forest Service and California State Division of Forestry. [Encl 937, 954, 955]

902. NBSD and San Diego Fire Department (SDFD) signed a MAA in September 1991, which provides automatic aid by either party to assist the other party. NBSD and SDFD continue to operate under the terms of this 1991 agreement. [Encl 956]

903. Per OPNAVINST 11320.23G, installation F&ES chiefs are required to facilitate the development, implementation, and periodic review of MAAs with other federal, state, and local departments every three years to promote efficiency and economy per established respective regional policy. MAAs are to be updated at least once every 10 years. Contrary to this requirement, the MAA with SDFD has not been updated since 1991. [Encl 956]

904. According to FEDFIRE Metro (b) (6), FEDFIRE submitted an updated MAA for SDFD review, but the MAA was not ultimately updated because SDFD wanted an Inter-Government Service Agreement (IGSA) instead of an MAA. [Encl 363]

905. NBC and City of Coronado recently renewed their MAA, with efforts to renew beginning in February 2020. [Encl 363]

906. FEDFIRE Metro (b) (6) and Deputy (b) (6) stated that they invited SDFD to participate in 8010 Manual drills multiple times, but SDFD would either not show up or cancel at the last minute. [Encl 193, 363]

907. When CNRSW FEDFIRE (b) (6) was asked whether he was aware of SDFD risk prioritization, he stated that he was not aware SDFD's policy to "not risk life to save property" was written in SDFD's internal directives. When asked whether SDFD's risk calculus was considered and discussed during Memorandum of Understanding (MOU) negotiations, CNRSW FEDFIRE (b) (6) replied, "not really." [Encl 188]

908. In contrast, FEDFIRE Metro Deputy (b) (6) and FEDFIRE Metro Assistant Training (b) (6) understood that SDFD operates under a different risk calculus than FEDFIRE, in that FEDFIRE is more willing to take risks to protect Navy assets than SDFD. FEDFIRE Station 16 (b) (6) stated that he was aware that SDFD has a different risk calculus, and he previously recommended that SDFD not be relied on for any mutual aid or assistance due to their past actions of what he characterized as minimal support. Despite these concerns, NBSD's MAA with SDFD has not been updated since 1991. [Encl 193, 310, 956]

909. FEDFIRE Metro Assistant Training (b) (6) has participated in San Diego's bi-monthly consortium of training officers for various local firefighting agencies. This meeting occurs every couple months to encourage local agencies to share information improving practices and technologies. During at least one consortium, he stated that he discussed with SDFD how FEDFIRE conducts marine firefighting training to encourage SDFD to also participate in marine firefighting training and drills. [Encl 310]

910. FEDFIRE Metro Assistant Training (b) (6) commented that consortium participating agencies have discussed radio interoperability issues between FEDFIRE and SDFD. He stated that in general, FEDFIRE's radios are outdated as compared to SDFD's current radios. [Encl 310]

911. FEDFIRE primarily utilizes 400 Megahertz (MHZ) radios. FEDFIRE personnel reported that 400 MHZ radios are not interoperable with other mutual aid radios, and FEDFIRE personnel consider them outdated and inadequate. FEDFIRE personnel also noted that spare parts for 400 MHZ radios are not readily accessible. [Encl 149, 156, 158, 164, 175, 176, 181, 229, 310, 348, 397, 455, 941]

912. FEDFIRE has attempted to acquire more updated radios, but funding has been viewed as an impediment. FEDFIRE possesses a limited number of newer radios compatible with SDFD to be used by the IC. [Encl 158, 175, 183, 397]

913. SDFD, which primarily utilizes 800 MHZ radios, has the ability to communicate directly with every firefighting agency in San Diego County except FEDFIRE. Other civilian firefighting agencies within the San Diego County utilize Regional Communications System (RCS) radios operating on 700 MHZ frequencies. [Encl 175, 181, 183, 397, 941]

914. SDFD and FEDFIRE previously held meetings to discuss communications issues, including a proposal to install SDFD radios on FEDFIRE trucks and engines, with FEDFIRE reimbursing SDFD for the equipment installation. SDFD ultimately did not have sufficient funding to procure additional radios, and FEDFIRE purchased new portable radios programmed with SDFD channels for their battalion chiefs. [Encl 176, 183]

915. With a limited number of compatible radios, FEDFIRE prioritizes putting these radios in the hands of centralized battalion chiefs and ICs to communicate with SDFD. Other FEDFIRE personnel may communicate with SDFD through dispatch by “patching,” which FEDFIRE personnel stated may delay operations by several minutes to relay messages back and forth. Another mitigation described as a standard practice by a FEDFIRE Captain is to physically trade radios on-scene to ensure compatible communications. [Encl 153, 397]

916. With regards to “patching” communications, firefighters may request the Region Dispatch Center (RDC) “patch” a communications channel from FEDFIRE to SDFD, permitting a common channel where the two agencies could communicate. The Emergency Command & Data System has a standing patch connecting the RCS to the City of San Diego system, enabling all agencies within San Diego Country to communicate with SDFD. [Encl 153, 183]

917. Dispatchers may conduct patching by:

- a. Taking 1 of 2 standing FEDFIRE channels in the RCS.
- b. Pairing with an RCS patch.
- c. Aligning a SDFD channel to the RCS patch.

[Encl 183]

918. A SDFD technical subject matter expert on system liaisons with neighboring agencies, computer-aided dispatch (CAD) systems, and radio communication systems, stated that this patching process with FEDFIRE has been more difficult than patching with other agencies, but Dispatch Supervisors are aware how to execute patching. Multiple RDC personnel also confirmed that a patching capability exists between the RDC and SDFD. [Encl 183, 957, 958]

919. FEDFIRE and CNIC described the patching process as “problematic” and “hit or miss,” with FEDFIRE preferring to swap radios on-scene. FEDFIRE Metro (b) (6) noted that he had never experienced patching correctly working, but he did not have any knowledge of when any of the FEDFIRE battalion chiefs may have attempted to test patching communications via dispatch. The RDC Program Manager (PM) noted that the RDC maintains a patching capability “nearly 24/7”. [Encl 153, 193, 687]

920. CNRSW FEDFIRE (b) (6) stated that patching is ineffective inside the skin of a ship, and multiple channels cannot be patched. He noted that in the event of a major fire like the USS BONHOMME RICHARD, firefighters are communicating on more than one channel. CNRSW FEDFIRE (b) (6) stated that although patching can be done, it presents hazards, and he assessed that patching is only beneficial for medical calls. [Encl 188]

921. A CNRSW dispatcher stated that neither training nor drills regularly require patching between CNRSW and metropolitan assets, which is partially due to the fact that only dispatch supervisors conduct patching. However, the RDC PM noted that the RDC conducts a patching exercise with SDFD every two weeks; during this test, patching capability is evaluated at the unit-to-unit level. [Encl 957, 958, 959]

922. Another CNRSW dispatcher stated that he has seen only a “handful” of requests to patch frequencies with outside agencies in his nine years working at the RDC. [Encl 959]

B. NBSD

Oversight of FEDFIRE

923. Per COMNAVREGSWINST 5450.4 (Missions, Functions, Tasks of Naval Base San Diego), the NBSD CO is responsible F&ES on the installation, to include “activities related to fire prevention program services” and “activities related to establishing, directing, and integrating DoD and DoN F&ES policy, strategy, protocols, and installation plans to ensure operational readiness.” The NBSD CO is also tasked with providing fire suppression and incident command response services. [Encl 466]

924. In CNIC N30, (b) (6)'s view, the installation CO is “most likely” the first commissioned officer to be held accountable if FEDFIRE does not meet requirements. CNIC N30 added that the installation CO shares “joint overall responsibility” with the Region Fire Chief. [Encl 687]

925. The NBSD CO stated that he did not have direct oversight over the FEDFIRE training program. He stated that the responsibility for the training and oversight of FEDFIRE is a region function, which he assessed was not under his jurisdiction to monitor. He stated that he did not have a sense for how FEDFIRE operates with and integrates with Ship’s Force, and he was not familiar with any nuances of hose line advancement practices. [Encl 314]

926. The NBSD CO stated that FEDFIRE operates in support of the installation and has an Operational Control (OPCON) relationship to the installation. The NBSD CO stated that FEDFIRE has national firefighting standards, which are monitored through the regional FEDFIRE structure. [Encl 314]

927. The NBSD CO stated that the Region Fire Chief bears responsibility for ensuring FEDFIRE proficiency, and he was not aware of any OPNAV requirement for installation COs for ensuring FEDFIRE’s proficiency. Per OPNAVINST 11320.23G, installation COs shall “[e]stablish and maintain an F&ES program that implements higher HQ guidance and plans;” “[p]erform and coordinate all F&ES program requirements within the installation’s AOR;” and, “[e]stablish an installation F&ES program, including the development of comprehensive emergency response plans.” [Encl 314]

928. CNRSW, RDML Bette Bolivar, stated that the FEDFIRE Metro Area Chief would be treated similar to an installation, though FEDFIRE Metro (b) (6) has oversight of all

San Diego bases. RDML Bolivar noted that the deputy fire chiefs on bases should assume a role similar to an XO, dealing with the administrative functions. She stated that while the installation CO holds ultimate responsibility, the Region Commander is responsible for the oversight and compliance of policy of all Region Southwest installations. She noted there is always an opportunity to better clarify the FEDFIRE Metro Chief role to ensure better visibility to installation COs. [Encl 471]

929. When asked whether he was aware of any FEDFIRE pre-planned responses for the different classes of ships on NBSD, the NBSD CO responded that NBSD has an Emergency Management (EM) plan, which accounts for shipboard firefighting responses. He commented that developing plans for the 62 ships on NBSD would be extremely difficult. Additionally, he was unaware who is resourced to develop these hull-specific shipboard firefighting response plans. [Encl 314]

930. When asked about the OPNAVINST 11320.23G requirement for establishing and maintaining a F&ES program implementing higher headquarters guidance and plans, the NBSD CO stated that he did not think there is a separate base F&ES policy, but an F&ES program. [Encl 314]

931. The NBSD CO stated that he did not supervise the execution of FEDFIRE's duties the same way he monitored his N6, Base Security. According to the NBSD CO, N6 or Naval Security Force (NSF) falls directly within the authority of the installation CO. He could not cite any particular instruction or guidance relieving him of exercising the same authority over FEDFIRE. [Encl 314]

932. The NBSD XO stated that he did not think FEDFIRE is prepared to combat a major shipboard fire. He stated that the issue is not a capacity problem, but rather a capability problem in that the FEDFIRE organization lacks the capability to respond accordingly. The NBSD XO later clarified that he thinks this capability issue is due to manpower limitations. He assessed that FEDFIRE does not know what firefighting systems the ships are equipped with and do not know whether systems are functional or even available aboard ships. [Encl 938]

933. When asked about his knowledge about FEDFIRE's participation in shipboard fire drills, the NBSD XO stated that he neither had information nor oversight. The NBSD XO was also unaware of FEDFIRE's execution of shipboard familiarization walkthroughs. He stated that FEDFIRE training and participation in drills fell under CNRSW. If FEDFIRE were unavailable for a drill, the ship would report to CNRSW. [Encl 938]

Emergency Management Program

934. In accordance with the U.S. Navy Regulations, OPNAVINST 3440.17A, CNICINST 3440.17, and COMNAVREGSWINST 3440.1B, the NBSD CO has the authority and responsibility to protect personnel, equipment, and facilities, and may direct tenants and visiting commands on matters concerning EM and AFTP. [Encl 314, 467]

935. The NBSD EM Program is based on an all-hazards approach to prepare for, mitigate against, respond to, and recover from, potential hazards and threats potentially impacting NBSD. Per CNICINST 3440.17 the EM Program establishes policy, program guidance, and specific criteria for preparing all-hazards EM onboard regions and installations. The criteria is drawn from DoD and Navy Directives and Instructions, as well as established criteria from the National Fire Protection Association (NFPA), the Department of Homeland Security (DHS), and others. [Encl 960]

936. NBSD's Emergency Management Officer (EMO), (b) (6), is responsible for the Installation Emergency Operation Center's (EOC) management, administration, and operation. NBSD's EOC is part of the Base Operations Center (BOC), a facility manned 24/7 by NBSD personnel. The NBSD EOC/BOC supports execution of the Installation EM Plan, the Installation Anti-Terrorism (AT) Plan, as well as other supporting plans. [Encl 240, 312, 314, 938, 960]

937. The mission of the Installation EOC is to support the IC or Unified Commander (UC) during emergencies with resource management support and establish strategic/operational-level objectives as necessary. The EOC is responsible for coordination and serving as a liaison with local, other service, and/or private response and recovery assets. From the Installation EOC, the Installation Commander exercises operational control of installation forces and allocates resources. [Encl 312, 363, 938, 960]

938. When the EOC Incident Management Team (IMT) is fully activated, the team consists of the installation CDO, Anti-Terrorism Tactical Watch Officer (ATTWO), Battle Watch Captain (BWC), Port Operations, Navy Criminal Investigative Service (NCIS) Agent, NBSD Security Forces, FEDFIRE, Public Works Officer (PWO), Public Affairs Officer (PAO), Logistics, Medical, Supply, SWRMC representatives, the EOC Director, and the Command Triad (plus others as situationally dictated). The NBSD XO is the IMT Lead when activated. [Encl 311, 938, 961, 962, 963]

939. In accordance with the Installation EM plan, NBSD is required to conduct four integrated functional exercises per year (two major exercises and two locally developed). Unless otherwise directed, the Installation Training Team drills would include the activation of the EOC. This training requirement does not include 8010 Manual Chapter 12 or Chapter 13 drills. [Encl 960]

940. The NBSD CO stated that in the EM plan, integrated training events include simulated shipboard fires. However, he stated that there are likely more AFTP drills than DC drills onboard NBSD. He noted that training is more focused on force protection because force protection presents a higher threat than a shipboard fire. [Encl 314]

941. The NBSD CO commented that Commander, U.S. THIRD Fleet (C3F), Commander, U.S. Fleet Forces Command (USFF), and CNIC are focused on AFTP concerns. He again noted an assumption that Ship's Force and FEDFIRE would be effective. [Encl 314]

942. The NBSD Emergency Management Officer (EMO), (b) (6), stated that IMT/EOC watchstanders often participate in ship fire drills on a smaller scale, such as

communications, securing the pier, and similar actions. He stated that the NBSD CO, on the advice of the training officer, approves the frequency and scale to which NBSD participates in ship fire drills. The NBSD EMO stated that this integration has occurred a “handful” of times, and typically is conducted whenever the fire drill involves a FEDFIRE response as well. [Encl 312]

943. The NBSD XO explained that he had not completed any training evolutions in the EOC with SWRMC or their representatives. He stated that there was some discussion in the past about accomplishing cross-training with SWRMC Emergency Control Center (ECC) personnel for IMT operations due to a recognized gap, but there had not been follow-on discussion between NBSD and SWRMC to schedule drills within the EOC IMT and ECC organizations. Following the fires aboard USS CHAMPION (MCM-4) and USS HARPERS FERRY (LSD-49), the NBSD XO recalled there were some short discussions about running integrated exercises between the ECC and EOC, but no action arose from those discussions. [Encl 938]

944. When the NBSD XO was asked whether NBSD trained to use the OPNAVINST 3440.18, he stated that NBSD does not train to that instruction and NBSD’s training is scenario-based. He further explained that NBSD has not done any shipboard fire response training in the past to the best of his knowledge. [Encl 938]

945. The NBSD XO stated that local agencies had not participated in drills or exercises during his time onboard NBSD. [Encl 938]

946. Per DoDI 6055.17 and CNICINST 3440.17, the installation EMO is responsible for reviewing any MAAs annually and exercising support agreements in conjunction with installation exercises. Where support agreements exist at an installation, the installation emergency manager is required to:

- a. Maintain listings of all EM-related support agreements.
- b. Integrate support agreements into the EM plan.
- c. Validate offices of primary responsibility review and document EM-related support agreements annually, at a minimum, and when the ability to meet the requirements in the support agreements cannot be met.
- d. Exercise support agreements in conjunction with installation exercises, with the goal of exercising at least a portion of each agreement annually.

Contrary to this requirement, it is not apparent that the established MAAs with the City of San Diego and National City were incorporated into the NBSD’s EM Plans. [Encl 960]

947. It also not apparent that the MAAs with San Diego City or National City were exercised in conjunction with installation exercises, with at least a portion of each agreement exercised annually, contrary to DoDI 6055.17. [Encl 188, 193, 310, 363]

948. San Diego City's MAA was signed in 1992 and has not been reviewed annually by NBSD. CNRSW FEDFIRE (b) (6) stated that it was the NBSD N5's responsibility to do so, which is contrary to the DoDI 6055.17 requiring the EMO to do so. [Encl 363, 956]

949. The NBSD EM plan must be coordinated with regional and installation fire departments' supporting plans. Contrary to this requirement, FEDFIRE Metro (b) (6), CNRSW FEDFIRE (b) (6) and FEDFIRE Metro (b) (6) stated that the EM plan was not coordinated with the F&ES SOGs. F&ES Standard Operating Procedures (SOP) and SOGs are not referenced as supporting plans in the NBSD EM plan. [Encl 188, 193, 312, 363, 960]

950. FEDFIRE Metro (b) (6) commented that FEDFIRE's SOPs and SOGs were not shared with installation commands. He further stated that he had not been directly involved in reviewing any Installation EM Plans. [Encl 193]

951. The NBSD EMO stated that he annually reviews the NBSD Emergency Operations Plan and Hazard-Specific Index. [Encl 312]

952. The NBSD EM plan does not incorporate OPNAVINST 3440.18, which was signed and released 13 November 2018. [Encl 312, 314, 938]

953. The NBSD EMO explained that in the event of a major shipboard fire, the IMT/EOC provides support to SWRMC and the IC. Additionally, the IMT/EOC serves as a conduit for information to the Regional Operations Center (ROC). [Encl 312]

954. The IMT/EOC has a general emergency checklist for gathering data, manning up the EOC, making notifications, and executing pre-planned responses. Actions for fire emergencies are contained in a Hazard-Specific Appendix (HSA) of the NBSD Emergency Operations Plan. [Encl 312]

955. Appendix 3 to the NBSD EM Plan contains the HSA for Fire Hazards, of which "Shipboard Fires" is included under Tab C. Appendix 3, Tab C provides that "[s]hipboard fires are the primary responsibility of the shipboard firefighters with secondary support from Navy F&ES only when the ships are in port. The responsibilities for a shipboard fire rest with the Fleet Commander of the affected ship. The primary responsibility for the EOC is to maintain situational awareness (SA), make required notifications to higher headquarters (HQ), and provide resources to Incident Commander (IC) as requested. NBSD is physically located by two shipyards that host naval ships for construction and maintenance. NBSDs F&ES assets may be called to support local, shipyard and ships F&ES teams during a casualty onboard or adjacent to any Navy asset. Since the USS Miami fire in 2012, the Navy has adopted new fire safety policies at its shipyards. NBSD F&ES perform training with afloat commands and local agencies in preparation for a fire onboard any vessel docked at NBSD or a nearby shipyard." [Encl 964]

956. Appendix 3, Tab C to the NBSD EM Plan describes response actions for shipboard fires and provides a "Shipboard fire Specific Checklist." The following response actions for a shipboard fire are provided:

- a. Set up Incident Command and activate EOC.
- b. Identify the materials involved.
- c. Identify the limits of the affected area.
- d. Secure the perimeter.
- e. Conduct rescue operations.
- f. Initiate warnings, shelter in place, and evacuation if necessary.
- g. Initiate appropriate containment measures.
- h. Request assistance.
- i. Activate EOC to higher activation levels if required.
- j. Relocate Marine Expeditionary Forces (MEFs) / Combined Maritime Forces (CMFs) if necessary
- k. Reference Industrial Ship Safety Manual for Fire Prevention and Response S0570-ACCCM-010/8010 (comely [sic] referred to as the 8010).

[Encl 965]

957. The following checklist items are also provided under Appendix 3, Tab C to the NBSD EM Plan:

- a. Utilize Nonspecific Hazard Response Checklist.
- b. Activate first response protocols as necessary (protect lives).
- c. Begin damage assessment and form a recovery working group.
- d. Determine heavy equipment and personnel need for recovery.
- e. Request additional resources from ROC as necessary.
- f. Determine impact to pier operations and formulate continuity of operations plan.
- g. Begin HAZMAT remediation with NBSD Environmental support.
- h. Protect the scene to support investigation.
- i. Protect and treat first responders and bystanders affected by hazardous smoke.

[Encl 965]

958. While Appendix 3, Tab C to the NBSD EM Plan references the 8010 Manual, this appendix does not reference SWRMC's FRP or refer to coordination with SWRMC. Additionally, while the shipboard fire appendix references a "major fire" in the context of EOC activation levels, the first two assumptions of the shipboard fire hazard annex are that "[m]ost ship fires are quickly contained" and "[s]hipboard fires require limited manpower and resources from NBSD." [Encl 965]

959. According to (b) (6), the NBSD EMO and EOC Director, he began working with SWRMC after the BONHOMME RICHARD fire to revise the hazard specific appendices to reflect necessary coordination for a shipboard fire. [Encl 312]

960. NAVBASESANDIEGOINST 5450.8T, section 402, also provides guidance to base tenant commands on responding to shipboard emergency:

"In addition to the ship's alarm, the fire alarm shall be sounded by calling 911 and/or by pulling the nearest fire alarm or auxiliary fire alarm box. If a fire alarm has been pulled, an individual shall be based at the box to direct the fire department to the fire. The ship should immediately call the Regional Dispatch Center when a fire is detected and start combating the fire. CDO or other ship crewmember shall meet the first arriving Federal Fire Department personnel, evacuate non-essential personnel and provide: location and class of fire, details of measures taken to combat the fire, number of members available to assist with the incident." [Encl 936]

Port Operations

961. NBSD Port Operations is responsible for coordinating harbor operations, berthing assignments, tug support, oiler, oil spill control, and pollution control services. Port Operations is also responsible for approving pier laydown requests and coordinates pier safety and cleanliness inspections. [Encl 635, 966, 967]

962. The NBSD XO stated that ships are primarily assigned to berth at piers by the Port Operations Department, (b) (6), based on the draft of the ship and available space. The NBSD XO stated that pier laydown requests for ships in an availability should originate from SWRMC and industry partners before being submitted via the ship's chain of command to the NBSD port operations department for approval. He stated that the NBSD CO is the final approver, but assignments are recommended by port operations. The NBSD XO has not seen an assignment denied. If a ship is extended in an availability, it neither changes the pier laydown requirements nor status. The NBSD XO further explained that a Chief of Naval Operations (CNO) availability status does not affect the assignment. [Encl 938, 968]

963. The NBSD XO thought there should be greater fidelity over the pier laydown approval process, and he noted that changes would be coming in a forthcoming updated instruction. [Encl 938]

964. Pier inspections are conducted daily by NBSD safety, port operations, and environmental departments, along with FEDFIRE representatives, when available. Conducting these inspections jointly is a practice that began post-BONHOMME RICHARD fire. The inspection

results (to include infractions, mitigation actions, and corrections) are briefed to (b) (6) of the port operations department, who is in charge of the pier inspection process. He generates a daily message for dissemination to all NBSD tenant sea commands. The office citing the discrepancy reviews and re-inspects the pier on the same day, or as soon as practicable, for correction. Infractions are to be corrected within 24 hours; however, currently, there is no enforcement mechanism in place. [Encl 938, 969, 970, 971, 972, 973, 974]

965. The NBSD Port Operations Program Director opined that ships generally disregard pier inspection reports, and while temporary corrections are made, they rarely last more than a few days. [Encl 151, 969, 971, 972, 973, 974]

966. The NBSD CO noted that the biggest issues on the piers are environmental and safety concerns. The NBSD CO stated that he has limited authority to direct contractor personnel conducting ship maintenance work on the installation unless the issue endangers the safety of personnel or the environment. [Encl 314]

967. The NBSD CO stated that he was aware which ships are in major availabilities. While he was aware of general completion dates, he did not know the intimate details of each ship's respective availabilities. He was not tracking which ship systems were operational at specific times. [Encl 314]

968. The NBSD Port Operations Program Director stated that Port Operations receives no formal notice of ship material conditions or backup systems status. [Encl 151]

969. The NBSD Port Operations Program Director stated that Ports Operations does not dictate to ships how to maintain laydown areas, so long as the laydown stays within the bow-to-stern and does not impede the fire lane. However, he mentioned that contractors and their equipment routinely causes violations by blocking fire lines and impeding pier access. He went onto say that contractors seem to have limited accountability regarding pier violations. Moreover, SWRMC seems to "lack teeth" to enforce compliance. [Encl 151, 975]

970. The NBSD Port Operations Program Director stated that scheduling ships for guaranteed pier location has been difficult due to the dynamic nature of ships' schedules. He stated that NBSD berthing locations are prioritized based on ship size, propulsion plant type, and power requirements; for example, pier locations are limited for certain ship classes and the 4160 volt ships. In particular, LHD-class ships could only be placed at certain berths — Piers 2, 7, and 13. [Encl 151, 966, 967, 976, 977, 978]

971. The NBSD CO stated that he had not been informed of any ships experiencing difficulties acquiring a third brow. He commented that three-brow requirement per the 8010 Manual had not been resourced on the shore side. He also stated that NBSD has been resourced to provide operational support, not necessarily industrial support. [Encl 314]

972. There are no designated repair piers on NBSD. Repair piers have specific firemain requirements to provide saltwater to meet the "total demand" requirement defined in Appendix C of Unified Facilities Criteria (UFC) 4-145-02 for the largest ship berthed at the pier plus the

aggregate cooling/flushing demand of all remaining ships at the pier, which is then multiplied by section 3-3.2 diversity factors. [Encl 979]

973. All NBSD piers are designated as active berthing piers. [Encl 151, 300, 938, 980, 981]

974. Berthing piers provide ships shore power, oily water collection, collection holding transfer (CHT), potable water, and internet connections. Berthing piers are not required to provide a firemain capability. As such, none of the NBSD piers have an installed firemain capability. The Naval Sea Systems Command (NAVSEA) Failure Review Board (FRB) noted that NBSD piers previously had firemain service, but firemain was removed in approximately 2005. [Encl 151, 315, 325, 938]

975. The UFC 4-150-02 states that berthing piers should not have a permanent fireman system installed unless specifically required: “[p]ermanent salt or non-potable water systems should not be provided at active berthing facilities unless instructed otherwise . . . It is the Navy’s intent that ships at active berth will normally rely upon their own pumping capabilities to supply saltwater for flushing/cooling and firefighting. In the event of a major fire or other emergency, shore-based portable pumps and other available station fire apparatus would be utilized to augment the ship’s saltwater pumping capability.” [Encl 979]

976. CNIC does not fund firemain services on active berthing piers. [Encl 315]

977. The NBSD CO did not know of Program Objective Memorandum (POM) submissions regarding the capabilities of the NBSD piers. [Encl 314]

978. According to the NBSD Port Operations Program Director, NBSD previously had several piers equipped with saltwater firemain lines designed for firefighting several decades ago, but due to environmental reasons, these lines were removed and repurposed. Additionally, Pier 2 has undergone repairs starting in 1995 and 2018. [Encl 151, 315, 644, 924, 925, 982, 983]

979. The NBSD XO stated that none of NBSD’s piers are currently equipped with firemain or firefighting services, and the installation has no temporary firemain available for use by ships. [Encl 938]

980. Maintenance is permitted to occur on a berthing pier that does not have firemain equipped. UFC 4-152-01 states: “Phase Maintenance . . . will generally be conducted at a repair berth,” but “at some Naval stations, Phased Maintenance Activities (PMA) is performed at general purpose berthing piers.” [Encl 984]

981. Pier 2 meets design specifications for a berthing pier to include minimum potable water pressure requirements. [Encl 985]

982. Potable water connections on piers supply water at approximately 70 Pounds-Per-Square-Inch (PSI), which the NBSD Port Operations Director stated is not sufficient for firemain support. [Encl 151]

983. SWRMC proposed designating south piers as repair piers and arranging NBSD to support designated maintenance areas. The SWRMC Code 300 Waterfront Operation Department Head, (b) (6), stated she was unfamiliar with available pier services on NBSD. [Encl 309, 321, 325]

984. The NBSD Port Operations Director stated that in recent years, NBSD had experienced an increased number of scheduled availabilities, particularly with regard to longer-term availabilities, despite piers being designated as berthing piers. [Encl 151]

985. The NBSD CO stated that NBSD exists to support COMPACFLT. He commented that the assumption is if ships are homeported at NBSD, maintenance would be conducted while pierside. He further stated that he did not have a vote on the status of an availability contract — he was merely given requests for berths. [Encl 314]

986. NBSD port operations coordinates tugs and pilots, but contracted tugs work for CNRSW vice NBSD. [Encl 151, 348]

Section VIII: CNRSW and CNIC Oversight of NBSD and FEDFIRE

A. Navy Region Southwest

Emergency Management Oversight

987. In accordance with CNICINST 3440.17, the Regional Commander provides program direction and oversight of the Regional and Installation Emergency Management (EM) programs and is responsible for assuring various standards are addressed in the EM program to include: interoperability, preparedness, training, equipment and exercise and evaluation. The Region Commander is also responsible for reviewing and approving support agreements, including Regional Mutual Aid Agreements (MAA). The Region EM supports Installation Emergency Management Officers (EMO) in the development and approval of support agreements, including MAAs, with appropriate federal, state, local, other service, and/or private (or host nation) responders, agencies, and departments. The Regional EM must coordinate with appropriate federal, state, and local EM-related agencies and departments to identify and update responsible points of contact, emergency plans, and expectations in the event of an emergency onboard or impacting naval installations within the region's assigned Area of Responsibility (AOR). [Encl 348]

988. Commander, Navy Region Southwest (CNRSW) Director of Operations (N3), (b) (6), serves as the N3 Department Head with supervisory responsibility for seven different business lines under CNRSW to include: Fire & Emergency Services (F&ES), EM, Security, Port Operations, Air Operations, and Current Operations. [Encl 348]

989. CNRSW N3 is responsible for manning, training, and equipping all personnel within N3's functional areas. CNRSW Director of Operations' office establishes a direct line of communication with installation commanding officers (COs) to fill their needs in those areas. CNRSW N3, (b) (6), directly supervises CNRSW Federal Firefighting Department (FEDFIRE) (b) (6), ensuring all CNRSW FEDFIRE employees are certified to perform their duties as firefighters within CNRSW. [Encl 188, 348]

990. CNRSW N3 stated that he was not aware of any training specific to the OPNAVINST 3440.18. He stated that while CNRSW has an EM instruction, it is not specific to OPNAVINST 3440.18. He noted that the CNRSW EM Plan contains Hazard-Specific Annexes, one of which is shipboard fires. He was not aware of any other CNRSW implementing instructions or guidance relating to OPNAVINST 3440.18. During her interview, RDML Bolivar, CNRSW, stated that she had knowledge of OPNAVINST 3440.18 prior to the fire. [Encl 348, 471]

991. When asked whether he was aware of any ship or FEDFIRE personnel executing drills specifically geared toward OPNAVINST 3440.18, CNRSW N3 stated that he was not. He stated that he thought completion of 8010 Manual Chapter 12 and 13 drills would satisfy the OPNAVINST 3440.18 drill requirement. [Encl 348]

Regional Operations Center and Region Dispatch Centers

992. The CNRSW Regional Operations Center (ROC) serves as the command, control, communications, computer, intelligence and surveillance point for CNRSW. The ROC functions as a 24/7 operations center gathering information, gaining and maintaining situational awareness, and exercising control over F&ES, Force Protection, and EM Forces. The ROC establishes priorities for incidents at CNRSW installations and prioritize resources among incident locations. The CNRSW ROC is a National Incident Management System (NIMS) compliant operations center. [Encl 349, 986, 987]

993. CNRSW ensures that each dispatch center establishes Standard Operating Procedures (SOPs) which are Region or local installation specific. Dispatch centers are to be incorporated into Navy region and installation exercises based on identified training requirements per CNICINST 3440.17. [Encl 988]

994. Dispatch Centers provide: emergency call taking, alarm monitoring, sensor monitoring, video monitoring/control, communications support, channel/frequency assignments/allocation, emergency notification to Category 1 personnel, mass warning to Category 2-4 personnel (public), Category 5 personnel dispatching, responder reach-back capability during emergencies, and notification of an emergency to the receiving Military Treatment Facility (MTF)/Hospitals. A Dispatch Center is a 24/7 operation existing to receive notification of an emergency and then directing the correct responders (Category 5 personnel including F&ES, Emergency Medical Services (EMS), National Security Force (NSF), Explosive Ordnance Disposal (EOD), Emergency Response Teams (ERT), Public Works, etc.) to the right place, with the right capability, as quickly as possible. Dispatch Centers are tactical level operations directing responders' day-to-day movements to all types of emergency and non-emergency incidents. [Encl 957]

995. When asked to explain the region response to a report of shipboard fire, CNRSW N3 explained that the first step is a dispatcher receiving a call at Regional Dispatch Center (RDC), and once the call is received, the dispatcher activates a prepared response package signaling the closest FEDFIRE station to respond to the fire and initiate an assessment of the situation. As the assessment is completed and the incident evolves, the response is a standard NIMS response. CNRSW N3 explained that under the NIMS response program, the vessel's CO is the Incident Commander. The Incident Commander requests incident support from their Emergency Operations Center (EOC), and if the EOC is unable to fill the Request for Support (RFS), then the request is elevated to the ROC for response support by either the normal 24/7 watch or the Crisis Action Team (CAT), if activated. [Encl 348, 989]

FEDFIRE Oversight

996. Per OPNAVINST 11320.23G, Region Commanders are required to establish, manage, and evaluate the execution and effectiveness of the region and installation F&ES program. CNRSW FEDFIRE (b) (6) is responsible for ensuring F&ES personnel meet certification requirements, developing SOPs and Standard Operating Guides (SOG), and annually review the F&ES operations and capabilities at each installation in CNRSW. [Encl 188, 363, 687]

997. CNRSW N30 is staffed with three positions directly reporting to CNRSW (b) (6) a Deputy Fire Chief, a Region Fire Chief, and a Chief of Fire Prevention. CNRSW Fire Prevention (b) (6) stated that there are currently five CNRSW F&ES positions with 2 – 3 vacancies. The Region F&ES staff ensures installation F&ES departments are organized, trained, and equipped to execute their respective missions. [Encl 188, 952, 990]

998. Region FEDFIRE follows OPNAVINST 11320.23G, and there are no CNRSW or Commander, Navy Installation Command (CNIC) instructions implementing OPNAVINST 11320.23G. However, CNIC N30 publishes F&ES Headquarters Policy Directives (HPD) Advisories with various training requirements and program updates for region and installation F&ES chiefs to execute and oversee. [Encl 691]

999. CNRSW FEDFIRE (b) (6) stated that there are SOPs governing how FEDFIRE deploys resources at any event or casualty. While there is an SOP for FEDFIRE responses when an incident occurs in a structure with occupants, there is not a specific plan for each respective building or vessel on NBSD. [Encl 188]

1000. CNRSW FEDFIRE (b) (6) stated that FEDFIRE does not have different response plans for each ship platform on NBSD. While CNRSW FEDFIRE (b) (6) did not reference the HPD requirement for IAPs, he commented that he did not interpret the OPNAVINST 11320.23G as requiring FEDFIRE to have pre-incident plans for each type of vessel on NBSD. CNRSW FEDFIRE (b) (6) commented that he believes there is a larger issue regarding whether NBSD or Naval Base Point Loma (NBPL) are shipyards or naval installations. CNRSW FEDFIRE (b) (6) commented that the language in OPNAVINST 11320.23G should be more directive to eliminate the ambiguity of its intent. Additionally, he commented that NBSD is inconsistent as to where ships are berthed and thus, it has been extremely difficult for FEDFIRE to develop ship-specific pre-incident plans. [Encl 188]

1001. CNIC N30 HPD Advisory 2016-01 requires comprehensive Incident Action Plans (IAPs) tailored to the individual ship class and specific berth location to manage shipboard incidents. Contrary to the requirement in CNIC N30 HPD Advisory 2016-01 for Region Fire Chiefs to provide oversight ensuring comprehensive IAPs are developed by Navy Ship Repair and/or Construction Activities (SRCA) and installations supporting SRCA maintenance operations, there are no platform or berth-specific IAP for the ships at Naval Base San Diego (NBSD). [Encl 188]

1002. CNIC N30, (b) (6), stated that he would expect a plan to be developed for each ship platform. He also observed “a lot of maintenance” at NBSD and he assumed NBSD’s EM plan would address this point. (b) (6) interpreted OPNAVINST 112320.23G’s requirement for incident plans to require a plan for each class of ship. [Encl 687]

1003. CNRSW stated that IAPs are oftentimes developed with multiple stakeholders in the event of an emergency. In the case of FEDFIRE San Diego, CNRSW stated that numerous IAPs had been established throughout the years supported by Installation Commanders, Southwest Regional Maintenance Center (SWRMC), and FEDFIRE. CNRSW noted that berth-specific IAPs have presented a challenging prospect onboard NBSD, as the operational tempo and ship

movement has often varied with respect to where specific ship classes are located from day-to-day, with several often orientated and berthed differently throughout the week. According to CNRSW, FEDFIRE “continues to champion efforts to ensure each ship class has a specific IAP.” [Encl 946]

1004. Per OPNAVINST 11320.23G, Region F&ES Chiefs are responsible for facilitating the development, implementation, and periodic review of MAAs consistent with CNIC policy. Regarding the status of NBSD’s MAA with San Diego Fire Department (SDFD), CNRSW FEDFIRE (b) (6) stated that he was aware the MAA was outdated, and he was not comfortable with its status. He stated that he was aware city governments were required to re-sign MAAs, but they did not want to take time to re-evaluate an agreement they felt would not change. CNRSW FEDFIRE (b) (6) stated the N5 at CNRSW and the N5 at the installation coordinate the frequency of MAA reviews. [Encl 188]

1005. Both CNRSW and CNIC acknowledged the requirement to periodically update the MAAs with local fire departments has not been met but is being addressed. CNIC stated that Regions have flexibility on MAA implementation and that CNIC is in the process of adjusting oversight responsibilities and schedules to better enable compliance. [Encl 350, 471]

1006. CNRSW FEDFIRE (b) (6) stated that he did not know the number (if any) or periodicity of drills or ship familiarization events with SDFD since his tenure as CNRSW FEDFIRE Chief. [Encl 188]

1007. CNRSW FEDFIRE (b) (6) commented that SDFD and FEDFIRE had always wanted to integrate, but there have been numerous factors influencing the level of involvement between the two entities. CNRSW FEDFIRE (b) (6) stated that if FEDFIRE could not keep with the trends and technological advancements of local fire departments, there would always be some degree of tension between the entities. CNRSW FEDFIRE (b) (6) stated that there were issues beneath the surface with SDFD that he preferred not to discuss. [Encl 188]

1008. Regarding the requirements for shipboard training in OPNAVINST 11320.23G, CNRSW FEDFIRE (b) (6) stated that he could not answer whether or not the periodicity for shipboard firefighting training was set by CNIC or Naval Sea Systems Command (NAVSEA), and he was unsure of the required periodicity for shipboard training, drills, and familiarization tours. He viewed OPNAVINST 11320.23G shipboard training requirements as being separate from the 8010 Manual drill requirements. When CNRSW FEDFIRE (b) (6) was asked whether the requirement for hose line advancement training (OPNAVINST 11320.23G, page 11-2) was met, he stated he did not know. [Encl 188]

1009. CNRSW FEDFIRE (b) (6) stated that FEDFIRE had not been adequately staffed and manned to meet the required periodicity of the 8010 Manual drill requirements, and he commented that FEDFIRE could not realistically support operational and real-world commitments while simultaneously participating in 8010 Manual Chapter 13 drills. [Encl 188]

1010. CNRSW FEDFIRE (b) (6) thought FEDFIRE had been meeting the intent of the 8010 Manual drills, even though FEDFIRE could not feasibly provide full-service support to an 8010 Manual drill. [Encl 188]

1011. CNRSW FEDFIRE (b) (6) viewed the 8010 Manual as a ship requirement FEDFIRE supports. When asked whether there were any formal FEDFIRE training requirements for ship familiarizations outside of the 8010 Manual drills, CNRSW FEDFIRE (b) (6) stated that he was unaware how the NBSD Training Officers coordinated these events. [Encl 188]

1012. CNRSW FEDFIRE (b) (6) stated that he did not know who is currently generating drill scenarios, but FEDFIRE provides input for 8010 Manual drill packages. CNRSW FEDFIRE (b) (6) stated that he had articulated ideas for more dynamic training evolutions to his FEDFIRE team. However, he described this desire as a “unicorn ambition” due time and training limitations. [Encl 188]

1013. Regarding the requirement on pages 5 – 6 of OPNAVINST 11320.23G for Navy F&ES departments to coordinate and communicate with the naval supervising activity (SWRMC) to establish lines of authority and communication, CNRSW FEDFIRE (b) (6) stated that he did not have that line of knowledge. He noted that SWRMC, through (b) (6) the Government Fire Safety Officer (GFSO), worked with CNRSW FEDFIRE to coordinate requirements. He stated that he did not have a current SWRMC point of contact, but he would expect FEDFIRE Metro (b) (6) or FEDFIRE Metro (b) (6) to conduct any necessary coordination with SWRMC. [Encl 188]

1014. CNRSW FEDFIRE (b) (6) stated that he was unfamiliar with OPNAVINST 3440.18. To his knowledge, CNIC does not provide any training on this instruction. [Encl 188]

1015. CNIC acknowledged there was a lack of training and awareness at the Region and installation level to OPNAVINST 3440.18, and assessed that Region SW should work with SWRMC to ensure major drill scenarios “are robust enough to trigger a full OPNAVINST 3440.18 response.” CNIC also acknowledged the communication equipment challenges between SDFD and FEDFIRE personnel and assessed that Region SW should have the capability to communicate with mutual aid fire responders and have this laid out in the SWRMC Fire Response Plan. [Encl 350]

B. CNIC

Emergency Management and FEDFIRE Oversight

1016. OPNAVINST 3440.17A directs CNIC to develop, implement, and sustain EM programs at Navy regions and installations and to ensure programs are aligned with the NIMS and Incident Command System (ICS). Per OPNAVINST 11320.23G, CNIC, through CNIC N30, develops policy, budgeting, and guidance for the Navy F&ES program. Per OPNAVINST 11320.23G, CNIC N30 is tasked with developing, interpreting, and publishing Navy F&ES Program policy; interpreting, revising, and establishing organization policies to meet evolving F&ES community

standards; identifying and prioritizing required F&ES resources and capability following a risk-based strategy; evaluating and approving variances for staffing; reviewing F&ES operations for all F&ES incidents where proper performance of the F&ES department is in question; and, conducting a Program Compliance Assessment (PCA) and site visits to F&ES departments at least once every five years. Contrary to these requirements, CNIC has not conducted a PCA or site visit to CNRSW since June 2012. [Encl 687, 991]

1017. When asked when CNIC last completed a PCA of CNRSW F&ES in accordance with OPNAVINST 11320.23G paragraph 5.b.(14), CNIC N30, (b) (6), stated that the last PCA had been prior to the USS MIAMI (SSN-755) fire, which was over eight years ago. He also confirmed CNIC had not conducted a site visit to CNRSW in the last five years. [Encl 687, 991]

1018. The last PCA, conducted in June 2012, neither assessed FEDFIRE's shipboard firefighting proficiency nor the status of FEDFIRE's shipboard training. [Encl 991]

1019. CNIC N3, (b) (6), was unaware when the last PCA had been completed for CNRSW F&ES, and he was surprised to learn the last PCA of CNRSW had been prior to the MIAMI fire. He speculated that part of the reason for the absence of a PCA could have been in part due to the assessments resulting in little or no value to installations, stating "when an activity does not result in value, it becomes less of a priority." [Encl 992]

1020. CNIC was aware that Region SW consolidated the San Diego metro installations into a single F&ES organization and assessed it provides for the effective utilization of management staff, reduces administrative overhead, and encourages cross utilization of response resources. CNIC assessed that the consolidation does not reduce or change actual response times, staffing, or capabilities, and it is consistent with other locations to include Hampton Roads, Region Northwest, and Region Hawaii. CNIC assessed these consolidated F&ES departments operate with sufficient oversight and installation involvement and it is up to the Regions to define the command relationships. [Encl 350]

1021. Per OPNAVINST 3440.18, CNIC is responsible for coordinating assistance from the appropriate region and installation commands both internal and external to the affected Navy region in the event of an in port non-nuclear shipboard casualty. According to (b) (6), CNIC F&ES Operations Manager (N30), OPNAVINST 3440.18 is confusing in regard to who has responsibility for what. He stated that the instruction falls to the EM side of CNIC. [Encl 993]

1022. When asked about CNIC's responsibilities under OPNAVINST 3440.18, CNIC N30, (b) (6), noted that CNIC is responsible for coordinating assistance to affected Navy Regions. He added that regions are able to request external assistance without prior CNIC approval. He went onto say that regions could send a request for support to CNIC, who would then assist the region coordinating support. [Encl 687]

1023. When asked whether CNIC had provided training on OPNAVINST 3440.18, including training specific to its requirements, CNIC N30, (b) (6), noted that training is offered by CNIC N36 to new installation leaders. The training is called the Senior Shore Leader Course

and is an “overarching training,” meaning new COs and Executive Officers (XOs) usually attend additional local trainings upon completing CNIC’s course. When asked whether the training specifically covers OPNAVINST 3440.18 requirements, he was not aware of all of the specific topics presented at the training and he would have had to confirm with N36. [Encl 687]

1024. When asked about the level of awareness his team had to OPNAVINST 3440.18, CNIC, VADM Lindsey stated that they were fully aware of the policy and participated in its development. He also stated this topic is discussed in the Senior Shore Leaders Course and has been expanded since the fire on 12 July 2020. [Encl 350]

1025. Per 8010 Manual paragraph 2.6.1, CNIC shall also participate in NAVSEA audits of each Navy activity performing or contracting for ship construction, where Navy F&ES is the organization responsible for primary fire response. According to CNIC N30, (b) (6), RMC teams lead and conduct Fleet Maintenance Activity Assessments (FMAA), and the assessment teams include CNIC (when on an installation). [Encl 993]

1026. Per OPNAVINST 3440.18, CNIC is also required to participate in respective area or unified area command planning, training, and major shipboard casualty drills. Per 8010 Manual Chapter 13, CNIC is required to evaluate 8010 Manual Chapter 13 drills, particularly the on-scene Incident Management Structure and ROC/EOC’s performance. CNIC N30, (b) (6), stated that CNIC staff attends most shipyard 8010 Manual Chapter 13 drills, and CNIC would ask a region staff member to participate if CNIC could not attend. [Encl 687]

1027. CNIC N30, (b) (6), participated in 30 8010 Manual Chapter 13 drills, only six of which have been at RMCs, and none in last two years. [Encl 993]

1028. CNIC N30, (b) (6), stated that 8010 Manual drills are locally evaluated by the participating fire department. He went onto say that 8010 Manual Chapter 12 drills are evaluated by the region’s training evaluation team. [Encl 687]

1029. CNIC N30 stated that Navy Regions oversee compliance with installation-level requirements, and CNIC occasionally conducts spot-checks. [Encl 687]

1030. When the CNIC N30 was asked to explain requirements for shipboard firefighting training, he asserted that these requirements are included in the duty tasks in Enterprise Safety Applications Management System (ESAMS). He also explained the CNIC determines how frequently various trainings are conducted per OPNAVINST 11320.23G. [Encl 687]

1031. When asked whether there was a minimum number of annual shipboard fire training hours, CNIC N30 did not know the exact requirement other than “a significant amount.” He was unsure whether CNRSW was in compliance with any hourly training requirements. [Encl 687]

1032. CNIC N30 explained training requirements are contained in CNIC HPD directives, and there is no overarching policy document or training plan outside of these directives. He stated that the ESAMS duty tasks system consolidates requirements into a single location. CNIC N30 stated that all HPD directive requirements would have been compiled in ESAMS duty tasks. [Encl 687]

1033. When asked how an inspector would review requirements to confirm completion of all requirements, the CNIC N30 stated that an inspector could look in ESAMS. However, CNIC N30 acknowledged that ESAMS does not necessarily cite to specific instruction requirements, but rather, general training categories. [Encl 687]

1034. CNIC assessed that all FEDFIRE shipboard firefighting training requirements are incorporated into ESAMS and that the headquarters staff has a very good understanding of all these requirements. CNIC acknowledged that tracking compliance of these requirements in ESAMS is challenging but that it does not relieve responsibility to conduct and document training. [Encl 350]

1035. When asked about FEDFIRE's radios, CNIC N30 stated that he was aware of FEDFIRE's challenge communicating with municipalities. He observed that tri-band radios — the radios FEDFIRE desires — are very expensive, and existing radios have the ability to be patched without the need for tri-band radios. For this reason, the CNIC N30 did not think every firefighter required a tri-band radio; only the Incident Commander (IC) firetruck requires this capability. He noted that he had heard patching had been "hit or miss." [Encl 687]

1036. While discussing modernization efforts, the CNIC N30 noted that modernizing and installing IC management computers into firetrucks had been "on [CNIC's] radar." However, he observed it has been "very difficult" to acquire devices approved by the Navy Marine Corps Intranet system capable of working in FEDFIRE's mobile command unit. [Encl 687]

1037. CNIC N30 also thought equipment cost had become an issue the past few years. For example, employees are receiving pay raises and non-labor inflation factors each year, while the labor and non-labor budget shortfalls continue to increase, which results in an annual funding shortfall. He noted that CNIC has managed this by moving money around from different programs to pay expenses (both labor and non-labor). [Encl 687]

1038. The Office of the Chief of Naval Operations (OPNAV) Director of Shore Readiness (N46), (b) (6), noted there is no single resource sponsor for fire safety. She explained that FEDFIRE requirements exist as a sub-element of the overall base operations budgets and acquiring detailed information about resource requirements has historically been a challenge, despite repeated requests. (b) (6) further stated that CNIC fully owns their line of accounting and could move money around on any non-labor base operations line item to fund CNIC's priorities. [Encl 789]

Section IX: Resulting Condition of BONHOMME RICHARD

1039. The fire caused extensive damage and equipment loss throughout USS BONHOMME RICHARD (LHD-6). In the immediate aftermath of the fire, Naval Sea Systems Command (NAVSEA), NAVSEA21, and NAVSEA05 conducted a stem-to-stern fire damage assessment report (subsequently referred to as the “Material Assessment” (MA)). In addition to cataloguing the damage, the MA assessed the material condition and structural integrity of the ship as a precursor to the process of developing plans and options to inform the feasibility of repair and restoration. The initial MA report was completed on 1 August 2020. [Encl 731, 994]

1040. To determine the full scope of damage to BONHOMME RICHARD, the MA initially divided the ship into zones, with the intent to assess each compartment within a respective zone for structural, fire/heat, or water damage. Due to the catastrophic nature of the actual damage conditions, the MA modified their initial compartment-by-compartment assessment to instead provide a gross assessment of groups of compartments. In many areas, the damage was so extensive that the MA was unable to identify specific compartments, as the fire and explosions created large open areas spanning several decks. Overall, the MA concluded that approximately 63 percent of BONHOMME RICHARD was impacted by the fire. [Encl 731, 994]

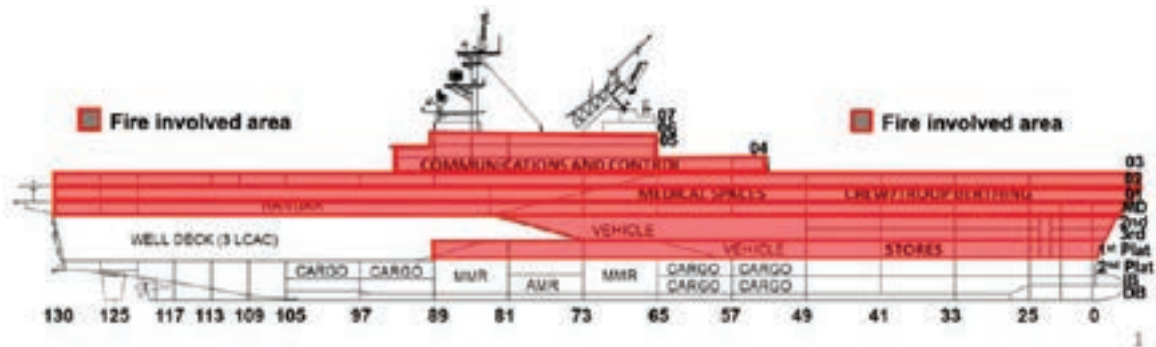


Figure 41 is a MA diagram indicating the fire-involved areas of BONHOMME RICHARD.

1041. The damage to the island is particularly notable, as the interior of the island is constructed primarily of aluminum, which has a lower melting point than carbon steel. The island was completely hollowed-out by the fire, transforming nearly a third of the 300-ton structural mass into molten aluminum. This molten aluminum drained through the island’s Flight-Deck level foundation penetrations onto the decks below, creating lava-like flow across lower-level steel decks and through vertical deck penetrations. No material remaining within the island is salvageable, as the fire essentially left exterior bulkheads with no other support structure. Due to the lack of structural integrity, should the ship be towed on the open-ocean, the island must either be removed or buttressed. [Encl 731, 995, 996, 997, 998]



Figure 42 shows investigation team members examining a solidified aluminum flow.

1042. As noted above, the loss of the interior island structure compromised the island's structural integrity, leading to the collapse of the forward mast and necessitating the removal of the aft mast in the weeks after the fire. [Encl 731, 999, 1000]



Figure 43 shows the island's interior, illustrating that the overhead has completely burned away.



Figure 44 is another photograph of the island's interior.

1043. In numerous locations below the Flight Deck, steel structural I-beams are substantially warped/bent, indicating in these areas of the ship, the fire temperature approached or exceeded the forging temperature of carbon steel (2,100 degrees Fahrenheit). The MA concluded that the structural compromise of these beams would require the replacement of the entire Flight Deck. Also, below the Flight Deck and throughout the ship, several aluminum ladders melted away, leaving behind hazardous multi-deck openings. [Encl 731, 1001]

1044. The fire extensively damaged cables and cableways spanning the entire length of BONHOMME RICHARD. The MA concluded that many cable systems must be removed along their entire length, including the sections passing through undamaged spaces. Calculations for the quantity of cable requiring replacement were not included in the MA, but it concluded that the entire four million feet of combat systems and command, control, computers, and intelligence (C5I) cabling originally installed on BONHOMME RICHARD would require replacement. [Encl 731]

1045. The MA did not fully assess damage to distributed systems, such as ventilation, heating/cooling, potable water, chill water, Collection, Holding, Transfer (CHT), and others. However, each system passes through both damaged and undamaged compartments, which would necessitate careful mapping for damage. [Encl 731]



Figure 45 shows burned cableways in the Lower Vehicle Stowage Area (Lower V).

1046. To aid in repair calculations, the MA established an approximate “cut-line,” above which virtually no compartment is salvageable. The MA concluded that restoration above the cut-line would entail the removal and replacement of entire decks, compartments, and all associated contents and equipment. Major spaces above the cut-line include: the island structure, all 02-level compartments for the entire length of the ship, all 01-level compartments from Frame 25 to the stern, all compartments on the Main Deck from Frames 25 to 89. Key spaces below the cut-line that still require total replacement include Damage Control (DC) Central (5-79-0-C, Ship’s Laundry (4-73-0-Q), Upper Vehicle Stowage Area (Upper V) (3-49-0-A) and Lower V (4-49-0-A). [Encl 731]

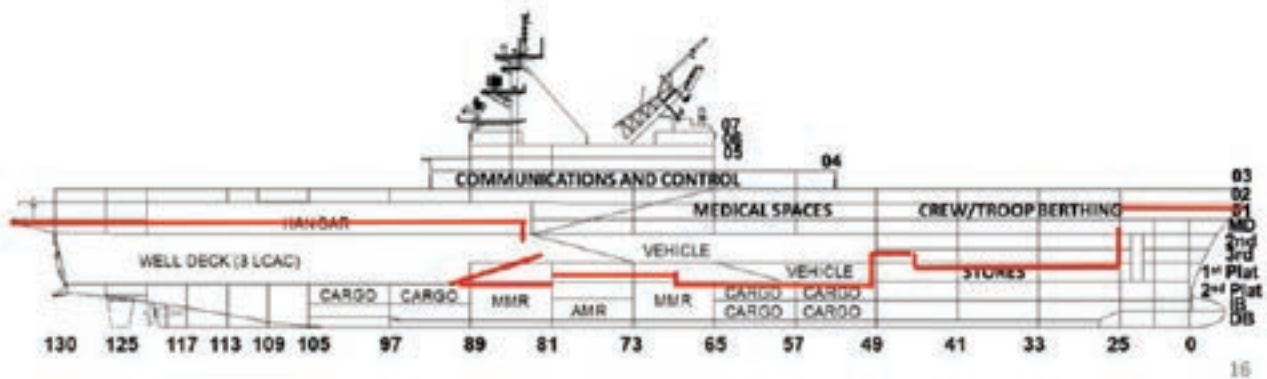


Figure 46 shows the NAVSEA “cut-line.”

1047. Below the cut-line, the MA concluded that most compartments are either intact or could be repaired via standard ship repair processes. Major spaces below the cut-line include: 1 Main Machinery Room (MMR) (6-65-0-E), 2 MMR (6-81-0-E), Auxiliary Machinery Room (AMR) (6-73-0-E), Lower Cargo Ammunition Magazines (6-49-0-M, 6-57-0-M), Aft Steering (7-121-2-

E, 7-121-3-E, and the Fo'c'sle (01-T-0-Q). Of note, many of these spaces were exposed to salt water and would require restoration. Additionally, in many of these compartments, the overheads were impacted by the fire; in some circumstances, this would require replacement of the compartment's upper feet. [Encl 731]

1048. In various areas throughout BONHOMME RICHARD, there is a stark distinction in the severity of damage between neighboring compartments, with one compartment heavily damaged and the other much less affected. This appears to have occurred primarily where any openings between the two compartments (such as hatches and scuttles) were closed, preventing the spread of heat, smoke, and flames. [Encl 1002]



Figure 47 shows two compartments separated by a closed hatch. One compartment was severely damaged, while the adjacent compartment suffered minor damage.

1049. On 30 November 2020, the Secretary of the Navy (SECNAV) announced BONHOMME RICHARD would be decommissioned due to the extensive damage suffered during the fire. SECNAV estimated cost to repair BONHOMME RICHARD would have exceeded \$3 billion, with the projected timeframe for completion estimated at 5 – 7 years. Other options for the ship, such as conversion to a hospital ship or submarine tender, were rejected as the estimated conversion cost exceeded \$1 billion. In contrast, Commander, Navy Region Maintenance Center (CNRMC) estimated the decommissioning process would cost \$30 million and would be completed within 9 –12 months. [Encl 1003]

1050. On 26 January 2021, the Office of the Chief of Naval Operations (OPNAV) directed BONHOMME RICHARD to be decommissioned, with an effective date of 15 April 2021. [Encl 1004]

1051. Beyond the damage suffered by BONHOMME RICHARD, USS FITZGERALD (DDG-62), which was moored on the south side of Pier 2 across from BONHOMME RICHARD, suffered damage from the fire and explosions as well. Aboard FITZGERALD, 10 gas turbine generator intake filters were damaged, an estimated value of approximately \$3,000. No other ships were damaged during the fire. [Encl 1005, 1006]

1052. Additionally, various pieces of Naval Base San Diego (NBSD) equipment located on the pier were damaged during the fire. On Pier 2, 20 shore power cables, each 180 feet in length, sustained heat damage, compromising their insulation and requiring replacement. Additionally, 22 Viking plug pigtails, which connect the shore power cable to the power mound, suffered similar damage and require replacement as well. The replacement cost estimate for the damaged shore power equipment is approximately \$270,000. Further, various hoses on Pier 2 were compromised due to excessive heat, including 150 feet of 2-inch steam hose, 200 feet of 3-inch CHT hose, and 100 feet of 2.5-inch oily waste hose. The replacement of cost of these hoses is estimated to be \$10,000. [Encl 1007]

1053. During the firefighting effort, numerous items of Federal Firefighting Department (FEDFIRE) equipment were damaged or destroyed, requiring replacement. Approximately 4,800 feet of 2.5-inch and 3-inch firefighting hoses were destroyed during the fire, and an additional 10,400 feet of water supply line hoses require replacement after failing safety tests under National Fire Protection Association (NFPA) Standard 1500. The total replacement cost for these hoses is estimated to be \$68,830.40. Additionally, 60 Self-Contained Breathing Apparatus (SCBA) masks were damaged during the firefighting effort. FEDFIRE was able to replace 35 masks with its existing inventory but requested the purchase of 25 additional masks to address the remaining deficiency. The replacement cost for these masks is estimated to be \$7,172.50. [Encl 1008, 1009, 1010]

1054. Under the authority of the Military Personnel and Civilian Employees' Claims Act (31 U.S.C. §3721), military personnel may request compensation for loss, damage, or destruction of personal property incident to service. Claims are adjudicated by examiners in the Claims and Tort Litigation office (Code 15) of the Office of the Judge Advocate General (OJAG). As of 1 December 2020, Code 15 had received 123 claims for personal property loss related to the BONHOMME RICHARD fire and approved 112 of those claims. Eight claims were denied or withdrawn, as the property in question was covered by private insurance, and one claim was referred to the Torts Division of Code 15. In total, \$165,063 has been paid to Sailors to compensate for personal property lost during the BONHOMME RICHARD fire. [Encl 1011]

Section X: Personal Injuries

1055. Throughout the fire, USS BONHOMME RICHARD (LHD-6) medical department, which included the Senior Medical Officer (SMO), (b) (6), the ship's General Medical Officer (GMO), the ship's Medical Administration Officer (MAO), and the duty corpsmen, provided medical triage and facilitated medical evacuations for injured personnel. [Encl 263, 302, 1012, 1013]

1056. BONHOMME RICHARD's medical department reported a total of 68 uniform and civilian personnel who sustained injuries associated to the fire response. Of these 68 personnel reported injured, 45 were uniform personnel and 23 were civilian personnel; 38 of the uniform personnel were assigned to BONHOMME RICHARD. The remaining 7 uniform personnel who sustained injuries were assigned to USS LAKE ERIE (CG-70) Commander, Naval Surface Force Pacific (CNSP), USS FITZGERALD (DDG-62), and USS COMSTOCK (LSD-45). [Encl 1014, 1015]

1057. Injuries reported included smoke inhalation, dehydration, heat injury, acute kidney injury, closed head injury, mild traumatic brain injury (concussion), broken hand, back pain injury, eye injury, rhabdomyolysis, dizziness, electrical shock, ankle injuries, syncope (fainting) and torn muscles. [Encl 1014]

1058. BONHOMME RICHARD medical department assessed that they did not have sufficient medical supplies on-scene due to the majority of their supplies being on the ship. Based on this assessment and limited resources, personnel were placed in the nearest ambulance if requiring advanced care. [Encl 263]

1059. Prior to the first explosion, the medical department reported that only one individual was medically evacuated. The largest influx of personnel requiring medical attention occurred after the first explosion, with numerous personnel suffering concussions. [Encl 263]

1060. On 14 July 2020, after the SMO observed Sailors experiencing mental health issues associated with the fire, a mental health practitioner was called to the scene. Personnel requiring medical attention were brought into the triage area and were then referred to the mental health practitioner as necessary. [Encl 263]

1061. Personnel were transported to multiple medical treatment facilities, including Naval Medical Center San Diego, Scripps Mercy Hospital, University of California San Diego Medical Center, Sharp Memorial Hospital – Chula Vista, Scripps Clinic La Jolla, and Paradise Valley Hospital. The majority of injured personnel were released the same day they were admitted to the medical treatment center. Some personnel required hospitalization for multiple days. [Encl 65, 198, 1014]

1062. As of 20 July 2020, all injured personnel were discharged and determined to be in stable condition. However, nine BONHOMME RICHARD Sailors who incurred injuries as a result of the explosions were referred to Naval Hospital Balboa's Traumatic Brain Injury Clinic, where they continue to receive medical care. [Encl 1014, 1016]

1063. During the fire, BONHOMME RICHARD medical department tracked injuries and treatment information manually via paper records. The BONHOMME RICHARD MAO compiled information on total injuries and medical transport information into a spreadsheet, which was used to provide situation reports during the incident. [Encl 1013, 1014]

1064. BONHOMME RICHARD's medical department established a pierside triage tent in the vicinity of the ship, as well as a main triage center at the Base Theater. A rehabilitation center was also established outside of the Naval Base San Diego (NBSD) Commanding Officer's (CO) building. [Encl 263, 302, 1013]

1065. The triage location moved several times due to the explosions and the projected blast radius for potential future explosions. Following moves to the Afloat Training Group (ATG) and ESG-3 parking lots, the main triage center was moved to the NBSD Base Theater at approximately 2100 on 12 July 2020. For the remaining duration of firefighting efforts, the main triage center was located in the Base Theater. [Encl 263, 302]

1066. Two triage officers from BONHOMME RICHARD oversaw operations on the afternoon of 12 July 2020. Once the triage center was ultimately established at the Base Theater, a senior physician remained in the Base Theater at all times, while additional physicians moved from the pierside triage tent to the Base Theater. A roving corpsman identified personnel who required assistance and monitored personnel in rehabilitation centers, which were established outside of the NBSD CO building. [Encl 263]

1067. According to the SMO, BONHOMME RICHARD's medical department personnel operated independently from civilian medical personnel from Federal Firefighting Department (FEDFIRE) and San Diego Fire Department (SDFD), though they coordinated through a civilian liaison who provided periodic reports on any major medical issues. Civilian agencies maintained triage stations outside of the Base Theater and communicated with BONHOMME RICHARD medical personnel if they required equipment or assistance. [Encl 263]

1068. On 12 July 2020, a representative from the medical Department provided an hourly report to BONHOMME RICHARD's leadership at the Emergency Operations Center (EOC). From 13 – 16 July 2020, a medical department representative provided a status update to BONHOMME RICHARD's CO, CAPT Gregory Thoroman, or Executive Officer (XO, (b) (6)), approximately every three hours. [Encl 263]

1069. The BONHOMME RICHARD medical department established a duty section rotation on 13 July 2020, with shifts divided between 14 hours on and 10 hours off. [Encl 263]

1070. In addition to the injuries reported by BONHOMME RICHARD, SDFD reported 18 of their personnel injured as a result of the fire response efforts. Coronado Fire Department also reported one employee injured as a result of the fire response efforts. [Encl 1017, 1018]

Section XI: Review of Policies, Procedures, and Programs Relating to Fire Prevention and Casualty Response

Eight years before the USS BONHOMME RICHARD (LHD-6) fire, the USS MIAMI (SSN-755) caught fire in an availability and was lost. Following this fire, the Navy maintenance, fleet, and installation communities undertook extensive efforts to ensure it would never happen again. These efforts have continued to today as Commander, U.S. Fleet Forces exercises the role of Executive Agent (EA) for Damage Control (DC).

A. MIAMI Fire and Response

1071. On 23 May 2012 at approximately 1730, a fire initiated when a shipyard employee lit a bag of rags stored with other combustibles in Wardroom Stateroom 1 aboard MIAMI. The ship was in Dry Dock 2 at Portsmouth Naval Shipyard (PNSY) in the third month of a 20-month availability. A casualty control alarm was pulled by shipyard employees in the torpedo room after they unsuccessfully searched for the source of fire, which initiated response by the ship and PNSY Federal Firefighting Department (FEDFIRE). [Encl 1019]

1072. PNSY FEDFIRE was on-scene at 1743 and immediately began running hoses onto the ship. Confusion regarding location of the fire led to the initial responders going to the torpedo room instead of the Wardroom Staterooms. At 1825, based on high heat conditions and reports of injured firefighters, the MIAMI Commanding Officer (CO) evacuated all Ship's Force personnel from the forward compartment. [Encl 1019]

1073. Mutual aid was requested from multiple organizations at 1959, and the first responding units arrived on-scene by 2013. Ship's Force reentered the ship at 2020 after spaces had been cooled sufficiently by in-hull sprinkler hoses and external hull cooling. The MIAMI fire ultimately burned for approximately 10 hours before being declared out at 0550. A Naval Sea Systems Command (NAVSEA) command investigation convened and found that while the fire was intentionally set, there was a missed window of opportunity to control, contain, and extinguish the fire. [Encl 1019]

1074. The first recommendation in the MIAMI command investigation was for Commander, U.S. Fleet Forces Command (USFF) to establish an independent investigative team to evaluate the organizational construct and effectiveness of shipboard firefighting on U.S. installations and shipyards. USFF coordinated a policy and programmatic inquiry (termed the "Fire Review Panel") following the MIAMI fire that was to convene shortly after the NAVSEA command investigation finalized its report. [Encl 1019]

1075. The MIAMI Fire Review Panel appointed by USFF was tasked with conducting a comprehensive examination of all contributing factors to the fire aboard MIAMI as informed by the facts and circumstances of the NAVSEA command investigation into the incident. The MIAMI Fire Review Panel report included inputs from NAVSEA, Commander, Navy Installation Command (CNIC), and Naval Reactors. [Encl 1019, 1020]

1076. The MIAMI Fire Review Panel report was issued on 16 November 2012 and included 99 recommendations, of which 39 were evaluated to be of highest priority for action. These recommendations were categorized as fire prevention, fire detection, immediate response and extended response. [Encl 1019, 1021]

1077. Following completion of the MIAMI Fire Review Panel, the Chief of Naval Operations (CNO) endorsed the report and appointed USFF as the Executive Agent for all DC equities for the Navy, which included the action and implementation of the recommendations in the report. As of 3 September 2020, two items on the MIAMI Fire Review Panel priority recommendation had not been approved as completed. Items 5.2 and 33 are still awaiting administrative closure, and both actions are specific to submarines. [Encl 1022]

B. Fires since MIAMI

1078. Since the MIAMI fire occurred in 2012, 894 reportable fires aboard afloat units have been reported to Naval Safety Center through the Web Enabled Safety System (WESS). [Encl 1023]

1079. A Naval Safety Center study found approximately 92 percent of fire events in port went unreported from 2017 – 2018. This study compared WESS data against other sources, which included NAVSEA Trouble Report, and National Fire Incident Reporting System (NFIRS) data. [Encl 1024, 1025, 1026]

1080. Three major shipboard fires occurred during availabilities in the 8 years between the fires aboard MIAMI and BONHOMME RICHARD. The fires on USS GUNSTON HALL (LSD-44), USS OSCAR AUSTIN (DDG-79), and USS IWO JIMA (LHD-7) cumulatively resulted in more than \$73 million in damage. [Encl 1027, 1028]

1081. On 3 March 2015, a fire occurred aboard GUNSTON HALL due to improper hot work during an availability in General Dynamics National Steel and Shipbuilding Company (NASSCO)-EARL Shipyard. The fire occurred during normal weekday working hours and burned for four hours before being extinguished by a combined Ship's Force and local civilian firefighting team. The subsequent command investigation noted:

- a. Lack of quick-disconnects resulted in the ship not being able to properly establish fire and smoke boundaries, inhibiting the crew's response to the casualty.
- b. Crew move aboard had occurred and combined with ongoing hot work, resulted in conditions favorable to a fire occurring.
- c. Confusion by Ship's Force and lack of a muster resulted in an event where the crew responded individually as trained but not well as a cohesive unit.
- d. Recommendation number eight suggested training should be conducted on indirect firefighting techniques when preparing for and during industrial availabilities.

[Encl 1029]

1082. On 10 November 2018, a fire occurred aboard OSCAR AUSTIN due to improper hot work during an availability in BAE Systems Norfolk Ship Repair Facility. The fire occurred on second shift and was properly extinguished by the duty section using temporary firemain. Norfolk City Fire Department provided support equipment, but did not integrate with Ship's Force. The subsequent command investigation noted:

- a. Boundary cooling limited the spread of the fire and resulting damage.
- b. Smoke boundaries were not able to be fully set due to temporary services with no quick-disconnects fouling hatches and doors.
- c. Although they successfully combatted the fire, the Ship's Force fire party was not well organized and did not follow the Inport Emergency Team (IET) watchbill for the day.
- d. The IET that fought the fire had not executed a single drill as a team throughout the availability period, only participating in drills with their partner section.
- e. The ship was overdue for an 8010 Manual Chapter 12 drill at the time of the fire.

[Encl 700]

1083. On 14 November 2019, a fire occurred aboard IWO JIMA while undergoing an availability at Naval Station Mayport. The fire started from unknown causes in a cargo hold filled with a large amount of co-mingled material and had achieved flash-over prior to discovery. The fire occurred just before 0000 on a weekday and burned for approximately five hours before being successfully extinguished. The ship was late in the availability and had already conducted its Damage Control Material Assessment (DCMA). The subsequent command investigation noted:

- a. Temporary services were run throughout the ship, making it difficult to set and maintain boundaries.
- b. Sailors acted admirably and expeditiously once activated, but the time period in which the fire built prior to detection made the resulting scope of damage nearly inevitable and was compounded by the ineffectiveness of halon.
- c. Halon was ineffective because of the inability to properly isolate the space due to fouling from temporary services.
- d. Three fire teams backed out of the affected space assessing conditions before an experienced Damage Controlman provided forceful backup to duty section fire teams.

[Encl 1030]

1084. The command investigation reviewed several other significant fires resulting in damage to naval vessels outside of availabilities. These include fires aboard USS HUÉ CITY (CG-66), USS BOXER (LHD-4), USS DEVASTATOR (MCM-6) and USS CHAMPION (MCM-4).

There is no central repository for these investigations, so this list may not be exhaustive. [Encl 1031, 1032, 1033, 1034]

1085. On 14 April 2014, a fire occurred aboard HUÉ CITY at sea. The command investigation determined the fire was likely caused by ignition of rag bales stored in an uptake trunk by heat from gas turbine exhaust. The fire resulted in approximately \$18 million in damage. Although the damage was significant, the rapid reaction and effective firefighting efforts by Ship's Force was credited with preventing a catastrophic loss to life and the ship. [Encl 1033]

1086. On 21 May 2018, a fire occurred aboard BOXER following a return to Naval Base San Diego (NBSD) from the sea trials of an availability. A class "C" fire in the starboard mooring station occurred due to excessive resistance in connected shore power cabling. The fire was extinguished in just over an hour by a combined effort of BOXER, USS RUSSELL (DDG-59), and FEDFIRE. The command investigation noted:

- a. DC efforts were complicated when the ship experienced a partial loss of power and complete loss of communications other than sound-powered phones.
- b. Engineering Duty Officer (EDO) went to the scene vice DC Central, contributing to on-scene personnel directing efforts. The investigation noted that while it worked for this fire, it may not in a larger casualty.

[Encl 1034]

1087. On 14 March 2019, a fire occurred aboard DEVASTATOR while pierside in Bahrain. A class "A" fire ignited due to an exhaust leak igniting lagging in the vicinity. DEVASTATOR was not in an availability when the fire occurred. The fire was extinguished using halon and firefighter action to cool hot spots. Firefighting was accomplished using Ship's Force, personnel from adjacent ships, and FEDFIRE. [Encl 1035]

1088. On 29 November 2019, a fire occurred aboard CHAMPION while pierside at NBSD with only duty section personnel aboard. Although the ship was not in an availability, it was undergoing scheduled maintenance by Ship's Force. Upon indications of a fire in the Main Machinery Room (MMR) from an installed heat detection system, initial efforts to extinguish the fire using Aqueous Film Forming Foam (AFFF) bilge sprinkling and halon were ineffective. The ship did not activate overhead sprinklers designed for this ship class specifically to combat a class "A" fire. The ship experienced a loss of power resulting in the loss of firefighting capability, leading the Command Duty Officer (CDO) to evacuate the ship. The ship turned over all firefighting to FEDFIRE upon their arrival. Following this fire, FEDFIRE noted that the lack of DC Plates for each ship on the NBSD waterfront was a deficiency requiring corrective action. [Encl 1032, 1036, 1037]

1089. On 28 March 2020, a fire occurred aboard USS HARPERS FERRY (LSD-49) while the ship was in the NBSD graving dock for an availability. The class "A" fire occurred in the CO Stateroom on a weekend and was extinguished by the duty section within half an hour of

detection. FEDFIRE responded, but were not used by Ship's Force to extinguish the fire. [Encl 1038, 1039, 1040, 1041, 1042, 1043, 1044, 1045]

1090. The BONHOMME RICHARD investigation team found other fires during industrial availabilities that occurred on non-U.S. vessels within the year prior to the BONHOMME RICHARD fire. [Encl 1046, 1047, 1048]

C. Executive Agent for DC and the DC Board of Directors

1091. Consistent with the first MIAMI Fire Review Panel recommendation, USFF, ADM William Gortney, requested USFF be designated as the CNO's EA for DC Modernization and Improvement in November 2012. [Encl 1019, 1020, 1021, 1049]

1092. The CNO designated USFF as the EA for DC Modernization and Improvement on ltr 3541 Ser N00/10080 of 5 December 2012. In doing so, USFF was tasked with coordinating with stakeholders to perform four functions:

- a. Oversee recommended changes to doctrine, training, and equipment resulting from command or safety investigations.
- b. Ensure needed DC improvements identified through other means are included in the requirements process.
- c. Establish and serve as the head of a senior advisory group to the CNO on DC matters.
- d. Develop a process for integrated Fleet and Type Commander (TYCOM) review and adjudication of NAVSEA responses to class "A" mishap recommendations.

[Encl 1049, 1050]

1093. The second MIAMI Fire Review Panel recommendation was for the Office of the Chief of Naval Operations (OPNAV) to establish a senior advisory group to USFF, as the CNO's DC EA. This recommendation was completed with the creation of the Damage Control Board of Directors (DCBOD), established to include the Commanders of Naval Surface, Submarine and Air Forces as well as NAVSEA, OPNAV N9, and CNIC. The DCBOD reports to USFF and Commander, Pacific Fleet (PACFLT). The DCBOD, and the subgroups that report to it, was chartered to oversee long-term actions related to DC as well short-term direction to ensure completion of all corrective actions arising from the MIAMI fire. [Encl 1019, 1020, 1021, 1049]

1094. The DCBOD Charter includes objectives to review trends and common root causes from DC class "A", "B," and "C" mishaps, conduct bi-annual reviews of all instructions and guidance related to shipboard firefighting, and annually evaluate trends and lessons learned from public and private Fire Response Plan (FRP) drills. Contrary to this charter and the MIAMI Fire Review Panel recommendations, not all command investigations involving shipboard fires have been forwarded to USFF and the DCBOD for review and analysis. [Encl 1030, 1049, 1050, 1051]

1095. On 19 May 2019, USFF signed the final endorsement for the command investigation for the fire aboard OSCAR AUSTIN. The endorsement directed the DCBOD to “take appropriate measures to further improve our processes for prevention and management of fires in the industrial setting.” The CNO tasked the DCBOD with tracking outstanding recommendations from safety and command investigations. On 1 July 2019, the DCBOD met and discussed the Safety Investigation Board (SIB) and command investigation results from OSCAR AUSTIN. The DCBOD directed the following actions (among others):

- a. NAVSEA review the 8010 Manual to account for personnel aboard a ship during an availability and make appropriate changes.
- b. NAVSEA review oversight processes for FRPs to ensure compliance with the 8010 Manual and NSTM 555.
- c. NAVSEA audit all Regional Maintenance Centers (RMC) to ensure compliance with hot work management requirements of the 8010 Manual, including Chapter 12 drills.
- d. Commander, Naval Surface Forces (CNSF) establish/update procedures for pre-availability Ship’s Force training to ensure DC readiness for an industrial environment, including the 8010 Manual.
- e. CNSF review current risk assessment policies governing shipyard maintenance periods to better assess methods for determining number and make-up of duty sections.

[Encl 1052, 1053]

1096. Minutes from the 1 July 2019 DCBOD show that the CNSF N4, (b) (6), specified updates were warranted to the 8010 Manual training requirements and the CNSF Surface Force Repair Party Manual’s compliance with the 8010 Manual. He further stated that the actions would carry over into availabilities and likely include no-notice drills. [Encl 747, 748, 1054]

1097. CNSF Force DC Officer, (b) (6), sent a memorandum to the DCBOD on 25 September 2019 regarding pre-availability Ship’s Force training states that CNSF was updating CNSP/CNSLINST 3541.1A to add a tab specifically for industrial environment casualty response. Additionally, the CNSF Force DC Officer stated that following an “8010 Manual summit” held by CNSF in March 2019, the RMCs implemented all-hands training on several topics, including the ability to operate quick-disconnects. [Encl 747, 748, 1055]

1098. The closure memorandum sent to the DCBOD on 18 November 2019 by the CNSF DC Officer regarding current risk assessment policies governing make-up and number of duty sections stated that Ship’s Force personnel are meeting requirements for an effective IET. The only discrepancy noted is that in some cases, ships assign Fire Marshals to man a watchstation contrary to NTTP 3-20.31, which was being addressed by CNSF drafting a Fire Marshal Instruction to clarify duties and responsibilities. The CNSF DC Officer did not identify any other recommendations for duty section numbers or composition, nor did the response address differences during a shipyard maintenance period. [Encl 747, 748, 1056]

1099. On 11 March 2015, CNSP and Commander, Naval Surface Force Atlantic (CNSL) issued the current version of COMNAVSURFPACINST/COMNAVSURFLANTINST 3541.1A. The current instruction does not reference the 8010 Manual, but CNSP and CNSL have not issued any revisions. [Encl 747, 748, 1054, 1057]

1100. CNSP/CNSL have not issued any instructions regarding Fire Marshal duties and responsibilities. [Encl 747, 748, 1056]

1101. At the 4 December 2019 DCBOD meeting, CNSF provided an update to actions in presentation with no conversation on this topic recorded in the minutes. Training aspects were reported complete on 25 September 2019 and review of duty sections was reported as having been completed on 18 November 2019. At the same meeting, NAVSEA closed out action to audit all RMCs for hot work management by stating that Commander, Navy Region Maintenance Center (CNRMC) audits all RMCs during Fleet Maintenance Activity Assessments (FMAA). [Encl 1058, 1059]

1102. A USFF N43 staff member, (b) (6), noted that when the DCBOD was first constituted, they focused on closing actions from the MIAMI Fire Review Panel and met quarterly or more frequently. Over time, however, meetings occurred less frequently. [Encl 1050]

1103. On 29 February 2020, USFF N43, RDML William Greene, emailed Flag Officers, including CNSF, Commander, Naval Air Forces (CNAF), and Commander, Submarine Forces (SUBFOR), with a NAVSEA published report on fire protection and prevention to raise awareness of shipboard industrial fires. He noted that more than 300 fires occurred aboard ships from 2018 – 2019. This report highlighted common weaknesses of not following procedure, inadequate risk assessment, inadequate supervisory oversight, and failure to identify hazards. The report remarks further that “Commanding Officers and crews are an integral part of our maintenance teams and on the front lines of enforcing standards from general housekeeping to hot work.” [Encl 1060]

1104. Following the December 2019 DCBOD, the next meeting occurred on 21 September 2020, after the BONHOMME RICHARD fire, with the following agenda items:

a. The meeting presentation includes OSCAR AUSTIN fire actions for closure, noting all actions were reported complete in November 2019. Action number three was for NAVSEA to review the oversight process for FRPs to ensure compliance with the 8010 Manual and NSTM 555. This was proposed for closure with no changes required, stating that the response plans are reviewed by RMCs semi-annually or annually and reviewed during 8010 Manual Chapter 13 drills and FMAA.

b. At the meeting, CNRMC and NAVSEA 04X briefed RMC and Naval Shipyard 8010 Manual audit findings. In the five 8010 Manual audits conducted since 2018 by CNRMC in the Continental United States (CONUS) RMC Southeast Regional Maintenance Center (SERMC), Mid-Atlantic Regional Maintenance Center (MARMC), Southwest Regional Maintenance Center (SWRMC), Northwest Regional Maintenance Center (NWRMC) a

total of five significant findings were reported. In the three Naval Shipyard 8010 Manual audits conducted since 2018 by NAVSEA 04, a total of 54 significant findings were reported. No further discussion or information was available to explain the disparity between Naval Shipyards and RMCs.

c. No discussion or actions related to the IWO JIMA fire or subsequent command investigation occurred in the sole DCBOD that occurred since that investigation concluded in May 2020. Additionally, a USFF N43 staff member, (b) (6), noted that the DCBOD encountered difficulty tracking down the final command investigation report for that particular fire.

[Encl 481, 1050, 1061, 1062]

1105. The USFF N43, RDML Greene, noted that DCBOD meetings prior to the fire aboard BONHOMME RICHARD focused on long-term items resulting from the 2017 collisions involving USS FITZGERALD (DDG-62) and USS JOHN S MCCAIN (DDG-56). [Encl 752]

1106. On the USFF N43 staff, (b) (6), stated that command investigations for DC issues or fires aboard naval vessels are not automatically provided to the DCBOD. When investigations are provided, the DCBOD staff discusses with the Deputy Fleet Maintenance Officer whether the DCBOD engages on certain incidents not formally routed for consideration. Because he assessed the fire on IWO JIMA did not occur while the ship was in an industrial environment, further engagement on this incident by the DCBOD did not occur. [Encl 1050]

1107. A July 2020 assessment of MIAMI fire corrective actions performed at direction of Commander, Submarine Force Atlantic (COMSUBLANT) and Commander, Submarine Force U.S. Pacific Fleet (COMSUBPAC), the SUBFOR Director of Submarine Safety noted that: “the submarine damage control improvement process is ad hoc, ineffective, and unlikely to be altered by the USFF DCBOD. Therefore, COMSUBLANT and COMSUBPAC should coordinate with NAVSEA and take steps to address damage control improvement ‘kill chain’ shortfalls.” This assessment was completed shortly before the BONHOMME RICHARD fire. [Encl 762]

D. NAVSEA Policy Development and the 8010 Manual

The 8010 Manual was created after MIAMI to capture all fire safety requirements in one source. It assigned both programmatic roles and technical requirements across the involved commands. At the time of the BONHOMME RICHARD fire, it was the key reference for ship and maintenance activities to ensure a ship’s fire safety.

1108. On 26 July 2012, the first in a series of joint serial messages was released by NAVSEA and CNIC (concurrent to by PACFLT, USFF, and NAVSEA 08) to direct action incorporating lessons learned from the MIAMI fire. Ten total joint serial messages were released, some of which were submarine specific and others applicable to all commissioned ship availabilities. [Encl 1063, 1064, 1065, 1066, 1067, 1068, 1069, 1070]

1109. Four working groups provided recommendations for the serial messages and promulgated long-term changes: the emergency planning and fire drill working group led by a NAVSEA

representative from PNSY; the Industrial Process Working Group led by a representative from NAVSEA 04X; the firefighting process working group led by CNIC N30; and, the technology working group led by a Technical Warrant Holder (TWH) from NAVSEA 05P. [Encl 1063, 1064, 1065, 1068, 1069, 1070]

1110. The serial messages directed Naval Supervising Authorities (NSA) to implement changes on applicable ship classes (either submarines or all commissioned ships) in all availabilities when invoked in repair contracts. [Encl 1063, 1064, 1065, 1068, 1069, 1070]

1111. Long-term sustainment of the actions developed in the serial messages sought to codify all actions in OPNAVINST 11320.23G, CNIC and Region instructions, NSTM 555 and in creating the 8010 Manual. [Encl 1067]

1112. MIAMI Fire Review Panel recommendation 22 directed NAVSEA to develop a single formalized doctrine for fighting fires on ships in port or industrial environments. RADM Richard Berkey, USFF N43, signed item 22 for closure on 7 April 2014 after issuance of the 8010 Manual. [Encl 1021, 1071]

1113. The direction from VADM Kevin McCoy, Commander, NAVSEA, for the 8010 Manual was to create a manual similar in scope to the 6010 Manual. [Encl 481, 934, 1072]

1114.

(b) (5)

1115. The NAVSEA 05 TWHs involved in writing the 8010 Manual were (b) (6), NAVSEA 05P5 TWH for DC and Personnel Protection — Ships, (b) (6), NAVSEA 05P5 TWH for Damage and Fire Recoverability — Ships, and (b) (6), NAVSEA 05P5 TWH for Fire Protection Services — Ships. [Encl 191, 340, 893, 932]

1116. By May 2013, a draft of the 8010 Manual from NAVSEA 04 was provided to NAVSEA 08 for a final review. During this time period, VADM William Hilarides assumed duties as Commander, NAVSEA, which coincided with an increased interest in controlling costs. In December 2013, the 8010 Manual was briefed to primary stakeholders, Program Executive Officer (PEO) Carriers, PEO Submarines, and NAVSEA 21. During the final reviews, language was inserted by NAVSEA stakeholders to make allowances for cost and schedule. The mandate to incorporate cost and schedule considerations into the decision-making process on how to execute these new requirements within the 8010 Manual was neither contained within the initial drafts nor present in the 6010 Manual. [Encl 191, 934]

1117. On 6 February 2014, Commander, NAVSEA, VADM Hilarides, issued letter Ser 04-017/198, promulgating guidance for the issuance of the 8010 Manual and directing its implementation by Naval Shipyards and RMCs within 180 days of receipt. This guidance states:

- a. CNRMC was charged with initiating changes to NAVSEA Standard Items (NSI) to invoke the requirements of the 8010 Manual at private shipyards. CNRMC was directed

to change processes and procedures as necessary to implement the 8010 Manual for contracted availabilities and provide NAVSEA feedback as necessary.

b. Promulgation guidance states that the 8010 Manual integrates and complies with fire safety responsibilities of a ship's CO contained in Chapter 8 of U.S. Navy Regulations.

c. The 8010 Manual was created to be integrated with, and taking precedence over, the General Overhaul Specifications for Overhaul of Surface Ships, General Overhaul Specifications for Deep Diving SSBN/SSN Submarines, 6010 Manual and COMUSFLTFORCOMINST 4790.3.

d. The 8010 Manual formally supersedes requirements established in MIAMI fire serial messages.

e. All Ship Repair and/or Construction Activities (SRCA) should identify and document costs associated with implementation and report these to the appropriate NSA/or Lead Maintenance Activity (LMA). NSAs should ensure costs are properly identified to customers and Navy budget submitting offices.

[Encl 1073]

1118. In the Commander's Guidance included in the 8010 Manual, VADM Hilarides states, "[i]t applies to all Ship Repair and/or Construction Activities (SRCA), both public and private, and to all ship availabilities." [Encl 1074]

1119. On 10 March 2014, NAVSEA 04X and NAVSEA 04R tasked CNRMC with reviewing the 8010 Manual and invoking the 8010 Manual requirements by modifying the relevant NSIs. This was submitted for closure of MIAMI Fire Review Panel item 22: "NAVSEA develop and issue a single formalized doctrine for fighting fires on ships in port or in industrial environments." [Encl 1075]

1120. A brief to DCBOD on 4 April 2014 notes the 8010 Manual was approved by NAVSEA with an added Commander's Intent to "communicate judiciousness and flexibility during implementation." The brief states that the intent is to balance costs and risks associated with requirements during implementation, and also requires a Memorandum of Agreement (MOA) to document agreements on how to implement for each ship availability. [Encl 1076]

1121. In April 2014, a meeting was held by CNRMC to review the 8010 Manual for incorporation of applicable elements into the NSIs. The working group involved Safety (Code 106) and Operations (Code 300) personnel from RMCs and only changed items deemed necessary and cost efficient for contractor accomplishment. [Encl 1072, 1077]

1122. During the April 2014 meeting, many items were determined not to be contractor responsibilities. Some of these items, such as Fire Safety Watch (FSW) requirements and training, state that CNRMC direction may be necessary to ensure 8010 Manual requirements are met. Other items are recommended to be addressed during the Integrated Project Team Development (IPTD) process. [Encl 1077]

1123. Navy Regional Maintenance Office (NRMO), embedded with the RMCs until 2018, initially coordinated with NAVSEA to push early 8010 Manual requirements into the NSIs, so the requirements could be enforced throughout NAVSEA. The former Director of NRMO in San Diego, (b) (6), acknowledged that some items were incorporated into future NSI versions; however, other items were not folded in. [Encl 925]

1124. On 16 June 2014, Change 1 to the Fiscal Year (FY)-15 NSI was issued to incorporate applicable 8010 Manual requirements. This change modified NSI 009-06, 07, 06, 28, 35, 70 and 74, which are required to be invoked for all availabilities beginning in Fiscal Year (FY) 15. [Encl 1078]

1125. NAVSEA and CNRMC leadership were aware that not all 8010 Manual requirements were implemented at private shipyards because the NSIs did not require wholesale invocation of the 8010 Manual. This gap in invocation was intentional because of a concern about cost. [Encl 463, 470, 781]

1126. Issuance of the 8010 Manual did not provide any funding for new requirements. [Encl 151, 191, 879]

1127. NAVSEA transmitted a Program Objective Memorandum (POM) submission in each budget cycle following release of the 8010 Manual, but none were approved by OPNAV. CNRMC routed an issue paper for POM 19, dated 1 September 2016, requesting funding for MARMC and SWRMC Fire Safety Officers (FSO), which was subsequently rejected. The follow-on note associated with this POM rejection by OPNAV informs “clarification from NAVSEA 04X states the FSO requirement was not a dedicated individual to meet the requirements of the 8010 Manual.” [Encl 879, 1079]

1128. MIAMI Fire Review Panel action number 6 directed NAVSEA to coordinate with TYCOMs to establish standardized cleanliness and stowage policies for industrial availabilities. This action was included in the 8010 Manual. [Encl 1020, 1021, 1049]

1129. MIAMI Fire Review Panel action number 28 directed NAVSEA to coordinate with CNIC and TYCOMs to establish common wireless communications network for integrating response between Ship’s Force, shipyard, and federal and mutual aid Fire and Emergency Service (F&ES) organizations. This item was signed for closure by RADM Richard Berkey, the USFF N43, on 7 April 2014 stating that radios are required by 8010 Manual section 8.7, which requires the NSA to ensure each vessel undergoing maintenance would have minimum of five such radios at the Quarterdeck or DC Central. The closure document states that radios shall be tested daily and exercised during regularly scheduled fire drills. Finally, the memo states that “all radios are in place.” [Encl 1080]

1130. Ownership of the 8010 Manual belongs to NAVSEA 04, though there is no TWH associated with the 8010 Manual. The Acting Director of NAVSEA 04, (b) (6), stated that her organization owns the 8010 Manual because it is an industrial process while also adding that NAVSEA 04 would work with NAVSEA 05 TWH for any arising issues. [Encl 878]

1131. (b) (6), who was in NAVSEA 04XQ, predecessor to current NAVSEA 04X6, stated that he was assigned ownership of the 8010 Manual because the organization already owned the 6010 Manual and NAVSEA leadership decided to put ownership of the 8010 Manual in the same hands. He retained control of the 8010 Manual throughout his tenure in that position. [Encl 1072]

1132. (b) (6)

(b) (6)

1133. The Executive Director for NAVSEA Engineering Directorate SEA 05B, (b) (6), asserted the 8010 Manual is a technical document. He further stated that while ownership of the 8010 Manual resides within NAVSEA 04, the execution of technical warrants and expertise for fire protection, DC, and suppression systems resides in the office of NAVSEA 05P. (b) (6) expected 8010 Manual deviations would be adjudicated through a waiver requested to NAVSEA, with correspondence between NAVSEA 04 and NAVSEA 05. He acknowledged there is no a clearly defined deviation process from the 8010 Manual for RMCs and noted it is abnormal for a technical document to have cost and schedule allowances for deviations. He also had no knowledge of any Hazard Assessment Reports (HARs) being generated for any 8010 Manual non-compliances. [Encl 931]

1134. None of the NAVSEA 05P5 TWHs with 8010 Manual equity ((b) (6), (b) (6), and (b) (6)) have been asked to approve any Departure From Specification (DFS) related to the 8010 Manual nor have they been asked to perform any HAR. [Encl 191, 340, 893]

1135. The NAVSEA 05P5 TWH for fire protection services, (b) (6), assessed the 8010 Manual has been effectively turned into guidance by having the language allow for considerations on the basis of cost and practicality. She noted there is constant pushback against the 8010 Manual due to cost concerns. [Encl 191]

1136. The term SRCA was created in the 8010 Manual as a single catch-all term. The term was intentionally developed by writers to assign 8010 Manual functions to the organization owning the civilian workforce and equipment. The 8010 Manual uses the SRCA term to define the activity that performs industrial work (maintenance, repair, modernization, inactivation, and/or construction) during an availability. [Encl 879, 1072]

1137. The CNRMC Technical Director from 2011 – 2019, (b) (6), recalled making his opinions known that the SRCA term would not work well in the private sector, but the decision to include the term was made within NAVSEA. [Encl 879]

1138. The CNRMC Safety Manager, (b) (6), thought the term SRCA could be interpreted as either the RMC or the prime contractor as it is written in the 8010 Manual. In FMAA audits, he had made no finding indicating SWRMC was inappropriate in assuming SRCA functions and responsibilities of the 8010 Manual. [Encl 580, 1081, 1082]

1139. (b) (6), Acting Director of NAVSEA 04 and former CNRMC Executive director, thought the LMA functions as the SRCA, as the 8010 Manual clearly defines. [Encl 878]

1140. NAVSEA 04 performs audits every two years on each Naval Shipyard for implementation of the 6010 and 8010 Manuals. These audits, which are conducted by a large team, include NWRMC and Hawaii RMC, which include Puget Sound Naval Shipyard (PSNS) and Pearl Harbor Naval Shipyards. [Encl 883, 934, 1083, 1084]

1141. CNRMC performs audits of RMCs as part of the FMAA. There is one person in CNRMC, currently (b) (6), who performs all safety portions of this assessment, though he sometimes has one assistant. The fire safety assessment is conducted as a subpart of the overall safety assessment. FMAAs are nominally performed every 18 months, not to exceed 24 months, in accordance with CNRMCINST 4790.12B. [Encl 580]

1142. The NAVSEA 05P Fire Protection Engineering Manager, (b) (6), participates in some Naval Shipyard audits, but has not participated in an audit at an RMC. [Encl 191, 1083]

1143. NAVSEA 05 maintains a local Engineering Field Representative (EFR) for NAVSEA in San Diego who supports the technical authority process. The EFR has not been involved in any issues involving 8010 Manual implementation or availability compliance. [Encl 1085]

1144. Following an inquiry about 8010 Manual compliance in the private yards by RDML Scott Brown, PACFLT N43 staff, (b) (6), responded via email on 31 July 2019, stating that a gap analysis was performed approximately two years prior between the 8010 Manual and NSIs. The email and supporting documents note:

- a. 26 requirements of the 8010 Manual were initially identified for which no contractor requirement was identified.
- b. USFF addressed all 26 items and found that for 21 items are contained within NSI or other requirements.
- c. 5 items were determined to be requirements that are the responsibility of Ship's Force. These items are ammunition (5.2.6), AFFF (7.1.6), securing brow (10.1.5), egress route marking (10.2.4) and record of boundary openings (11.1.6).
- d. USFF report considered risk associated with each gap to be low, and PACFLT staff concurred.

[Encl 1086, 1087, 1088]

1145. NAVSEA letter Ser 00/057 issued on 21 February 2020 provided an assessment of safety programs, which focus on fire protection and prevention in 2018 – 2019. This study was performed based on several fires occurring in various shipyards and fire safety concerns raised on FITZGERALD. Of note:

- a. 339 total fires reported in those two years across all maintenance providers, with 173 attributed to hot work.
- b. Human factors analysis of root causes was performed to find common causes; top causes were found to be procedural compliance, inadequate risk assessment, and lack of command or supervisory oversight.
- c. The 8010 Manual, or its requirements, was not referenced or addressed in this document.
- d. Distribution was directed to organizations who perform ship repair. DCBOD organizations outside of NAVSEA were not included on formal distribution.

[Encl 1089, 1090]

1146. On 25 February 2020, RDML Greene, USFF N43, and RDML Brown, PACFLT N43, engaged via email to discuss recent fires. A follow-on internal PACFLT N43 discussion further inquired into why shipyards were not sufficiently following the 8010 Manual. In addition, it notes that based on conversation with Naval Surface Warfare Center, Philadelphia Division (NSWCPD) Damage and Fire Recoverability, In Service Engineering Agent's (ISEA's) private yards only have standard items contractually invoked and not the 8010 Manual. [Encl 1091]

1147. On 27 February 2020, an email from RDML Brown to RDML Greene discusses fire safety and notes his staff performed a review of the 8010 Manual in surface private shipyards following the 2019 DCBOD meeting. RDML Brown discusses having been told private shipyards are meeting 8010 Manual requirements through NSIs, with some discrepancies in crew requirements; however, overall requirements were being met. [Encl 1092]

1148. RDML Brown stated that he had inquired and was satisfied that Commander, U.S. Pacific Fleet (COMPACFLT) was well covered by requirements in NSIs. [Encl 481]

1149. RDML Brown stated that, in his experience, he thought the intent of the 8010 Manual was for the LMA to be involved with the Fire Safety Council (FSC). [Encl 481]

1150. A 2020 assessment of MIAMI fire corrective actions, which were performed at the direction of COMSUBLANT and COMSUBPAC, the SUBPAC Director of Submarine Safety noted that that 8010 Manual has been inconsistently implemented, applied, and overseen. As a result, this has created risk not readily apparent to Submarine Force leadership. It further notes that neither a private shipyard, which conducts new construction nor other availabilities, fully implement the 8010 Manual. [Encl 762]

E. Ship's Force Firefighting Doctrine and NSTM 555

Navy firefighting doctrine is trained at various stages in a career and codified in NSTM 555. This is the key reference BONHOMME RICHARD Sailors had to follow when responding to the fire.

1151. Miami Fire Review Panel recommendation number five directed NAVSEA to revise shipboard firefighting doctrine (e.g., NSTM 555, Federal Firefighter Standard Operating Procedures (SOP), etc.) to incorporate unique industrial environment considerations. This was accomplished for surface vessels by revising NSTM 555 Volume 1 and OPNAVINST 11320.23G. [Encl 1020, 1021]

1152. On 30 August 2014, revision 14 for NSTM 555 Volume 1 was published, allowing NAVSEA to submit MIAMI Fire Review Panel item 5.1 for closure. This revision added new sections 555-8.16 and 555-8.17 to the NSTM, addressing firefighting while pierside and in overhaul, fulfilling an action resulting from the 2012 MIAMI fire. [Encl 1093]

1153. COMNAVSURPAC issued a message on 6 October 2016, which directs implementation of the 8010 Manual Advance Change Notice (ACN) 1A for surface ships and reports that NSTM 555 had been revised in August 2014 to incorporate 8010 Manual requirements, including in port firefighting pierside and in dry dock. The message did not direct any training, drilling, or reporting actions regarding 8010 Manual changes. [Encl 1094]

1154. Revision 14 of NSTM 555, Section 8.16 was introduced in response to the MIAMI Fire Review Panel. Section 8.16 identified the risk associated with the presence of repair and maintenance work being performed, which increases the potential for fire. Additionally, this section clarifies command and control relationships and the role of local F&ES in a pierside environment, consistent with the command and control relationships described in the 8010 Manual. The revised 2014 version of NSTM 555 also added a new section 8.17 (Firefighting while ship is in dry dock). [Encl 1020, 1021]

1155. BONHOMME RICHARD personnel who stood Duty Fire Marshal were not familiar with these NSTM 555 updates. Four personnel who stood watch as Duty Fire Marshal, including the Ship's Fire Marshal and the interim Ship's Fire Marshal, stated that they were generally unfamiliar with the reference material they should have used when executing their daily duties and responsibilities. These personnel had a general unfamiliarity with the content of the 8010 Manual and commented that their training had not prepared them to combat a fire of the magnitude having occurred aboard BONHOMME RICHARD. [Encl 61, 62, 171, 174, 243, 415, 496, 530, 531]

1156. Also of note, NSTM 555 only discusses fires in large compartments of the Landing Platform/Dock (LPD) 17 ship class. The NAVSEA Failure Review Board (FRB) also noted that NSTM 555 lacks a section on fighting fires in large vehicle compartments, such as the Lower Vehicle Stowage Area. [Encl 191]

Fleet Training Requirements

1157. In addition to the Level 0 and Level I requirements, OPNAVINST 3541.1G also requires personnel to attend Level II – Advanced training based on specific duty assignments. Personnel who are required to attend additional Level II training include, but are not limited to: engineering department personnel; petroleum, oils, lubricant and ordnance personnel; Surface Warfare qualified enlisted personnel; division and department Damage Control Petty Officers (DCPO); gas free engineers; engineering department principal assistants; Main Propulsion Assistants (MPA), auxiliaries officers, electrical officers; repair and fire party leaders; IET members; Damage Control Repair Station (DCRS) personnel; Rescue and Assistance (R&A) detail team members; rapid response and Flying Squad members; and, (13) Damage Control Assistant (DCA) and DCA senior enlisted. The above requirements are applicable to the majority of personnel aboard a U.S. Navy combatant vessel. These requirements are primarily met through the accomplishment of the requisite Personnel Qualification Standard (PQS). [Encl 1095]

1158. Naval Education and Training Command (NETC) currently provides seven specific courses of instruction on shipboard firefighting, offered across 10 locations (Newport, RI; Bangor, Washington; Mayport, Florida; Rota, Spain; Pearl Harbor, Hawaii; Yokosuka, Japan; Sasebo, Japan; Norfolk, Virginia; San Diego, California; Great Lakes, Illinois). In San Diego, NETC provides six courses of instruction for Shipboard Firefighting at its NBSD facility. The listed facilities provide multi-level force fueled live firefighting trainers providing Sailors and Department of Defense (DoD) civilian’s instruction and familiarization with different levels of firefighting experience and use of assigned Personal Protective Equipment (PPE). [Encl 1096, 1097, 1098, 1099, 1100, 1101, 1102]

1159. The General Shipboard Fire Fighting Training Course (A-495-0416/ A-495-2829) provides instruction and evaluation to Officers and Enlisted personnel in firefighting equipment and procedures as well as preparing personnel to qualify as members of a Shipboard DC Organization/Team. This course satisfies the Level I five year live firefighting requirement of

Per OPNAVINST 3541.1G, all Sailors, regardless of duty assignment, should receive Level 0 – Familiarization training while at NAVCRUITRACOM (Enlisted Boot Camp) in Great Lakes, Illinois. This one-time training covers general familiarization with DC and survivability to include: ship and submarine design for survivability; hull structure familiarization; prevention and control of fire; flooding and explosive damage; equipment familiarization; chemical, biological, and radiological defense (CBRD); survival skills; DC drills; and, use of CBRD gas confidence chamber.

OPNAVINST 3541.1G also requires all shipboard (and submarine) assigned personnel (officer and enlisted) to continue through the Level 0 training continuum to Level I – Basic Ships and Submarines. This training, which is held primarily at the Naval Service Training Command (NSTC) Firefighter Trainer at Surface Warfare Officers School (SWOS) Unit, co-located in Great Lakes, IL, is conducted prior to arrival at the fleet unit when practicable, but no later than three months following arrival at the fleet unit. This training includes proper techniques and procedures for combating various classes of fires as well as instruction on personnel protective equipment, chemistry of fire, portable fire extinguishers, and the Self-Contained Breathing Apparatus (SCBA). This course includes live firefighting training, defined as human interaction in the manual extinguishment of unconfined open flames through use of appropriate fire extinguishing agent(s).

Shipboard Survivability Training Level Requirements in accordance with OPNAVINST 3541.1 (series). [Encl 1100]

1160. The Advanced Shipboard Fire Fighting Course (J-495-0419) provides training to supervisory fire party personnel in advanced firefighting techniques and effective management of on-scene personnel in a shipboard environment, as well as practical experience with various DC and firefighting equipment. [Encl 1098]

1161. The DC Repair Locker Leader Course (K-495-0040) trains personnel in advanced DC theory and techniques necessary to fill Repair Party Leader Billets in the shipboard DC organization and facilitate the proper management of repair party personnel in casualty situations under all shipboard readiness conditions. This course is required for all IET repair party leaders, repair locker repair party leaders and fire marshals to be qualified. [Encl 1097]

1162. The DC Assistant-Senior Enlisted (DCASE) School (A-4G-1111) establishes and provides a continuum of professional DC training in support of ship survivability requirements preparing United States Navy (USN) and United States Coast Guard (USCG) officers and senior enlisted to serve at sea in senior DC leadership positions. [Encl 1096]

1163. The Shipboard Firefighting Integrated Team Trainer (A-495-0018) is designed to provide instruction and evaluation to officers and enlisted personnel in team-oriented firefighting tactics and procedures. Students receive training in high temperature, high intensity, and multi-space fires. The purpose of this course is to train a ship's fire team(s)/DCRS team(s) to work as a cohesive team to be proficient in case of an emergency aboard the ship. Ships are not allowed to send individuals or partial teams to the training. [Encl 1101]

1164. The Shipboard Firefighting/DC Emergency Team Trainer (A-495-0021) is intended to provide instruction to personnel assigned to a Shipboard Emergency Team, including positions such as On-Scene Leader, Team Leader, Locker Leader, Investigator, Nozzleman, Hoseman, Plotter, Phone Talker, Messenger, Accessman/Boundaryman, Plugman, Active/Post Fire Desmoking, and Electrical/Mechanical Isolation. Satisfactory completion of this course meets requirements for OPNAVINST 3541.1 (series) Level III survivability training. Per SWOS DC/Firefighting Director, this course has not been actually administered. [Encl 1102, 1103]

1165. There are currently no courses of instruction offered under NETC/ Surface Warfare Schools Command/Surface Warfare Officers School (SWSC/SWOS) that are specific to firefighting or the practice of DC in an industrial shipyard environment. According to the current SWOS N79 Director of DC and Firefighting Schools, CDR Tristan Oliveria, many of the schools provided by SWOS/SWSC incorporate some elements of firefighting practices in industrial shipyard environments as part of their curriculum. He thinks that the current courses of instruction provides satisfactory training for firefighting in all shipboard status variants to include underway, in port pierside, in dry dock and undergoing shipyard overhaul. [Encl 1103]

1166. SWOS reviews and validates the firefighting school curriculum on a cyclical basis. Their current assessment is that the courses provide sufficient instruction. There is no plan to revise or

add additional courses specific to the industrial shipyard environment-based firefighting and DC. [Encl 1103]

1167. In 2015, (b) (6), the Damage and Fire Recoverability (DFR) TWH, attended Basic and Advanced Shipboard Firefighting courses in Norfolk, Virginia at Farrier Firefighting School to review the courses ensuring technical accuracy and currency. During the course of this visit, (b) (6), the DFR TWH, observed students performing live firefighting training and identified a number of external influences adversely affecting the quality of training being provided to the Sailor. In a report prepared for USFF and CNSP, (b) (6), the DFR TWH, concluded that there were five major external influences affecting those courses: environment concerns with emissions; risk averse training culture, monetary budget; demands for increased Sailor number turnout; and, course length constraints. [Encl 1104]

1168. The DFR TWH, identified specific concerns relating to the use of propane fuel as the medium for fueling the fire trainer. He noted that the use of propane presents limitations not in keeping with real-world firefighting tactics. Using propane as a fuel does not allow for production of smoke or the stratified upper layer of heat produced by other fuel sources. As a result, students are not exposed to the heat associated high in the space prompting Sailors to “stay low” in the space, as would be required in an actual fire. Moreover, the lack of smoke does not allow for visibility limitations produced in an actual firefighting situation. The lack of smoke also hinders training on the proper use and methodology of employing the Naval Firefighting Thermal Imager (NFTI), a critical tactic in shipboard firefighting. The lack of smoke also does not allow the Sailor the opportunity to employ smoke curtains and boundaries to the control of smoke. Additionally, propane fires are not actually extinguished by Sailors in training, but are controlled by the training staff to allow for class time efficiency. This tactic deprives the Sailor the opportunity to practice the judicious use of water that is required in shipboard firefighting practices. [Encl 1104, 1105]

1169. Ultimately, the DFR TWH recommended fleet leaders revisit the realism and situational challenges afforded to the Sailor by current firefighting training in an attempt to better prepare Sailors to react to future real fire events. [Encl 1104]

1170. (b) (6), the Deputy Director (N79) of the DC & Firefighting Training, SWSC since 2015, stated that as a result of (b) (6)'s report, SWSC reviewed various aspects of DC training, one of which was the use of propane fuel. In coordination with various stakeholders, including NAVSEA and Planned Maintenance System (PMS) 339 (who manage maintenance contracts for DC trainers), SWSC reviewed the best fuel medium for potential use, considering EPA limitations on types of allowed fuel. The Deputy Director (N79) of the DC & Firefighting Training, stated that after this review, 9 of 10 stakeholders concluded propane was the best option. [Encl 1105]

1171. The Deputy Director (N79) of the DC & Firefighting Training, noted that any discussions regarding realism challenges in trainers should be taken with a grain of salt, because the trainers were built back in early 1990s. The oldest trainer was built in 1985. He acknowledged that the shipboard firefighting trainers absolutely do not mimic all realistic ship layouts, and SWSC is

continuously considering ways to modify the trainers. He stated that the SWSC is proposing to build new trainers at all the facilities. [Encl 1105]

1172. The Deputy Director (N79) of the DC & Firefighting Training, stated that following DFR TWH's report, SWSC recognized that some of the drill sets in the DC courses were not comprehensive to ensure they were accordingly evaluating students' performance. As a result, the SWSC re-adjusted all DC courses to better reflect NSTM 555 and NSTM 079 firefighting procedures. The Deputy Director (N79) of the DC & Firefighting Training was not able to provide specific examples of changes. [Encl 1105]

1173. In regard to schoolhouse training on firefighting in an industrial/dry dock environment, the Deputy Director (N79) of the DC & Firefighting Training, mentioned that some pierside drill scenarios are somewhat inlaid into the repair locker leader and DCASE course. He noted that the live trainers do not incorporate elements of pierside firefighting. He noted that the trainer does not currently involve multiple entity attacks or integrated firefighting with FEDFIRE or mutual aid partners. He went onto say that SWSC has been considering including more training on pierside firefighting as well as integration with an outside entity. [Encl 1105]

1174. The Deputy Director (N79) of the DC & Firefighting Training, stated that SWSC has integration with FEDFIRE at some of its training sites as well as Memorandum of Understandings (MOU) with FEDFIRE at some sites, such as the Mayport training site. He stated that he has been in contact with San Diego FEDFIRE to establish MOUs for more integrated training between SWSC and FEDFIRE, and FEDFIRE was interested. He also received a request from CNIC N30, (b) (6), requesting a holistic MOU between FEDFIRE and all SWSC training sites. That request is currently being worked through NETC. [Encl 1105]

1175. Finally, the Deputy Director (N79) of the DC & Firefighting Training, noted that instruction on 8010 Manual drill requirements is embedded in the DCA course curriculum. There are no drill scenarios specific to the 8010 Manual, but SWSC is looking to build 8010 Manual scenarios. They just developed a larger scale 8010 Manual lesson, which was piloted and included a two-hour lesson topic on the 8010 Manual. [Encl 1105]

F. CNIC Policy Development after the MIAMI Fire

1176. MIAMI Fire Review Panel recommendation 5.3 directed NAVSEA to revise shipboard firefighting doctrine, including "Federal firefighter SOPs" to address industrial environment considerations. CNIC was assigned responsibility for completing this action item. [Encl 1021]

1177. Between July and October 2012, CNIC N30 issued four F&ES advisories (CNIC HPD Advisories 2012-01, 2012-02, 2012-03, and 2012-4) to address the MIAMI Fire Review Panel's recommendations. Among the requirements established in these advisories:

- a. HPD 2012-01 (24 July 2012): Required procuring mobile SCBA refill capability, performance of safety walkthroughs on ships in availability, and required six hours of training per firefighter per month of training on shipboard firefighting (three of which were required to be aboard).

- b. HPD 2012-02 (30 August 2012): Issued to direct standardizing firefighting equipment requirements for all CNIC F&ES departments.
- c. HPD 2012-03 (21 September 2012): Directed assignment of F&ES personnel in locations responding to ships the shore-based firefighter requirement (F&ES 09) and development of pre-fire plans for each class of ship (at shipyards and homeports) that may be encountered and include in local standards of cover.
- d. HPD 2012-04 (23 October 2012): Directed PNSY, Naval Submarine Base Kings Bay, and Naval Station Everett to increase on-duty F&ES emergency responders.

[Encl 1106]

1178. HPD Advisories represent formal policy, and HPD 2012-01, 2012-02, and 2012-03 all state that the listed requirements “will be incorporated (or updated) into proper guidance documents (notices or instructions) during next review cycles.” [Encl 687, 1106]

1179. FEDFIRE SOPs do not represent formal policy or doctrine and are viewed as “very specific procedures to implement policy, guidance, and doctrine.” [Encl 1021]

1180. Metro San Diego FEDFIRE, a combination of the four naval installations in San Diego, issued Standard Operating Guide (SOG) 176 (Shipboard Firefighting) on 10 October 2012 to reflect shipboard firefighting as being a core mission requirement of installation F&ES departments. The SOG does not include or reference the pre-fire plans for each class of ship as directed by CNIC N30 advisory 2012-03 (21 September 2012) nor was it included or referenced in their policies. [Encl 1106, 1107]

1181. SOG 176 is still in effect and has not been updated since 2012 to account for issuance of OPNAVINST 11320.23G, the 8010 Manual, or OPNAVINST 3440.18. [Encl 940]

1182. When OPNAVINST 11320.23G was published on 4 February 2013, NAVSEA submitted MIAMI Fire Review Panel item 5.3 to CUFFC N43 for closure. The revised instruction: standardizes F&ES at naval installations, establishes shipboard firefighting as a core mission for CNIC installation fire departments, and provides general requirements for shipboard training. The instruction did not incorporate HPD 2012-01’s requirement for a specific number or periodicity of shipboard training hours. [Encl 1049, 1106]

1183. The CNIC N30 issued HPD advisory 2014-01 on 17 March 2014 to address proficiency and annual training requirements for shipboard emergency response. This advisory replaced the training guidance contained in NAVSEA serial message 1 and CNIC advisories 2012-01 and 2012-03. This HPD advisory documents closure of several outstanding MIAMI Fire Review Panel recommendations by the DCBOD. Among the requirements included in this advisory:

- a. CNIC F&ES Department personnel (firefighters, fire officers, fire chiefs) subject to respond to shipboard emergencies shall be assigned F&ES 09-Shore-Base Shipboard Firefighter duty task in the F&ES Training System (Enterprise Safety Applications Management System (ESAMS)).

- b. Revised minimum requirement for shipboard F&ES training is 28 hours per year, to include minimum of 10 hours aboard the classes of ships on the installation.
- c. F&ES proficiency training would focus on installation's shipboard emergency response plan execution and include following general and hazard-specific requirements:
 - (1) Practical exercises with Ship's Force to proactively integrate firefighting proficiency.
 - (2) Capabilities of the ship's onboard firefighting systems and strategies to use onboard standpipes as a first resort.
 - (3) Firefighting procedures when ship is in industrial maintenance environment with associated industrial hazards.
 - (4) Practical hose line deployment and advancement to specific ship space location.
 - (5) Strategies of establishing integrated hose teams of Ship's Force, F&ES, and mutual aid early to ensure safe and effective long-duration suppression operations.
 - (6) Hose team relief process to keep hoses staffed during extended operations.

[Encl 945, 1080]

1184. On 11 March 2016, the CNIC N30 issued advisory 2016-01 to address shipboard fire response planning and training of mutual aid partners. This advisory documents closure of several remaining MIAMI Fire Review Panel recommendations. Among the requirements included in this advisory:

- a. Installations must develop comprehensive shipboard pre-fire plans for each ship class assigned in department's standards of cover. Each SRCA is responsible to have external emergency response plan. Advisory directs the development of comprehensive Individual Action Plan (IAP) tailored to specific berth locations with priority on industrial environment.
- b. Region fire chiefs would provide oversight to ensure comprehensive IAP developed by each SRCA (Naval Shipyard (NSY), RMC or Fleet Maintenance Activity (FMA)), installation supporting SRCA maintenance operations and installation.
- c. Prime objective of F&ES IAP is to provide an integrated ship and shore-based effective firefighting force with a single Incident Commander (IC).
- d. IAP shall be developed using procedures from the 8010 Manual, NSTM 555, and NFPA 1405 and include both ship condition and duty section staffing (daytime and after hours).

e. Ship's CO or representative is the designated IC. Senior F&ES Fire Officer and Project Officer would be co-located with IC.

f. Mandates use ship's firefighting system and tactics as much as possible.

[Encl 945]

1185. Contrary to direction contained in these advisories to be incorporated into proper instructions and policy documents by the next review cycle, the requirements contained in these advisories have not been codified in OPNAVINST 11320.23G or any other CNIC instructions. [Encl 687, 945]

1186. The requirements in the CNIC advisories are not incorporated into any Commander, Navy Region Southwest (CNRSW) or NBSD instructions. CNRSW FEDFIRE (b) (6) stated that CNRSW follows the OPNAVINST 11320.23G and there are no further implementing instructions at the region level associated with this instruction. [Encl 691]

G. Incident Response Planning and OPNAVINST 3440.18

1187. MIAMI Fire Review Panel recommendation 18 directed OPNAV to issue a directive for non-nuclear vessels mimicking the command and control organization for nuclear vessel casualties, including designation of Primary Commanders and Area Commanders. [Encl 1020, 1021, 1108]

1188. USFF was assigned primary responsibility for OPNAVINST 3440.18. A draft version ("OPNAVINST 34XX") was generated by a working group comprised of personnel from the fleets, naval shipyards, NAVSEA, CNIC, and TYCOMs. [Encl 1109, 1110]

1189. As contained in the Command Tasker System tasker package, in January 2015, USFF N43 tasked COMSURFLANT; Commander, Naval Air Force Atlantic (COMAIRLANT); and, COMSUBLANT with providing Flag Officer/Senior Executive Service level input to a draft version of the instruction. [Encl 1110, 1111]

1190. In February 2015, USFF N43 informed OPNAV N43 that review of the draft instruction was being delayed by OPNAVINST 3040.5E and a flag-level "All Hazards" Initiative. [Encl 1112]

1191. Following OPNAV N43's migration to OPNAV N83, no further action was taken on the instruction until spring 2017, when OPNAV N46 assumed ownership of the policy. [Encl 1111, 1112]

1192. In July 2017, the draft OPNAVINST 34XX was recirculated for action officer-level review by COMAIRLANT; COMSURFLANT; COMSUBLANT; and, USFF. The consolidated Action Officer Review included over 100 comments from 8 stakeholders: PACFLT N43; CNIC N37; NRSW N37; USFF N464; FFC N04NW; PSNS&IMF; PHNSY&IMF; and, CNRSE. [Encl 468, 1113]

1193. Among other comments, CNRSW N37 noted that the instruction's command and control structure was inconsistent with the established chain of command structure for hazard responses as defined in existing policy. CNRSW N37 expressed concern that the draft instruction "change[d] the titles and reporting responsibilities for a specific set of hazards and results in an exception to established incident response doctrine." CNRSW N37 further highlighted the "instruction results in the potential for multiple [command and control] structures and procedures to be in execution simultaneously which [would] likely result in significant confusion and loss of focused effort." On review by OPNAV N46 staff, CNRSW's above comments were rejected. [Encl 468]

1194. In July 2018, OPNAV N46 assigned COMAIRLANT; COMSURLANT; COMSUBLANT; and, USFF with Flag Officer/Senior Executive Service-level review of the draft OPNAVINST 34XX. The draft instruction also included organizational approvals from the following on or before 13 July 2018: OPNAV N96, RADM Boxall; OPNAV N83, (b) (6); USFF N43, RADM Whitney; USFF N43, RDML Greene; CNIC N3, (b) (6); and, NAVSEA 04X (b) (6). [Encl 1114, 1115, 1116, 1117, 1118, 1119]

1195. On 13 November 2018, six years after the MIAMI Fire Review Panel recommended issuance of the directive, OPNAVINST 3440.18 was published. Consistent with the MIAMI Fire Review Panel recommendation, OPNAVINST 3440.18 designates Primary Commands, who have a responsibility to further designate area commands and establish their required responsibilities. For ports in the U.S. Indo-Pacific Command (like BONHOMME RICHARD on 12 July 2020) and the U.S. Northern Command Areas of Responsibility (AOR), primary command responsibility rests with PACFLT. [Encl 1020]

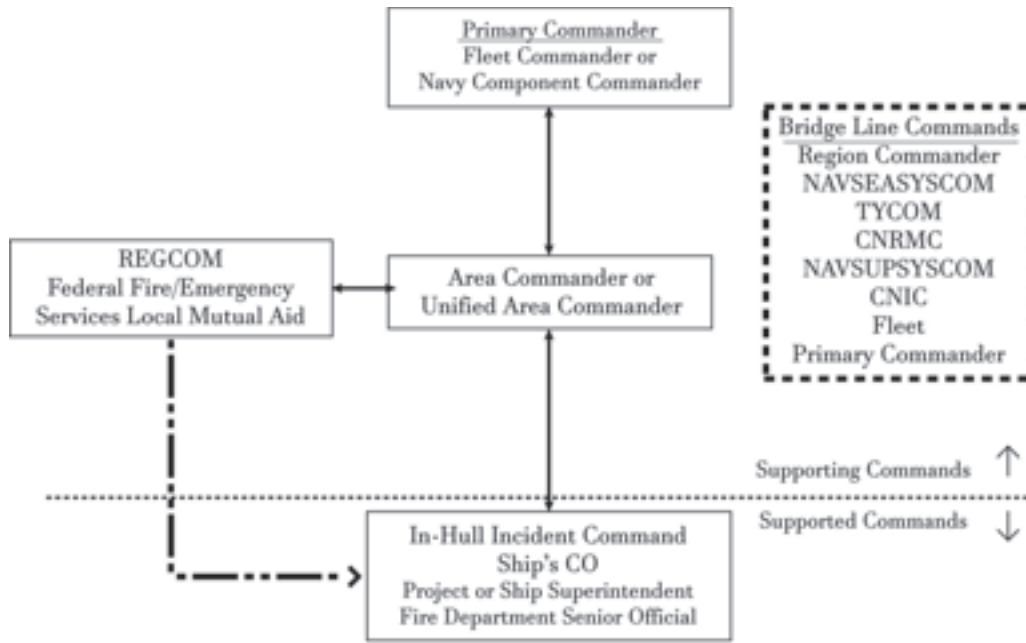


Figure 1 - Chain of Command

LEGEND	
REGCOM:	Region Commander
CNRMC:	Commander, Navy Regional Maintenance Center
NAVSUPSYSKOM:	Naval Supply Systems Command

Figure 48 shows the incident command structure established under OPNAVINST 3440.18

1196. USFF issued Maintenance Duty Officer (MDO) Standing Order 326 to clarify that Commander Task Force 80CTF-80 is both the primary commander and supported commander for coordinating firefighting efforts for “shipboard fires while within a shipyard” and “while in an availability period.” For “shipboard fires while within a shipyard,” the standing order states that the primary commander has designated NAVSEA as deputy primary commander to assume responsibility for firefighting efforts. The standing order designates MARMC as area commander for shipboard fires while within a shipyard. For “shipboard fires while in an avail[ability] period,” the standing order states that the primary commander has designated COMSURFLANT as deputy primary commander to assume responsibility for firefighting efforts, with the installation commander designated as area commander responsible for firefighting efforts as well as coordinating support to the ship, providing assistance for public affairs, liaison with civil authorities, logistics, engineering, environmental impact, safety, and health. [Encl 1120]

1197. After the BONHOMME RICHARD fire, USFF and PACFLT on 19 December 2020, formally designated area commanders in accordance with OPNAVINST 3440.18. Area commanders were designated as follows:

- a. Naval Shipyards: The shipyard commander is the area commander. This includes shipyards on a naval installation with a separate CO.
- b. Private Shipyards: The RMC commander (e.g., CNO availability) or Supervisors of Shipbuilding (SUPSHIP) (e.g., new construction) is Area Commander.
- c. Naval Installations: The Installation Commander is Area Commander.
- d. When OPNAVINST 3440.18 requires a Unified Command, establish a Lead Area Commander as follows:
 - (1) For ships in Pearl Harbor Naval Shipyard and PSNS, the Shipyard Commander is the Lead Area Commander with Base Commander supporting. For ships in Norfolk Naval Shipyard and PNSY, the Commander is dual-hatted as Installation Commander and Shipyard Commander.
 - (2) For ships in an industrial availability at a U.S. naval installation other than a naval shipyard, the installation commander is the Lead Area Commander with the NSA supporting.
 - (3) For ships at Ship Repair Facility-Japan RMC Yokosuka and Detachment Sasebo, the Installation Commander is the lead with the NSA supporting.

[Encl 1121]

1198. Outside of USFF's standing order and PACFLT CPF/USFF 21 December 2020 message, OPNAVINST 3440.18 has not been incorporated into any other policies or instructions. [Encl 481, 752]

1199. Neither the SWRMC Fire Response Plan (SWRMCINST 5100.11C dated 31 January 2020) nor MARMC Fire Response Plan (MARMCINST 11320.1D dated 22 July 20) reference OPNAVINST 3440.18. Additionally, the 8010 Manual does not incorporate OPNAVINST 3440.18, resulting in three distinct command and control structures. (See Figures 22, 23, and 48). [Encl 1122, 1123]

1200. Neither the NBSD Emergency Management (EM) plan (NAVBASESANDIEGOINST 3440.1L dated 11 October 2017) nor the EM Plan (CNRSWINST 3440.1B) OPNAVINST 3440.18. [Encl 240, 960]

1201. Expeditionary Strike Group THREE (ESG-3) Commander and Deputy Commander were also unfamiliar with OPNAVINST 3440.18 prior to the BONHOMME RICHARD fire. [Encl 72, 335]

1202. The BONHOMME RICHARD CO stated that he was unfamiliar with OPNAVINST 3440.18 on the day of fire. [Encl 82]

1203. The SWRMC CO and Executive Director were unfamiliar with OPNAVINST 3440.18 prior to the fire and stated that no ships in San Diego have been training to this instruction. [Encl 321, 325]

1204. Notwithstanding the requirement in OPNAVINST 3440.18 for CNIC to provide training on the contents of the instruction, CNRSW N3, CNRSW FEDFIRE (b) (6) and CNRSW FEDFIRE (b) (6) reported that they did not receive any training on the instruction from CNIC. CNRSW FEDFIRE (b) (6) reported that he was unaware of the existence of the instruction, and to his knowledge CNIC does not provide training on OPNAVINST 3440.18. The NBSD CO, CAPT Mark Nieswiadomy, and FEDFIRE Metro (b) (6) also reported having not received training on OPNAVINST 3440.18. [Encl 188, 314, 348, 363, 952]

1205. The CNIC N30, (b) (6), noted that CNIC N36 provides a Senior Shore Leader course to new installation leaders providing general guidance on how to respond to an incident. When asked whether the training specifically covers OPNAVINST 3440.18 requirements, he stated that he was not aware of all of the specific topics presented at the training and he would have to confirm with N36. [Encl 687]

1206. When asked about CNIC's responsibilities under OPNAVINST 3440.18, the CNIC N30 noted that CNIC is responsible for coordinating assistance to affected Navy regions. However, he noted that regions are able to request external assistance without prior CNIC approval. The CNIC N30 explained that regions could send a request for support to CNIC, who would then assist the region coordinating support. [Encl 687]

1207. The NBSD CO stated that prior to the fire aboard BONHOMME RICHARD, he was unaware of the existence OPNAVINST 3440.18. He stated that since the fire on BONHOMME RICHARD, his command had not conducted any deep dives of the OPNAVINST 3440.18 and he was not exploring any actions to change NBSD's response procedures to a future shipboard fire or to coordinate with SWRMC. He also asserted that he had not been in communication with SWRMC in regard to OPNAVINST 3440.18 requirements since the BONHOMME RICHARD fire. The NBSD CO assessed that OPNAVINST 3440.18 and the 8010 Manual do not account for or align with the National Incident Management System (NIMS) or the requirements of OPNAVINST 3440.17A and incident response command and control. [Encl 314]

1208. In his training to assume his position as the NBSD CO, he received several weeks of training at CNIC specific to EM, including training on the NIMS. [Encl 314]

1209. The NBSD CO noted that NBSD conducts more ATRP drills onboard the installation than damage control drills (including fires). He assessed that training is more focused on ATRP because force protection presents a higher threat than shipboard fires and noted that his assessment is reinforced by the focus on Anti-Terrorism Force Protection (ATFP) concerns from USSF, CNIC, and Commander, U.S. THIRD Fleet (C3F). [Encl 314]

1210. The NBSD CO stated that OPNAVINST 3440.18 does not correlate with all NIMS terms, and he thought the installation's and region's roles in coordinating with the local community had not been accounted for in the instruction. [Encl 314]

1211. The NBSD CO stated that he did not think NBSD needs to develop separate plans to comply with OPNAVINST 3440.18. He commented that NBSD had plans based on the assumption that firefighting efforts would be effective. He thought that the current response plans should be updated to account for a more catastrophic response, like the BONHOMME RICHARD fire, and updated plans should be informed by lessons learned from the BONHOMME RICHARD fire. The NBSD CO also mentioned that updated response plans should be consistent across all installations. [Encl 314]

1212. RDML Bolivar, CNRSW, referred to the Incident Command System (ICS) under the National Incident Management System (NIMS) as the primary command and control model during casualty events. She noted that there is room for improvement in terms of OPNAVINST 3440.18 and stated that a single point of reference for casualty response is an "immediate necessity." [Encl 471]

1213. While OPNAVINST 3440.18 does not provide specific guidance regarding execution of 8010 Manual requirements, according to (b) (6), OPNAV, Director Shore Readiness Division (N46), the 8010 Manual was included as a reference to OPNAVINST 3440.18, making the 8010 Manual more broadly applicable throughout the shore commands. She also confirmed that they had intended 8010 Manual drills to satisfy the drill requirements outlined in OPNAVINST 3440.18. [Encl 789]

Section XII: Post-BONHOMME RICHARD Fire Corrective Actions

Since the 12 July 2020 fire occurred aboard USS BONHOMME RICHARD (LHD-6), multiple organizations across the Navy have conducted internal reviews, assessments, and analysis to identify areas for improvement and execute immediate changes to limit risk of a future incident. In the seven months since the fire, some of these organizations have released guidance, set new requirements, or provided additional resources to correct identified deficiencies or enhance current performance.

1214. On 16 July 2020, the Director for Submarine Safety signed a report titled “Formal Review and Assessment of USS MIAMI (SSN 755) Fire Corrective Action Effectiveness.” The report was directed by a joint letter from Commander, Submarine Force Atlantic (COMSUBLANT)/Commander, Submarine Force U.S. Pacific Fleet (COMSUBPAC) on 15 May 2020. A 19-member team composed of senior staff from the Atlantic and Pacific Submarine force, as well as representatives from Commander, Naval Sea Systems Command (NAVSEA); Commander, Naval Installation Command (CNIC); the Naval Safety Center; Commander, Naval Surface Forces (CNSF); and Strategic Systems program assembled to complete this review. Though this report was signed after the BONHOMME RICHARD fire, the underlying review was completed before the fire. The report concludes significant actions were completed and submarine fire prevention and response margin to safety has considerably improved since the USS MIAMI (SSN-755) fire. The report cites six key areas that should be addressed to reduce the possibility of a major submarine fire during maintenance to the lowest practicable level. Those areas include 8010 Manual application; integrated response; “worst case” readiness; Personal Protective Equipment (PPE) and system improvement; fire response “time taxes;” and, the MIAMI fire report. The report’s executive summary notes the following:

- a. Application and oversight of “8010 Manual” principles are inconsistent, creating risk not readily apparent to Submarine Force leadership.
- b. One private shipyard provided documents estimating compliance with 8010 Manual Chapters 2, 3, 12, and 13 would cost approximately \$1.5 million. The other private shipyard provided documents estimating cost for similar compliance at approximately \$73 million.
- c. Drill compliance during availabilities at facilities other than public shipyards and Trident Refit Facilities is marginal at best.
- d. Inspection drills typically do not continue to the point where “extreme measure” (e.g., flooding dry dock basin, filling a compartment with foam, etc.) must be considered. As a result, several commands and organizations are confused about “extreme measure” decision making and authorities.
- e. Numerous firefighting PPE recommendations were made in the MIAMI fire report. However, other than accelerating previously planned ship alterations (e.g., Self-Contained Breathing Apparatus (SCBA) bottles increased to 45 minutes, providing Firefighting Ensembles (FFE) with longer zippers, and increasing the length of flash

hoods) little was done to improve post-MIAMI submarine firefighting PPE. Shipboard firefighting PPE and system stagnation appears to be the result of a broken “kill chain,” where the nexus of commercial technology, Office of the Chief of Naval Operations (OPNAV) and Type Commander (TYCOM) improvement opportunity awareness, fiscal advocacy, and waterfront feedback does not exist.

f. As discussed in both the MIAMI fire report and the 8010 Manual, Commanding Officers (CO) (or their designated representative) are the Incident Commander (IC) for a major submarine fire. Nevertheless, some fire chiefs expressed concern with a unit CO’s experience as an IC directing a unified response.

g. Although significant progress toward fully integrated major fire response has been made, barriers remain. Examples: some Federal Firefighting Departments (FEDFIRE) resist using temporary shipboard firefighting systems due to perceived capability shortfalls and continue to default to their own equipment. This practice risks extinguishing agent application gaps during initial response.

h. Time is not on the side of initial responders if flash-over and major fire are to be prevented. Several “time taxes” which could potentially impede fire response exist.

i. Most federal and civilian fire houses do not maintain a status for the submarines to which they might respond. As a result, the submarine’s status must be obtained from the IC or other individual after firefighter arrival at the scene.

j. Most federal and civilian fire houses intend to run their own hoses instead of using the pre-stated NAVSEA temporary firefighting system hoses.

k. The reports opinions and recommendations stated the following:

(1) While the 8010 Manual compliance in public shipyards appears to be excellent and oversight is effective, elsewhere compliance and oversight varies from good to problematic.

(2) Periodically evaluate response to major fires requiring mutual aid and space evacuation.

(3) Require CNIC federal firefighters to formally document 8010 Manual temporary firefighting system design concerns and forward to NAVSEA for resolution.

(4) Develop and mandate joint live fire training between Ship’s Force and federal/civilian firefighters. This training could be conducted pre-availability and/or periodically.

(5) Establish a standardized major fire communications hierarchy (e.g., FEDFIRE radios primary, secondary, ship’s sound-powered phones tertiary) for all shipyards.

(6) Investigate cost effective options to improve major fire drill realism.

(7) Ship's Force and shipyard fire drill grading criteria should emphasize locating the seat of the fire — perhaps with thermal imagery — as a principal step to immediate response.

(8) Ship's Force and shipyard fire drill grading criteria should emphasize continuously applying extinguishing agent as a principal step to immediate response.

(9) With no command or organization actively working to complete additional MIAMI Fire Review Panel corrective actions, and numerous institutional changes implemented since this incident, the MIAMI fire report has completed its usefulness. Therefore, COMSUBLANT/PAC should consider the MIAMI fire report closed and shift all post-MIAMI improvement efforts to addressing the endorsed recommendations of this report.

[Encl 762, 1124, 1125]

1215. On 26 August 2020, Commander, Naval Air Forces (COMNAVAIRFOR) released a message titled "ADVANCE CHANGE NOTICE ONE FOR STANDARD REPAIR PARTY MANUAL" issued as a result of recent fires aboard ships in availabilities where Commander, Naval Air Force Pacific (COMNAVAIRPAC) and Commander, Naval Air Force Atlantic (COMNAVAIRLANT) had conducted a review of Nuclear Aircraft Carrier (CVN) in port Damage Control (DC) readiness. The review found the COMNAVAIRFOR Standard Repair Party Manual lacked specificity on Inport Emergency Team (IET) composition and guidance as well as in port roving guidance. The immediate changes by COMNAVAIRFOR provided more detailed guidance for in port roving watches, and more detailed guidance for the implementation, organization, training, and watchstanding guidance, for the IET and IET members, as well as setting increased minimum manning for the IET. [Encl 1126]

1216. On 18 September 2020, CNSF released a message titled "TYCOM FIRE SAFETY ASSESSMENT PROGRAM," which announced the immediate establishment and implementation of the program. In the aftermath of the BONHOMME RICHARD fire, Commander, Naval Surface Force Pacific Fleet (CNSP) / Commander, Naval Surface Force Atlantic (CNSL) conducted a review of shipboard fire safety policies and processes, which found gaps in force awareness and compliance with fire safety requirements. The resulting establishment of the fire safety assessment program was to drive compliance with existing guidance and improve understanding of the risks associated with fire aboard surface ships, especially while in port or in an availability. [Encl 1127, 1128]

1217. The safety assessment program elements include periodic, random, no-notice inspections of ships, compliance with and understanding of fire prevention and response requirements. Focused primarily on the requirements delineated in the 8010 Manual, the inspection utilizes a checklist derived from the 8010 Manual with an inspection team comprised of a minimum of one TYCOM DC and one TYCOM safety subject matter expert. This team is required to assess a minimum of one surface ship each week. For ships assessed as ineffective, remediation plans must be provided to the respective TYCOM N43, with weekly updates until all discrepancies are

cleared. The fire safety assessment program is also intended to provide trends and lessons learned to the force. Specific areas of interest and assessment include:

- a. Housekeeping conditions throughout the ship to include proper storage/stowage as well as assessing Duty Fire Marshals.
- b. Conducting safety spot-check of two hot work sites to ensure authorization, proper site set up/safety and fire watch is on-station and qualified/prepared.
- c. Assessment of ships access and egress routes to ensure they are properly marked and free from obstructions.
- d. Assessment of knowledge and functionality of fire zone boundaries to include temporary service quick-disconnect fittings.
- e. Evaluation of ship's fire reporting communication systems including installed and temporary alarm systems, general announcing systems, and intra/interoperable radio communications capability. Additional assessment of the ship's Quarterdeck set up to ensure they have the ships' fire protection plan, DC plates and watchbills populated with qualified, competent watchstanders.
- f. Performed an evaluation of the ship's firemain system (installed or temporary) to include equipment power source and availability of backup power.
- g. A determination of each ship's current fire suppression capability to include status of Aqueous Film Forming Foam (AFFF), High Pressure (HP) water mist, halon/Heptafluoropropane (HFP), magazine saltwater sprinkling, berthing seawater sprinklers, and manually operated systems.
- h. A current status of the ship's fuel, flammable liquids, and any accelerants in temporary storage.
- i. An assessment of IET and Flying Squad/At Sea Fire Party watchbills.
- j. An evaluation of the ship's compliance with the 8010 Manual to include a determination of Fire Marshal level of knowledge, Fire Safety Watch (FSW) training, 8010 Manual Chapter 12 drill completion and the daily safety inspection process.

[Encl 1127, 1128, 1129]

1218. On 21 September 2020, the Damage Control Board of Directors (DCBOD) met with participants from Commander, U.S. Fleet Forces, Commander, Pacific Fleet (PACFLT), Commander Naval Air Forces (CNAF), CNSF, Commander, Submarine Forces (CSF), CNIC, NAVSEA, OPNAV, and Board of Inspection and Survey. The agenda included discussions on 8010 Manual audits, NAVSEA post-BONHOMME RICHARD tabletop, firefighting command and control, MIAMI corrective action review summary, USS FITZGERALD (DDG-62)/ USS JOHN C MCCAIN (DDG-56) actions, USS OSCAR AUSTIN (DDG-79) follow-up, and DC

battle lanterns. The minutes from this meeting reflect multiple action items assigned related to DC, firefighting training, fire safety, fire reporting, and 8010 Manual compliance. [Encl 1061, 1062]

1219. On 23 September 2020, the COMNAVSURFPACINST/COMNAVSURFLANTINST 3504.1 was released. The purpose of the instruction was to provide guidance, policy, and a structured process for maintaining minimum standards for safely getting or remaining underway and conducting an availability. Previous versions of the CNSP/CNSL Redline instruction did not include redlines for availabilities. [Encl 1127, 1130]

1220. On 2 October 2020, CNSF released a message titled “8010 COMPLIANCE AND REPORTING GUIDANCE,” which announced new requirements for complying with the 8010 Manual, and directed ships to do the following: deliver a ready to enter maintenance phase brief prior to entering the maintenance phase; read the 8010 Manual in its entirety and comply with all requirements; report completion of 8010 Manual Chapter 12 fire drills, lessons learned, and corrective actions via naval message to TYCOM within 24 hours of completion; report any 8010 Manual compliance concerns, if any, in availability weekly report to TYCOMs; and, create an availability fire response binder containing various documents to include the 8010 Manual; a copy of signed Memorandum of Agreement (MOA) between the Regional Maintenance Center (RMC) and ship; the RMC Fire Response Plan (FRP), to include a comprehensive list of shipyard, local fire (if in a private shipyard), and FEDFIRE emergency contact phone numbers. [Encl 1127, 1131]

1221. On 22 October 2020, PACFLT released a message titled “ASSIGNMENT OF RESPONSIBILITY FOR BONHOMME RICHARD FIRE FOLLOW UP ACTIONS,” directing 36 immediate actions based on lessons learned since the BONHOMME RICHARD fire to reduce the likelihood of future shipboard fires. The action items and due dates were assigned to NAVSEA, TYCOMs, Naval Education and Training Command (NETC), CNIC, and Fleet Commanders. The message included several action items from the 21 September 2020 DCBOD meeting minutes. [Encl 1132]

1222. On 23 October 2020, NAVSEA released a message titled “NAVSEA DIRECTED FIRE PREVENTION REQUIREMENTS,” which directed all Naval Supervising Authorities (NSA) as well as Commander, Navy Regional Maintenance Center (CNRMC), NAVSEA 21, and NAVSEA 04 to take immediate proactive actions to improve the fire safety posture across both public and private ship maintenance and the construction community. The message directed 23 corrective action areas to address identified weaknesses discovered during a NAVSEA engineering assessment of fire protection systems, DC, and firefighting doctrine. [Encl 1133]

1223. On 27 October 2020, CNSF’s first assessment report of the newly established Fire Safety Assessment Program noted common findings from 17 no-notice ship assessments:

- a. Fire Marshals’ level of knowledge did not meet 8010 Manual requirements.
- b. Fire Marshals lacked qualification and training documentation.

- c. Fire Marshals were not conducting an appropriate safety walkthroughs.
- d. Fire Marshals did not have a radio or a method of being contacted other than 1 Main Circuit (MC).
- e. IET did not meet minimum requirements for team members.
- f. Not all IET team members were qualified in Relational Administrative Data Management system (R-ADM).
- g. Team members assigned to IET were unaware they were on the watchbill, and were unfamiliar with their assigned positions.
- h. IET members were assigned to two incompatible roles at the same time (e.g., DC Phone Talker and Duty Electrician).
- i. IET training was being conducted but did not address actions to be taken in the event of a major fire, such as quick-disconnects, loss of shore power, Fire Marshals transition from On-Scene Leader, loss of 1MC or DC Central, (the role of the Locker Leader, use of installed fire systems (beyond the actions of the first hose team), the actions of the Quarterdeck team (including what to brief the fire department upon arrival).
- j. Ship Quarterdecks and/or DC Central did not have a working phone line to call out and were relying on cell phones and radio relay between two separate radio systems for both internal and external communications.
- k. Quarterdecks did not have the current watchbill or fire protection plan.
- l. FRP did not address loss of shore power.
- m. Primary communications for Damage Control Repair Stations (DCRS) (ex. Integrated Voice Communication System) were not functional; however, they were able to establish secondary communications.
- n. DCRS radios were on-station but some lockers did not have enough working radios (broken, not charged, no spare batteries). DCRSs were locked, and there were significant delays in locating the keys.
- o. Ship's duty section personnel were unfamiliar with quick-disconnects (how to operate them, how to identify them), and had not had recent training.
- p. Several machinery spaces had both the main access and escape trunks entrances obstructed with temporary services running through.
- q. Multiple vertical boundaries were fully fouled with services, and there was no plan to address setting or mitigating these as part of the fire response.

r. Low level of knowledge at many levels on the status, availability, or utility of installed systems that could be used in a major fire response (AFFF, halon, sprinklers).

[Encl 113, 1127]

1224. On 3 November 2020, CNSF released a message titled “BONHOMME RICHARD FIRE FOLLOW UP ACTIONS TRACKING AND REPORTING,” which referenced the PACFLT message of 22 October 2020 and directed Immediate Superior In Command (ISIC) and ships to conduct and report completion of several items related to safety, DC, and firefighting readiness. [Encl 1127, 1134]

1225. On 5 November 2020, NAVSEA released a message listing numerous fire prevention requirements.

a. On 6 November 2020, CNSF released a message titled “ADVANCE CHANGE NOTICE FOR REDLINES INSTRUCTION,” which issued an updated change to the 23 September 2020 Redline instruction. These changes were effective immediately to the minimum equipment requirements with no pre-approved mitigations. The update also required ships unable to meet the updated requirements to convene the Fire Safety Council (FSC) to develop a mitigation plan and submit to TYCOM for adjudication. The update specifically required ships to: maintain a functional general announcing system; conduct a daily short count test of the general announcing system in accordance with NAVSEA directed fire prevention requirements; maintain a functional installed DC communications system or an alternate DC communication system at all times; maintain an inter-operable radio communications plan that is validated and tested with shore firefighting entities in accordance with NAVSEA directed fire prevention requirements; and, maintain a fully functional installed or temporary fire detection system in accordance with NAVSEA directed fire prevention requirements.

[Encl 1135]

1226. On 23 November 2020, the second CNSF Fire Safety Assessments report showed substantial improvements in the DC and firefighting readiness since the initial assessments. In total, 26 ships received no-notice assessments since the start of the program. The report noted the program expansion to all surface ship homeports and maintenance sites and also listed areas for further improvement and development as well as actions in progress. [Encl 112]

Chapter 3 – Opinions

The typical starting point for a command investigation is to evaluate the causal events that led to the incident. Conducting this investigation in light of the broad mandate of the convening order required the team to explore and understand the programs and policies in place prior to the USS BONHOMME RICHARD (LHD-6) fire in order to understand and evaluate the performance and execution by all required entities.

Tracing the causal nexus to this fire and the loss of BONHOMME RICHARD starts at the unit level and expands to the oversight, programmatic, policy and resourcing considerations that, at a minimum, contributed to this incident. This section provides opinions and analysis across this entire spectrum. Overall, there were four focus areas that drove the final outcome:

- Material Condition. Throughout the maintenance period, the material condition of the ship was significantly degraded, to include heat detection capability, communications equipment, shipboard firefighting systems, miscellaneous gear clutter, and combustible material accumulation. To illustrate the extent of degradation, on the morning of the fire, 87% of the ship's fire stations remained in inactive equipment maintenance status.
- Training and Readiness. The training and readiness of Ship's Force was marked by a pattern of failed drills, minimal crew participation, an absence of basic knowledge on firefighting in an industrial environment, and unfamiliarity on how to integrate supporting civilian firefighters. To illustrate this point, the crew had failed to meet the time standard for applying firefighting agent on the seat of the fire on 14 consecutive occasions leading up to 12 July 2020.
- Shore Establishment Support. The integration and support expected by the shore establishment did not adhere to required standards. Southwest Regional Maintenance Center (SWRMC) did not meet their requirements associated with fire safety and, in doing so, failed to communicate risk to leadership while facilitating unmitigated deviations from technical directives. Naval Base San Diego (NBSD) failed to ensure its civilian firefighters were familiar with Navy vessels on the installation, verify they were trained to respond to a shipboard fire, or effectively practice how to support Ship's Force and simultaneously integrate responding mutual aid assets.
- Oversight. Ineffective oversight by the cognizant Commanders across various organizations permitted their subordinates to take unmitigated risk in fire preparedness. A significant source of this problem was an absence of codification of the roles and responsibilities expected by each organization in their oversight execution.

Common to all four focus areas was a lack of familiarity with key policies and requirements along with procedural non-compliance at all levels of command from the unit level to programmatic, policy, and resourcing decisions.

Section I: BONHOMME RICHARD Fire and Execution of Casualty Response by Ship's Force and Other First Responders

A. Impact of Ship's Condition on Spread of the Fire

1. Although the identified cause of the fire was arson, the condition of the ship on 12 July 2020 created an ideal environment for the fire to develop and spread. The mass storage of materials in tri-wall boxes, sometimes stacked two high, as well as fueled vehicles in the Lower Vehicle Stowage Area (Lower V) significantly contributed to the fire's intensity. Forensic analysis by the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) determined the fire started in Lower V and spread due to the significant amount of combustible material stored in that compartment. [2, 3, 257, 261-281, 439-449]
2. The fire in Lower V was initially a class "A" fire that primarily burned general combustible material located in tri-wall containers. As the fire spread throughout the ship, it remained class "A," though elements of class "B" fires existed, evidenced by the dense black smoke typical of these fires when fueled vehicles and oil stored aboard the ship caught fire. The presence of an electrical ground resulted in the erroneous report by some watchstanders that this was the cause of the fire. This electrical ground was more likely caused by the fire as it melted electrical cable insulation of live wires. There is insufficient evidence that class "D" combustion ever contributed to the magnitude or spread of the fire. [2, 3, 8-19, 22-24, 28, 44, 48, 80]
3. Regardless of ignition source, a ship's state of readiness must always be maintained such that the crew can rapidly respond and limit the damage from a fire. A ship must be ready to attack a fire at all times, whether to respond to battle damage or a fire while pierside. Although the Navy cannot eliminate the risk of arson, the Navy must anticipate, prepare, and practice for worst-case scenarios. The timing and location of the BONHOMME RICHARD fire, with a space full of combustible materials and on a weekend, when crew response would be minimal, represented a particularly vulnerable point for the ship. Ultimately, poor readiness and material condition rendered any fire response challenging. [1-213, 256, 257, 261-285, 439-449]
4. Significant quantities of scaffolding and combustible material in compartments throughout the ship contributed to the spread of the fire and limited access for first responders. Scaffolding was erected in the Hangar and Upper Vehicle Stowage Area (Upper V) to facilitate ongoing contractor work and Ship's Force had begun moving off the barge and onto the ship. This combination of activity resulted in a significant amount of material flowing through spaces from multiple organizations. The following are the most critical items that enabled the fire spread and simultaneously hindered access for first responders:
 - a. In Upper V, the storage of pallets of oil drums, gas cylinders, and a large quantity of combustible material.

- b. The storage of large amounts of material by General Dynamics National Steel and Shipbuilding Company (NASSCO), including pallets of scaffolding.
- c. In medical department spaces, horizontal storage of dozens of oxygen cylinders on a deck (as opposed to purpose-built vertical storage brackets).
- d. In Upper V, large amounts of erected scaffolding, which extended to within five feet of the overhead.
- e. Materials near the sideport ramp to Upper V from the pier and the ramps to the Hangar and Lower V.

On the morning of 12 July 2020, the material condition of BONHOMME RICHARD was in disorder. The handling and storage of materials coupled with the lack of coordination on the weekend of the fire, combined with a lack of mitigation or consideration for risk accumulation, was the direct cause of the ship's configuration and significantly contributed to the magnitude and severity of the fire. Moreover, the material condition had a direct impact on the ability of first responders to access and navigate the ship. [258, 273-285, 440-449]

5. The majority of the ship's firefighting stations were in an unknown state of operability, which hindered Ship's Force in their initial response efforts to the fire. Despite the ship's fire stations being in a degraded condition just prior to the fire, to include 187 of 216 ship's fire stations (87.5%) being in an Inactive Equipment Maintenance (IEM) status, BONHOMME RICHARD leadership viewed them as fully operational. Although the IEM status did not necessarily indicate the hoses and valves could not function, the IEM status demonstrated that Ship's Force had not maintained, tested or inventoried the stations, which contributed to the crew's varied understanding of the status and availability of systems. Compounding matters, while most of the ship's firefighting stations were in a substandard state of readiness, the inoperability of the three closest fire stations to the fire proved to be a critical impediment on the morning of the fire in the following specific ways:

- a. Fire Station 4-53-2, located in Lower V, was the closest accessible station to the fire. At the time of the fire, the station was in IEM and the hose was disconnected from the plug. Statements from Ship's Force indicated several Sailors reached this station, but did not attempt to use it.
- b. Fire Station 3-68-2, located on the port side of Upper V, was the closest accessible station to the Lower V ramp. This station was in IEM at the time of the fire. Ship's Force attempted to use this station during the fire but no hoses were present.
- c. Fire Station 3-69-1, located on the starboard side of Upper V, was the next-closest station to the Lower V ramp. This station was in IEM at the time of the fire. At this station, one hose was unavailable because it was connected to a cofferdam installed outside of the hull, below the waterline. The second hose was cut near the end of the hose, close to the brass fitting. Consequently, Ship's Force was unable to use this station to engage the fire.

[26, 27, 38, 282, 283, 313-329]

6. The Aqueous Film Forming Foam (AFFF) system on BONHOMME RICHARD was partially available on 12 July 2020, but the duty section lacked the requisite knowledge to configure and operate the system. Although the system was only partially available, with a properly trained crew, it could have been employed to slow the fire's spread. [68, 332-367, 378-386, 390-393, 518]

7. Consistent with the poor material condition of the ship, only a portion of the AFFF system, in a significantly degraded status, was available and operational on 12 July 2020. The decision to only bring up AFFF Stations 3 and 4 after the entire AFFF system was placed in IEM in 2018 meant the system only provided some coverage to the ship, which would have included the main engineering spaces and portions of Lower V and Upper V. Coverage was further limited due to the system being in a degraded status, which was directly caused by Ship's Force not properly completing the Q-1 and Q-2 maintenance checks. Certifying the Q-1 and Q-2 checks as complete with no deviations or deficiencies in SKED, despite knowledge to the contrary, represented a fraudulent act by those involved, and directly contributed to the poor material condition of the ship. Moreover, this conduct compromised the AFFF system further by failing to test the status of many of the push-buttons that could have activated AFFF. The sum total of these circumstances left BONHOMME RICHARD with an AFFF system that, while available, was of an unknown operational status at many of the actuating locations. [45, 68, 350-370, 518]

8. If the required Q-1 and Q-2 checks for AFFF Stations 3 and 4 had been properly completed as documented in SKED, all areas of the ship served by these locations would have had coverage and all push-buttons associated with those portions of the system would have been operational on 12 July 2020. Because the maintenance was not properly performed, various push-buttons were left in an inoperable or unknown state, to include those in Damage Control (DC) Central and the conflagration stations in Lower V. Due to the significant damage caused by the fire, coupled with the falsified maintenance work by Ship's Force, it is difficult to determine the precise status and availability of AFFF in relationship to the areas closest to the fire. [45, 68, 350-370]

9. Based on the configuration of the system in its partially degraded status on 12 July 2020, AFFF still could have been employed and provided coverage in the following manner:

a. The AFFF sprinklers in Lower V, whether activated via remote push-button or manually, could have distributed AFFF to cover the entire port side of Lower V from Frames 49 to 91. While the fire began on the starboard side of Lower V, AFFF deployment on the port side may have significantly slowed the progress of the fire.

b. The AFFF sprinklers in Upper V, whether activated via remote push-button or manually, were available to cover Frames 66 to 92. Of note, this area is not directly over Lower V and there was scaffolding in Upper V that would have limited the effectiveness of these sprinklers. However, if activated, it could have impeded the progress of the fire and contributed to the establishment of an effective boundary.

The Naval Sea Systems Command (NAVSEA) Failure Review Board (FRB) similarly concluded that if AFFF had been employed, it likely would have had a “significant effect on fighting this fire and reducing the damage.” If the system had been fully operational by the day of the fire, it could have distributed seawater or a combination of AFFF and seawater to a larger portion of the ship including Lower V, Upper V, the Hangar deck and the ramps connecting them.

[45, 68, 350-370]

10. DC Central was in a degraded state of readiness and prevented the Engineering Duty Officer (EDO) from establishing a centralized response in the early stages of the fire. The 1 Main Circuit (MC) from DC Central does not appear to have functioned throughout the ship, which caused significant delays in calling away the fire, as well as delays in communications during the initial response. Additionally, the AFFF push-buttons in DC Central did not function. While some members of the crew were aware the push-buttons for AFFF in DC Central were non-functional, this information was not widely known and the crew was confused regarding on the available capabilities. Although most of Ship’s Force fire responders and DC Central watchstanders did not understand the degraded state of AFFF, the state of AFFF is nonetheless illustrative of a substandard general fire response readiness posture on BONHOMME RICHARD. Ultimately, no crew member attempted to activate AFFF from DC Central or indicated to the investigation team that they considered such an action. [45, 68, 350-370]

11. Ship’s Force relied on communication by phone, rather than radios and other installed systems, because critical communication systems were degraded or inoperable (i.e., Hierarchical Yet Dynamically Reprogrammable Architecture (HYDRA) or 1MC) and the DC radios were unavailable. The degraded capability of this critical equipment severely limited communications and hindered command and control. Despite Ship’s Force remedial measures of communicating via personal cell phones or point-to-point devices such as J-dial and batt phones, the BONHOMME RICHARD CO, CAPT Gregory Thoroman, lacked awareness of these degradations and poor communication practices. [405-415]

12. The number and placement of BONHOMME RICHARD’s brows constrained firefighting efforts. The sideport ramp and the brow onto the Aircraft Elevator (ACE) were the only two brows on 12 July 2020, which limited available egress and access points during the fire. In turn, this impeded the ability of first responders to execute firefighting efforts by limiting courses of action to attack the fire. As smoke filled the forward portion of the Hangar, it threatened access to the brow on the port ACE, which was the last point of egress for the crew and first responders staging in the Hangar. Potential loss of this access point was the reason given by the Command Duty Officer (CDO), (b) (6), and the CO for evacuating the ship. A stern brow would have enabled firefighting efforts aboard the ship to continue from the Hangar and Well Deck for a greater period of time without compromising egress. The lack of a third brow became even more significant once the entire ship was evacuated and personnel were forced to resume firefighting efforts from the pier, as limited options were available to reenter the ship. This in

turn drove the need to erect a third access point from the stern of the ship. [65, 173-175, 432-437, 465, 475, 768, 971]

13. The ship had a limited number of Self-Contained Breathing Apparatus (SCBA) bottles and insufficient capacity to recharge them. If the crew had remained on the ship to continue firefighting efforts, there would have been a need for additional SCBA bottles, which would have been hampered by the ship's lack of an effective organic refilling capability. [70, 416-423]

14. The combination of an industrial availability, the significantly limited condition of critical ship's systems, and poor organization of the duty section placed the ship in an extremely vulnerable position. At the time of the fire, the ship was in a maintenance availability with significant ongoing contractor work, it was berthed at a pier not designated or equipped to support this level of maintenance, and the crew had begun to move back aboard. [248-255, 972-982]

B. Ship's Force Damage Control Efforts

15. At least 10 critical minutes passed from the time the fire was reported to the Quarterdeck before bells were rung, alerting the crew. The delay of Ship's Force in properly calling away the casualty after personnel smelled and observed smoke was directly causal to the crew's failure to apply agent to the seat of the fire, as well as the overall inadequate initial response. Neither BONHOMME RICHARD's Officer of the Deck (OOD), (b) (6), nor DC Central watchstanders promptly or properly called away the fire, which delayed Sailors from mustering in the Hangar, dressing out in gear, and assembling hose teams to respond to the casualty. Not only did DC Central fail to recognize that the 1MC announcement from DC Central had not been broadcast throughout the entire ship, the 1MC announcement by the OOD was only made after the OOD had twice contacted DC Central, rather than immediately calling away the casualty. Even then, the OOD's 1MC announcement was not clearly heard and understood throughout the ship. The 1MC announcement did not provide Ship's Force accurate information regarding smoke color, location of the seat of the fire, or direct fire boundaries be set. [4-46]

16. The absence of an effective duty section organization contributed to the lack of speed and coordinated effort in responding to the fire. There was no effective Inport Emergency Team (IET) organization available on the morning of the fire, as members were missing, including the IET leader, which was exacerbated by the lack of an effective muster. Based on existing duty section practices, at no time on 12 July 2020 was there an identified IET member fulfilling his or her assigned roles and responsibilities. [4-46, 540-582, 585]

17. Duty section members outside of the IET were not prepared to be part of the response. Ship's Force expectation that not all Sailors were obligated to engage in firefighting actions delayed the initial response, including action to apply agent to the seat of the fire. Additionally, a significant number of Sailors reporting to the Hangar were not prepared to join hose teams because they thought Navy Working Uniforms (NWU) could not be worn under Firefighting

Ensembles (FFE). This lack of knowledge and preparation affected overall readiness and response, which contributed to the fire's spread and inability to contain it. [4-46, 540-582]

18. Ship's Force initial firefighting effort lacked a coherent command and control structure. The failure of the CDO and Engineering Duty Officer (EDO), (b) (6), to establish clear command and control at the start of the casualty hampered the duty section's ability to organize efforts, deploy hose teams, and obtain reports from teams returning to the Hangar, which is directly attributable to the manner in which the BONHOMME RICHARD trained to respond to casualties. The scene in the Hangar was chaotic and many witnesses could not identify anyone in charge. [4-46, 478-539]

19. By the time BONHOMME RICHARD Sailors formed hose teams, descended to Upper V, and ineffectively sought agent to engage in fire attack, the fire met the 8010 Manual's definition of "major fire," as it continued to burn out of control. Of note, Southwest Regional Maintenance Center (SWRMC) did not make a "major fire" determination until 1015, approximately 75 minutes later. [25, 35-38, 40, 114]

20. Repeated attempts to access Lower V without sufficient Personal Protective Equipment (PPE) and firefighting agent hindered response efforts, as Sailors were unable to advance and locate the seat of the fire before retreating due to heat and smoke. Ship's Force failed to adhere to basic firefighting principles, evidenced by Sailors' descent down the Lower V ramp without adequate dress or extinguishing agent. This failure is directly attributable to the manner in which BONHOMME RICHARD trained. Furthermore, Sailors' failure to utilize the AFFF hose reel located in Upper V by the port sideport door, even after the port and starboard fire stations were identified as non-operational, also indicated a failure to follow basic firefighting principles. [4-46]

21. Had a team been properly dressed in FFEs and deployed with a firefighting agent, Lower V would have been accessible for Ship's Force to conduct firefighting. Statements by the Duty Fire Marshal, (b) (6), and (b) (6) indicate they were able to successfully maneuver into Lower V without FFEs more than 20 minutes after smoke was first detected by Ship's Force personnel. Both individuals stated they advanced to a point in Lower V where they could have accessed Fire Station 4-53-2 before turning back. Both individuals also stated they were able to observe the glow of a fire, which indicates properly-dressed hose teams could have accessed the space and applied agent in the same time period. Furthering this same point, San Diego Fire Department (SDFD) accessed Lower V in FFEs more than an hour and 45 minutes after Ship's Force detected smoke coming from Lower V. [4-46, 478-539, 86]

22. Ship's Force failure to apply water to the deck in Upper V allowed radiant heat transfer to ignite materials across Upper V, enabling the fire to spread. No member of Ship's Force used hoses or directed civilian firefighters to cool Upper V or other adjacent spaces to prevent radiant fires in the critical first three hours of the fire. [4-98]

23. Ship's Force did not make any concerted attempt to set boundaries, despite realizing early in the response that Lower V was filled with significant smoke and intense heat. Ship's Force should have attempted to set fire boundaries, but Sailors had neither sufficient training nor knowledge to work quick-disconnects to close hatches and watertight doors. Temporary services impeded fire zone hatches, and the crew was not adequately trained to remove them. Neither the CDO, EDO, nor any other duty section leaders ever gave an order to establish boundaries during the fire, and they never sent organized teams from the Damage Control Repair Stations (DCRS) to take this action. This failure contributed to the crew's inability to contain the fire and the extensive damage and equipment loss throughout the ship. [40, 472, 1040, 1049-1054]

24. Movement of DCRSs added to confusion during the firefighting efforts, which further contributed to the crew's inability to contain the fire. The duty section was originally directed to stage from DCRS 5, but as smoke accumulated in the area, they were moved to DCRS 2M. However, DCRS 2M was also within the smoke-affected area, leading to another move to DCRS 3. As there was no power in DCRS 3, the locker personnel made a final move to DCRS 1H. This constant movement prevented locker leadership from maintaining communications and created confusion that delayed the firefighting response. [28, 31, 428-431]

25. The information gathered by the ship's investigators on the location of the fire was not properly communicated across the crew and to responding firefighters. A series of limited and uncoordinated investigation teams that focused solely on observing the seat of the fire, rather than taking steps to actively engage in firefighting efforts, contributed to a significant delay in the execution of casualty response. When the Federal Fire Department (FEDFIRE) arrived on-scene, Ship's Force did not confirm Lower V as the location of the fire, despite stated observations of an "orange glow" in the Lower V by several investigators. Intense heat and smoke emanating from Lower V should have signaled that the fire originated in Lower V, especially because conditions in other adjacent compartments would have alerted Ship's Force as to the fire's location. Both the Duty Fire Marshal and (b) (6) observed the glow of the fire early in the response, yet this specific information did not reach the CDO, DC Central, and ultimately the FEDFIRE first responders in a timely and accurate manner. [4-46, 48, 49, 62]

26. Failure of Ship's Force to use available hoses or apply agent allowed the fire to spread. No member of BONHOMME RICHARD's crew and no civilian firefighter used the ship's fire stations throughout the firefighting effort, hindering first responders' efforts to contain the fire. Ship's Force made repeated attempts to access Lower V to confirm the location of the fire without proper FFE or agent to extinguish the fire. Subsequent hose teams were dispatched from the Hangar without hoses and were unable to locate a fire hose or employ an AFFF hose reel. These efforts further highlight the failure of BONHOMME RICHARD to follow basic firefighting principles. [4-46, 48, 62, 313-329]

27. The fire stations positioned to make the greatest impact in the early firefighting response were not operational on 12 July 2020. A team led by (b) (6) attempted to use Fire Station 3-68-2 on the port side of Upper V, but there were no hoses at that station. The team

then attempted to use Fire Station 3-69-1 on the starboard side of Upper V. One hose could not be used because it was connected to a cofferdam (over the side of the ship) and the second hose was cut near where the brass fitting should have been located. Of note, both stations were in IEM at the time of the fire. The unavailability of functional hoses at Fire Stations 3-68-2 and 3-69-1 caused the hose team to return to the Hangar without applying agent to the fire. Fire Station 4-53-2, located in Lower V, was the closest accessible station to the fire. Although multiple members of the crew stated that they reached its approximate location in Lower V, no crew member attempted to use it. Of note, the hoses at this station were not connected to the fire plug, and this station was in IEM on 12 July 2020. No attempts were made to deploy hoses from other parts of the ship to be utilized at these fire stations. [26, 27, 38, 282, 283, 313-329]

28. The failure of Ship's Force to use Emergency Escape Breathing Devices (EEBD) when they evacuated various compartments created unnecessary risk to life and safety. The crew was not adequately trained on the use of EEBDs during emergency egress, and Ship's Force failure to use readily available EEBDs when evacuating through smoke-filled berthing and engineering spaces resulted in avoidable cases of smoke inhalation. [66, 67, 535, 1056, 1057]

29. The decisions to evacuate Ship's Force and secure power eliminated the ability to use any of the ship's installed firefighting systems. The CDO ordered power secured at approximately 0915 based on an erroneous belief that an electrical ground had caused the fire. Although it was not possible to determine whether power was secured as a result of this order, the breakers were opened at 0944 and secured power to the aft section of the ship taking the ship's only operating fire pumps off-line. Without these pumps, both ship's firemain and AFFF system were no longer functioning. At about the same time, at 0915, the CDO ordered all personnel not wearing SCBAs to evacuate due to smoke cutting off the last point of egress for the Hangar, the port ACE brow. The CO provided his concurrence via cell phone prior to this order being given. The rest of the crew, even those wearing SCBAs, evacuated over the next 15 minutes, and FEDFIRE shifted their efforts to supporting SDFD from the pier. The evacuation left no uniform members aboard to use the ship's firefighting systems or to lead and integrate firefighting efforts with FEDFIRE or SDFD. [18, 23, 24, 44, 48, 58, 59, 65, 72-81, 84 - 87, 152]

30. The need to evacuate BONHOMME RICHARD could have been avoided or delayed if smoke boundaries had been set; if Ship's Force had an adequate number of SCBAs with sufficient recharging capability; and if a third brow had been available at the stern of the ship. [40, 65, 70, 173-175, 416-423, 432-437, 465, 472, 475, 768, 971, 1040, 1049-1054]

31. Ship's Force did not consider employing the AFFF system in a timely manner, which contributed to the spread and inability to control the fire. Even in its degraded status, if AFFF had been activated in Lower V, it would have provided agent in the vicinity of the seat of the fire, limiting the intensity and rate of its spread. If AFFF had been activated in Upper V, it may have slowed the fire's progress to the aft part of Upper V. Ship's Force should have attempted to activate AFFF; however, on 12 July 2020, duty section personnel had differing understandings of the AFFF system, which contributed to their lack of consideration for this option. There was

almost no discussion about using the system until more than two hours after the fire started. AFFF on the day of the fire could have most easily and effectively been employed had the push-button in Upper V been utilized at any time prior to the 1050 explosion. While it was accessible until at least 1000 that day, the button was never pushed and no member of the crew interviewed considered this action or had specific knowledge as to the location of the button or its function. [4-46, 68, 332-393, 518]

32. On the day of the fire, an AFFF remote push-button, located in Upper V on the starboard side of the Lower V ramp, could have been pushed to deploy agent to the port side of Lower V. Due to the improperly-completed AFFF maintenance checks in April 2020, the exact status of this push-button cannot be determined. However, none of the BONHOMME RICHARD Sailors interviewed considered attempting to use this push-button or indicated an awareness of its location. [45, 68, 332-393, 518]

33. Following the evacuation, a plan was developed by the Repair Division Leading Petty Officer (LPO), (b) (6), to reenter the ship to try to manually align the system to deploy AFFF to Upper V and Lower V. However, this plan revolved around the manual alignment of valves within the AFFF system and does not seem to have considered the use of the remote-push-buttons in Upper V. Push-buttons on the port side and near the centerline of Upper V could have activated the AFFF sprinklers in the aft section of Upper V and port side of Lower V, respectively. Further, this plan did not account for the loss of power to the ship's fire pumps at 0944, or the complete loss of ship's power at 1025. [45, 95, 96, 332-393]

C. Integrated Response Efforts by Ship's Force, SDFD, and FEDFIRE

34. BONHOMME RICHARD's crew did not promptly alert FEDFIRE of the incident. FEDFIRE's prompt response to the fire is attributable to a Commander, Navy Region Southwest, (CNRSW) dispatcher who overheard observations of smoke from the Anti-Terrorism Tactical Watch Officer (ATTWO) while monitoring the Harbor Defense Net. As an unmonitored channel broadcast within the Region Dispatch Center (RDC), the Harbor Defense Net provides information to dispatchers, but there is no requirement to monitor that radio channel. As a result of the dispatcher's actions, FEDFIRE was rapidly notified of the fire. [4-48]

35. Ship's Force had no plan or active firefighting effort when FEDFIRE and SDFD arrived. As SDFD and FEDFIRE each attempted to establish their own plans, Ship's Force did not integrate with either organization to provide critical information, such as the location of the fire or the layout of the ship. When FEDFIRE arrived, the CDO did not have readily accessible DC plates to provide to FEDFIRE. Likewise, FEDFIRE did not maintain DC plates or detailed pre-incident, platform-specific plans that would have helped FEDFIRE navigate the ship in an expeditious manner. [47-64, 84-89, 92, 820-833, 1000]

36. Without a firemain system on Pier 2, FEDFIRE connected to a potable water riser on Pier 2, which was inadequate to support firefighting because of limited pressure and volume. The first

arriving FEDFIRE Engine, rather than the second arriving FEDFIRE Engine, could have connected to a fire hydrant to provide firefighting teams greater water pressure than the potable water riser initially employed. Although not determinative, this error further contributed to the inability to contain the fire and represented poor FEDFIRE training and familiarization. [49, 57, 86, 159, 817, 826, 829, 982]

37. Ship's Force should have directed FEDFIRE to enter the ship via the sideport door to save time, energy, air, and resources to efficiently and effectively respond to the casualty. Neither Ship's Force (including the CDO) nor FEDFIRE recognized the benefit of entering BONHOMME RICHARD via the port sideport door, which hindered firefighting efforts because valuable time was lost with the additional distance and hundreds of additional feet of hose required to reach Lower V. Additionally, descending from the Hangar forced FEDFIRE to descend directly into the rising heat and smoke emanating from Lower V. If FEDFIRE entered the sideport door, used installed firemain on the ship, and had been escorted by Ship's Force personnel to the seat of the fire, agent could have been timely applied to the seat of the fire. Neither group had an established plan for effective coordination and integration. SWRMC's Fire Response Plan (FRP), which was required to direct integrated hose team strategies for a major shipboard fire, did not include such strategy, and the FRP was not adequately incorporated into BONHOMME RICHARD or FEDFIRE training. [48-56, 58, 831]

38. The mechanical incompatibility of FEDFIRE and Ship's Force hoses further complicated integration efforts and demonstrated a lack of effective pre-planning and training. [56, 832, 861, 864, 865, 891, 892, 894]

39. Ship's Force effectively ceased any firefighting attempts and efforts once FEDFIRE arrived. A significant number of Sailors wrongly concluded FEDFIRE assumed responsibility and control of firefighting efforts, causing Ship's Force to improperly rely on FEDFIRE to lead firefighting efforts. Although increasing smoke coupled with deteriorating conditions on the ship and a lack of SCBA bottles prompted the CDO to execute the initial evacuation of BONHOMME RICHARD personnel, the presence of FEDFIRE and the incorrect assumption they would take over further enabled this decision. [48-55]

40. FEDFIRE's failure to employ BONHOMME RICHARD's firefighting systems was inconsistent with the intent of 8010 Manual, OPNAVINST 11320.23G, and CNIC N30 HPD requirements for an integrated response and resulted in the loss of valuable time and resources. [49, 50, 825, 829, 833]

41. During the initial three hours of the casualty response, BONHOMME RICHARD, FEDFIRE, and SDFD did not effectively execute an integrated response. Coordination and communication efforts were limited by a lack of realistic integrated training between BONHOMME RICHARD, FEDFIRE, and SDFD. Prior integrated training could have identified and mitigated communication challenges, equipment interoperability, and clarified roles and responsibilities for an integrated response. FEDFIRE's failure to periodically patch

radios with SDFD led to an erroneous belief that SDFD and FEDFIRE radios could not be linked together at the dispatch center to enable direct communication. [4-64, 83-89, 738, 1015]

42. There was no integration between Ship's Force and SDFD and poor integration between FEDFIRE and SDFD. When SDFD arrived on-scene, they initially climbed to the top of the port ACE and attempted to integrate with the ongoing FEDFIRE effort in the Hangar. As SDFD entered the Hangar, a FEDFIRE chief concerned with accountability issues directed SDFD to depart. At approximately the same time, different SDFD members located the fire via the sideport ramp and shifted their efforts to that location without coordinating with Ship's Force or FEDFIRE. At approximately 0930, if the first SDFD attack team had been escorted by a knowledgeable Ship's Force representative, SDFD would have very likely applied agent to the seat of the fire. SDFD specifically asked the Repair Division LPO to escort SDFD prior to their entry, but the Repair Division LPO and other Ship's Force representatives failed to escort SDFD into the ship, despite repeated requests. SDFD's initial entry via the sideport ramp and descent to the bottom of the Lower V ramp were the final opportunity to prevent the unchecked spread of the fire. Although Ship's Force informed SDFD that the fire was located somewhere below the bottom of the ramp to Lower V, SDFD had no knowledge of the layout of the ship at the bottom of the ramp. SDFD also did not know there was a steel deck below the wood pallets laying on the Upper V deck, and SDFD feared that the deck would be compromised by the fire and they could fall through. SDFD's lack of critical information about the layout ship slowed their progress and reflected FEDFIRE and Naval Base San Diego's (NBSD) failure to adequately train with SDFD prior to the fire. [62, 83-88]

43. On-scene integration and coordination between SDFD and FEDFIRE was limited due to radio communication challenges and lack of mutual aid training. On 12 July 2020, on-scene communications between SDFD and FEDFIRE were limited to in-person communications due to lack of interoperable radios. Effective mutual aid training between FEDFIRE and SDFD should have identified and mitigated these communication challenges and clarified roles and responsibilities for an integrated response. While FEDFIRE and SDFD's radio communications could have been "patched" through the RDC, many FEDFIRE personnel were unaware of this capability, as FEDFIRE does not regularly conduct patching tests. FEDFIRE leadership also asserted that patching creates delays and is not a viable option during a major response. Nonetheless, effective mutual aid training between SDFD and FEDFIRE should have tested the patching capabilities and identified and mitigated the communication challenges. [60, 61, 901-922, 1015]

44. The lack of coordination between firefighting organizations and BONHOMME RICHARD's crew delayed putting agent on the fire. The arrival of FEDFIRE essentially stopped the efforts of Ship's Force in the Hangar. With almost no information as to the layout of the ship or the location of the fire, FEDFIRE started a new firefighting effort from the Hangar with water and hoses from the pier. By the time FEDFIRE had laid their hoses all the way to Lower V, SDFD had already entered through the sideport door. SDFD's sideport entry interfered with FEDFIRE's effort from the Hangar, which was then filled with smoke. SDFD initiated its entry via the sideport ramp with almost no information as to the layout of the ship or

the location of the fire. This series of events delayed effective firefighting and allowed the fire to proceed unchecked for almost two hours. SDFD's attack on radiant fires in Upper V at about 0950 (100 minutes after smoke detection), was the first and only time direct agent was deployed on any fire aboard BONHOMME RICHARD prior to the 1050 explosion. Ultimately, this singular attack was not sufficient to prevent the fire from spreading, and the fire continued unabated in Lower V. [48-64, 83-87]

45. Failure to account for two Ship's Force members led to a rescue attempt by SDFD and Ship's Force personnel. Efforts to account for all Sailors on the morning of 12 July 2020 were complicated by a lack of a formal method to account for personnel who had recently moved aboard the ship. As a result, BONHOMME RICHARD was unable to conduct a rapid muster. When two BONHOMME RICHARD Sailors could not be accounted for, some attention was diverted from in-hull operations to a potential rescue operation. Following the evacuation of the ship, there was a focused effort to account for all Sailors in the duty section and for those who had moved aboard. When one Sailor still could not be accounted for, a group of SDFD personnel entered the ship via the port ACE with a BONHOMME RICHARD Sailor to locate the missing Sailor, but were turned back by heavy smoke. The Sailor was later accounted for at a location off the ship. Ultimately, all crew members were accounted for prior to the 1050 explosion. [90, 91, 666]

46. Minutes before the major explosion at 1050, SDFD (b) (6) identified changing conditions in smoke volume, velocity, density, and color, which indicated a pending explosion. SDFD and FEDFIRE both ordered an evacuation of the ship, and the last firefighters exited the ship minutes before the large explosion at 1050. This timely action by civilian firefighting organizations saved lives and prevented serious injuries. Although the investigation did not obtain quality video of the 1050 explosion, the damage done to the interior of the ship confirms witness accounts that the explosion was massive and would have likely killed or severely injured anyone in Upper V at the time of the explosion. [94, 97-100]

47. After the 1050 explosion, the fire grew in intensity as it spread throughout the ship, making it difficult to reengage in firefighting operations and limit the spread of the fire. [98, 99, 101, 102, 108]

48. SDFD's departure in the afternoon on 12 July 2020 was aligned with SDFD's departmental risk priorities and should not have been unexpected. FEDFIRE and Ship's Force disappointment over FEDFIRE's departure reflected an insufficient understanding of SDFD departmental priorities and capabilities and a lack of sufficient mutual aid training. [90, 91, 94, 97-100, 141-145, 902-907]

49. Establishing a command post outside of NBSD Headquarters was effective for staging personnel and equipment and coordinating operations with the Incident Command Post (ICP). The command post ensured that hose teams were dressed out and prepared to relieve existing

teams as needed. The command post also facilitated better integration between Ship's Force, FEDFIRE, and other supporting organizations. [146-150]

D. Major Incident Response by Other Supporting Commands

50. The lack of a commonly understood command and control structure, led to a lack of understanding of who was in charge of response efforts, creating a leadership vacuum on 12 July 2020. The command and control structure identified in OPNAVINST 3440.18 for responding to a major non-nuclear shipboard casualty was not used during this incident. BONHOMME RICHARD's CO and the NBSD CO, CAPT Mark Nieswiadomy, had never heard of or trained to OPNAVINST 3440.18 prior to the fire. Of note, OPNAVINST 3440.18 requires coordination between the installation and the Naval Supervising Authority (NSA) commander to provide integrated support to the ship. NBSD and SWRMC were unprepared to integrate their response efforts. As a result, supporting organizations were left to discern roles and responsibilities as the casualty was occurring. Likewise, the command and control structure outlined in the 8010 Manual, which directs use of an "in-hull" ICP and an "off-hull" ICP, was not effectively utilized, leaving supporting entities with a lack of clarity on roles and responsibilities for the firefighting effort. [111-127, 228, 234-241, 715, 1202-1207]

51. The willingness and readiness of numerous Rescue and Assistance (R&A) teams, responding from across the waterfront to support BONHOMME RICHARD firefighting efforts was commendable. Although BONHOMME RICHARD failed to effectively integrate and employ these R&A teams into the initial firefighting effort for the first several hours, the supporting personnel demonstrated rapid action and an eagerness to respond. As the firefight stretched into multiple days, countless Sailors and officers from across the waterfront provided firefighting teams and equipment. [22, 43, 65, 146, 228]

52. In the absence of clear leadership by the NBSD and SWRMC COs to manage the incident response at the installation level, CNSP ordered Expeditionary Strike Group THREE (ESG-3) to manage the overall incident response. Coordination between the Emergency Operations Center (EOC), Emergency Control Center (ECC), and the on-scene Incident Commanders (IC) and external entities improved when ESG-3 assumed a leadership role. The hourly conference calls led by ESG-3 effectively brought together various organizations to share information and efforts, meet reporting requirements, and synchronize resources. Notwithstanding the positive impacts of ESG-3's leadership, ESG-3 did not have specifically delineated responsibilities for the incident response per Navy policy, and the incident command and control did not reflect adequate training or knowledge of the 8010 Manual, OPNAVINST 3440.18, or OPNAVINST 3440.17A. [112-127]

53. Incident coordination was degraded because the EOC neither trained nor prepared for an incident of this magnitude. Multiple witnesses described challenges in communications between the EOC and the ICP, as well as challenges internal to the EOC. The NBSD Emergency Management (EM) Plan's Hazard-Specific Appendix for shipboard fires does not contain adequate guidance for responding to a major shipboard casualty. While the Hazard-Specific

Appendix acknowledges the presence of maintenance activity on NBSD and the adoption of new Navy fire safety policies enacted since 2012, the shipboard fire checklist provides no guidance on necessary coordination with SWRMC and makes no reference to the role of the SWRMC ECC. Further, while the checklists reference the 8010 Manual, they contain no further guidance to train and prepare EOC members for carrying out the 8010 Manual requirements. Additionally, the Hazard-Specific Appendix does not reference OPNAVINST 3440.18. These deficiencies contributed to a lack of preparedness for the EOC to effectively respond to major casualty on 12 July 2020. [111-136, 939-945, 947-958]

54. NBSD and SWRMC's failure to coordinate training for a major shipboard fire resulted in unclear lines of responsibility during the incident response. The respective roles of the EOC and SWRMC's ECC were unclear during the early hours of the response because the EOC and the ECC both failed to effectively train for a major shipboard fire. The EOC Director, (b) (6), reported only limited EOC engagement on 8010 Manual drills. NBSD coordination with SWRMC was more focused on pier safety and environmental concerns. Several EOC members reported confusion over the role of the ECC. The limited bandwidth of command and control on-scene necessitated a single location for reporting information, but the ECC did not immediately integrate with the EOC. [111-136, 242, 714-716, 943-945, 966, 1207]

55. (b) (6) of NAVSEA 00C, on her own initiative, took early action in response to the BONHOMME RICHARD fire that resulted in activation of important assets that were effectively employed later in the firefighting effort. Though she was working on unrelated matters at the time of the fire, she responded with urgency and without higher direction. Her initial efforts enabled the follow-on NAVSEA 00C support, all of which positively contributed to the fire response. Without her early action, delays in procuring these critical assets and assistance may have prolonged the fire at the risk of more personal injuries. [173, 187, 191, 194]

56. NAVSEA failed to effectively use its planned command and control structure to provide and receive information during the event, which complicated incident command efforts on Pier 2. Multiple times during the incident, NAVSEA directly contacted the BONHOMME RICHARD CO, rather than using the EOC or ECC to coordinate these questions. The NAVSEA Ship Incident Response Center (NSIRC) only provided limited support and was hampered by the lack of timely updates. NSIRC's suggestions were often time-delayed, such as proposals to restore firemain late in the evening on 12 July 2020 following multiple explosions which had likely compromised firemain integrity. [118, 131]

57. The decision to evacuate the ship after the list shift on 15 July 2020 was reasonable under the circumstances. Shifting debris and equipment posed a danger to personnel aboard. The failure of NAVSEA technical experts to effectively integrate with the fire responders resulted in concerns about a potential rapid list shift never being communicated to the ICP before the shift. Firefighters aboard at the time of the shift were left unprepared for the movement, which led to a halt to firefighting efforts. [199-208]

58. NASSCO, the Lead Maintenance (LMA) for this availability, took actions consistent with their contract and FRP during the fire on BONHOMME RICHARD. Their actions did not

detract from the fire response. Specifically, a NASSCO contractor aboard reported the fire to the EDO promptly, NASSCO effectively mustered all contractor personnel, and secured power to temporary services. [82, 91, 244, 245, 251]

E. Subsequent Firefighting, Stability, and Dewatering Efforts

59. The complete evacuation and subsequent explosion that occurred on BONHOMME RICHARD at 1050 was a turning point in the fire response and left all organizations operating outside of expected roles and responsibilities. In the hours following the explosion, the lack of any meaningful firefighting efforts allowed unchecked spread of fire throughout the ship. In the afternoon of 12 July 2020, simultaneous with the fire teams reestablishing a foothold in Upper V, the fire reached the superstructure and spread throughout multiple decks. [98-102, 154-164]

60. The tactic employed to “surround and drown” the fire as BONHOMME RICHARD’s crew and FEDFIRE attempted to regain access to the ship following the initial large explosion was likely the best course available; however, it failed to slow or prevent the unabated spread of the fire. By 2000 on 12 July 2020, no personnel were on the ship; flames were openly venting from the superstructure; and warping of the Flight Deck was leading to concerns over the structural integrity of the Hangar. While not reflected in the statements of those present, the integrated firefighting efforts that gradually developed into the evening of 12 July 2020 were essentially a salvage operation. [154-162, 1041-1044]

61. While Ship’s Force did not initially integrate into hose teams with FEDFIRE (with minor exceptions), beginning in the afternoon of 12 July 2020 and continuing throughout the extended response, BONHOMME RICHARD Sailors and FEDFIRE executed a more effective integrated response. Throughout the subsequent response, Sailors were more consistently employed and integrated into FEDFIRE fire teams as efforts transitioned to locating and cooling hot spots and extinguishing remaining fires. [152, 48-55]

62. Execution of the extended integrated response between BONHOMME RICHARD and FEDFIRE continued to reflect a lack of understanding of basic principles for command and control for a major casualty. Establishment of separate FEDFIRE and BONHOMME RICHARD ICPs on opposite sides of the pier impeded information flow to the EOC and inconsistent with the command and control structure outlined in the 8010 Manual and Navy EM policy. [120, 121, 150, 163, 240, 241]

63. Communication challenges between the pier and the EOC were a common problem throughout the extended response, including a false report to Commander, ESG-3, RDML Phillip Sobeck, that the fire was out and an erroneous report to the BONHOMME RICHARD CO that the BONHOMME RICHARD was experiencing a hogging condition. [120, 121, 150, 163-201, 240, 241]

64. After the fire spread throughout the ship, indirect firefighting methods were necessary to regain access to compartments overcome by fire. These indirect methods required hull cuts to be made through various bulkheads and decks in order to make progress in containing the fire. These hull cuts proved effective in advancing the effort to contain the fire but were hampered by failures in equipment. Had these indirect methods been employed earlier in the fire, more points of attack would have been available to responders. [189-191, 195]

65. US Fire Pump positively contributed to the overall firefighting effort, providing resources and techniques not readily available to the Navy, to include higher capacity pumps, drones with thermal imaging capability, and tactics beyond what Ship's Force or FEDFIRE would normally employ. [180, 187, 191, 194]

66. There was no effective tracking of BONHOMME RICHARD's list and trim until NAVSEA 00C assumed responsibility for the ship's stability. Early efforts were poorly overseen and resulted in incorrect information being passed to decision makers, who then spent valuable time pursuing unnecessary stability efforts. Only when NAVSEA 00C developed a centralized ballast plan was an accurate picture of the ship's stability available to ICP. [199-208]

Section II: Fleet, NAVSEA, and CNIC Policy and Oversight for Fire Prevention

There are a host of requirements regarding fire safety levied upon various organizations, and the decisions made at all echelons had impacts on the conditions prior to and during the response to the fire aboard USS BONHOMME RICHARD (LHD-6). The U.S. Navy Regulations are unequivocal in stating a Commanding Officer's (CO) responsibility is absolute, which is fully recognized in this report. The responsibility of the ship's CO does not, however, obviate any other organization of the responsibilities he/she is required to execute. This arrangement of responsibility is especially critical regarding fire safety during an availability where the conditions of a ship are constantly changing.

A. Fleet Oversight and Responsibilities

BONHOMME RICHARD

67. Consistent with Chapter 8 of the U.S. Navy Regulations, the BONHOMME RICHARD CO maintains absolute responsibility for the safety, well-being and efficiency of the ship. The BONHOMME RICHARD CO, CAPT Gregory Thoroman, failed in this responsibility by accepting the ship's substandard material condition and crew readiness to the point where the fire of 12 July 2020 was able to destroy the ship. Moreover, he failed to exercise effective oversight and lacked situational awareness of several substandard practices and conditions. [4-46, 55, 60, 62-80, 95, 96, 244-449, 478-584, 1039-1054]

68. The CO, Executive Officer (XO), (b) (6), and Command Master Chief (CMC), (b) (6), were negligent in providing adequate oversight over duty section composition, development of individual duty sections across the various departments, and the execution of this program. This negligence resulted in formal and informal arrangements where senior enlisted personnel and officers did not stand duty and engaged in unauthorized duty swaps and relaxed practices, all of which culminated in the creation of a duty section on 12 July 2020 that significantly lacked seniority, experience, and training. The timing of the fire early on a Sunday morning immediately after duty section turnover further exacerbated these factors by placing this inadequately composed duty section as the immediate responders during a vulnerable period of time. [4, 540-582, 585]

69. Ship's leadership, Southwest Regional Maintenance Center (SWRMC), PHIBRON-5, and CNSP all should have recognized and addressed BONHOMME RICHARD's documented substandard firefighting performance on multiple shipboard fire drills. Since returning stateside in 2018 and across multiple leadership changes, BONHOMME RICHARD repeatedly failed to put agent on the seat of the fire within the requisite time over the course of many drills. In October 2018, Ship's Force not only failed the fire drill during the Readiness Evaluation Three (READ E-3) event, but they also exceeded the standard time to apply agent to the seat of the fire during their 8010 Manual Chapter 12 A+30 and A+180 fire drills. The inaction by the various

commands providing administrative and operational oversight of the ship despite a well-documented pattern of substandard performance demonstrates the division of responsibility amongst these organizations was ineffective. [478-506]

70. BONHOMME RICHARD leadership was not sufficiently engaged in Damage Control (DC) training. Damage Control Training Team (DCTT) training evolutions rarely included Senior Leadership involvement, with minimal participation by the Damage Control Assistant (DCA), (b) (6), Chief Engineer (CHENG), (b) (6), and XO. When the Assistant Damage Control Assistant (ADCA), (b) (6), voiced concerns regarding the quality of DC drills, neither the CHENG nor the DCA took sufficient action to resolve identified problems. This lack of action by both senior officers constituted an abdication of their responsibilities as DC leaders. [507-534]

71. BONHOMME RICHARD improperly emphasized physical observation of a casualty prior to announcing the casualty over the 1 Main Circuit (MC) along with other practices that did not prepare the crew for an actual event. This flawed training approach contributed to Ship's Force failure on 12 July 2020 to rapidly announce the casualty over the 1MC. The delayed announcement of the casualty, combined with the smoke and heat emanating from Lower Vehicle Stowage Area (Lower V), contributed to a scenario which was beyond the capability for the ship's initial responders. [4-46]

72. BONHOMME RICHARD training and drills lacked sufficient variety and rigor to prepare the crew for a fire of almost any magnitude. On the day of the fire, this lack of training was apparent in Ship's Force inability to rapidly don DC gear, establish effective fire and smoke boundaries, proper electrical isolation, and maintain communications between the scene, locker, and DC Central. [516, 518, 519, 526, 531]

73. Throughout the availability, and with limited exception, Ship's Force did not train to effectively integrate with Federal Fire Department (FEDFIRE) in the event of a casualty. The primary focus of the ship when it came to drills was to prepare for a post-availability environment. This directly contributed to the vast majority of drill packages never referencing or practicing the type of integration required in the 8010 Manual. Because they did not practice integration, Ship's Force lacked muscle memory and the tools and knowledge to effectively amalgamate with FEDFIRE. Although the 8010 Manual Chapter 12 drills cite to the Fire Response Plan (FRP) and may have resulted in some FEDFIRE integration training, the frequency was insufficient given the longevity of the availability. By failing to train for an integrated environment, Ship's Force lost the opportunity to employ this skill when it was most needed. [479-491, 503, 511, 871]

74. BONHOMME RICHARD's failure to consistently require emergency egress and Emergency Escape Breathing Devices (EEBD) training jeopardized the safety of Sailors as they attempted to clear berthings and evacuate on 12 July 2020. During the casualty, at least one

Sailor passed out trying to evacuate the ship, demonstrating the importance of required egress training, practices, and use of EEBDs. [66, 67, 538]

75. Drills did not simulate use of Aqueous Film Forming Foam (AFFF) throughout the entire availability, failing to prepare the crew to activate AFFF in the event of a fire. The Command Duty Officer (CDO), (b) (6), Engineering Duty Officer (EDO), (b) (6), and DC personnel all had a different understanding of the system's status, with few possessing knowledge of how to operate the system. Because there was little common understanding among BONHOMME RICHARD's crew regarding the AFFF system, there was little chance they would have been able to effectively employ it on 12 July 2020. [45, 68, 378, 380-383, 386-393, 518]

76. The AFFF system contained agent and was available for use on the morning of 12 July 2020; however, poor maintenance and watchstanding practices left the system in a significantly degraded readiness state that was not understood by nearly all Ship's Force. Moreover, the required checks to verify the system was online were falsely certified, which further confused Ship's Force on the availability of AFFF. While this opinion aligns with the Naval Sea Systems Command (NAVSEA) Failure Review Board (FRB) that AFFF Stations 3 and 4 were online at the time of the fire, the NAVSEA FRB did not address these maintenance discrepancies. All push-buttons for AFFF Stations 3 and 4 were documented as functional following the completed maintenance checks in April 2020, but only some push-buttons were actually online and able to activate the system to apply agent to portions of Lower V and Upper Vehicle Stowage Area (Upper V). On 12 July 2020, it would have been possible to manually realign the system to initiate space sprinkling to the entire space to contain the fire, had there been knowledgeable operators and an adequately trained crew. However, there was no clear understanding by the duty section regarding which buttons functioned or which portions of the ship had coverage, and the duty section lacked the knowledge to realign the system. The engineering department leadership should have recognized the AFFF system limitations and generated a Temporary Standing Order (TSO), as well as the associated required training for AFFF operation in an abnormal condition. These failures all contributed to the crew's inability to effectively combat the casualty the morning of 12 July 2020. [45, 68, 332-335, 341, 378, 380-383, 386-393, 518]

77. Due to a combination of inadequate maintenance planning, insufficient oversight, and lack of integrity, quarterly AFFF maintenance on Stations 3 and 4 was falsely certified as complete prior to the fire. The BONHOMME RICHARD DC organization felt pressure to restore the system in time for a fuel onload and focused primarily on the system's functionality in the main engine rooms. As a result, numerous push-buttons and system control stations, including those in DC Central, were not operable, but the system was nevertheless accounted for as fully operational in the maintenance accountability system, with known discrepancies unreported up the chain of command beyond the Repair Division Leading Petty Officer (LPO), (b) (6), and Repair Division Leading Chief Petty Officer (LCPO), (b) (6), leading the maintenance. [332, 340, 341, 344-356, 360-371]

78. Active Damage Control Repair Stations (DCRS) were not consistently maintained or trained in, resulting in an unclear status by the duty section and contributing to the ship's poor safety posture. Discrepancies between DC Logs and general crew awareness of active DCRSs confused and inhibited the firefighting effort on the morning of 12 July 2021. The DCRSs that were actively maintained did not meet the requirements of the 8010 Manual but had been approved by the Fire Safety Council (FSC). [31, 424-431]

79. The DCA failed to effectively manage ER04 and ER09. The extensive amount of firefighting equipment remaining in Inactive Equipment Maintenance (IEM) as well as the unacceptable manner AFFF maintenance was conducted were the result of a DC organization left to a junior chief and an under-experienced group of Damage Controlmen. The DCA did not recognize this risk and failed to take meaningful action to mitigate these issues. [294, 296, 298, 300, 307, 308, 313-316, 322-328, 339, 344-356, 359, 365, 378]

80. There was no effective conscious risk decision-making by Ship's Force or the FSC associated with taking a fire hose offline to support a cofferdam. This decision was not documented, and Ship's Force lacked awareness of the configuration, which directly contributed to their inability to put agent on the fire in the first three hours. [38, Appendix E: BONHOMME RICHARD FSC Minutes]

81. The documented case of a cut hose located at Upper V in May 2020 should have heightened the crew's awareness of the need to frequently inspect installed DC equipment. Although this particular instance was corrected, Ship's Force did not routinely walk spaces or take other consistent measures to inspect and maintain firefighting equipment. Moreover, if done correctly, the daily drills conducted by Ship's Force should have helped identify and address failed or missing installed firefighting systems. [313-329, 531]

82. The BONHOMME RICHARD CO, XO, CMC, and Department Heads did not effectively ensure the readiness and material condition of the spaces under their cognizance. Contributing to this, both the Lead Maintenance Activity (LMA) and several of the ship's Department Heads misunderstood BONHOMME RICHARD's absolute responsibility and ownership over the material condition of the ship's spaces, regardless of the maintenance work being conducted. The LMA and BONHOMME RICHARD erroneously thought space ownership was transferred to the LMA for work and back to Ship's Force after completion within a space after formal turnover occurred. BONHOMME RICHARD leadership's lack of ownership and responsibility for the ship and its physical spaces throughout the phases of the availability directly led to the poor material condition in Lower V and Upper V on the morning of 12 July 2020, which hastened the spread of the fire and impeded efforts to attack it. [260-264, 275, 277, 449]

83. The ship's Maintenance Material Management (3M) execution and oversight was deficient and directly contributed to the poor fire safety posture. These deficiencies are the result of the XO's failure to properly discharge his responsibilities for managing and executing the ship's 3M program. [318-320]

84. Engineering leadership did not appreciate the impact of equipment and electrical power redundancy on casualty response. Allowing the ship to remain without a backup source of power, from undocking until the day of the fire, rendered the ship entirely reliant on shore power to combat any casualty. Engineering Logs, reviewed up through CHENG, consistently showed two fire pumps online from a single shore power source, illustrating the entire department had awareness of this risk. Guidance on system alignments that are designed to ensure equipment redundancy should have been established by CHENG to maximize the ability to combat any casualty. [79, 80, 93, 288-312]

85. The degraded readiness status of the ship's DC Central prevented the EDO from establishing a centralized response in the early stages of the fire, which directly contributed to the crew's inability to organize and combat the casualty. This contributed to the crew's challenges operating the 1MC from DC Central to communicate throughout the ship on the morning of the fire. On 12 July 2020, this caused significant delays calling away the fire as well as delays in communications during the initial response. The awareness of these degradations in DC Central, which also included the inability to remotely activate the pushbuttons for AFFF, are illustrative of a substandard general fire response readiness posture on BONHOMME RICHARD. [9, 16, 21, 355, 364, 367, 409]

86. The Deck Department Head and LCPO failed to exercise control over the storage of materials in both Upper V and Lower V. Both individuals stated that NASSCO owned the spaces while acknowledging the ship stored large quantities of material in the space. They were not proactive in monitoring or preventing accumulation of combustible material. [262-264, 268-270, 275-279]

87. BONHOMME RICHARD's crew was accustomed to poor storage practices, which eroded standards and prevented any effective enforcement. While Sailors of all ranks noted the presence of barrels of flammable Hazardous Materials (HAZMAT) stored in Upper V the week prior to the fire, no Sailor took action to ensure proper stowage. While a zone inspection program existed and occurred periodically, it was ineffective in ensuring safe storage of material. [262-264, 266, 268-270, 275-282, 441-444]

88. The CHENG delegated approval authority, without authorization from the CO, of the in port engineering department watchbill to the Engineering Department LCPO, (b) (6). This delegation resulted in inadequate oversight over the watchbill, as exemplified by the failure to use Relational Administrative Data Management system (R-ADM) for the construction and dissemination of the watchbill. [555, 558, 559, 561, 571-574, 579]

89. The CHENG was ineffective in managing the DC organization on BONHOMME RICHARD. He was disengaged from the day-to-day of DC operations and allowed friction between him and DCA to bleed down to the division level. This resulted in a lack of oversight by the CHENG over DC training, drilling, and maintenance. [81, 294, 296, 298, 300, 307, 308, 313-316, 322-328, 339, 344-356, 359, 365, 378, 442, 444, 477, 507, 523, 524]

90. As a matter of routine practice, engineering department did not communicate the status of ship systems to departmental personnel, duty section personnel, or BONHOMME RICHARD leadership, which contributed to the crew's ignorance of ship systems. [378-386, 390, 391]

91. Ship's Force, NASSCO, and SWRMC failed to question the presence of significant quantities of combustible material in various spaces throughout the ship during required fire safety walkthroughs, illustrating a lack of vigilance. Additionally, this lack of vigilance was demonstrated by the significant number of watchstanders, contractors, and other BONHOMME RICHARD Project Team (PT) personnel that frequently transited and used these spaces without addressing the combustible material. The presence of the below items, without any mitigation or action to address risk accumulation, directly contributed to the magnitude and severity of the fire:

- a. In Lower V, the mass storage of materials in tri-wall boxes and fueled vehicles.
- b. In Upper V, the storage of pallets of oil drums, gas cylinders, and a large quantity of Ship's Force combustible material.
- c. The storage of large amounts of material by NASSCO, including pallets of scaffolding, directly impeded firefighter access to Lower V.
- d. In medical spaces, horizontal storage of dozens of oxygen cylinders on a deck (vice in installed brackets) due to ongoing work.

[261, 266-268, 270, 273, 275-277, 439-441, 445, 448]

92. The large quantity of lines and leads fouling accesses throughout the ship would have made setting boundaries difficult given that Ship's Force lacked the requisite training to set boundaries using industrial quick-disconnects. Although SWRMC provided training on quick-disconnects at the start of the availability, both BONHOMME RICHARD and SWRMC failed to recognize that the frequency of crew turnover and length of the availability resulted in large amounts of Ship's Force never receiving this training by the time of the fire. Contributing to this, drills did not adequately train to the ship's configuration during the availability. These failures directly led to the crew not setting boundaries on the morning of 12 July 2020. [40, 483, 484, 516-518, 538, 539]

93. Ship's Force reliance on communication methods other than primary installed systems detracted from the ability to fight the fire in a coordinated manner. Critical DC communication systems were degraded or inoperable (i.e., Hierarchical Yet Dynamically Reprogrammable Architecture (HYDRA) or 1MC), which led Ship's Force to grow accustomed to communicating using personal cell phones or point-to-point communications rather than installed ship systems. The CO lacked awareness of these degradations and poor communication practices, which impeded his ability to address these deficiencies but also illustrate that the CO was disconnected from the routine practices of how Ship's Force communicated. [8, 9, 16, 405-415]

94. BONHOMME RICHARD's IET turnover process failed to ensure that IET members were aware of, and in some circumstances qualified for, the roles they held on 12 July 2020. The ship's duty section turnover process was flawed in assigning multiple members of the IET to other watchstanding positions. Sailors were neither aware of nor qualified for their IET roles on 12 July 2020, which directly contributed to the inadequate and uncoordinated response during the initial three hours of the fire. Allowing the off-going IET to depart on 12 July 2020 before validating the oncoming team had mustered aboard should not have been acceptable. These deficiencies were exacerbated by engineering department's practice of assigning IET personnel to other watch stations. [4, 555-584]

95. BONHOMME RICHARD's watchstander liberty practice for CDO-qualified officers left a junior CDO lacking requisite experience without forceful backup or support as he attempted to handle a major casualty on 12 July 2020, his first duty day as CDO. The BONHOMME RICHARD CO's lack of awareness of this practice demonstrates a failure to effectively oversee the CDO program. Because the presence of the other three qualified CDOs in Duty Section 6 was not required, each of whom had significantly more experience than CDO, this decreased the number of qualified personnel on that morning and precluded a more effective casualty response. [542-561]

96. The record keeping practices by Ship's Force did not conform to expected standards. While many logs and other records were lost to the fire, those that did survive rarely reflected an accurate sight picture of the ship's configuration, especially for DC systems. The poor record keeping practices further contributed to the numerous challenges experienced by Ship's Force during initial firefighting efforts. Moreover, these poor record keeping practices made it difficult throughout the course of this investigation to determine the ship's configuration and available systems on the day of the fire. [286-431]

97. The crew's readiness gradually degraded as BONHOMME RICHARD entered the availability in November 2018. Under the leadership of the previous CO, (b) (6), this degradation was exacerbated by relaxed practices, to include four-day work weeks, CDO boards held without CO or XO participation, and the significant reduction of zone inspections and elimination of ER09 as a stand-alone work center. [544, 547, 548]

98. The CO, XO, CHENG, and DCA had an insufficient understanding of COMUSFLTFORCOMINST 4790.3 and 8010 Manual requirements, which rendered BONHOMME RICHARD vulnerable given the leaders were ill-equipped to challenge prime contractor employees and SWRMC project team members on decisions related to fire safety. Because of this, BONHOMME RICHARD leadership was incapable of understanding the true impact of altering, securing, or removing installed firefighting systems aboard. [466, 467, 476]

99. BONHOMME RICHARD Sailors who stood duty as Duty Fire Marshal were not familiar with the industrial firefighting updates to NSTM 555. NSTM guidance on industrial firefighting

is neither well understood nor practiced, which contributed to Ship's Force lack of effective firefighting strategy on 12 July 2020. [4-46, 309, 391, 573, 1155]

100. Perceived scheduling pressure associated with the upcoming loss of the berthing barge drove the CO to move Sailors back aboard BONHOMME RICHARD in a non-formalized manner despite the poor habitability condition of the ship. Although the barge was scheduled to support an upcoming Nuclear Aircraft Carrier (CVN) availability, there was flexibility but BONHOMME RICHARD failed to explore an extension or develop other courses of action. As a result, the CO's push to move off the barge led to personnel moving aboard the weekend prior to the fire with a significant number of services unavailable throughout the ship. [250, 253, 404, 655-668]

101. There is no official Navy policy or lower-level guidance detailing requirements for reestablishing habitability of a ship with a safe working environment after a ship has been previously declared uninhabitable following an availability. Nonetheless, the CO, XO, and CMC should have taken greater action to ensure the ship and its systems were ready for crew move aboard. They neglected to properly plan prior to commencing crew move aboard, which contributed to the confused personnel accountability and combustible storage issues the morning of the fire. [249-254, 655-668]

102. The failure to adjust availability milestones and the project completion date despite clear evidence that the LMA would not execute contractual obligations on time drove action to meet subjective deadlines, which arbitrarily increased risk. Overly optimistic milestone dates for the availability, rather than realistic expected completion dates, drove decisions regarding fuel onload and moving BONHOMME RICHARD's crew off the barge. These shifting dates also pressured the maintenance team to sequence milestones out of the standard COMUSFLTFORCOMINST 4790.3 order, which introduced additional risk. Aggravating matters, SWRMC's maintenance professionals normalized acceptance of these associated risks, which contributed to BONHOMME RICHARD's failure to recognize the danger. [244-254, 655-668]

103. The shift from NASSCO to Naval Base San Diego (NBSD) Pier 2 in December 2019 significantly changed the fire safety posture of the ship, but BONHOMME RICHARD, SWRMC, NASSCO, and NBSD took little action to account for this shift. The SWRMC CO, CAPT David Hart, and BONHOMME RICHARD CO never took action to update the applicable Memorandums of Agreement (MOA) between the ship and SWRMC to address the pier shifts, and no one from Ship's Force, SWRMC, NASSCO, or NBSD took action to prepare the ship for the many differences between NASSCO and Pier 2, leaving Ship's Force unaware of their new environment. [245, 432-438, 536, 537, Appendix E: BONHOMME RICHARD FSC Minutes]

104. Across BONHOMME RICHARD leadership, the acceptance that fire stations in IEM could still be employed in case of an emergency demonstrates a normalization of deviation from standards by the ship's DC leadership. While the BONHOMME RICHARD CO was reporting

via Docking Phased Maintenance Availability (DPMA) Situational Reports (SITREPS) that the firemain system restoration work had been completed on 1 April 2020, the crew had removed only 12.5 percent of the fire stations from IEM. This demonstrates a willingness to accept significant risk despite having a major system in an unknown readiness condition to fight a fire. [293, 313-315, 317, 328]

105. Ship's Force, NASSCO, and SWRMC consistently failed to recognize and address fire safety risks in the vehicle spaces that accumulated throughout the availability. Without full AFFF coverage, there was no mitigation associated with maintaining fueled vehicles in Lower V. Further, the scaffolding in Upper V that blocked the installed sprinkling system was significantly beyond what was required for ongoing work and limited the utility of the system. There were multiple opportunities for Ship's Force, NASSCO, and SWRMC to reassess risk levels and raise concerns in advance of fuel onload and crew move aboard, but these risks and concerns were never identified. [258, 271, 276, 277, 402, 446, 453, 462, 464, 472, 699]

106. While at NBSD, BONHOMME RICHARD's failure to maintain a third brow or consider any mitigation measures, as required under 8010 Manual paragraph 10.1.4, limited available egress and access points during firefighting efforts. Although this requirement was discussed by the FSC and subsequently waived, there were no discussions on how to mitigate the risk of having two brows. The FSC and Ship's Force should have considered the potential impact of only having two brows on the ship's fire safety posture. The lack of a third brow proved to be a significant factor limiting egress and access to the ship on the morning of the fire. [65, 101, 173-175, 432-438]

PHIBRON

107. The PHIBRON was the operational commander directly over BONHOMME RICHARD. The PHIBRON provided a level of oversight of the ship to monitor the crew's training and progress of the availability, consistent with operational tasking in the designated role and responsibilities from ESG-3. Because the delegated duties from ESG-3 were operational and the ship was still in the maintenance phase, the PHIBRON had no written requirement to conduct the same level of manning, training and equipment status oversight as would be expected from the assigned ADCON commander directly over the ship, in this case CNSP. Within the bounds of the interviews conducted, though not codified in any formal documentation, every interviewee stated the PHIBRON was conducting oversight. The extent of that oversight and whether it satisfied the expectations that would flow from the administrative chain of command was less clear. [214-218, 337-339, 592-601, 603, 611-613]

108. When the PHIBRON conducted oversight of BONHOMME RICHARD's availability, it did not consider whether it was carrying out an OPCON or ADCON function. The only consistent and written guidance provided to PHIBRON regarding the expected level of oversight to be provided to the BONHOMME RICHARD came from ESG-3, the OPCON ISIC. This left PHIBRON with clear commanders guidance to execute the oversight required of an operational

commander throughout BONHOMME RICHARD's availability. Despite being the immediate superior in command, CNSP did not exercise their direct ADCON responsibility for oversight of BONHOMME RICHARD's availability nor did they provide codified direction to PHIBRON to act on its behalf. [214-218, 592-601, 603, 611-618, 638, 639]

109. PHIBRON's role as the operational commander for BONHOMME RICHARD when the ship is in an availability is not well defined, but the periodic presence of Commander, Amphibious Squadron FIVE's (PHIBRON-5's) CSO and N4 walking the ship, inspecting spaces, and identifying issues caused Ship's Force to correct some deficiencies. However, the PHIBRON lacked a full understanding of the 8010 Manual fire safety requirements when conducting their oversight of the ship. This directly led to the PHIBRON accepting minimal systems online to comply with COMUSFLTFORCOMINST 4790.3 standards instead of requiring the restoration of firefighting systems to protect all fuel system components and spaces in accordance with the 8010 Manual when they brought fuel on the ship in April 2020. While the PHIBRON was not attempting to, nor required to, oversee BONHOMME RICHARD's overall fire safety posture throughout the various phases of the availability, the PHIBRON's concurrence with decisions like moving forward with fuel onload constituted a missed opportunity for forceful backup to the project team. Mitigating this, the accurate status of the AFFF system just before fuel onboard was not provided to the PHIBRON representatives. Although the PHIBRON executed an active oversight role as the operational commander, they did not do enough to identify and course correct the numerous deficiencies of the BONHOMME RICHARD. [215, 336-339, 592-613]

110. The roles and responsibilities to execute ADCON duties for a major command amphibious assault ship falling under CNSP by the OPNAVINST 5400.45 are not well codified. This ambiguity coupled with the absence of written guidance from CNSP to the PHIBRONs directing delegation of ADCON duties contributed to a lack of proper oversight for the ship. Furthermore, because the PHIBRON was executing a significant level of oversight beyond what is expected of an operational commander, this provided a sense that BONHOMME RICHARD was receiving the full level of supervision that is expected of a ship that has an operational and administrative commander. The success of CNSP, PHIBRON, and the BONHOMME RICHARD command relationships are dependent on personalities and subject to change, further demonstrating the need to delineate a written chain of command with assigned duties. Once the command and control is formalized, this codification may further illuminate manning deficiencies for specified roles within these organizations. [593-600, 614-618, 637-639]

ESG-3

111. ESG-3 was the operational commander two echelons above BONHOMME RICHARD and they provided the correct level of oversight of the ship consistent with their designated role and responsibilities from Commander, U.S. THIRD Fleet (C3F) and the Required Operational Capabilities and Projected Operational Environment for Expeditionary Strike Group Staffs (ROC/POE). [216, 217, 640, 642, 645, 647]

112. ESG-3's role as an operational commander for BONHOMME RICHARD while the ship is in an availability is not well defined. Because the ship was still in the maintenance phase, the level of engagement with BONHOMME RICHARD coupled with the delegated duties to the subordinate PHIBRON satisfied their responsibilities. [598, 640-642, 645, 647]

CNSP

113. In accordance with the OPNAVINST 5400.45, CNSP is the direct ADCON commander of BONHOMME RICHARD responsible for oversight, which includes all manning, training, and equipping requirements as well as supervising the availability. CNSP is also the direct ADCON commander of PHIBRON-5, but the Standard Navy Distribution List (SNDL) does not place BONHOMME RICHARD as a subordinate underneath the PHIBRON. Although there is a practice for the PHIBRON to provide some of the ADCON oversight of the BONHOMME RICHARD on behalf of CNSP, the lack of formalized relationships caused significant confusion on the oversight and responsibility roles. If the ADCON command and control was documented, it would have resulted in greater and consistent oversight of BONHOMME RICHARD. [214-216, 593-600]

114. There is significant confusion regarding the oversight responsibility at all levels for BONHOMME RICHARD through the different phases of the ship's cycle. Despite considerable agreement that PHIBRON-5 serves as the direct ADCON ISIC to BONHOMME RICHARD, there is no written designation of that role. Additionally, CNSP has not adequately outlined the responsibilities PHIBRON-5 must execute on its behalf as the ADCON ISIC to BONHOMME RICHARD. Further complicating matters, ESG-3, an operational command, has been executing some administrative oversight, to include tracking the availability, advising on major decisions, and advocating for the ship to CNSP. This role derives generally from the ROC/POE; however, it has largely been driven by personalities and priorities of commanders and is not clearly defined. Moreover, the oversight responsibilities for BONHOMME RICHARD's availability are not well delineated between PHIBRON and ESG-3. This confusion around responsibility for BONHOMME RICHARD's availability contributed to a lack of effective oversight of the ship. [214-217, 593-605, 611-613, 615-618, 639-642, 645-647]

115. There is limited TYCOM and ISIC oversight of fire safety risk accumulation. CNSP has given ISICs no specific guidance regarding how fire safety oversight during an availability should be carried out. In particular, CNSP N7 specifically stops tracking DC readiness for a ship in an availability and CNSP N43 takes no action to account for this lack of oversight. Further, CNSP N43 monitors progress of work items associated with the fire posture of the ship for the purpose of how they may impact the completion of the availability, but not with a focus on risk to the ship and crew during the availability execution. Thus, there is no organization effectively carrying out this oversight role. [593-600, 614-639]

116. Before the fire, CNSP allowed a fire safety framework to exist where ship COs experience significant pressure to meet time and schedule milestones with little training or support to ensure

safety requirements are maintained. As result, COs knowingly or unknowingly accumulate significant risk of a major fire beyond what is acceptable compared to Navy policy. [253, 254, 592-600, 614-639, 694-707]

117. Despite serving as leaders of the maintenance team, CNSP Port Engineers are not on the FSC, and all fire safety decisions are made at the hands of the FSC. The lack of CNSP Port Engineer participation limits CNSP's visibility on fire safety and removes a crucial opportunity for CNSP to mitigate risk accumulation. [593-600, 628, 629, 631-633]

PACFLT

118. (b) (5)

B. NAVSEA, CNRMC, and SWRMC Oversight and Responsibilities

SWRMC

119. The SWRMC CO has absolute responsibility for the safety, wellbeing, and efficiency of his command. He failed to execute this responsibility by accepting the poor material condition of BONHOMME RICHARD throughout the availability, and in particular from the time it re-positioned to NBSD in December 2019 through 12 July 2020. SWRMC must vigilantly work to support all COs in the mission to sustain the fire safety of their ships in availabilities, but the SWRMC CO failed to recognize this responsibility. The 8010 Manual specifically requires Regional Maintenance Center (RMC) personnel to concur with every fire safety decision through the FSC, which results in the RMC owning fire risk responsibility. This responsibility was also codified in the MOA between BONHOMME RICHARD and SWRMC. The Fire Safety Officer (FSO) and Project Manager (PM), both representing SWRMC, were responsible for implementing the requirements of the 8010 Manual but repeatedly failed to effectively execute this core part of the mission. [220, 435, 450, 669-672, 683, 694-707]

120. SWRMC accepted and fostered a culture of emphasizing costs and scheduling above personnel and ship safety. With the exception of individual ship COs, no one that attended the weekly SWRMC availability update meeting recalled safety issues being brought up for discussion and action, which reflects a lack of focus on safety by SWRMC. The operations department (Code 300), providing availability project management, considers safety the responsibility of Code 106, which represents a lack of prioritization towards fire safety. Structurally separating safety from execution is not only contrary to the 8010 Manual, it further represents how SWRMC systemically relegated fire safety so it would not impact production. [435, 683, 694-707, 739]

121. SWRMC's assumption of some Ship Repair and/or Construction Activities (SRCA) responsibilities under the 8010 Manual included the role of the FSO, which adversely impacted

the efficacy of all stakeholders in managing risk for BONHOMME RICHARD's availability. The LMA, in this case NASSCO, should have had representation at the FSC because the 8010 Manual clearly intends for the entity conducting the majority of the actual work to be involved in fire risk decisions. Although directed by Commander, Navy Region Maintenance Center (CNRMC), the assumption of SRCA responsibilities further concentrated many risk decisions into SWRMC, who lacked an appreciation for their modified role as NSA and SRCA and moved them closer to being a single point of failure. [435, 451, 671-673, 676-683, 694-707]

122. SWRMC failed to fulfill the requirements of Section 1.4.2 of the 8010 Manual, which requires the NSA to ensure implementation of 8010 Manual requirements. SWRMC further accepted responsibility for implementation of requirements during BONHOMME RICHARD's availability when it assigned these responsibilities to the FSO. Throughout the availability neither the FSO nor SWRMC effectively worked toward holding Ship's Force personnel accountable for the actions required in the 8010 Manual. Because the 8010 Manual, section 1.2.4, is only invoked on the ship for SRCA work, the ship in many cases was unaware of the details contained within the 8010 Manual. A lack of understanding of the 8010 Manual requirements by a ship does not absolve the NSA of its responsibility to enforce the 8010 Manual. The position held by the SWRMC CO that the risk for deviations from the 8010 Manual resides solely with a ship's CO demonstrates a lack of understanding of the intent behind the 8010 Manual and the modified position that SWRMC occupied as the NSA and SRCA. [435, 450, 469-471, 669-673, 694-707]

123. SWRMC failed to properly maintain a CDO program and hindered its ability to respond to casualties. This led to significant delays in the SWRMC response on the day of the fire. The senior board member for CDO qualifications was the Senior Watch Officer (SWO), a Senior Chief, and there was no formal training on the expected response during a fire. The radio communication plan relied on the CDO delivering SWRMC radios to a ship during a fire, yet the CDO was permitted to depart NBSD and stay at his or her residence during a duty day. This precludes effective communications from being rapidly established in response to a fire. The poor utilization of their weekend duty personnel rendered SWRMC a non-participant during the crucial first hours of the casualty, as the SWRMC CDO did not arrive and activate the SWRMC Emergency Response Team (ERT) until more than two hours into the casualty. [114, 115, 693, 709]

124. Critical SWRMC employees assigned to availability project teams lacked proper background and experience, further impacting their efficacy to fulfill the mission. As an example, BONHOMME RICHARD's PM had five years of SWRMC experience as a Shipbuilding Specialist and previously served six years in the Navy as a junior Aviation Ordnanceman. She failed to complete any required PM trainings, and despite this minimal experience, she managed a \$300 million availability. [453, 695]

125. SWRMC allowed staffing shortfalls to persist in critical areas, which left SWRMC's Contractor Fire Safety Officer (CFSO) operating without proper management control. By

leaving the government FSO and the Code 106B branch head billets open, SWRMC demonstrated a lack of prioritization toward fire safety, which left the fire safety program without adequate government leadership. Furthermore, the failure to fill empty billets for Code 106B and Government FSO by the Code 106 Department Head, (b) (6), contributed to these oversight failures. [597, 680-682, 698-706]

126. SWRMC utilization of contractors from United Support Services Corporation (USS Inc.) to fill FSO responsibilities was executed without adequately addressing the limitations of contractors vice government employees. The inability to direct the prime contractor (a reserved government function) or formally vote as Chairman of the FSC are key examples of such limitations. As a member of the PT, their status as a contractor was further subjected to the direction of the PM or other government employees, making it unlikely they could effectively act as arbiters of risk decisions. This further contributed to fire risk accumulation on BONHOMME RICHARD. [456-459, 698-701]

127. SWRMC failed to adequately oversee the USS Inc. CFSOs. There was an example of a forged FSO letter of designation for the duties with regard to specific ships, and unqualified individuals conducted FSO qualification boards. The record reflects SWRMC permitted an ineffective FSO qualification program to exist, which failed to support standards for fire safety oversight across the waterfront. [456-459, 698-702]

128. SWRMC did not exercise proper management oversight of the FSOs' execution of safety walkthroughs aboard BONHOMME RICHARD, which contributed to a failure to identify and address fire risk. Additionally, SWRMC did not utilize walkthrough findings to ensure safety during availabilities. The lack of formal government employee review of walkthrough discrepancies and performance trend analysis of discrepancies was contrary to the 8010 Manual, Section 2.4.3, and enabled unsafe operations. Contributing to the safety walkthrough program's ineffectiveness was the lack of attention to Ship's Force, as demonstrated by only 14 of 2,693 contractor noted discrepancies being written against BONHOMME RICHARD Ship's Force. [469-472, 702]

129. The qualification process for SWRMC personnel assigned to the FSC positions failed to ensure that personnel had the requisite skills for making appropriate risk calculation decisions. The BONHOMME RICHARD PM neither had formal training nor completed the proper certification for her position. Moreover, the qualification process for the FSOs within SWRMC is inadequate. The personnel in these positions did not possess the background to appropriately make the weighty decisions entrusted to them, which allowed for significant fire risk accumulation to occur on BONHOMME RICHARD. [453, 456-460]

130. Because the 8010 Manual was not fully applied and executed, the FSC proved deficient in both composition and conduct during BONHOMME RICHARD's availability. SWRMC's misunderstanding that the Project Support Engineer (PSE) was not a required member of the FSC removed the connection between the decisions regarding fire protection and the engineering

department (Code 200), which would have provided technical expertise. More importantly, reducing the FSC meeting to an informal routing of paper vice a substantive discussion requiring a formal vote on issues as required by the 8010 Manual systemically hindered any evaluation of the risk level assumed by FSC decisions. [452, 455, 462, 687, 688, 694, 697, 699, 700]

131. The BONHOMME RICHARD FSC did not consider the cumulative effect of its decisions or assess the overall fire safety posture, which placed the ship in a compromised position. The FSC's actions were often reduced to paper without any discussion between members, which relegated their responsibilities to documenting the ship's condition instead of focusing on the effect on the ship's fire risk and contemplating mitigation measures. As the availability progressed and members of the FSC rotated in and out, the new members did not review the previous FSC minutes, causing them to lack an understanding to the ship's fire risk posture and diminished their ability to mitigate risk to the ship. [336, 424-427, 435, 451-477, 481, 484, 487, 488, 492, 493, 694-707]

132. At one point, SWRMC correctly identified that the FSC was empowered to waive too many requirements at the project level and advocated to push these decisions to a higher level. Although NAVSEA disagreed, SWRMC should have pursued additional courses of action to ensure critical decisions on 8010 Manual requirements were addressed properly. The proposal to create an Executive FSC at the Department Head level may have positively changed behaviors regarding the risk posture accepted in availabilities. [707]

133. BONHOMME RICHARD FSC members lacked an adequate level of experience and seniority to properly identify, mitigate, and communicate fire risk accumulation. The primary CFSSO was a former civilian firefighter with no shipboard experience who also had five years in the Navy prior to separating as an E-4 without any DC background. The PM had no prior Navy maintenance experience. For the 60 FSC meetings, the Ship's Force representative was a second tour LT 14 times, but on six occasions, the sole ship representative was a DC Chief Petty Officer (CPO), which is contrary to the 8010 Manual requirement for the ship to be represented by a commissioned officer. As the entity most responsible for ensuring the FSC is properly constituted, SWRMC's failure to address this issue on multiple occasions represents a significant lapse in meeting their mission. [451-453, 455, 456, 460]

134. The BONHOMME RICHARD FSC authorized deviations from the 8010 Manual requirements without mitigation, and in many instances there was no evidence the FSC even contemplated mitigation. Moreover, the Ship's Force representative consistently failed to notify the BONHOMME RICHARD CO of the FSC's decisions, and the meeting minutes did not capture the FSC's decisions or mitigation actions, leaving the CO unaware of accumulating risks. As the principal Ship's Force representative on the FSC, the DCA lacked a basic understanding of the 8010 Manual, the role of the FSC, and the importance of his role. Because the CO had never read the 8010 Manual and felt that it was SWRMC's role to support his fire safety posture, he negligently relieved himself of the continued responsibility for the safety, well-being, and efficiency of the ship. As the command that is primarily responsible to execute availabilities,

SWRMC should have been more attuned to the CO's ability to lead BONHOMME RICHARD and its crew through this phase. [118, 234, 240, 243, 436, 444, 451-468, 476]

135. The BONHOMME RICHARD FSC, contrary to Section 7.1.1 of the 8010 Manual, authorized ship's permanent firefighting systems to be out of service during periods of time when not necessitated for maintenance. This systemic disregard of the 8010 Manual mandate to keep firefighting systems up as much as practicable demonstrates a lack of understanding of the 8010 Manual's purpose and the scope of the FSC's authority to waive requirements by identifying mitigation actions. This SWRMC standard practice to consistently take down entire firefighting systems without adequate mitigations directly contributed to heightened fire risk. Moreover, this practice illustrates SWRMC's failure as the NSA and SRCA, which directly contributed to the ship's firefighting system configuration on the morning of 12 July 2020. [291-400, 424, 427, 436, 455, 462, 465-467]

136. Since 2018, the 8010 Manual fire drills coordinated through SWRMC have been scripted and not realistic to recent fires that have occurred, directly contributing to the poor readiness posture of BONHOMME RICHARD's crew. These drills provided minimal value to appraise the crew or prepare them for an actual event. The 8010 Manual Chapter 12 and 13 drills are conducted to ensure passing score and not to delay production work, which is contrary to their purpose. [737-742, 746, 748]

137. SWRMC's FRP was not comprehensive, effective, or fully compliant with the requirements of 8010 Manual Chapter 3. SWRMC, as the NSA, was not required to issue an FRP; however, because SWRMC assumed this SRCA duty with little consideration, SWRMC then became responsible for the FRP. Contrary to paragraph 3.2.5 of the 8010 Manual, SWRMC's FRP does not address any strategy for establishing an integrated hose team comprised of Ship's Force, Fire and Emergency Service (F&ES), and mutual aid personnel, which contributed to the integration failures on the morning of 12 July 2020. [708, 883-885, 1013]

138. The SWRMC FRP in use for BONHOMME RICHARD at Pier 2 was incomplete when compared to the 8010 Manual, had not been drilled since the A+30 date, and was not well known by the ship. Despite having been reviewed as adequate during the 2018 and 2020 CNRMC Fleet Maintenance Activity Assessments (FMAA), the FRP is missing several crucial elements required by the 8010 Manual. The MOA with SWRMC requires that the attributes of the SWRMC FRP be included in drill packages for 8010 Manual Chapter 12 and 13 drills conducted aboard the ship, but did not implement all other requirements. [671, 673, 698, 708, 847, 958]

139. SWRMC had not properly addressed the unique circumstances associated with availabilities shifting berths between NBSD and private shipyards on the San Diego waterfront. While the FRP requirements of the 8010 Manual are assigned to the SRCA, which is intended to be the LMA by instruction, it would be inappropriate for a private shipyard to direct the requirements for integration with FEDFIRE and NBSD support. Similarly, SWRMC is limited in its ability to direct 8010 Manual requirements through the FRP for a private shipyard LMA which is not in

the NAVSEA Standard Items (NSI) or contract. Shifting the FRP applicability is not envisioned by the 8010 Manual as written. There is no requirement to conduct an 8010 Manual Chapter 12 drill following a berth shift to exercise or verify the FRP's efficacy. [489, 478, 708, 755, 761]

140. The SWRMC FRP does not address the dynamic nature of an availability, and is therefore unable to account for the various phases of an availability. The SWRMC FRP is a command instruction which, contrary to 8010 Manual section 3.2.16, does not differentiate between ever changing configurations of the ship nor account for the fire risk decisions by the FSC. If SWRMC had properly prepared the FRP by tailoring and drilling to the challenges of availabilities like BONHOMME RICHARD's availability, initial firefighting efforts would have been more effective. [708, 712-715, 733, 737-743, 748]

141. The SWRMC interoperability radio communication plan proved inadequate and was not effective on 12 July 2020. SWRMC never properly implemented 8010 Manual Section 3.2.22 requirements and relied on physically transferring radios from SWRMC to the scene of the fire. Additionally, NAVSEA did not issue a formal waiver for this requirement in the 8010 Manual and the FSC did not adjudicate the requirement as a local deviation. [709-711, 795]

142. The use of aramid lines throughout the ship, contrary to 8010 Manual 10.4.4 technical requirements, created a risk to first responders when the aramid lines melted and fell during the fire, also creating access challenges. This improper use of aramid lines was reviewed by CNRMC and NAVSEA after the issue was raised by a local trade organization, prompting the Technical Warrant Holder (TWH) to assert such use was noncompliant with the 8010 Manual and NSI, which represented a direct hazard to responding firefighters. Despite the NAVSEA TWH's guidance on the use of aramid lines, CNRMC disregarded this input and instructed SWRMC to continue with the use of aramid lines on all surface ships, to include BONHOMME RICHARD. [193, 763, 764, 795, 1115]

143. The preparation work necessary for the ship to execute fuel onload was not properly assessed or verified, and there was a failure to obtain the FSC's concurrence as required by the 8010 Manual. Ship's Force, and in particular the CO, XO, CHENG, and DCA, should have used this opportunity to assess the level of DC readiness and verify all required systems were fully operational. Similarly, fuel onload should have prompted members of the FSC to review the ship's fire safety posture. The minimal efforts by Ship's Force and the FSC members regarding fuel onload in the context of fire safety and ship's systems are an exemplar of ineffective decision making and maintenance practices, which culminated in the ship certifying a degraded AFFF system prior to fuel onload. [332, 336, 340, 341, 352, 353, 359-367, 378]

144. The current execution of maintenance functions by SWRMC, and the oversight of those activities by NAVSEA and CNRMC, allows some critical functions to operate below the visibility of the RMC COs. The current organizational structure was modified after 2000 to consolidate maintenance work solely under RMCs, but that work was previously spread across different organizations. Further realignment occurred when CNRMC was stood up in 2010 and

managerial control of operations was shifted from NAVSEA 04 to CNRMC. The impacts and efficacy of this consolidation was reviewed by the Navy as part of the Balisle report. Although not causal to this incident, understanding the history of this consolidation and the benefits and trade-offs that accompanied that shift may be useful. There are no instructions establishing mission, functions, and tasks for RMC or CNRMC either, which demonstrates the informal nature of these organizations. [672, 674]

NASSCO

145. As the LMA for this availability, NASSCO fulfilled NSI fire safety requirements to the standards established by SWRMC. While some deviations from the NSIs were discovered during this investigation, with the lack of a backup generator being the most significant, these deviations were largely unknown to SWRMC employees until noted by the investigation team. Further, NASSCO provided documentation to substantiate meeting requirements, to include fire safety walkthroughs, and SWRMC personnel did not identify significant compliance issues during interviews. While the storage of contractor material throughout the ship contributed to the magnitude of fire, there is no indication that any of this storage deviated from the general practices of the ship and SWRMC or contrary to direction. [244, 245, 251, 259, 260, 264, 265, 288-294, 432, 471]

CNRMC

146. CNRMC, as the immediate commander over SWRMC, is responsible for the satisfactory accomplishment of the mission assigned to all RMCs across the Navy. As part of CNRMC's oversight responsibilities, CNRMC is required to conduct safety audits, assess trends, and coordinate on fire drills, but their safety code is not sufficiently manned to accomplish their oversight role and meet these requirements. CNRMC's minimal manning in their safety code contributed towards SWRMC's ineffective execution of their fire safety mission. CNRMC's failure to effectively oversee the SWRMC safety program contributed to many of the poor practices that occurred throughout the BONHOMME RICHARD availability. [219, 468, 751, 754, 765-768, 1140, 1141]

147. CNRMC's 8010 Manual implementation, accomplished at the NAVSEA Commander's direction in 2014, focused on the actions that could be accomplished contractually through NSI. In the years since the 8010 Manual was issued, reviews have focused on contractor actions rather than providing guidance or validation of actions to be performed by RMCs or Ship's Force. By focusing solely on the responsibilities of the contractor in 8010 Manual reviews, CNRMC did not recognize the lack of compliance or enforcement toward the actions of the RMCs or ships. [756, 761, 773-777, 1116-1124, 1134, 1144, 1146-1148, 1150]

148. CNRMC identified deficiencies in 8010 Manual compliance at multiple RMCs but failed to bring subordinate organizations into compliance. The CNRMC Safety Director knew radios used at RMCs were not compliant and considered it a longstanding issue, which he discussed

with Commander, Navy Installations Command (CNIC). Despite knowing there was a deficiency, the CNRMC Safety Director did not document this issue on the FMAAs conducted by the SWRMC fire safety program in 2018 or 2020. This exemplifies a normalization of deviations. [434, 711, 1129]

149. Contrary to the contents of the 8010 Manual, CNRMC did not assess this document as a technical manual, which contributed to SWRMC's poor adherence to the various requirements therein. [697, 699, 700, 702, 762]

150. Resource sponsorship of fire safety is spread across multiple budget submitting offices, which impacts shipboard fire safety in an availability. This contributed to the incomplete execution of the 8010 Manual at the RMCs. CNRMC failed to effectively advocate for the full and consistent funding of FSOs across all RMCs. Contributing to this, CNRMC did not standardize FSO programs across the RMCs, resulting in disparate funding requirements. [222, 683-689]

151. CNRMC audits have created a false confidence in RMC compliance with the 8010 Manual. Audits of RMCs (other than those located within Naval Shipyards) are conducted with vastly fewer resources than those performed by NAVSEA 04. The FMAAs performed by CNRMC are completed with 1 – 2 personnel, and they are required to examine occupational health and safety and environmental safety in addition to fire safety. The lack of deficiencies noted during FMAAs have created a misleading perception that RMCs are compliant with the 8010 Manual despite SWRMC's consistent failure to meet multiple requirements. [751, 754, 1138, 1140-1142, 1144]

152. CNRMC's structure as an echelon 3 command subordinate to NAVSEA with only 48 government billets is not effective in executing the required oversight of the RMCs. The current structure tasks CNRMC with responsibilities for surface ship maintenance without providing sufficient authority or resources to carry out its mission. [221, 751, 753, 754]

153. CNRMC's removal of leadership billets from Norfolk, Virginia has resulted in a lack of attention to the day-to-day operations of CNRMC. When coupled with the dual-hatting of NAVSEA 21 and CNRMC in a single flag officer, the collocation of leadership with NAVSEA, away from the CNRMC staff, leaves a single GS-15 in Norfolk with authorities and capabilities unmatched to the responsibilities required of the role. The decision to move the CNRMC Executive Director (ED) to Washington D.C. consolidated all executive leadership away from CNRMC's Norfolk headquarters. [221, 752-754]

154. Low probability events with catastrophic results require independent oversight that ensures long-term safety is not compromised at the cost of achieving short-term execution goals. Although there are multiple ways to provide oversight of the RMCs, Navy Regional Maintenance Office (NRMO) proved to be an effective organization that maintained a strategic view of the NAVSEA mission with a surgical approach towards identifying and addressing particular issues that greatly enhanced fire safety. Despite a successful track record, the efficacy

and value of NRMO is not widely recognized by senior leaders. However, the consequence of disbanding NRMO was that they were the only organization with a technical focus tasked with independently ensuring organizational compliance. NRMO proved crucial at advancing several 8010 Manual deficiencies and driving completion. In NRMO's absence, no organization continued pushing for similar improvements. [763-772]

155. When the transition from Multi-Ship Multi Option (MSMO) to Multi-Award Contract/Multi-Order (MAC-MO) contracting occurred, NAVSEA, CNRMC, or SWRMC did not consider the effect this would have on existing fire safety policy. This shift resulted in LMAs being assigned far later in the contracting process and inhibited the ability of NSAs to address unplanned for fire safety issues beyond the strict terms of the contract. [781-786]

NAVSEA

156. Ownership of the 8010 Manual has distanced TWHs from the requirements generated, reducing the connection between the TWH and implementation. While NAVSEA 04 possesses ownership of the 8010 Manual, it contains requirements generated by, and under the cognizance of, several other stakeholders both internal and external to NAVSEA. This ownership bifurcation of the 8010 Manual has impeded NAVSEA from being able to fully recognize deviations and other challenges associated with the RMCs meeting these requirements. Moreover, given that NAVSEA assesses the 8010 Manual is a technical document, better alignment with the TWHs at Headquarters (HQ) would ensure greater adherence to meeting requirements. [795, 796, 1115, 1130-1135]

157. By allowing the FSC to approve deviations without any higher approval authority, NAVSEA has removed the opportunity for appropriate adjudication of risk. SWRMC formally raised concerns regarding this issue to NAVSEA, which showed SWRMC recognized risk accumulation was being adjudicated at too low of a level. NAVSEA's stated expectation that they would receive waivers for deviations directly contradicted guidance formally provided to SWRMC. NAVSEA missed opportunities to formalize a process for 8010 Manual deviations, which would have raised visibility on risk accumulation issues throughout the RMCs. Contributing to this, NAVSEA 05 TWHs associated with the 8010 Manual acknowledge deviations to technical requirements should be raised to them for adjudication. However, none of the TWHs could provide any deviation requests associated with an availability executed by a private yard with an RMC acting as the NSA and coming to them for adjudication. [707, 780, 1133]

158. NAVSEA 02 is responsible for inclusion of all 8010 Manual requirements in the solicitation for the contracts coming from their office but failed to do so in some instances. While CNRMC has attempted to enforce items, which could be required by an NSI in place, several items require a higher level of contractual action; specifically, the assignment of SCRA responsibilities to the private shipyard. Without NAVSEA 02 upholding 8010 Manual requirements for these

contracts, there is a risk ships would continue to be exposed to an unacceptable fire posture. [761, 773-785]

C. CNIC, CNRSW, NBSD, and FEDFIRE Oversight and Responsibilities

NBSD

159. Consistent with OPNAVINST 11320.23G, Chapter 1, the NBSD CO is responsible for maintaining a F&ES program on his/her installation, to include integration with the surrounding mutual aid firefighting entities. The NBSD CO, CAPT Mark Nieswiadomy, did not fully execute this role because he failed to ensure all FEDFIRE requirements were satisfied for integrated training with Ship's Force and the NSA for ships in an availability. This failure directly contributed to the poor FEDFIRE integration that occurred during the initial hours of the fire on 12 July 2020. [923-933]

160. The NBSD CO, through the NBSD Emergency Management Officer (EMO), failed to ensure NBSD's Mutual Aid agreement (MAA) with the various local firefighting organization was current, exercised, and effective for facilitating an integrated shipboard fire response. NBSD CO's failure to ensure the NBSD's MAA with San Diego Fire Department (SDFD) was reviewed and updated contributed to FEDFIRE's lack of understanding and appreciation to the capabilities and limitations that SDFD could bring to a shipboard fire response. SDFD's policies limit their ability to go aboard a ship to fight a fire when no risk to life is present, which was not clear to all FEDFIRE and BONHOMME RICHARD personnel during the fire and confused the coordination between these entities on 12 July 2020. The NBSD CO's failure to meet requirements for MAAs was due in part to the ambiguity of responsibilities under FEDFIRE's Metro Area construct. [141, 145, 223-227, 936-948]

161. The NBSD Emergency Operations Center (EOC) did not adequately exercise 8010 Manual drills or have an adequate response plan for a major shipboard fire, which reduced the EOC's effectiveness during the fire. NBSD relied on the installation Emergency Management (EM) plan's Hazard-Specific Appendix for shipboard fires, which did not incorporate OPNAVINST 3440.18, the SWRMC FRP, or any requirements for coordination with SWRMC. The shipboard fire appendix also assumed that most shipboard fires would be contained quickly and require limited manpower and resources from NBSD. This illustrates that the NBSD never adequately exercised the EOC during 8010 Manual drills, as these deficiencies should have been discovered in a training environment. FEDFIRE's failure to coordinate with NBSD on drafting the EM plan further contributed to these planning deficiencies, which ultimately left the EOC without a strategy to coordinate the response effort on 12 July 2020. Moreover, these deficiencies represent a failure by the NBSD CO to provide effective oversight on the EOC's participation during 8010 Manual drills. [223-227, 939-960]

162. The NBSD CO failed to ensure effective coordination between the EOC and the SWRMC Emergency Control Center (ECC) before and during the fire. On the first full day of the fire, the

EOC and the ECC were unaware of their respective roles as well as how to interact with each other during the fire, which reduced efficiency and caused delays in providing support to firefighting efforts on the pier. Given that these issues were not identified prior to the fire, this further demonstrates that the drills conducted by NBSD prior to the fire lacked rigor and failed to overcome basic shortcomings. Moreover, these deficiencies further represent a failure by the NBSD CO to provide effective oversight on the EOC's participation in 8010 Manual drills. [111-126, 939-960]

163. Per OPNAVINST 11320.23G, FEDFIRE is required to conduct appropriate training and drills aboard all types of naval vessels on the installation, but this requirement was not known or widely recognized by FEDFIRE or NBSD leadership. This lack of awareness to these requirements demonstrated that the NBSD CO did not exercise proper oversight of the F&ES program for the installation. [923-931, 1006, 1008-1014]

164. The NBSD CO did not have an appropriate awareness of the maintenance activities and level of maintenance happening on ships onboard the installation, which contributed to installation inaction on a variety of issues. The lack of firemain on Pier 2, which is consistent across all NBSD piers, was not viewed as a concern prior to the fire despite the recent pierside fire on USS CHAMPION (MCM-4) in November 2019. Moreover, the NBSD CO did not have appropriate awareness of many other critical issues associated with maintenance activities onboard the installation. The NBSD CO incorrectly assessed he had a limited role in the maintenance activities happening on Pier 2, reasoning that the installation is not appropriately resourced to take on additional oversight. In light of multiple major availabilities being conducted on NBSD in the past five years, coupled with the fire on CHAMPION in November 2019, the NBSD CO should have taken more steps to address the fire safety posture of piers and direct installation personnel to be more involved in oversight of these maintenance activities. [49, 961-986]

165. Prior to the fire, the NBSD CO, through the NBSD port operations department, lacked fidelity over the availability status of ships onboard NBSD. Specifically, the pier laydown process and inspection program did not effectively identify and take appropriate action on potential fire safety risks for ships undergoing a maintenance availabilities. Instead the focus was on general safety and environmental issues, which contributed to the accumulation of fire safety risk. The NBSD port operations department and the NBSD CO expressed that enforcement of infractions against contractors was difficult, but failed to take effective actions to address this difficulty. While enforcement of pier safety infractions against contractors may be limited by contractual provisions, this does not relieve the NBSD CO from his responsibilities for overseeing installation fire safety and fire prevention. While NBSD has since instituted new practices to conduct pier inspections, the NBSD CO did not exercise sufficient oversight over the pier laydown and pier inspection program with respect to fire prevention for ships in an availability status. [961-986]

FEDFIRE Metro Area

166. The lack of implementing guidance on the roles and responsibilities under the FEDFIRE Metro Area created seams and gaps in oversight and execution of their mission. Although designed to capitalize on efficiencies, the Metro Area construct placed a significant amount of responsibility on one FEDFIRE Chief who was accountable to multiple installations. Simultaneously, the Metro construct limits the ability of supported installation COs to exercise sufficient visibility and control over how FEDFIRE personnel within the Metro Area are tasked on a daily basis to meet the various missions of each installation. While the Metro Area construct is permissible under OPNAVINST 11320.23 and exists in other Regions, the current model in San Diego has proven ineffective because it lacks clarification on the roles and responsibilities for each installation CO, the Metro Area Fire Chief, and Region. The inconsistent understanding of the command and control relationship between NBSD, the Metro Area Fire Chief, and Region directly contributed to an environment where FEDFIRE personnel do not receive proper oversight, training, and tasking in meeting requirements. [797-812]

167. FEDFIRE knowingly executes firefighting tactics during drills that they understand will not be executed during an actual fire response. This practice created false expectations of FEDFIRE's response capabilities by Ship's Force and SWRMC. Specifically, FEDFIRE's utilization of shipboard systems and hoses during drills is inconsistent with FEDFIRE's real-life practices for a shipboard fire response, which involves laying FEDFIRE's hose lines and securing an independent water source. [49, 50, 56, 832, 833, 838-840, 876-887, 1088]

168. FEDFIRE Metro leadership, to include (b) (6) and FEDFIRE Training Chiefs, was not aware of the full scope of FEDFIRE's training requirements and did not conduct oversight to check compliance with requirements. Training records were not organized or maintained in a manner that enabled leadership to monitor FEDFIRE personnel progress or completion. Prior to this investigation, FEDFIRE Metro leadership was largely unaware of CNIC's annual shipboard training requirements, and in many instances they did not assign shipboard training requirements to FEDFIRE Metro Area personnel who were expected to respond to a shipboard fire, which is contrary to CNIC requirements. For the four years preceding the fire, FEDFIRE Metro failed to meet CNIC's annual shipboard training requirements for the majority of their personnel. FEDFIRE Metro's Standard Operating Guide (SOG) for shipboard firefighting, dated October 2012, neither incorporates the requirements and concepts from CNIC N30's Headquarters Policy Directive (HPD) advisories nor the 8010 Manual, such as Individual Action Plans (IAP) for each class of ship. These deficiencies contributed to FEDFIRE's ineffective efforts in the initial hours of the fire on 12 July 2020. [845-870]

169. A major shipboard fire requires an integrated response by FEDFIRE, Ship's Force, mutual aid partners, and various other supporting entities. Contrary to OPNAVINST 11320.23G, FEDFIRE Metro's training does not "assure an integrated response in support of [S]hip's Force." FEDFIRE's shipboard trainer does not include any integrated training with Ship's Force. The

8010 Manual drills are the only consistent drills FEDFIRE exercised with Ship's Force, and FEDFIRE personnel at all levels, from CNRSW FEDFIRE down to junior firefighters, assessed that the 8010 Manual drills were not realistic or challenging. Most importantly, FEDFIRE personnel did not understand the integration requirement and never practiced executing it, which contributed to the uncoordinated firefighting efforts in the initial few hours of the fire. It was not until later that evening following several hours of coordination that FEDFIRE and Ship's Force began a truly integrated response effort, illustrating that repetition and training is required to develop this capability. [55, 60, 61, 152, 154, 173-179, 845-903, 906, 907, 914-921]

170. FEDFIRE Metro personnel did not uniformly understand the role of the ship's CO versus the FEDFIRE Incident Commander (IC) during an incident. While most senior FEDFIRE Metro personnel understood the ship's CO role over all firefighting efforts, many junior FEDFIRE Metro personnel viewed Ship's Force as acting in a supporting role to FEDFIRE. This inconsistent understanding contributed to an erroneous expectation that FEDFIRE would take charge and displace Ship's Force, which is how the November 2019 CHAMPION fire was approached and combatted. [834-844, 1088]

171. FEDFIRE Metro does not effectively coordinate with SWRMC to ensure FEDFIRE is supporting the various requirements pertaining to maintenance availabilities onboard NBSD. The minimal engagement between both entities in support of their common mission of shipboard fire prevention and response illustrates how both entities fail to appreciate their respective roles and responsibilities. Although tasked to support various 8010 Manual requirements, FEDFIRE was not aware of many of them nor did they execute those they did track. An overwhelming number of FEDFIRE personnel never participated in fire safety walkthroughs nor trained towards the SWRMC FRP. The totality of these deficiencies, along with FEDFIRE leadership having no knowledge about their shipboard walkthrough requirements contributed to an ineffective response during the initial hours on 12 July 2020. [847, 866-897, 1013, 1020]

172. Although there is some relevant shipboard firefighting training for FEDFIRE personnel in the Metro Area, to include ad hoc shipboard walkthroughs and FEDFIRE's shipboard trainer, the Metro Area does not maintain sufficient records of trainings aboard ships, which is contrary to CNIC's familiarization requirements. The insufficient recordkeeping by FEDFIRE Metro leadership prevented effective oversight of FEDFIRE personnel to ensure shipboard drills were effective and consistently executed. [866-897, 1020]

173. FEDFIRE Metro (b) (6) failed to ensure NBSD's MAA with SDFD was periodically reviewed and updated. OPNAVINST 11320.23G requires the cognizant F&ES Chief to facilitate periodic review of all MAAs every three years and update all MAAs at least every 10 years. The failure by FEDFIRE to comply with these requirements contributed to their lack of understanding to the capabilities and limitations of SDFD during the fire; specifically, FEDFIRE should have understood SDFD's policies limiting SDFD's ability to go fight a shipboard fire when there is no risk to life. This limitation should have been accounted for in FEDFIRE Metro's plans for shipboard fire response and practiced accordingly. [902-907, 1020]

174. FEDFIRE Metro Area leadership did not demonstrate knowledge of the full scope of the shipboard fire training requirements for its personnel. Additionally, FEDFIRE Metro Area does not have the right tools to track completion of its requirements. While numerous FEDFIRE Metro Area personnel stated that they are short-staffed, are unable to meet the mission, and they have too many competing demands, there is no basis to support this conclusion. FEDFIRE Metro Area has failed to identify and assess all of its daily requirements. Complicating this further, isolating the requirements for each installation to discern how best to accomplish them for the FEDFIRE personnel assigned to the Metro Area is difficult because the roles and responsibilities for the Metro Area not well defined. [223, 797-812, 845-870, 1020]

175 (b) (5)



CNRSW

176. As the command responsible to ensure the accomplishment of NBSD's mission, CNRSW did not exercise sufficient oversight over NBSD and FEDFIRE's compliance with OPNAVINST 11320.23G and other related directives. CNRSW did not effectively manage the regional F&ES program by failing to evaluate the execution and effectiveness by the Region and installation teams along with their emergency response plans. Despite recognition of a complex command and control relationship between the FEDFIRE Metro Area, Region, and supported installations, there was no action or direction by CNRSW to correct the deficiencies. Additionally, CNRSW's failure to properly review and update MAAs, including the 1991 MAA with SDFD, was a significant breakdown in process and procedure. Contributing to this breakdown was an uncertainty of who owned the requirement to update the MAAs and if the responsibility resided with each installation or the Metro Area. Since the fire, CNRSW has taken steps towards updating MAAs, but the unclear delineation of roles and responsibilities between CNRSW and NBSD negatively impacted the NBSD CO's ability to carry out the installation's FEDFIRE responsibilities. [137, 864-866, 928, 996-1014]

177. CNRSW FEDFIRE (b) (6) failed to exercise proper oversight over FEDFIRE Metro to ensure compliance with OPNAVINST 11320.23G and CNIC requirements for shipboard firefighting. Moreover, he demonstrated a lack of awareness and understanding of many of the shipboard firefighting requirements applicable to the Metro Area installations supporting Navy vessels. CNRSW FEDFIRE (b) (6) likewise did not exercise appropriate oversight over FEDFIRE Metro's participation in 8010 Manual drills. He was not engaged in reviewing drill packages nor seeking feedback from drills. Despite previously

serving as the FEDFIRE Metro Area Chief, CNRSW FEDFIRE (b) (6) lacked an understanding and appreciation of the requirements for integrated shipboard firefighting. [859, 861, 863-866, 869, 870, 996-1014]

178. Contrary to the requirements of OPNAVINST 11320.23G, CNRSW FEDFIRE (b) (6) did not facilitate the development and periodic review of MAAs to promote efficiency and integration during a major shipboard fire. This failure to properly review and update the 1991 MAA with SDFD contributed to FEDFIRE and BONHOMME RICHARD's poor understanding of SDFD's policies and risk calculations. [141, 145, 936-948]

179. During the response, the Regional Operations Center (ROC) routed information up the chain of command, but was largely redundant with the EOC and at times took actions without direction or coordination with ESG-3. The ROC had no clear role in the incident. [132-136]

CNIC

180. CNIC failed to provide sufficient oversight to effectively communicate and ensure compliance with shipboard fire prevention and training requirements across CNIC commands. While CNIC N30 has published numerous "HPD Advisories" providing policy updates, such as shipboard training periodicity requirements, CNIC N30 failed to codify these advisories and requirements into standing CNIC instructions. CNIC N30 relies on the use of the Enterprise Safety Applications Management System (ESAMS) system to communicate and track training requirements for FEDFIRE personnel. This practice has resulted in an overall lack of understanding of training requirements by FEDFIRE, including a lack of awareness to many CNIC N30 training updates by the FEDFIRE Metro and CNRSW FEDFIRE Chief. Moreover, this directly contributed to the FEDFIRE Metro and CNRSW FEDFIRE Chief being largely unaware of the many updates and requirements contained in the CNIC N30 HPD advisories. [845-871, 900, 996-1016, 1034, 1185, 1186]

181. Contrary to OPNAVINST 11320.23G, CNIC N30 has not conducted a single program compliance assessment or site visit of CNRSW FEDFIRE since July 2012. This resulted in widespread complacency toward oversight and enforcement of FEDFIRE requirements. Unlike the rigorous oversight by CNIC to inspect force protection and associated training requirements of security personnel, CNIC N30 does not exercise the same level of vigilance for fire prevention training requirements. Moreover, CNIC has not adequately reviewed the Region SW Metro Area construct for FEDFIRE nor provided sufficient guidance to enable them to comply with requirements from OPNAVINST 11320.23G for consolidated departments. This contributed toward the lack of understanding of shipboard firefighting requirements, limited oversight practices, and the failure to review and update mutual aid agreements. [225, 226, 845-871, 890, 900, 1017, 1018, 1034, 1209]

182. While CNIC occasionally participates in RMC 8010 Manual Chapter 13 drills, CNIC N30 failed to provide appropriate oversight over the execution of 8010 Manual drills. This contributed to the lack of rigor with which FEDFIRE approaches shipboard fire training and

familiarization. To better ensure execution of the mission, CNIC N30 should recognize the distinct and shared responsibilities for shipboard fire prevention and response with their NAVSEA and CNRMC counterparts. [722, 723, 871, 900, 1025-1028]

183. CNIC has not provided implementation guidance to the Regions on the procedures and requirements of OPNAVINST 3440.18. CNIC failed to implement the requirements in this policy, acknowledging the instruction was confusing but did not initiate any proactive steps to correct the perceived deficiencies. CNIC N30 could not identify whether any training existed for installation or Region personnel to be aware of the instruction or execute the directives. This failure contributed to a widespread lack of awareness of the instruction and poor coordination of the fire response effort on 12 July 2020. [871, 900, 1015, 1021-1026, 1034]

184. The adequacy of FEDFIRE personnel's training to combat a shipboard fire is difficult to measure due to their lack of understanding of the requirements. FEDFIRE's shipboard firefighting training requirements were closely reviewed and modified based on the lessons learned from the MIAMI fire, and last disseminated in earnest in 2016. Because the requirements from these lessons were never fully memorialized in written policy, the FEDFIRE Metro Area personnel have been largely unaware of these requirements. Although it is clear that FEDFIRE Metro Area personnel are not completing the annual shipboard firefighting training requirements, it is unknown whether the requirements are of sufficient quantity and quality to prepare the personnel that may respond to a future shipboard fire. [842-867, 871, 900, 998-1006, 1034, 1177, 1186]

185. (b) (5)



D. Navy Guidance and Policies for Fire Prevention and Incident Response

8010 Manual

186. The 8010 Manual does not provide sufficient clarity for the various stakeholders that rely on this document to understand their roles and responsibilities. Of note, paragraph 1.2.3 does not make the 8010 Manual requirements clearly applicable to private shipyard maintenance availabilities when they are not invoked by contract. [626, 689-692, 759, 760, 767, 773-777, 1108-1150]

187. Implementation of the 8010 Manual is incomplete for contracted availabilities. NAVSEA applies portions of the 8010 Manual through NSIs for private shipyards without providing additional guidance regarding RMC and Ship's Force responsibilities and contributing to inconsistent application between the public and private shipyards. The explanation for these deviations varies, but appear to be driven mostly by unexplored cost concerns. [626, 689-692, 759, 760, 767, 773-777, 1108-1150, 1125]

188. The structure of the 8010 Manual lacks an enforcement mechanism for 8010 Manual requirements at the RMCs. NAVSEA's failure to fully invoke the requirements for private yards and paragraph 1.2.3's applicability framework create an ineffective enforcement structure towards the shipyard. Furthermore, in paragraph 1.2.4, the 8010 Manual makes its application to Ship's Force potentially dependent on SRCA invocation. This, combined with the structure of the FSC, confusion over the term SRCA, and the lack of technical manual ownership at NAVSEA resulted in ineffective oversight of technical requirement implementation at the RMCs. [768, 773, 776, 1108-1150]

189. Assignment of the SRCA as a responsible organization for fire safety has generated confusion and uneven implementation of the 8010 Manual, especially for availabilities executed at private shipyards. While the owners of the technical manual (NAVSEA 04) understand the term SRCA to apply to the LMA and clearly define SRCA as the LMA in the 8010 Manual, associated SRCA requirements are not completely invoked by the RMCs upon the private shipyards while other requirements are assumed by the RMC. [671, 672, 1136, 1139]

190. The 8010 Manual command and control construct does not address all circumstances that would require incident management, to include when a private shipyard SRCA is conducting an availability on a Navy installation. For a ship availability being executed by a private shipyard on a Naval base, the 8010 Manual does not provide clear direction regarding how incident response should be managed. Moreover, because the 8010 Manual was not updated to take into account OPNAVINST 3440.18, there are inconsistencies that impede full implementation. For the BONHOMME RICHARD fire, this defect in the manual contributed to the lack of clear guidance and common understanding of roles and responsibilities during the response. [228-243, 708-712, 1187-1213]

191. The current 8010 Manual framework governing FSCs allows junior officers and civilians to waive fire safety requirements. There is no requirement or forcing function to ensure that these decisions be raised to a higher level, either for approval or visibility. This vests a less experienced group with the authority to execute risk-based decisions regarding the fire safety posture of national assets. Additionally, because FSC members come from organizations with schedule pressures, they are compelled to rationalize fire safety relaxations for cost or schedule gains, and not critically assess potential fire safety risks. By allowing individuals focused on the completion of a single availability to approve deviations associated with fire risk, decisions rely on a perception that probability of a catastrophic event is low for that availability instead of aggregating the probability of a catastrophic event over many availabilities. [451, 453, 456, 460, 694, 699, 707]

192. Lack of clear OPNAV guidance on applicability and enforcement of the 8010 Manual requirements to the CNIC community has resulted in a lack of CNIC accountability and ownership of 8010 Manual requirements. The 8010 Manual sets CNIC requirements in the absence of any explicit authority for NAVSEA to task CNIC entities. CNRSW FEDFIRE leadership views the 8010 Manual as a “ship requirement” that FEDFIRE supports when able. FEDFIRE leadership assessed they could not realistically support the required periodicity of the 8010 Manual’s drill requirements, and in some instances, FEDFIRE simulates participation. Yet FEDFIRE leadership nonetheless assesses FEDFIRE has been meeting the intent of the 8010 Manual drills. NBSD leadership likewise does not drive FEDFIRE’s participation in 8010 Manual drills and views FEDFIRE’s participation in 8010 Manual drills as falling under CNRSW. [882, 1009, 1011, 1108]

193. (b) (5)



194. The 8010 Manual’s construct, in which the SRCA’s FRP is intended to articulate a specific hose team integration strategy between Ship’s Force, F&ES, and mutual aid, is ineffective to ensure all parties train to and execute an effective integrated response. Paragraph 3.2.5 of the 8010 Manual states that the FRP “shall address the specific strategy of establishing integrated hose teams of [Ship’s Force], F&ES, and mutual aid personnel early in the incident to ensure the most effective response.” This paragraph goes further to state, “[t]he FRP shall address a hose team relief process to keep hoses staffed.” SRCAs have no authority to direct FEDFIRE response practices, and coordination between FEDFIRE and SWRMC has not addressed specific hose team integration issues. [708, 842, 1013]

NSTM 555

195. NSTM 555 does not adequately account for firefighting in Landing Helicopter Deck (LHD) class amphibious assault ship vehicle spaces. The lack of available bulkhead boundaries, the number of large open spaces, and the unique ventilation systems all present a firefighting challenge differing from other ship spaces. The NAVSEA Failure Review Board (FRB) addresses several of these issues in depth. [4-213, 1156]

196. NSTM 555 does not contemplate fighting an out-of-control fire that forces ship evacuation. There is a widespread acceptance throughout the Navy that for ships at sea, evacuation during a fire is not a viable option; however, the standard for fighting a fire while the ship is pierside is undefined. Given the recent prevalence of pierside fires, the expected standard if or when Ship's Force evacuates the ship should be clearly addressed. [4-213, 1156]

OPNAVINST 3440.18

197. OPNAVINST 3440.18 replaces the standard all-hazard incident response terminology with terms such as "primary commander" and "area commander," which unnecessarily creates divergent frameworks for responding to a major shipboard fire. As written, it is unclear how these two policies co-exist during a major shipboard casualty that also threatens the installation. OPNAVINST 3440.18 was unknown to Ship's Force, FEDFIRE, NBSD, SWRMC, and CNRSW leadership prior to the fire and was not implemented or incorporated into shipboard drills. OPNAVINST 3440.18 is not aligned with Department of Defense (DoD) EM policy, as it fails to incorporate NIMS/Incident Command System (ICS) processes and command and control structure, even though the instruction applies to all-hazard incidents. As such, OPNAVINST 3440.18 is not consistent with the NIMS/ICS standard processes and procedures supporting entities (such as the EOC, the ROC, and external federal agencies) are trained to follow during a major casualty. Similarly, OPNAVINST 3440.18 does not clearly identify the roles of external federal agencies, such as the United States Coast Guard and other federal agencies, during a major shipboard casualty. Finally, OPNAVINST 3440.18 does not establish clear drilling requirements specific to the instruction and does not specify whether 8010 Manual drills satisfy the OPNAVINST 3440.18 requirement. The lack of any implementation of OPNAVINST 3440.18 throughout the Navy, including lack of training by CNIC as required by the instruction, contributed to these ambiguities. [239, 1024, 1192, 1198, 1199, 1201-1203, 1206, 1207, 1208, 1210-1213]

OPNAVINST 11320.23G

198. OPNAVINST 11320.23G provides general guidance related to FEDFIRE at all levels, but relies on further direction to be developed by CNIC to be effective. OPNAVINST 11320.23G does not clearly define shipboard training requirements or the requirements for pre-incident plans for shipboard fires. Moreover, the instruction has not been updated to fully incorporate the fire prevention and response policies contained in the 8010 Manual or the lessons learned from more

recent shipboard fires. CNIC N30 relies on “HPD Advisories” to elaborate on specific training requirements, but these advisories are informally distributed and not codified. As a result, FEDFIRE personnel through the Metro Area were unaware of the requirements for shipboard training, drills, and familiarization tours. Moreover, CNRSW FEDFIRE leadership was unaware how these requirements were satisfied. There is likewise no common understanding of the requirements for pre-incident plans for shipboard fire response. The FEDFIRE Metro Chief, the CNRSW FEDFIRE Chief, and the FEDFIRE Metro Assistant Training Chief could not articulate the required number of shipboard training hours and failed to consistently define and explain the training requirements from OPNAVINST 11320.23G. Neither CNIC nor CNRSW has effectively provided implementing guidance to clarify the specific requirements that would satisfy OPNAVINST 11320.23G. This has contributed to many of the challenges with the F&ES program in CNRSW. [821, 847, 855-865, 870-874, 998-1005, 1008]

JFMM

199. COMUSFLTFORCOMINST 4790.3, the primary document used to conduct fleet maintenance, does not adequately incorporate or refer to the 8010 Manual requirements. Closer alignment of COMUSFLTFORCOMINST 4790.3, the 8010 Manual, and NSI will close any reference “gap” between established guidance and eliminate ambiguity on the part of stakeholder organizations. Although COMUSFLTFORCOMINST 4790.3 contains a general statement acknowledging that COMUSFLTFORCOMINST 4790.3 is not the definitive reference for shipboard maintenance availabilities nor is it a technical authority, COMUSFLTFORCOMINST 4790.3 does not adequately address the numerous instructions or guidance which may supersede the COMUSFLTFORCOMINST 4790.3 requirements. The NAVSEA 8010-defined FSC has the implied authority to waive almost any requirement, including COMUSFLTFORCOMINST 4790.3 requirements, during an availability. [336, 462-467, 1117]

SFTRM

200. The COMNAVSURFPACINST/COMNAVSURFLANTIST 3502.7A framework permits a crew to be in the lowest state of DC readiness during the maintenance phase in the OFRP cycle when the ship is most vulnerable to a fire. COMNAVSURFPACINST / COMNAVSURFLANTIST 3502.7A does not trigger action when a ship’s Optimized Fleet Response Plan FRP cycle extends beyond 36 months, as was the case for BONHOMME RICHARD. COMNAVSURFPACINST/COMNAVSURFLANTIST 3502.7A’ only mechanism for evaluation of a ship’s DC readiness in an availability is Readiness Evaluation Three (READ E-3). There are no action items or follow-up created for stakeholders outside of Ship’s Force during the READ E-3 process, regardless of how degraded the ship’s DC posture is assessed. [489, 506]

Executive Agent for Damage Control

201. The processes developed around the DC Executive Agent (EA) role did not ensure longevity of the organization, and large parts of the initial charter have atrophied in the years since the MIAMI fire. The MIAMI Fire Review Panel recommended: “[t]here is no single organization accountable for implementing Navy-wide recommendations from fire-related mishaps and lessons learned.” USFF, an EA for DC, was intended to carry out this role, but it relies on the Damage Control Board of Directors (DCBOD) to fulfill this role and responsibility. Previously, there were action-level working groups with subject matter experts, but these have ceased to regularly meet. This construct stood-up as an after action item from the MIAMI close-out endorsement from Chief of Naval Operations (CNO) Jonathan Greenert and has not been further defined nor revisited since. In the years immediately after creation, the DCBOD was meeting quarterly. At the time of the BONHOMME RICHARD fire, no DCBOD meetings had occurred since December 2019. A SUBFOR review of fire safety implied that the DCBOD is insufficiently active and has minimal input into DC improvements, and a composition of senior leaders is required in order to effectively and holistically address DC issues across the Navy. [1091-1107]

202. While reactive in nature, the reviews conducted by the DCBOD into DC events identified areas which, if corrected, would have mitigated issues aboard BONHOMME RICHARD. The fires aboard MIAMI, USS GUNSTON HALL (LSD-44), and USS OSCAR AUSTIN (DDG-79) all demonstrated the challenges associated with improperly run temporary services. Damage during the OSCAR AUSTIN fire was limited due to the effective use of boundary cooling, despite challenges during the response that was characterized as disorganized and not following the IET watchbill. Both the GUNSTON HALL and OSCAR AUSTIN fire investigations identified lack of adequate Ship’s Force training regarding response to industrial fires. If meaningful action and dissemination of lessons learned had resulted from the issues identified by the DCBOD, they could have impacted similar weaknesses that were causal to the magnitude of the fire on BONHOMME RICHARD. [1080-1082, 1095-1102]

203. The DCBOD is not accomplishing its charter to review all mishaps because USFF is not receiving all command investigations and has to request relevant fire investigations. Several shipboard fire command investigations, including CHAMPION, USS IWO JIMA (LHD-7), USS DEVASTATOR (MCM-6), and USS BOXER (LHD-4) have not been reviewed by the DCBOD. Specifically, the CHAMPION fire in November 2019, which included a loss of power and evacuation of the ship before FEDFIRE reengaged the fire from the pier, shared many common traits to the fire aboard BONHOMME RICHARD. Likewise, also in November 2019, IWO JIMA was in an availability when a fire broke out and Sailors did not enter spaces when Naval Firefighting Thermal Imagers (NFTI) whited-out. The lack of timely review of these reports prevented dissemination of valuable and relevant lessons learned. [1084-1089, 1094, 1103-1107]

204. The effectiveness of the DCBOD has diminished because the DCBOD has allowed organizations to close actions items before full completion. CNSP closed out OSCAR AUSTIN fire actions related to duty section size and composition as well as DC readiness during an industrial environment. However, the associated actions have still not been completed more than 12 months since the DCBOD marked items as complete. If these action items were fully addressed by CNSP, and in light of the parallels between the OSCAR AUSTIN and BONHOMME RICHARD, it may have helped prevent this incident. The DCBOD has not scrutinized closeout actions to ensure they are complete and address the root causes identified by the board. Contributing to this, there is a single USFF contractor tasked with coordinating the DCBOD, but no one is otherwise vested with the sole responsibility of ensuring needed DC changes are driven to completion. [1096-1102]

205. The inaction by the DCBOD following a NAVSEA report showing more than 300 shipboard fires within the previous two years demonstrated a missed opportunity to effect positive change in early 2020. At a minimum, the DCBOD should have scheduled a meeting to review the findings and assign actions. [1099-1104]

Command and Control for Major Shipboard Casualty

206. Policy on command and control for a major shipboard fire requiring an integrated response is disseminated throughout multiple instructions, manuals, and local Standard Operating Procedures (SOPs) and is not consistently defined or trained. OPNAVINST 3440.17A, OPNAVINST 3440.18, OPNAVINST 11320.23G, the 8010 Manual, SWRMC's FRP, and FEDFIRE's SOG 176 all provide applicable guidance on command and control, but roles and responsibilities of key entities are not consistently addressed or defined. While responsible entities (SWRMC, NBSD, and FEDFIRE) should have exercised more leadership in resolving any unclear or inconsistent requirements, the lack of clear and consistent Navy guidance injected confusion regarding the respective roles of FEDFIRE, the BONHOMME RICHARD CO, NBSD CO, SWRMC CO, and other responsible entities on 12 July 2020. [228-243]

207. FEDFIRE and EM responders train to NIMS, which is not clearly aligned with the command and control constructs provided in the 8010 Manual and OPNAVINST 3440.18. OPNAVINST 11320.23G defines FEDFIRE's Incident Commander role as distinct from the 8010 Manual and OPNAVINST 3440.18. [834-844]

Uniforms

208. BONHOMME RICHARD's crew was under the incorrect impression that Type III Navy Working Uniforms (NWU) could not be worn under Firefighting Ensembles (FFE) during a fire response, which can be attributed to poor training practices by Ship's Force and inconsistent guidance in the fleet. This, coupled with the ship's allowance for NWUs to be worn by some duty section members partially contributed to several senior personnel in the 12 July 2020 duty section not joining firefighting efforts. [25]

Section III: Opinions on other aspects of the incident and response

A. Medical Response

209. The medical response and triage efforts of the USS BONHOMME RICHARD (LHD-6) medical department were effective. The medical department personnel quickly established a triage station at the pier and continued providing medical support to injured personnel, coordinating medical evacuations as well as emergent care despite triage being relocated multiple times due to explosions and the projected blast radius for potential future explosions. The medical department appropriately communicated and maintained an adequate duty section rotation throughout the incident, which contributed to preventing the loss of life and preserving the wellbeing of all first responders. [1055-1070]

B. COVID-19 Impacts

210. Coronavirus Disease-2019 (COVID-19) did not hinder or adversely impact firefighting efforts throughout the fire response aboard BONHOMME RICHARD. [5-213, 586-591]

211. Since the start of BONHOMME RICHARD's availability, the execution of 8010 Manual drills was substandard. While COVID-19 exacerbated the efficacy of 8010 Manual drills, Ship's Force had been on a downward trajectory in maintaining proficiency and training standards. Although COVID-19 contributed to some delays in meeting certain drill requirements, Ship's Force was failing to conduct drills in a timely manner prior to March 2020. When Naval Base San Diego (NBSD) communicated the cessation of all drills as a COVID-19 mitigation, which incorrectly included 8010 Manual drills, this interruption had minimal effect because of preexisting challenges and lapses in drill completion. [478-503]

212. Actions to temporarily halt all 8010 Manual drills as a result of COVID-19 should have been accompanied with actions to mitigate the resulting readiness risk and ensure the requisite level of integration training was still performed. However, the incorrect cessation of drills was unknown by Commander, Navy Region Maintenance Center (CNRMC) leadership and was not directed by Commander, Navy Installation Command (CNIC). Southwest Regional Maintenance Center (SWRMC) erroneously assumed 8010 Manual drills were cancelled based on guidance distributed by NBSD regarding Anti-Terrorism Force Protection (ATFP). Although the applicable COVID-19 guidance did not completely prohibit continued 8010 Manual drills, SWRMC announced an indefinite hold on all training and drills, including 8010 Manual drills without mitigation. Because 8010 Manual requirements are set by Naval Sea Systems Command (NAVSEA), SWRMC should have consulted with CNRMC instead of relying upon guidance from NBSD. [478-503]

213. While COVID-19 resulted in the final delay of BONHOMME RICHARD's 8010 Manual Chapter 12 +360 drill, this drill had been overdue since November 2019 and COVID-19 was not the cause of the deferral. The inability to perform an overdue drill that was not attributable to

COVID-19 was a failure of the Fire Safety Council (FSC) and SWRMC to meet 8010 Manual drill requirements. [492-503]

214. Though COVID-19 social distancing measures limited some aspects of Federal Firefighting Department (FEDFIRE) training (such as reduced cross-training across different stations), FEDFIRE's shipboard firefighting training had been deficient prior to COVID-19. Additionally, COVID-19 did not significantly impact FEDFIRE's ability to fight the BONHOMME RICHARD fire. [213, 845-870, 898]

215. While COVID-19 social distancing measures changed some shipboard practices, BONHOMME RICHARD had been conducting ineffective training prior to March 2020. Ship's Force had established a consistent practice of not requiring Self-Contained Breathing Apparatus (SCBA) or Firefighting Ensemble (FFE) dress-out during duty section training and drills as early as 2019, further demonstrating COVID-19 did not have a significant impact on shipboard practices. [517-534]

216. Commander, Naval Surface Force Pacific Fleet (CNSP) emphasized to BONHOMME RICHARD that COVID-19 spread should be one of the highest priorities of the ship, prompting the ship's Commanding Officer (CO) to emphasize social distancing and COVID-19 prevention efforts were mission essential. Although BONHOMME RICHARD implemented additional mitigation measures following this direction, none of these measures had a significant impact to the readiness of the crew. [517-534, 567, 568]

217. In the months preceding the fire, a few key personnel from BONHOMME RICHARD, SWRMC, and other entities supporting the availability were restricted from accessing the ship due to risk factors associated with COVID-19. Although these absences were for a significant period prior to the fire, they did not substantively change the fire posture or readiness of BONHOMME RICHARD. [454, 633]

C. Helicopter Operations

218. Helicopter water drops had some positive impact in combatting the casualty by enabling water to permeate into the ship and temporarily decreasing superstructure temperatures. However, these water drops required significant amounts of coordination on the ground to prevent injury and periodically disrupted internal firefighting efforts. Various personnel involved in firefighting efforts on the ground shared their impressions on the efficacy of these drops, and their opinions varied. The helicopter crews conducting the drops were exposed to some risk during these operations and were largely untrained in this particular technique. Based on the outcome of this fire coupled with personnel accounts from the scene, it is difficult to assess the efficacy of these drops and whether the capability should be developed for future incidents. [165-183]

D. Fleet Damage Control Training

219. Fleet Damage Control (DC) training provides training for combatting an at-sea shipboard casualty; however, current fleet DC curricula does not include adequate courses of instruction for firefighting in an industrial environment. There are no Navy courses tailored to the execution of 8010 Manual requirements, including training on quick-disconnects and training on conducting an integrated firefighting response with FEDFIRE and mutual aid partners. With limited exceptions, the only industrial firefighting training required is that which occurs during 8010 Manual drills, and as well as training provided by the Ship Repair and/or Construction Activities (SRCA) in accordance with the 8010 Manual. The lack of knowledge of the 8010 Manual by BONHOMME RICHARD's DC leadership and triad, and the lack of BONHOMME RICHARD crew's knowledge on quick-disconnects and setting boundaries in an industrial environment reflect that current fleet training requirements did not adequately prepare BONHOMME RICHARD to combat the fire on 12 July 2020. [1157-1175]

E. Summary of Performance by Organizations Involved

220. Office of the Chief of Naval Operations (OPNAV). Under the authority, direction, and control of the Secretary of the Navy (SECNAV) and Chief of Naval Operations (CNO), OPNAV is responsible for establishing policies, providing sufficient resources, and ensuring combat-ready naval forces to enhance U.S. maritime capabilities. OPNAV is also responsible for establishing Navy strategy and policy, issuing guidance, and aligning actions of Navy organizations. Consistent with this responsibility, OPNAV published OPNAVINST 3440.18 for combatting major shipboard non-nuclear casualties. Although this policy was largely unknown throughout the fleet prior to the BONHOMME RICHARD fire, OPNAV executed its requirements and responsibilities. [691, 692, 1187-1213]

221. Commander, United States Pacific Fleet (PACFLT). Responsible to the CNO and Commander, U.S. Indo-Pacific Command, the PACFLT mission is to advance Indo-Pacific regional maritime security and enhance stability. As the Primary Commander for major shipboard non-nuclear casualties in the PACFLT Area of Responsibility (AOR) in accordance with OPNAVINST 3440.18, PACFLT is responsible for oversight of the unified area command (NBSD and SWRMC) and the custodial command (BONHOMME RICHARD) for emergency response planning and execution of major shipboard non-nuclear casualties within its designated area (to include Pacific Ocean ports in the U.S). Prior to December 2020, PACFLT did not take actions to implement the requirements of OPNAVINST 3440.18. Notwithstanding this issue, Commander, PACFLT executed his requirements and responsibilities. [651-668]

222. Commander, United States Fleet Forces Command (USFF). Responsible to the CNO and two combatant commanders, the USFF mission is to train, certify, and provide combat-ready forces, plan and execute assigned functions, and provide operational support and execute joint missions. As the EA for DC, USFF is responsible for overseeing and carrying out implementation of the MIAMI Fire Review Panel's recommendations for fire prevention and

response. USFF did not effectively execute these responsibilities. Additionally, prior to December 2020, USFF did not take actions to implement the requirements of OPNAVINST 3440.18. Notwithstanding these two issues, Commander, USFF executed his requirements and responsibilities. [1091-1107]

223. Naval Education and Training Command (NETC). Responsible to the CNO, the NETC mission is to recruit and train those who serve, transforming them into combat-ready warfighters and providing them the tools and opportunities for continuous learning and development. NETC executed its requirements and responsibilities. [1158-1175]

224. Naval Sea Systems Command (NAVSEA). Responsible to the CNO, the NAVSEA mission is to design, build, deliver and maintain ships and systems on-time and on-budget. As commander over CNRMC and SWRMC, NAVSEA was responsible for the oversight and execution of those subordinates and their mission. Although these subordinate commands did not properly carry out BONHOMME RICHARD's availability, NAVSEA executed its requirements and responsibilities. [773-795]

225. Commander, U.S. THIRD FLEET (C3F). Responsible to PACFLT, the C3F mission is to plan and execute naval operations in the Pacific Ocean, provide maritime homeland defense, regional security, and humanitarian operations support through integrated naval forces acting as a single Sea Service. As commander over ESG-3 and PHIBRON-5, C3F satisfactorily executed his requirements and responsibilities. [649]

226. Commander, Naval Surface Force Pacific Fleet (CNSP). Responsible to PACFLT, the CNSP mission is to deliver and sustain full-spectrum naval power and lead Surface Warfare policy and standardization issues with a fleet-focused perspective. As the Type Commander (TYCOM) and Administrative Control (ADCON) Immediate Superior in Command (ISIC) for BONHOMME RICHARD, CNSP was responsible for various man, train, and equip functions which directly impacted BONHOMME RICHARD's material condition, the conduct of the availability, and the crew's readiness to combat a fire. CNSP did not provide satisfactory oversight over BONHOMME RICHARD's man, train, and equip functions. [593-600, 614-639]

227. Commander Naval Air Force, United States Pacific Fleet (CNAP). Responsible to PACFLT, the CNAP mission is to man, train, and equip deployable, combat-ready Naval Aviation forces that win in combat. CNAP executed his requirements and responsibilities. [165-172]

228. Commander, Navy Installation Command (CNIC). Responsible to the CNO, the CNIC mission is to deliver effective and efficient readiness from the shore. Through CNIC N30, CNIC failed to fulfill its responsibilities for oversight and execution of FEDFIRE at the regional and installation level. Additionally, CNIC did not take sufficient action to implement the requirements of OPNAVINST 3440.18. Notwithstanding these two issues, CNIC satisfactorily executed his requirements and responsibilities. [1016-1038]

229. Expeditionary Strike Group THREE (ESG-3). Responsible to C3F, the ESG-3 mission is to provide amphibious expertise and a deployable staff for combat and contingency operations. ESG-3 did not have specifically delineated responsibilities for BONHOMME RICHARD's fire response, but assumed a leadership role during the incident. ESG-3 provided appropriate leadership and direction during the incident and as the operational commander of the ship. ESG-3 did not have official ADCON responsibilities to the BONHOMME RICHARD. ESG-3 adequately performed all responsibilities for BONHOMME RICHARD. [640-649]

230. Commander, Navy Region Southwest (CNRSW). Responsible to CNIC, CNRSW's mission is to efficiently deliver the right level of shore support services that meet its customer's mission requirements, reduces risk, and ensures Navy Operational Forces are ready to take the fight to the enemy. As the naval shore installation management headquarters for the southwest region (California, Arizona, Nevada, Utah, Colorado, and New Mexico), Navy Region Southwest provides coordination of base operating support functions for operating forces throughout the region. As the commander responsible for providing oversight of NBSD's Emergency Management (EM) and Fire and Emergency Services (F&ES) programs, CNRSW failed to provide adequate oversight to ensure NBSD and its F&ES program were adequately prepared and trained to execute an integrated response to a major shipboard fire. [987-1014]

231. Commander, Navy Region Maintenance Center (CNRMC). Responsible to NAVSEA, CNRMC's mission is to oversee the Navy's four Regional Maintenance Centers (RMC) and two detachment sites in their execution of surface ship maintenance and modernization. The command is responsible for coordinating depot and intermediate-level maintenance of the Navy's surface fleet, and for resourcing the many requirements necessary to meet the schedule of ship availabilities that keep the Navy's warships materially ready. As the immediate commander for SWRMC, CNRMC failed to exercise adequate oversight over SWRMC's execution of the BONHOMME RICHARD maintenance availability, as well as SWRMC's execution of 8010 Manual requirements. [751-771]

232. Commander, Amphibious Squadron FIVE (PHIBRON-5). Responsible to ESG-3, PHIBRON-5's mission is to prepare and direct expeditionary warfare missions in support of national objectives by employing the combat power of amphibious ships and the U.S. Marine Corps (USMC) in the maritime, littoral, and inland environments. PHIBRON-5 did not have specifically delineated responsibilities for the BONHOMME RICHARD availability as a subordinate organization under CNSP. PHIBRON-5 satisfactorily executed his responsibilities. [592-613]

233. Southwest Regional Maintenance Center (SWRMC). Responsible to CNRMC, the SWRMC mission is to provide a "one stop shop" maintenance philosophy which includes planning, execution, and close out of maintenance actions." As the Lead Maintenance Activity (LMA) and Ship Repair and/or Construction Activities (SRCA) for the BONHOMME RICHARD availability, SWRMC was responsible for oversight and completion of all maintenance. SWRMC failed to fulfill these responsibilities. [669-750]

234. Naval Base San Diego (NBSD). Responsible to CNRSW, NBSD's mission is to support the operations of all tenant commands onboard the installation. NBSD failed to fulfill the responsibilities managing and overseeing NBSD's EM and F&ES programs, specifically in regard to preparation and training for execution of an integrated response to a major shipboard fire by F&ES, Ship's Force, mutual aid partners, and SWRMC. [923-986]

235. Federal Fire Department (FEDFIRE). Responsible to all Navy installations in the San Diego metro area and the CNRSW FEDFIRE Chief, FEDFIRE's mission is to protect the lives and property of those that defend America, through fire suppression, emergency medical response, hazardous materials and radiological response, fire prevention, and public education. FEDFIRE did not meet requirements for effectively integrating with Ship's Force and San Diego Fire Department (SDFD) during the fire. FEDFIRE also failed to meet CNIC and OPNAV proficiency requirements for integrated shipboard training. [797-922]

236. Helicopter Sea Combat Squadron THREE (HSC-3). Responsible to CNAF, HSC-3's mission is primarily employ the versatility of the MH-60S aircraft to support the strike group commanders and any other emergent tasking. HSC-3 did not have specifically delineated responsibilities for BONHOMME RICHARD's availability or the fire response. When tasked by COMNAVAIRPAC to conduct helicopter drops to firefighting efforts, HSC-3 met expectations for support. [165-172]

237. General Dynamics National Steel and Shipbuilding Company (NASSCO). NASSCO generally performed services consistent with the terms of the maintenance contract but did not follow all NAVSEA Standard Items contractually required. Specifically, NASSCO did not provide a portable diesel generator to BONHOMME RICHARD after the ship's emergency diesel generators were unavailable. NASSCO also failed to maintain an updated Temporary Service Diagram identifying the locations of quick disconnect fittings, all of which contributed to a degraded fire posture of on BONHOMME RICHARD. [244, 251, 288-291, 358, 470-472, 478]

F. Miscellaneous

238. Unless all stakeholder organizations effect meaningful, long-lasting change to fire safety, it is likely the Navy will lose another ship to a fire in a similar fashion. While the JAGINST 5800.7G requires rendering an opinion on this subject, the urgency for long-lasting change to fire safety posture cannot be understated. Organizations at all echelons must evaluate whether they are meeting the letter and intent of existing requirements to ensure units are prepared for this threat. [1052, 1053, 1071-1226]

239. Shipboard fires have done significant damage to Navy ships in the last decade, many occurring during availabilities. The aggregate probability of these events is high and currently represents significant risk to the fleet. The Navy has failed to track fire incidents and near misses in a way that could effectively shape policy. The ability to prevent major fires is an important

strategic enabler to maintaining the world's premier Navy as other countries face similar risks in construction and maintenance of ships. [1050, 1051, 1071-1090]

240. The considerable similarities between the fire on USS BONHOMME RICHARD (LHD-6) and the USS MIAMI (SSN-755) fire of eight years prior are not the result of the wrong lessons being identified in 2012, it is the result of failing to rigorously implement the policy changes designed to preclude recurrence. The confusion that occurred during the MIAMI fire in the execution of an integrated response between Sailors and Federal Firefighting Department (FEDFIRE) recurred on BONHOMME RICHARD. This recurrence was the cumulative result of organizations, to include Commander, Navy Installation Command (CNIC), Naval Sea Systems Command (NAVSEA), and CNSF, failing to place emphasis and rigor on integrated planning and training prior to a fire. The challenges across the ship were identified on MIAMI and have recurred due a failure to comply with the 8010 Manual and NAVSEA Standard Items (NSI) policy in fires on USS GUNSTON HALL (LSD-44), USS OSCAR AUSTIN (DDG-79), and USS IWO JIMA (LHD-7) and BONHOMME RICHARD. The requirements developed by the MIAMI Fire Response Panel were, in most cases, codified for the organizations with fire safety roles for ships in availabilities. The empowered leaders in these organizations must validate and uphold these requirements and not subordinate them to cost and schedule. [1071-1213]

241. There is individual risk associated with combating a large fire, and the risk calculus of the different organizations that participated throughout this fire varied based on organizational policy. The decision space afforded to the uniform Commanding Officer (CO) over his or her Sailors is considerably larger than that of San Diego Fire Department (SDFD) or FEDFIRE over their personnel. Therefore, it is incumbent upon all uniform COs to understand and be prepared to manage these differences. The expectations placed upon uniform COs, which are absolute and commensurate with their duties and responsibilities, may be incompatible with risk decisions considered normal policy for civilian responders. More directly, to enable mission success and meet their assigned duties, uniform COs must be prepared to press forward with firefighting efforts even when civilian counterparts deem the risk to be untenable. [47-145]

242. In leading firefighting efforts from the pier, The BONHOMME RICHARD CO, CAPT Gregory Thoroman, ordered an evacuation early on in the incident due to accumulating smoke and heat. The low risk tolerance early on in the fight to enter the ship had a notable impact on the outcome of the event. As the day went on, the BONHOMME RICHARD CO displayed a higher willingness to take risk. By the time Sailors were re-entering, the ship was functionally lost. Had the CO or his assigned representative directed more action early in the fire, it would have likely changed the outcome. Determining the appropriate level of risk acceptance in the heat of battle is one of the most difficult tasks for commanders, which is why the Navy invests so much capital in our leaders — enabling them to perform during critical moments and without notice. Managing risk decisions that may result in loss of life while moored on a naval installation fighting a fire may require a different calculus than at-sea, but the expectation for the CO never changes — they must always be ready and ensure the same of their crew — to execute

~~CUI~~

their duty to protect and limit damage to both ship and crew. No one perished or was seriously injured, yet the ship was lost despite the morning window of time when taking more risk may have saved the ship. Given the significant long-term impact of losing this capital asset, warfighters must examine these hard questions to better prepare for future emergencies. [4-213, 1050, 1051]

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Chapter 4 – Recommendations

The investigation team is very aware that adding requirements does not necessarily solve problems, and that a consistent trend over the last two decades has been more instructions following a major incident. Part of the issues identified in this investigation is that requirements frequently change based on narrow considerations tailored to individual action items; however, these shifting requirements fail to account for the cumulative effect of disparate higher headquarters responses. In turn, this practice leaves the warfighter consistently behind in understanding and fulfilling these shifting requirements and creates opportunity for unmitigated risk to propagate as execution lags behind policy changes.

The Navy has created requirements that have not been followed or verified as effective by their owners, and many personnel within the Fleet lacked awareness to their existence as seen in this investigation. Crafting requirements without effective follow-through creates the illusion of fixing a problem, giving false comfort that the same problem would not recur. While this report identifies changes to doctrine and practices, these recommendations were crafted to extend the cognizant organizations decision space on implementing a way forward. If only new requirements are created after all lessons learned from this incident are addressed, without reforming or removing other failing policies, then fire risk will not be properly addressed at the unit level.

To enable effective follow-on actions and delineate clear ownership of tasks and responsibilities, these recommendations are structured by organization. However, consistent with the findings and opinions in this report, the recommendations were identified in relation to the four key focus areas that drove the final outcome to the BONHOMME RICHARD: (1) Material Condition; (2) Training and Readiness; (3) Shore Establishment Support; and (4) Oversight. At the end of every recommendation, they are linked to each of the four focus areas that are most relevant.

Some of the below organizations have taken steps to address several of these recommendations since the fire on 12 July 2020 but are still included to ensure a complete report and satisfy the requirement in our convening order. Regardless of which recommendations are ultimately adopted, the Navy must align, streamline, and simplify all associated directives, policies, and programs. Responsibility and authority must be clearly codified and appropriate training and procedures established to prevent a similar outcome.

A. SECNAV

1. Review research, development, acquisition, and sustainment (including maintenance) resourcing and priorities to consider whether fire risk is adequately supported across the Navy's programs based on the lessons of this report. [Shore Establishment Support; Oversight]

B. OPNAV

2. Evaluate whether the schedule pressures inherent in ship maintenance efforts inhibit the ability of the maintenance community to effectively carry out fire safety oversight and whether Secretariat involvement could insulate personnel involved with fire safety on the waterfront from these pressures. [Shore Establishment Support; Oversight]
3. Evaluate OPNAVINST 3440.18 to clarify applicability and ensure consistency of incident response procedures with National Incident Management System (NIMS), IMS, DoDI 6055.17, OPNAVINST 3340.17A, and the 8010 Manual. Additionally, evaluate OPNAVINST 3440.18 to clarify training and drilling requirements to prepare all responsible entities for executing a fully integrated response to a major shipboard fire. Assess the need to clarify the role of external federal entities, such as the United States Coast Guard, during a major shipboard casualty. [Shore Establishment Support]
4. Reevaluate the designation of USFF as (EA) for Damage Control (DC), the charter and membership of the Damage Control Board of Directors (DCBOD), and current structure for creating Navy-wide DC policy. Formalize policy and resource allocation related to establishing a single point of responsibility for DC across the Navy. The DCBOD's mandate must enable it to proactively prevent and prepare for DC incidents, not just react to the specifics of the most recent events. [Oversight]
5. Reinstate the periodic issuance of naval messages providing new or modified instructions to raise awareness of policy issuance. [Oversight]
6. Create a single online platform that contains all Navy instructions across all levels of command and is accessible by all personnel. Ensure the platform is maintained by every Navy organization with published instructions so the policies are up to date. [Oversight]
7. Evaluate creating a tool to ensure all instructions applicable to each commander and Commanding Officer (CO) are readily available, with every requirement clearly identifiable. [Oversight]
8. Revise OPNAVINST 11320.23G to incorporate policy changes from all applicable command investigations into shipboard fires, USS BONHOMME RICHARD (LHD-6), and informal guidance promulgated by Commander, Navy Installation Command (CNIC) in the intervening years since the USS MIAMI (SSN-755) fire. Assess the need for formal policy guidance to implement standards and procedures for the tactical level integration of Naval Sea Systems Command (NAVSEA), CNIC, and fleet firefighting responses under all shipboard conditions. [Shore Establishment Support]
9. Revise the Required Operational Capabilities and Projected Operational Environment for Expeditionary Strike Group Staffs (ROC/POE) commanders to remove their requirement to support Type Commander (TYCOM) from their responsibilities. Clarity is needed regarding

who has Administrative Control (ADCON) responsibilities for every ship at every phase of the operational cycle. [Training and Readiness; Oversight]

10. With input from Commander, Naval Surface Force Pacific (CNSP), revise the OPNAVINST 5400.45 to clarify the ADCON relationship between the TYCOM, Amphibious Squadrons (PHIBRONs) and Major Command amphibious ships. [Oversight]

C. CNP

11. Evaluate the feasibility for an E-8 or E-9 to be billeted as the Senior Damage Controlman (U46A) on all Landing Helicopter Decks (LHD), Landing Helicopter Assaults (LHA), and Nuclear Aircraft Carriers (CVN) with no allowance for an E-7 to be a suitable replacement via business rules. [Training and Readiness]

12. (b) (5)



D. NETC

13. Modify existing firefighting school curriculum at Surface Warfare Schools Command (SWSC)/Surface Warfare Officer's School (SWOS) to include greater emphasis on Industrial Shipboard Firefighting for all Inport Emergency Team (IET) members. FEDFIRE located at installations with afloat assets should participate in this school. Where practical, develop curriculum that teaches integration for FEDFIRE and Ship's Force for fighting shipboard fires, including actual integration in firefighting simulators. [Training and Readiness]

14. Evaluate a requirement for Chief Engineers (CHENG) to attend Damage Control Assistant (DCA) School prior to reporting to the ship. This would reemphasize their roles as Damage Control Officer (DCO) and ensure the appropriate level of knowledge in DC. [Training and Readiness]

E. OJAG

15. Modify Chapter II of JAGINST 5800.7 (series) to require all Command Investigations into shipboard fires be routed to NAVSEA, CNIC, USFF, and PACFLT. [Training and Readiness; Shore Establishment Support; Oversight]

16. Modify Chapter II of JAGINST 5800.7 (series), Appendix (Fires) to require an opinion on the sufficiency of any installation or municipal response, including Fire & Emergency Services (F&ES), to shipboard fires. [Shore Establishment Support]

F. Fleet Commanders

17. Implement OPNAVINST 3440.18, to include designations of roles and clear requirements for how drilling, training, and oversight should be accomplished. [Training and Readiness; Shore Establishment Support; Oversight]

G. USFF

18. In coordination with OPNAV, evaluate the governing processes by which the Executive Agent (EA) for DC role is carried out. [Oversight]

19. As the head of the DCBOD, ensure the DCBOD only accepts the “close-out” of fire safety action items or recommendations if the action item in question is complete. Items that are pending completion should not be accepted for “close-out.” [Oversight]

20. As the head of the DCBOD, coordinate with the Office of the Judge Advocate General (OJAG) to promptly obtain copies of pertinent command investigations concerning fires and other shipboard casualties, both for previous command investigations and for future incidents. [Material Condition; Training and Readiness; Shore Establishment Support; Oversight]

21. In coordination with OPNAV and stakeholder organizations, align, streamline, and simplify the 8010 Manual, COMUSFLTFORCOMINST 4790.3, NSTM 555, OPNAVINST 11320.23G, OPNAVINST 3440.18, OPNAVINST 3440.17A, and any other applicable instructions to ensure clear guidance and direction. Overlapping or gapped guidance should be identified, aligned, corrected and implemented as required in accordance with standard change/revision issuance processes or JFMMBoD direction. [Material Condition; Training and Readiness; Shore Establishment Support; Oversight]

22. Coordinate with NAVSAFECEN and NAVSEA to evaluate fire data tracking across the Navy. Develop a plan to address any deficiencies to ensure that well-informed fire policy decisions can be made. [Material Condition; Training and Readiness; Shore Establishment Support; Oversight]

H. PACFLT

23. Review the availability of barges in the San Diego area and whether barge pressures are driving decision-making in the maintenance process. Develop a specific set of requirements to be accomplished before a crew can move back aboard a ship in an availability, thereby enabling the removal of the provided berthing barge. Joint TYCOM and NAVSEA requests should be required prior to personnel moving off the barge and back aboard a ship without all requirements being met. [Shore Establishment Support; Oversight]

24. Provide input to OPNAV to clarify the ADCON chain of command for Major Command amphibious ships. [Oversight]

I. CNSP/CNSF

25. Coordinate with numbered Fleet Commanders to clarify the roles and responsibilities for all Carrier Strike Groups (CSG) and Expeditionary Strike Groups (ESG) regarding their oversight and engagement for subordinate ships executing maintenance availabilities. [Material Condition; Training and Readiness; Shore Establishment Support; Oversight]
26. Evaluate DC requirements and practices to ensure that fire prevention and response policies and practices take into account the threat of shipboard arson. [Material Condition; Training and Readiness; Oversight]
27. Assess and codify the role of Port Engineers in regards to fire safety and in regards to the Fire Safety Council (FSC). Review whether Port Engineer hiring requirements are restricting the hiring of valuable personnel with Navy backgrounds. [Training and Readiness; Shore Establishment Support]
28. Determine the appropriate stages for SWOS to teach the 8010 Manual in the DCA, Department Head, XO/CO Fleet Up Command, and Major Command pipelines, to include specific examples of fires in ships during availabilities. Use the fire and ship's survivability training provided to CVN Prospective COs, XOs and Reactor Officers as a model for the course of instruction. [Training and Readiness]
29. Review and promulgate guidance in regards to wearing Navy Working Uniforms (NWU) while shipboard and any impact the wearing of NWUs may have on the ability of Ship's Force to quickly respond to fire. [Training and Readiness]
30. Reevaluate DC certification and proficiency reporting and assessments they relate to availabilities. Consider making Readiness Evaluation Three (READ E-3) a certifying/decertifying event, with the 8010 Manual Chapter 12 drill as a capstone event. [Material Condition; Training and Readiness; Oversight]
31. Given that fire risks are salient in all phases of the Optimized Fleet Response Plan (OFRP), evaluate turning DC into a rolling certification or otherwise account for the long gaps in DC certification and lack of external objective assessments for ships when sustainment and maintenance phases are extended. [Material Condition; Training and Readiness; Oversight]
32. Assess OPNAVINST 3120.32 and provide input to OPNAV on whether it is appropriate for ships to have different departments operating in different numbers of duty sections. If this is determined to be allowable practice, provide direction on how to properly train and execute casualty response when the section on-duty may have never run drills together as a team. [Training and Readiness]
33. Coordinate with NAVSEA to require all FSC minutes to be routed to Commander, Naval Surface Force Atlantic (CNSL)/Commander, Naval Surface Force Pacific (CNSP) N43. Some

FSC waivers should require CNSL/CNSP N43 concurrence when they would significantly change a ship's fire safety posture. CNSL/CNSP should review past FSC waivers and clearly delineate what types of waivers could be made without CNSL/CNSP concurrence and which should require it. [Training and Readiness; Shore Establishment Support; Oversight]

34. Coordinate with NAVSEA and CNIC to ensure that all 8010 Manual Chapter 12 and 13 fire drills are assessed by appropriate actors from the Systems Command (SYSCOM), TYCOM, and civilian firefighting communities. [Shore Establishment Support; Oversight]

35. Revise the COMNAVSURFPACINST/COMNAVSURFLANTINST 3541.1A and Fire Marshal instruction to incorporate changes previously briefed to DCBOD. [Training and Readiness]

36. Assess whether Portable Exothermic Cutting Units (PECUs) and other portable damage control equipment on the San Diego waterfront are within an adequate state of readiness to respond to a casualty. Evaluate whether Mobility-Damage Control (MOB-D) or Maintenance Material Management (3M) certifications should better assess this equipment periodically. [Material Condition]

37. Review all requirements and policies to ensure there is adequate oversight of ships in availabilities; specifically, that all subordinate commanders are carrying out sufficient oversight of the DC posture of ships undergoing availabilities. In this review, ensure there is sufficient training on the 8010 Manual for key shipboard personnel, similar to how shipboard personnel on nuclear vessels going through an availability are trained. [Material Condition; Training and Readiness; Oversight]

38. Evaluate how subordinate chains of command are structured regarding responsibility for availability oversight. Specifically assess whether assigning an amphibious squadron as solely responsible for ships in the maintenance phase would allow for more effective oversight. [Oversight]

39. If PHIBRONs are clearly realigned to have responsibility for availability oversight, ensure the PHIBRON N4 billets are filled by qualified personnel. Additionally, ensure enlisted personnel billeted to the N4 shop have sufficient Landing Platform/Dock (LPD), Dock Landing Ship (LSD), and/or LHD experience, to include an Engineering Officer of the Watch (EOOW) qualification in one or more of these platforms. [Oversight]

40. Require the Fire Marshal Qualification as a prerequisite for enlisted Engineering Duty Officer (EDO) Qualifications. [Training and Readiness]

41. Assess whether the addition of non-engineers to IETs to ensure that IETs are able to respond to a casualty without impacting required engineering functions is prudent. Require IET watchbills to be produced in Relational Administrative Data Management system (R-ADM) and that assigned IET members will not be assigned to non-roving watch positions during the duty

day. Require that Fire Marshals have no other watchstanding duties on their duty day. [Training and Readiness]

42. Align, streamline, and simplify guidance regarding installed firefighting system requirements prior to fuel onload, crew move-aboard, and Light-Off Assessment (LOA) by ship class. Evaluate whether TYCOM certification is needed to ensure fire suppression systems are adequate. [Material Condition; Oversight]

43. Assess the timing of Damage Control Material Assessment (DCMA) certification requirements in light of the findings in this report. [Training and Readiness; Oversight]

44. For ships in an availability, establish rigorous standards for Inactive Equipment Maintenance (IEM), to include lay-up and start-up and phased coverage plans and guidance on what equipment and systems or combination of equipment and systems should not be placed in IEM. Evaluate how TYCOM N43 should provide oversight of this plan. [Material Condition; Oversight]

45. Revise the process used to track drills Training & Operational Readiness Information Services-Training Figure of Merit (TORIS-TFOM) paying special attention to ensure each duty section on a ship has performance scores for that specific duty section entered for required exercises. In addition, consider adding a rigid time requirement to the Afloat Training Group (ATG) grade sheets for DC casualty response that, if exceeded, require the drill to receive a failing grade. Define which CNSP Department Head is responsible for monitoring exercise performance across the OFRP Phases. [Training and Readiness; Oversight]

J. ESG-3

46. Coordinate with CNSP to assess the process in which PHIBRONs transfer control of ships through the OFRP to ensure there is consistent and sufficient OPCON Immediate Superior in Command (ISIC) oversight of subordinate ships undergoing an availability. [Oversight]

K. Commanding Officers Executing or Supporting Maintenance Availabilities

47. Routinely and regularly review Chapter 8 of the U.S. Navy Regulations with special attention to articles 0802 and 0805. While individual requirements must be met, the readiness of in port duty sections should be measured and weighed carefully against article 0805. [Oversight]

48. As part of the ship's long-term planning process, assess how the future operating environment, including availabilities, changes safety threats to ship and crew. Create a plan to train for the expected changes and develop methods to maintain that proficiency through crew turnover and complacency. [Training and Readiness]

49. Chair Command Duty Officer (CDO) qualification boards and require the candidate to demonstrate proficiency in leading a major casualty response. [Training and Readiness; Oversight]

50. While in an industrial environment, maintain a process that gives a cumulative understanding of fire risk to establish context for additional risk decisions as the availability progresses. Of note, the NAVSEA Failure Review Board (FRB) made a similar recommendation that assigned this process to the FSC. [Material Condition; Training and Readiness]

51. When in an availability, implement a method of self-assessment in compliance with the 8010 Manual. [Material Condition; Training and Readiness]

52. Reinforce at all levels of seniority, and spot-check, that maintenance checks are documented as fully complete only when the equipment is performed exactly as required by the maintenance check. [Material Condition]

53. Establish a process where equipment in IEM status is periodically reviewed by Senior Leadership. Ensure a detailed plan exists for restoring equipment previously placed in an IEM status as the ship progresses through an availability. [Material Condition]

54. Maintain a training program in all phases of operations where all members of the command are trained and able to contribute positively to casualty response and hazard identification. [Training and Readiness]

55. Set clear standards and expectations for watchbills and watchstanding. Spot-check for compliance. An ineffective in port watchbill could be more consequential than an underway watchbill; in the latter situation, the entire crew is readily available in the event of an emergency. [Training and Readiness; Oversight]

56. Assess process for deviations from safety requirements in exchange for improving the project cost or schedule profiles without a formal written concurrence from the organization levying the requirement. To better balance probability and severity of risk, the relationship strength within a project should be strengthened by identification and adherence to standards rather than using risk acceptance as a bargaining currency. [Material Condition; Oversight]

57. Conduct drills that challenge responders and generate areas to improve on communications, equipment readiness, and personnel performance weaknesses. [Training and Readiness]

L. NAVSEA

58. In coordination with OPNAV and stakeholder organizations, align, streamline, and simplify the 8010 Manual, COMUSFLTFORCOMINST 4790.3, NSTM 555, OPNAVINST 11320.23G, OPNAVINST 3440.18, OPNAVINST 3440.17A, and any other applicable instructions to ensure clear guidance and direction. Overlapping or gapped guidance should be identified, aligned,

streamlined, simplified, and implemented as required in accordance with standard change/revision issuance processes or JFMMBoD direction. [Material Condition; Training and Readiness; Shore Establishment Support; Oversight]

59. Revise the 8010 Manual to all concerns addressed in this report. Specifically address the following:

- a. Remove the term Ship Repair and/or Construction Activities (SRCA) and clearly define responsibilities in the commonly understood terms of the Naval Supervisory Authority (NSA) and Lead Maintenance Activity (LMA) used in COMUSFLTFORCOMINST 4790.3. [Shore Establishment Support]
- b. Require a fire drill within 30 days of any berth shift, which changes the responding F&ES provider that would integrate with Ship's Force. [Training and Readiness; Shore Establishment Support]
- c. Require distribution of FSC minutes to, at a minimum, the Ship CO, the ISIC Commander, the TYCOM N43, Waterfront CHENG, NAVSEA Ship Design Manager (SDM), and the NSA Safety and Operations Department Heads. [Shore Establishment Support; Oversight]
- d. Remove some waiver authority from the FSC level, identifying those items which could be approved by the NSA and those which require NAVSEA deviation approval. [Training and Readiness; Shore Establishment Support; Oversight]
- e. Provide unambiguous failure criteria for 8010 Manual Chapter 12 and 13 drills, including time metrics for placing sustained agent on fire. [Training and Readiness; Shore Establishment Support]
- f. In consultation with the DCBoD, develop grading criteria for F&ES response to shipboard fires. [Shore Establishment Support; Oversight]
- g. Create requirements for what specifically must be accomplished to demonstrate the readiness condition of the ship's firemain before removing a tested and functional temporary firemain. [Material Condition]
- h. Require 8010 drills to include challenges when installed firefighting system capabilities are degraded. [Training and Readiness; Shore Establishment Support]

60. Evaluate whether the sporadic implementation of 8010 Manual requirements through NAVSEA Standard Items (NSI) has contributed to the lack of effective implementation at the Regional Maintenance Centers (RMC) and whether revising the 8010 Manual, to be invoked wholesale in contracts, would be more effective. This review should specifically address requirements of the 8010 Manual that are not covered by NSIs or apply to Ship's Force or the RMC to ensure that they are carried out. [Shore Establishment Support]

61. Review ownership of and technical authority over the 8010 Manual and whether confusion over these roles contributes to incomplete implementation at the RMCs or a lack of appropriate deviation processes. Evaluate whether the direction to other echelons (i.e., TYCOM, CNIC) in the 8010 Manual should prompt the 8010 Manual to be issued by OPNAV. [Shore Establishment Support]
62. Coordinate with Fleet Commanders to review the sufficiency of billeting for all RMCs to ensure that key personnel with fire safety responsibilities have sufficient experience and competency to carry out their roles. [Shore Establishment Support]
63. Revise NSTM 555 to account for fighting fires in the vehicle spaces of LHD-class amphibious ships. [Training and Readiness; Shore Establishment Support]
64. Review whether the Commander, Navy Region Maintenance Center (CNRMC) structure provides an effective framework for overseeing RMC operations. Include in this evaluation whether CNRMC possesses the correct level of expertise to exercise management oversight of all functional areas, whether it may operate best as an echelon 3 command or as a department of NAVSEA. Part of this review should consider whether a single flag officer can properly fulfill CNRMC and NAVSEA 21 duties concurrently. [Oversight]
65. Review all processes in place for oversight of 8010 Manual compliance at the RMC level and whether CNRMC is manned adequately to carry out this safety oversight function. This review should include a comparative assessment of how 8010 Manual compliance oversight is being conducted in the public shipyards, taking into consideration the number of ships undergoing availabilities under each NSA. [Shore Establishment Support; Oversight]
66. Consider restoring a local independent oversight function, external to the RMC command structure, which independently assesses RMC compliance with technical requirements, to include fire safety standards. This organization should have unfettered reporting access to CNRMC and/or NAVSEA Headquarters (HQ) to ensure cost and schedule pressures do not allow safety requirements to be de-emphasized in the execution of an availability. [Oversight]
67. Perform a Hazard Assessment Report (HAR) on the performance of availabilities general berthing piers (i.e., piers not designated for maintenance) to quantify the risk posture that currently exists. [Shore Establishment Support; Oversight]
68. Review IEM requirements and start-up maintenance for Aqueous Film Forming Foam (AFFF) systems, with a particular emphasis for start-up maintenance requirements after restoring an AFFF station which was previously in an IEM status. [Material Condition]
69. Coordinate with CNIC to review the designation of repair piers onboard naval installations to ensure they properly accommodate ships undergoing scheduled maintenance availabilities. [Shore Establishment Support]

70. Coordinate with CNSF and CNIC to ensure that all 8010 Manual Chapter 12 and 13 fire drills are assessed by appropriate actors from the SYSCOM, TYCOM, and civilian firefighting communities. [Training and Readiness; Shore Establishment Support; Oversight]

71. Review the findings of the Balisle report, specifically with regard to the scope of efforts under the RMC, in light of this report and determine whether RMC COs are capable of maintaining adequate control over their assigned duties. [Shore Establishment Support; Oversight]

M. CNRMC

72. Evaluate how all CNRMC organizations have implemented the 8010 Manual. As these reviews have historically focused on the actions which are levied on private shipyards through the NSIs, this review should focus on compliance in areas which are functions of the NSA, Ship's Force, or other government organizations. [Shore Establishment Support; Oversight]

73. Assess whether the 8010 Manual is being effectively implemented across the RMCs. [Shore Establishment Support; Oversight]

74. Require all RMCs to ensure that LMAs carry out all required roles, as required by the 8010 Manual, or otherwise seek NAVSEA approval for deviations from that requirement. [Shore Establishment Support]

75. Require all RMCs to review NSI requirements related to fire safety to ensure all are implemented fully at the private shipyards. [Shore Establishment Support]

76. Ensure guidance related to fire safety planning matches the current contracting framework following the shift from Multi-Ship Multi Option (MSMO) to Multi-Award Contract/Multi-Order (MACMO) contracting. Specifically evaluate whether any changes are necessary for the Integrated Project Team Development (IPTD) process. [Shore Establishment Support]

77. Ensure that all RMC COs, XOs, and Executive Directors (ED) understand their ownership or risk related to fire safety. Specifically, because the 8010 Manual requires RMC concurrence on every fire safety decision during an availability, RMC COs are concurrently responsible for the fire safety of a ship in an availability. [Shore Establishment Support; Oversight]

78. Review safety functions across the RMCs that are being filled by contract employees to assess whether they would be better executed by a government employee or if the safety positions are inherently governmental. [Shore Establishment Support; Oversight]

79. Ensure all Fire Safety Officers (FSO) and Fire Safety Watches (FSW) are trained to ensure all materials are stored in accordance with the 8010 Manual; additionally, ensure that they understand they are responsible for Ship's Force conduct, as well as the contractor. All fire safety discrepancies identified by the FSO must be entered into a daily report that enables

tracking and trend analysis over time, and must be distributed to all key stakeholders within a project. [Shore Establishment Support; Oversight]

80. Ensure the FSO, as Chairman of the FSC, has an equal vote in all fire safety decisions. [Shore Establishment Support; Oversight]

81. Ensure that FSOs are aware they can stop work if they identify a significant fire safety violation. [Shore Establishment Support; Oversight]

82. Ensure all FSOs are qualified on the ship class to which they are assigned and provide detailed guidance as to what these qualifications require. [Shore Establishment Support; Oversight]

83. Monitor and track all 8010 Manual Chapter 12 and 13 drills for ships to ensure the periodicity requirements of the 8010 Manual are followed. [Training and Readiness; Shore Establishment Support; Oversight]

84. Create a process to ensure effective sharing of lessons learned from shipboard fires across the RMCs. [Shore Establishment Support; Oversight]

85. Clarify the role of the Code 200 Technical Director in the adjudication of technical decisions. Coordinate with NAVSEA 05 regarding any necessary delegation of technical authority. [Shore Establishment Support; Oversight]

86. Ensure materials used to suspend temporary services at all RMCs are compliant with 8010 Manual requirements and applicable NSIs. [Material Condition; Shore Establishment Support]

87. Conduct a periodic review of all Fire Response Plans (FRP) prepared for availabilities throughout the RMCs to ensure compliance with the 8010 Manual. [Shore Establishment Support; Oversight]

N. SWRMC

88. Fill the Code 106B and Government FSO billets. [Shore Establishment Support]

89. Assign Project Support Engineers (PSEs) to attend the FSC meetings, as required by the 8010 Manual. [Shore Establishment Support]

90. Pursue funding for General Schedule (GS) billets for all Southwest Regional Maintenance Center (SWRMC) FSOs. Alternatively, evaluate using military personnel to carry out this function. [Shore Establishment Support]

91. Ensure FSOs are identifying and recording fire safety discrepancies against Ship's Force and that reports of these violations are being sufficiently reviewed by all relevant stakeholders. [Shore Establishment Support]

92. Validate that FSCs are conducted as properly-convened meetings, with all members formally voting on topics raised. Ensure all members understand that their independent judgment is required on each issue of fire safety. [Shore Establishment Support]
93. Validate the qualifications of the FSC members to ensure those personnel assigned to that role have the requisite knowledge and experience to carry out their duties. [Shore Establishment Support]
94. Develop a process for higher-level review of FSC minutes to ensure that all SWRMC departments understand the fire risk posture of all the ships undergoing availabilities. [Shore Establishment Support]
95. Ensure all 8010 Manual drills are executed within the required periodicity. Ensure requests for deviation be approved by NAVSEA, via CNRMC. Clarify with FSOs that the 8010 Manual does not allow FSC deviations from the specific timing requirements of 8010 Manual Chapter 12 drills. [Training and Readiness; Shore Establishment Support]
96. Execute annual major 8010 Manual fire drills at each LMA, or require the actions of the 8010 Manual, Section 13.3.11, for all LMAs if they fall under the same F&ES response. Ensure requests for deviation be approved by NAVSEA, via CNRMC. [Training and Readiness; Shore Establishment Support]
97. Comply with the 8010 Manual requirement to provide radios to ships within availabilities which are interoperable with responding fire departments and available for immediate use. Require daily operational tests of the radios, as required by the 8010 Manual. If this requirement cannot be met, seek NAVSEA approval for a deviation from the requirement. [Material Condition; Shore Establishment Support]
98. Evaluate whether Code 300 is adequately enforcing NSI requirements related to fire safety and if knowledgeable personnel are engaged during all contract phases, specifically contract planning, initiation, and solicitation. [Shore Establishment Support]
99. Review the SWRMC CDO program to ensure that CDOs are trained and located to appropriately respond to an emergency. As part of this review, evaluate whether the policy of allowing CDOs to depart Naval Base San Diego (NBSD) has an effect on the prompt response to a casualty. [Shore Establishment Support]
100. Align, streamline, and simplify SWRMCINST 5100.11C Fire Response Plan and 5100.2B Fire Safety Plan to properly address all issues contained within this report. [Shore Establishment Support]
101. Realign the FSO under the operations department, as required by the 8010 Manual. [Shore Establishment Support]

102. Review whether the initial and periodic training provided to Ship's Force personnel regarding fire safety during an availability is adequate. Special consideration for crew rotation over the course of an availability must be factored into this review. [Training and Readiness; Shore Establishment Support]

103. Evaluate developing a training environment within SWRMC that would allow Ship's Force members to practice operation of quick-disconnects utilized by maintenance providers. [Training and Readiness; Shore Establishment Support]

104. In conjunction with installation COs, review and determine a single command and control structure for use during shipboard safety incidents. [Shore Establishment Support]

105. Coordinate with NBSD to collocate the Emergency Operations Center (EOC) and Emergency Command Center (ECC) during shipboard emergencies in which each organization has equity. This construct should be trained and drilled to ensure effectiveness. [Shore Establishment Support]

106. For ships undergoing an availability on Navy installations, provide installation COs with a weekly summary of major work being conducted that could impact power and installed firefighting systems. [Shore Establishment Support]

107. Review contracts associated with fire safety and other issues identified in this report to evaluate contractor compliance with all fire safety responsibilities. [Shore Establishment Support]

O. CNIC

108. Evaluate FEDFIRE's requirements for shipboard fire prevention, training, and response to ensure requirements are effectively published and satisfied. [Shore Establishment Support; Oversight]

109. Execute Program Compliance Assessments for Navy F&ES departments in accordance with OPNAVINST 11320.23G to ensure compliance with all higher-level directives and policies within the required periodicities. [Shore Establishment Support, Oversight]

110. Assess whether the equipment utilized by US Fire Pump should be acquired for shore installations berthing Navy vessels, including public shipyards. [Shore Establishment Support]

111. Assess the adequacy of Mutual Aid Agreements (MAA) of all installation communication plans and MAAs with local municipal responders. [Shore Establishment Support, Oversight]

112. Validate through Region Commanders that all installations with RMCs have developed protocols to integrate mutual aid MAAs and Memorandums of Understanding (MOU) into their EM and Fire Response plans. Conduct exercises annually to test the effectiveness of these MAAs and MOUs to ensure an effective integrated response to major shipboard fire event with local municipalities. [Shore Establishment Support, Oversight]

113. Validate through Region Commanders that all installations have established, exercised, and recently reviewed MAAs and MOUs with their local mutual aid partners annually. [Shore Establishment Support, Oversight]

114. Validate through Region Commanders that installations with Shipyards and RMCs have detailed Hazard-Specific Appendixes for Major Shipboard fires and that these annexes are coordinated with the shipyard and RMCs Fire Response Plans. [Shore Establishment Support, Oversight]

115. Develop programmatic measures to track known deficiencies, such as those existing with radio interoperability and FEDFIRE hose compatibility, until they are addressed to ensure leadership is consistently aware of risk. [Shore Establishment Support, Oversight]

116. Require MAAs with local Fire and Emergency Services (F&ES) to address specific communication, coordination, and training procedures for shipboard fire response and incorporate those procedures into a training plan. [Shore Establishment Support, Oversight]

117. Coordinate with NAVSEA and CNSP to ensure that all 8010 Manual Chapter 12 and 13 fire drills are assessed by appropriate actors from the SYSCOM, TYCOM, and civilian firefighting communities. Develop grading criteria for FEDFIRE during 8010 Manual drills and maintain appropriate documentation of FEDFIRE performance during these drills. [Shore Establishment Support, Oversight]

118. Coordinate with NAVSEA to review the designation of repair piers onboard naval installations to ensure they properly accommodate ships undergoing scheduled maintenance in availabilities. [Shore Establishment Support]

119. Review, in coordination with NAVSEA, all EM and Incident Action Plans (IAP) to ensure they adequately address the installation response to a major shipboard fire at an installation. [Shore Establishment Support, Oversight]

120. Incorporate training on role of installation COs during major shipboard fire response while pierside during the CO training curriculum. [Shore Establishment Support, Oversight]

P. CNRSW

121. Review the San Diego FEDFIRE Metro Area construct and its compatibility with the installation CO's absolute responsibility for the effectiveness of FEDFIRE on their installation. Clarify the roles and responsibilities under the Metro Area construct as necessary to support the installation CO. [Shore Establishment Support]

122. Review all Region FEDFIRE training requirements with respect to shipboard firefighting and whether they are currently being satisfied. Establish an auditable training oversight program

to ensure there is consistent tracking and reporting of FEDFIRE training. [Shore Establishment Support, Oversight]

123. Train all installation COs on their responsibility to oversee the execution of all FEDFIRE activities on their installation. [Shore Establishment Support]

124. Train all FEDFIRE personnel who respond to shipboard fires that the ship CO retains absolute authority and incident command at all times, to include the direction of responding personnel. [Shore Establishment Support]

125. Conduct periodic testing of all communications equipment used to engage with mutual aid partners to ensure interoperability. [Shore Establishment Support, Oversight]

Q. NBSD

126. Review FEDFIRE's training execution with regard to shipboard firefighting onboard NBSD. Ensure that each firefighter is maintaining standards in accordance with OPNAVINST 11320.23G and all other CNIC guidance. [Shore Establishment Support]

127. In coordination with waterfront COs, ensure periodic FEDFIRE shipboard walkthroughs for all classes of ships are being conducted. [Shore Establishment Support]

128. Engage NAVFAC about the availability of firemain on Pier 2 and other piers that commonly host availabilities. Coordinate with SWRMC and CNSP regarding whether the current infrastructure is sufficient. Provide mitigation for requirements identified that will take time to gain funding for execution. [Shore Establishment Support]

129. Review, exercise, and update MAAs and MOUs regarding F&ES support with the City of San Diego, National City, and other mutual aid partners annually. [Shore Establishment Support]

130. Review all pier designations and assess whether any piers used for maintenance require re-designation or other action. In coordination with SWRMC, evaluate whether any additional precautions are required to mitigate risk associated with availabilities being conducted on piers not properly designated or equipped for maintenance. [Shore Establishment Support]

131. Coordinate with SWRMC to collocate the EOC and ECC during shipboard emergencies in which each organization has equity. This construct should be trained and drilled to ensure effectiveness. [Shore Establishment Support]

132. Coordinate with SWRMC to review the adequacy of the pier laydown process for ships in availabilities. [Shore Establishment Support]

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133. Evaluate the ability to meet the number of brows required for all classes of ships undergoing availabilities on NBSD. Provide a written explanation to NAVSEA via CNIC for any brow requirement that cannot be met by NBSD. [Shore Establishment Support]

134. Coordinate with SWRMC to codify means of ensuring pier cleanliness and storage are jointly enforced on contractors when availabilities are performed on NBSD. NSBD, FEDFIRE and the Project Team (PT) for an availability should concur on a formal and detailed pier laydown plan for any ship conducting an availability at NBSD. [Shore Establishment Support]

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Chapter 5 – Accountability

The convening order requires recommendations on accountability. The total loss of a capital asset demands close examination of all personnel to produce fully-informed recommendations. The appointing order makes clear that our rigorous assessment must not be impacted by rank, paygrade, or level of command of a responsible person, entity, or organization.

This report identifies an array of deviations and failures, but not all are causal or directly contributing factors to the fire aboard and loss of USS BONHOMME RICHARD (LHD-6). One conclusion is clear: no single failure resulted in the loss of the ship, and thus accountability is not focused on any one individual, but rather shared across various Commanders, Commanding Officers (CO), and subordinate personnel. In some instances there are errors of omission while others are marked with acts of commission.

In developing these recommendations, the investigation team developed the below framework to maintain a deliberate and consistent approach. The team invested considerable time with this framework after findings of fact and opinions were complete. Three central factors were employed in evaluating all individuals for a potential accountability recommendation:

- (1) Were an individual's actions or inactions causal or otherwise contributing to the loss of BONHOMME RICHARD?
- (2) Did the individual have a duty or responsibility related to protecting BONHOMME RICHARD from risk accumulation that they failed to meet?
- (3) For individuals in a unique position of seniority and responsibility, was their performance in executing oversight and judgment deficient enough to question confidence?

A. BONHOMME RICHARD

1. CAPT Gregory Thoroman, USN. As Commanding Officer (CO), his responsibility is absolute, commensurate with his responsibilities. The execution of his duties created an environment of poor training, maintenance, and operational standards that directly led to the loss of the ship.

2. CAPT Michael Ray, USN. As Executive Officer (XO) and the Damage Control Training Team (DCCT) Leader, he is responsible to maintain awareness of the ship's survivability, manage the crew's readiness to manage casualties, and serve as principal oversight for all shipboard drills and exercises in Damage Control (DC). Additionally, as the ship's Maintenance & Material Management System (3M) Manager, he is responsible for the implementation of an effective restoration program for equipment in an Inactive Equipment Maintenance (IEM) status. His failure to execute these responsibilities directly led to the loss of the ship.

3. Command Master Chief (CMC) Jose M. Hernandez, USN. As Command Master Chief, he occupies a significant role in every aspect of the ship's readiness and mission accomplishment and is responsible for aligning the objectives and culture of the ship's senior enlisted leadership to effectively execute the ship's mission. His failure to effectively execute this role directly led to the loss of the ship.

4. (b) (6). As Chief Engineer (CHENG), he is responsible as the senior officer in the engineering department, in addition to his responsibilities as the Damage Control Officer (DCO). His failure to effectively execute these roles directly led to the loss of the ship.

5. (b) (6). As Damage Control Assistant (DCA), he is the primary assistant to the DCO in the area of DC and firefighting and is the immediate officer in charge of DC programs, including administration, material readiness, and training. His failure to effectively execute this role directly led to the loss of the ship.

6. (b) (6). As Senior Watch Officer (SWO), he is responsible for the performance of all watchstanders, including the training and qualification standards for Command Duty Officers (CDO). Further, he is responsible for the implementation of watchstanding policies and practices. His failure to effectively execute this role directly led to the loss of the ship.

7. (b) (6). As First Lieutenant, he is responsible for managing the stowage of material and equipment in compartments owned by deck department, including Lower Vehicle Stowage Area (Lower V) and Upper Vehicle Stowage Area (Upper V). His failure to effectively execute this role directly led to the loss of the ship.

8. (b) (6). As Senior Medical Officer (SMO), he is responsible for his personnel, material, and equipment, to include storage within the medical ward. His failure to effectively exercise oversight of this responsibility contributed to the loss of the ship.

9. (b) (6). As CDO on the day of the fire, he is responsible for the command and control of the ship and holds the authority of the CO while on duty. His failure to effectively execute this role directly led to the loss of the ship. In mitigation, this was (b) (6) first time serving as the CDO and his efforts were hindered by a crew that was not properly trained or prepared to respond to the casualty. Additionally, as the Assistant Damage Control Assistant (ADCA), he raised concerns about the readiness of the crew and the material condition of the ship in the months prior to the fire, but BONHOMME RICHARD leadership did not take effective mitigating nor corrective actions.

10. (b) (6). As the Engineering Department Leading Chief Petty Officer (LCPO), he is responsible to exercise oversight of the engineering department watchbill process and supervise all enlisted personnel within engineering department. His failure to effectively execute this role directly led to the loss of the ship.

11. (b) (6). As a member of Duty Section 5 on the day prior to the fire, he departed the ship overnight without authorization and returned

just prior to duty section turnover. As the senior enlisted chief petty officer present from engineering department when the fire broke out, he failed to exercise effective direction of the fire response effort.

12. (b) (6). As the senior enlisted member of engineering department on duty on 12 July 2020, he is responsible to exercise effective direction of the fire response effort. His failure to effectively execute this role directly led to the loss of the ship.
13. (b) (6). As Officer of the Deck (OOD) on the day of the fire, he is responsible for the safe and proper operation of the ship and station, to include all communications from the Quarterdeck, reports, and supervision of the watch. His failure to effectively execute this role directly led to the loss of the ship.
14. (b) (6). As Damage Control Leading Chief Petty Officer (DCLPO), he is responsible for understanding all phases of the ship's DC procedures, to include equipment maintenance and training of personnel. His failure to effectively execute this role directly led to the loss of the ship. In mitigation, (b) (6) was unable to work aboard the ship in the preceding 45 days prior to the fire due to a medical condition.
15. (b) (6). As the Repair Division LPO, he is responsible for understanding all phases of the ship's DC procedures, to include equipment maintenance and training of personnel. As part of the team responsible for tracking and documenting the completion of all maintenance checks of the Aqueous Film Forming Foam (AFFF) system, he failed to follow proper procedure by certifying the system was operational despite the existence of discrepancies. On 12 July 2020, he was ineffective in organizing and leading efforts in support of combatting the casualty. His failure to effectively execute these roles directly led to the loss of the ship.
16. (b) (6). As Engineering Duty Officer (EDO) on the day of the fire, he is responsible for all DC efforts from DC Central. His failure to effectively execute this role directly led to the loss of the ship.
17. (b) (6). As a Damage Control Petty Officer, he is responsible for understanding all phases of the ship's DC, procedures to include equipment maintenance and training of personnel. As the ER04 Work Center Supervisor (WCS), he is responsible for tracking and documenting the completion of all maintenance checks. On 12 July 2020, as the Duty Fire Marshal, he was responsible to effectively organize and lead firefighting efforts to combat the casualty. His failure to effectively execute these roles directly led to the loss of the ship.
18. (b) (6). As a member of Duty Section Six In-Port Emergency Team (IET) on the day of the fire, he was late and missed duty section turnover, failing to report aboard the ship until more than an hour after the fire started. His failure to be at his appointed place of duty degraded the fire response effort.

B. Southwest Regional Maintenance Center

19. CAPT David Hart, USN. As Commanding Officer (CO), his responsibility is absolute, commensurate with his responsibilities. The execution of his duties enabled an environment of substandard execution of fire safety practices, lack of adherence to written standards, and ineffective execution of the mission that directly led to the loss of the ship.

20. (b) (6). As Executive Director (ED), he is responsible for the operations and management of the Regional Maintenance Center (RMC) in the execution of private-sector, depot-level maintenance and modernization of surface ships and fleet technical and engineering support. The execution of his duties enabled an environment of substandard execution of fire safety practices, extended gaps in critical safety billets, lack of adherence to written standards, and ineffective execution of the mission that contributed to the loss of the ship.

21. (b) (6). As the Environmental Safety and Health Department Head (Code 106), he is responsible to ensure compliance with the 8010 Manual when executing availabilities, to include supervision of the Fire Safety Officers (FSO). His failure to effectively execute this responsibility contributed to the loss of the ship.

22. (b) (6). As the Waterfront Operations Department Head (Code 300), she is responsible for all depot level work for ships in San Diego, to include both planning and execution of maintenance and was responsible for ensuring the Emergency Response Team (ERT) was staffed with the right experience from her department and ready for a casualty. Her failure to effectively execute this responsibility contributed to the loss of the ship.

23. (b) (6). As the Waterfront Operations Director (Code 300), he is responsible for the performance of all Southwest Regional Maintenance Center (SWRMC) Project Managers (PM) and the execution of the availabilities they oversee. His failure to effectively execute this responsibility contributed to the loss of the ship.

24. (b) (6). As the Code 315 Program Manager (PM) for Landing Helicopter Assault (LHA)/Landing Helicopter Deck (LHD) Class, he is responsible for the execution of maintenance availabilities on LHD Class ships, to include oversight of the PM for BONHOMME RICHARD. His failure to effectively execute this responsibility contributed to the loss of the ship.

25. (b) (6). As the Project Manager (PM) of the BONHOMME RICHARD availability and a member of Code 300, she is responsible for oversight and execution of the availability to include being a member of the Fire Safety Council (FSC). Her failure to effectively execute these responsibilities directly led to the loss of the ship.

C. Naval Base San Diego

26. CAPT Mark Nieswiadomy, USN. As Commanding Officer (CO), his responsibility is absolute, commensurate with his responsibilities. The execution of his duties created an environment of poor training of installation personnel, an ineffective installation Fire and

Emergency Services (F&ES) program, and lack of oversight to maintenance activities taking place on Naval Base San Diego (NBSD) that contributed to the loss of the ship. In mitigation, the command and control structure of the Federal Firefighting Department (FEDFIRE) Metro Area hindered the ability of NBSD to assert control over FEDFIRE assets and personnel to execute his responsibilities.

27. FEDFIRE Metro (b) (6). As installation Fire Chief, she is responsible for all F&ES operations to the installation. These responsibilities include management and organizational oversight of installation FEDFIRE personnel, execution of all applicable directives, facilitating development of all Mutual Aid Agreements (MAAs), and training of FEDFIRE personnel. Her failure in the execution of her duties contributed to the loss of the ship. In mitigation, the command and control structure of the FEDFIRE Metro Area caused significant confusion regarding her authority and responsibilities.

D. Navy Region Southwest

28. RDML Bette Bolivar, USN. As Commander, Navy Region Southwest (CNRSW), she is responsible for the satisfactory accomplishment of the mission and duties assigned to the installations within the Region. The execution of her duties contributed to the loss of the ship.

29. FEDFIRE Region [REDACTED]. As Regional FEDFIRE Chief, he is the senior Fire and Safety Services officer and program manager responsible for all execution of the FEDFIRE mission. These responsibilities include coordinating administrative authority over all installation Chiefs, reviewing the operations and capabilities of each installation annually, facilitating the development of MAAs, and implementing procedures to evaluate and improve all aspects of the Region F&ES program. His failure in the execution of his duties contributed to the loss of the ship.

E. Navy Regional Maintenance Center

30. RDML Eric Ver Hage, USN. As Commander, Navy Regional Maintenance Center (CNRMC), he is responsible for the satisfactory accomplishment of the mission and duties assigned to his commands. His failure in the execution of his duties contributed to the loss of the ship.

31. (b) (6). As the Safety Manager, he is responsible for oversight of fire safety programs for all subordinate regional maintenance centers. His failures in the execution of his duties contributed to the loss of the ship.

F. Navy Installations Command

32. (b) (6). As CNIC N30, he is the senior member of the Navy F&ES and is responsible to execute the entire program to protect Navy Fleet, fighter, and families at all Navy installations. His failure in the execution of his duties contributed to the loss of the ship.

G. Amphibious Squadron FIVE

33. CAPT Tony Rodriguez, USN. As Commander, Amphibious Squadron FIVE (PHIBRON-5), he is responsible for the satisfactory accomplishment of the mission and duties to the ships assigned under his command. His failure in the execution of his duties contributed to the loss of the ship. In mitigation, CAPT Rodriguez provided some oversight to the BONHOMME RICHARD that is expected of an operational commander, and the roles and responsibilities from CNSP were not codified.

H. Naval Surface Force Pacific Fleet

34. VADM Richard Brown, USN. As Commander, Naval Surface Force Pacific Fleet, he is responsible for the satisfactory accomplishment of the mission and duties to the ships assigned under his command. His failure in the execution of his duties contributed to the loss of the ship.

I. U.S. Pacific Fleet

35. RDML Scott Brown, USN. As the Fleet Maintenance Officer (N43), he is responsible to exercise oversight of all maintenance and modernization activities in the Pacific Fleet area of responsibility. His failure in the execution of his duties contributed to the loss of the ship.

J. U.S. Fleet Forces Command

36. RDML William Greene, USN. As the Fleet Maintenance Officer (N43), he is responsible to exercise oversight of all maintenance and modernization activities for the U.S. Fleet Forces area of responsibility. His failure in the execution of his duties contributed to the loss of the ship.

Chapter 6 – Meritorious Performance of Duty Recommendations

To carry out an adequate search for instances of meritorious performance, the investigation team maintained an ongoing list that warranted consideration. This list was re-visited throughout the course of the investigation. The below list represents performance that was above and beyond what was expected of personnel in the execution of their mission, functions, and tasks. There were many instances of personnel who risked their lives during the course of the firefight, but the below list is limited to exceptionally noteworthy conduct.

A. BONHOMME RICHARD

1. (b) (6) was in DC Central when the OOD called to report smoke in Lower V. He responded immediately by investigating and requesting the OOD to call away the casualty. He attempted to descend to Lower V several times. Driven back by heat and smoke, he integrated with arriving FEDFIRE teams, directing them toward the fire and assisting them in laying hose to Lower V. (b) (6) was part of the FEDFIRE team that briefly applied water for cooling in Lower V before the team withdrew due to an SCBA low air alarm. (b) (6) later joined a FEDFIRE team to search for possible missing Sailors, briefly reentering Upper V via the sideport ramp, then climbing an aerial ladder to the flight deck. Although the investigation team was only able to obtain a partial account of (b) (6)'s actions in the first three hours of the fire, his individual attempts to enter Lower V and repeated efforts to assist FEDFIRE in reaching Lower V, followed by his decision to accompany a FEDFIRE rescue team after learning of possible missing Sailors, all undertaken without direction from his superiors, are commendable.

2. Several BONHOMME RICHARD Sailors unilaterally acted to verify that no personnel remained in the berthing areas as the ship was evacuated. While the exact identity of each of these Sailors cannot be determined with certainty, their efforts to ensure no shipmates were left onboard is worthy of commendation.

3. While the span of the firefighting response and the multi-month delay in conducting interviews renders specific identification difficult, numerous BONHOMME RICHARD Sailors conducted commendable firefighting efforts throughout the multi-day fire response. After the first day, they repeatedly exposed themselves to danger over 12-hour shifts in their efforts to extinguish the fire.

B. NAVSEA Supervisor for Salvage

4. NAVSEA Supervisor for Salvage personnel contributed significantly to the fire response efforts through their effective coordination of numerous contractors, such as GPC/ESSM and US Fire Pump. In particular, (b) (6), quickly responded to the casualty on 12 July

2020, identified SUPSALV resources that could assist, and took prompt action to activate contract support to further contribute to firefighting efforts.

C. CNIC Enterprise

5. FEDFIRE Firefighters. Given the sizable span of the firefighting response coupled with the delay in conducting interviews for this investigation, identification of specific noteworthy actions by FEDFIRE personnel was difficult. Notwithstanding this limitation, FEDFIRE firefighters were commendable in their efforts throughout the BONHOMME RICHARD fire response. FEDFIRE firefighters, some of whom traveled far distances from Region Southwest, worked multi-day shifts and repeatedly entered a challenging environment at great risk to themselves to combat the fire.

6. (b) (6) was on duty as RDC dispatcher on 12 July 2020. Despite having no requirement to monitor the Harbor Defense Net, he monitored radio traffic on that channel in the background of his assigned duties, which enabled him to overhear an exchange about smoke coming from BONHOMME RICHARD, which was very early in the incident. After attempting to confirm a casualty, (b) (6) unilaterally generated a fire and emergency services response without being prompted by a 911 call or other request. His actions directly contributed to FEDFIRE's rapid arrival on scene.

D. Others

7. San Diego Fire Department (b) (6). (b) (6) was part of the SDFD teams combatting the fires in Upper V from approximately 0951 until 1035. At 1035, (b) (6) identified smoke conditions that he assessed could lead to an explosion and began ordering personnel to evacuate the ship. His actions were directly responsible for saving lives of countless personnel who would have otherwise been onboard during the 1050 explosion.

8. Helicopter Sea Combat Squadron THREE (HSC-3). HSC-3 conducted more than 1,649 water drops deploying 545,076 gallons of water in support of the fire response. While personnel in HSC-3's Southern California Offshore Range Detachment had received limited training on conducting aerial water drops in support of daytime wildfire firefighting operations, neither the SCORE detachment nor HSC-3's personnel had experience providing aerial water drops for an effort of this magnitude. HSC-3's actions contributed to firefighting and represented action that went above and beyond HSC-3's mission, functions, and tasks.

9. Personnel Responding from Across Waterfront. Personnel across the waterfront quickly came to the assistance of the BONHOMME RICHARD, offering their time, equipment, and supplies that contributed to the firefighting efforts.

~~CU~~

10. NBSD Port Ops and Crews from FITZGERALD & RUSSELL in quick reaction to move ships from Pier 2. The personnel from these organizations executed swift action to move these ships away from the fire, which prevented damage to these vessels.

~~CU~~

Appendices

Appendix A: Enclosures

- (1) COMPACFLT Ltr N00/0976 of 4 Aug 20 (Convening Order)
- (2) COMPACFLT Ltr N00/1106 of 15 Sep 20 (Modified Convening Order)
- (3) COMPACFLT Ltr N00/1312 of 18 Nov 20 (Modified Convening Order)
- (4) COMPACFLT Ltr N00/0242 of 22 Feb 21 (Modified Convening Order)
- (5) Bureau of Alcohol, Tobacco, Firearms and Explosives Interview Summaries of BHR Personnel
- (6) NCIS Interview of (b) (6) (BHR)
- (7) USS BONHOMME RICHARD Duty Section 6 of 6 Roster
- (8) USS BONHOMME RICHARD Watchbill of 12 Jul 20
- (9) USS BONHOMME RICHARD Engineering Department Duty Section Roster
- (10) USS BONHOMME RICHARD Muster Spreadsheet of 8 Oct 20
- (11) NCIS Results of Screening Questionnaire for BHR Personnel of 20 Jul 20
- (12) NCIS Interview of (b) (6) (FTZ)
- (13) Summary of Interview of (b) (6) (BHR)
- (14) Summary of Interview of (b) (6) (NBSD)
- (15) NCIS Interview of (b) (6) (BHR)
- (16) NCIS Interview of BHR Section Leaders 5 and 6 of 7 Aug 20
- (17) Summary of Interview of (b) (6) (BHR)
- (18) USS BONHOMME RICHARD Engineering Inport Watch Bill Duty Section 3 of 6 of 11 Jul 20
- (19) Summary of Interview of (b) (6) (BHR)
- (20) USS BONHOMME RICHARD Six Section CDO Watchbill of Jul 20
- (21) USS BONHOMME RICHARD Watchbill of 11 Jul 20 to 12 Jul 20
- (22) NBSD Base Access Control Report of 12 Jul 20 to 13 Jul 20
- (23) Summary of Interview of (b) (6) (BHR)
- (24) Summary of Interview of (b) (6) (BHR)
- (25) USS BONHOMME RICHARD Duty Section 4 of 6 Watchbill of 12 Jul 20 (Recreated)
- (26) USS BONHOMME RICHARD Watchbill Page 1 of 2 of 12 Jul 20
- (27) Summary of Interview of (b) (6) (BHR)
- (28) Summary of Interview of (b) (6) (BHR)
- (29) NCIS Second Interview of (b) (6) (BHR)
- (30) NBSD Base Access Control Report of 12 Jul 20
- (31) NCIS Third Interview of (b) (6) (BHR) [Video]
- (32) NCIS Interview of (b) (6) (BHR)
- (33) NCIS First Interview of (b) (6) (BHR)
- (34) NCIS Third Interview of (b) (6) (BHR)
- (35) NCIS Interview of (b) (6) (BHR)
- (36) NCIS Production of Event Timeline of 4 Aug 20

- (37) NCIS First Interview of (b) (6) (BHR)
- (38) NCIS Enclosure to Third Interview of (b) (6) (BHR)
- (39) NCIS Second Interview of (b) (6) (BHR)
- (40) Summary of First NCIS Video Interview of (b) (6) (BHR)
- (41) Summary of Inquiry into the Fire Aboard USS BONHOMME RICHARD Vol 1-3 of 14 Jul 20
- (42) Summary of Interview of (b) (6) (BHR)
- (43) Summary of Interview of (b) (6) (BHR)
- (44) Summary of Interview of (b) (6), Nelson (BHR)
- (45) Summary of Interview of (b) (6) (BHR)
- (46) NCIS Interview of (b) (6) (BHR) [Disk]
- (47) NCIS Interview of (b) (6) (BHR)
- (48) Summary of Interview of (b) (6) (BHR)
- (49) Summary of Interview of (b) (6) (BHR)
- (50) NCIS Interview of (b) (6) (BHR)
- (51) Summary of Interview of (b) (6) (BHR)
- (52) Summary of Interview of (b) (6) (BHR)
- (53) NCIS Interview of (b) (6) (BHR)
- (54) Bureau of Alcohol, Tobacco, Firearms and Explosives Interview of (b) (6) (BHR)
- (55) Summary of Interview of (b) (6) (BHR)
- (56) Summary of Interview of (b) (6) (BHR)
- (57) NCIS First Interview of (b) (6) (BHR)
- (58) NCIS Interview of (b) (6) (BHR)
- (59) Photo Depiction of SCBA Bottles on Pier on 12 Jul 20 [IMG 4614]
- (60) NCIS Interview of (b) (6) (BHR) [Disk]
- (61) Summary of First Interview of (b) (6) (BHR)
- (62) Summary of Second Interview of (b) (6) (BHR)
- (63) Summary of Interview of (b) (6) (BHR)
- (64) Summary of Interview of (b) (6) (BHR)
- (65) Summary of Interview of (b) (6) (BHR)
- (66) NCIS Interview of (b) (6) (BHR)
- (67) Summary of Interview of (b) (6) (BHR)
- (68) Summary of Interview of (b) (6) (BHR)
- (69) Photo Depiction of USS BONHOMME RICHARD Damage Control Plates of 18 Jul 20 [DSC 1013]
- (70) Summary of Interview of (b) (6) (BHR)
- (71) Summary of Interview of (b) (6) (FTZ)
- (72) Summary of Interview of RDML Sobeck, Philip (ESG-3)
- (73) Summary of Interview of (b) (6) (RSL)
- (74) Summary of Interview of (b) (6) (FTZ)
- (75) USS RUSSELL Deck Log of 12 Jul 20

- (76) Summary of Interview of (b) (6) (RSL)
- (77) Summary of Interview of (b) (6) (BHR)
- (78) USS FITZGERALD Deck Log of 12 Jul 20
- (79) Summary of Interview of (b) (6) (FRE)
- (80) Summary of Interview of (b) (6) (FTZ)
- (81) Summary of Interview of (b) (6) (BHR)
- (82) Summary of Interview of CAPT Thoroman, Gregory (BHR)
- (83) Summary of Interview of (b) (6) (BHR)
- (84) NCIS Interview of (b) (6) (BHR)
- (85) Summary of Interview of (b) (6) (BHR)
- (86) Summary of Interview of (b) (6) (BHR)
- (87) Summary of Interview of (b) (6) (BHR)
- (88) Photo Depiction of USS BONHOMME RICHARD Sailors Dressing out in Hangar [IMG 4447]
- (89) Summary of Interview of (b) (6) (BHR)
- (90) Summary of Interview of (b) (6) (BHR)
- (91) Summary of Interview of (b) (6) (BHR)
- (92) NCIS Interview with (b) (6) (BHR)
- (93) Summary of Interview of (b) (6) (BHR)
- (94) NCIS Second Interview of (b) (6) (BHR)
- (95) Summary of Interview of (b) (6) (BHR)
- (96) Photo Depiction of Duty Fire Marshall and (b) (6) on 12 Jul 20
- (97) Summary of Interview of (b) (6) (BHR)
- (98) Summary of Interview of (b) (6) (BHR)
- (99) USS BONHOMME RICHARD Engineering Log of 1 Jul 20 to 19 Jul 20
- (100) NCIS Interview of (b) (6) (BHR)
- (101) Summary of Interview of (b) (6) (BHR)
- (102) Summary of Interview of (b) (6) (BHR)
- (103) Summary of Interview of (b) (6) (BHR)
- (104) Summary of Interview of (b) (6) (BHR)
- (105) Summary of Interview of (b) (6) (BHR)
- (106) NCIS Telephonic Screening Interviews of 27 Jul 20
- (107) NCIS Walkthrough Interview of (b) (6) (BHR)
- (108) NCIS Second Interview of (b) (6) (BHR)
- (109) NCIS Interview of (b) (6) (BHR)
- (110) Summary of Interview of (b) (6) (BHR)
- (111) Summary of Interview of (b) (6) (BHR)
- (112) CNSF Fire Safety Assessment Program Report of 23 Nov 20
- (113) CNSF Fire Safety Assessment Program Report of 27 Oct 20
- (114) USS BONHOMME RICHARD Fire Safety Watch Training Minutes of 23 Jan 20
- (115) NCIS Interview of (b) (6) (BHR)

- (116) Fires And Flooding Devastated The Amphibious Assault Ship USS Bonhomme Richard, U.S. Navy's Top Officer Reveals, Business Insider, 22 Jul 20 [Media]
- (117) Summary of Interview of (b) (6) (SWRMC)
- (118) Summary of Interview of (b) (6) (BHR)
- (119) Summary of Interview of (b) (6) (BHR)
- (120) Summary of Interview of (b) (6) (BHR)
- (121) Summary of Interview of (b) (6) (BHR)
- (122) Summary of Interview of (b) (6) (BHR)
- (123) Summary of Interview of (b) (6) (BHR)
- (124) Summary of Interview of (b) (6) (BHR)
- (125) Summary of Interview of (b) (6) (BHR)
- (126) USS BONHOMME RICHARD Audio Visual Files Depicting Events on or after 12 July 2020
- (127) USS BONHOMME RICHARD Damage Control Plates 1-4
- (128) Photo Depiction 1 of 2 USS BONHOMME RICHARD Lower V on 31 Aug 20 [JPG 1110]
- (129) Photo Depiction 2 of 2 USS BONHOMME RICHARD Lower V on 31 Aug 20 [JPG 1111]
- (130) Summary of Interview of (b) (6) (BHR)
- (131) Summary of Interview of (b) (6) (BHR)
- (132) Summary of Interview of (b) (6) (RSL)
- (133) Summary of Interview of (b) (6) (RSL)
- (134) Summary of Interview of (b) (6) (RSL)
- (135) Summary of Interview of (b) (6) (RSL)
- (136) Summary of Interview of (b) (6) (RSL)
- (137) Summary of Interview of (b) (6) (RSL)
- (138) Summary of Interview of (b) (6) (CNRSW)
- (139) USS BONHOMME RICHARD CAD Police Event Log (Part 1)
- (140) Fire Incident CMD 2 Channel (Part 1) of 12 Jul 20 [Audio]
- (141) USS BONHOMME RICHARD CAD Police Event Log (Part 1)
- (142) ESG-3 USS BONHOMME RICHARD Fire Overview of 12 Jul 20 to 16 Jul 20
- (143) Summary of Interview of (b) (6) (NBSD)
- (144) Summary of Interview of (b) (6) (NBSD)
- (145) Regional Dispatch Center Phone Call to NBSD ATTWO of 7 Jul 20
- (146) Region Operation Center Bridge Watch Team Timeline of BHR Major Fire of 12 Jul 20
- (147) NBSD Urgent Notice - Fire Onboard USS BONHOMME RICHARD of 12 Jul 20
- (148) Fire Incident TAC 2 Channel (Part 1) of 12 Jul 20 [Audio]
- (149) Summary of Interview of (b) (6) (FEDFIRE)
- (150) Photo Depiction of USS BONHOMME RICHARD Deck Log of 12 Jul 20 [JPG 002]
- (151) Summary of Interview of (b) (6) (NBSD)
- (152) Summary of Interview of (b) (6) (FEDFIRE)
- (153) Summary of Interview of (b) (6) (FEDFIRE)

- (154) Photo Depiction 2 of 2 of Connection to Riser [PNG 002]
- (155) Photo Depiction 1 of 2 of Connection to Riser [PNG 001]
- (156) Summary of Interview of (b) (6) (FEDFIRE)
- (157) Summary of Interview of (b) (6) (FEDFIRE)
- (158) Summary of Interview of (b) (6) (FEDFIRE)
- (159) Summary of Interview of (b) (6) (FEDFIRE)
- (160) Summary of Interview of (b) (6) (FEDFIRE)
- (161) Summary of Interview of (b) (6) (FEDFIRE)
- (162) SDFD Helmet Camera Footage 0930 to 0945 Local Time on 12 Jul 20
- (163) Summary of Interview of (b) (6) (FEDFIRE)
- (164) Summary of Interview of (b) (6) (FEDFIRE)
- (165) Summary of Interview of (b) (6) (FedFire)
- (166) SDFD Helmet Camera Footage 0900 to 0915 Local Time on 12 Jul 20
- (167) Summary of Interview of (b) (6) (BHR)
- (168) Summary of Interview of (b) (6) (BHR)
- (169) Summary of Interview of (b) (6) (BHR)
- (170) Summary of Interview of (b) (6) (BHR)
- (171) Summary of Interview of (b) (6) (BHR)
- (172) Summary of Interview of (b) (6) (BHR)
- (173) Summary of Interview of (b) (6) (BHR)
- (174) Summary of Interview of (b) (6) (BHR)
- (175) Summary of Interview of (b) (6) (FEDFIRE)
- (176) Summary of First Interview of SDFD Personnel (SDFD)
- (177) SDFD Incident Report of BHR Fire of 12 Jul 20
- (178) 21 Injured After an Explosion and Fire on a Naval Ship in San Diego, CNN, 12 Jul 20 [Media]
- (179) USS BONHOMME RICHARD Deck Log of 10 Jul 20 to 13 Jul 20
- (180) USS BONHOMME RICHARD CAD Police Event Log (Part 3)
- (181) Summary of Second Interview of SDFD Personnel (SDFD)
- (182) Summary of Interview of (b) (6) (CNRSW)
- (183) Summary of Third Interview of SDFD Personnel (SDFD)
- (184) CNRSW Interoperability Radio Patching Policy
- (185) SDFD Helmet Camera Footage 0915 to 0930 Local Time on 12 Jul 20
- (186) Photo Depiction of USS BONHOMME RICHARD Fire Response on 12 Jul 20 [IMG 4488]
- (187) Summary of Interview of (b) (6) (BXR)
- (188) Summary of Interview of (b) (6) (FEDFIRE)
- (189) Summary of Interview of (b) (6) (FEDFIRE)
- (190) Summary of Interview of (b) (6) (SWRMC)
- (191) Summary of Interview of (b) (6) (NAVSEA)
- (192) Summary of Interview of (b) (6) (BHR)
- (193) Summary of Interview of (b) (6) (FEDFIRE)

- (194) Summary of Interview of (b) (6) (BHR)
- (195) Summary of Interview of (b) (6) (RSL)
- (196) USS BONHOMME RICHARD Sworn Statements for Command Awards
- (197) Summary of Interview of (b) (6) (BHR)
- (198) Summary of Interview of (b) (6) (BHR)
- (199) Summary of Interview of (b) (6) (BHR)
- (200) Summary of Interview of (b) (6) (BHR)
- (201) Summary of Interview of (b) (6) (BHR)
- (202) Summary of Interview of (b) (6) (PHIBRON-5)
- (203) Summary of Interview of (b) (6) (BHR)
- (204) Summary of Interview of (b) (6) (BHR)
- (205) NCIS Interview of (b) (6) (BHR)
- (206) Summary of Interview of (b) (6) (BHR)
- (207) NBSD Shore Power Loads of 12 Jul 20
- (208) USS BONHOMME RICHARD Station B NAVSTA 12KV Loads
- (209) Summary of Interview of (b) (6) (NAVFAC)
- (210) Email from (b) (6) (NBSD) of 041036U AUG 20
- (211) Naval Base San Diego Pier 2 NASSCO Industrial Load of 12 Jul 20
- (212) Email from (b) (6) (NBSD) of 281224U JUL 20
- (213) Summary of Interview of (b) (6) (NAVFAC)
- (214) Summary of Interview of (b) (6) (BHR)
- (215) USS BONHOMME RICHARD Power Timeline of 12 Jul 20
- (216) Summary of Interview of (b) (6) (BHR)
- (217) Summary of Interview of (b) (6) (NAVFAC)
- (218) NCIS Interview of (b) (6) (BHR)
- (219) Summary of Interview of (b) (6) (BHR)
- (220) Summary of Interview of (b) (6) (NASSCO)
- (221) Summary of Interview of (b) (6) (NASSCO)
- (222) SDFD Helmet Camera Footage 0945 to 1000 Local Time on 12 Jul 20
- (223) Photo Depiction of Lemoore FEDFIRE on 12 Jul 20 [IMG 4568]
- (224) Memorandum for the Record - Phone Call with (b) (6) Concerning his Involvement with USS BONHOMME RICHARD of 24 Nov 20
- (225) USS BONHOMME RICHARD Helmet Camera Footage 0943 Local Time on 12 Jul 20
- (226) Photo Depiction of FEDFIRE and BHR Personnel on 12 Jul 20 [IMG 4553]
- (227) Photo Depiction of FEDFIRE Response Team on 12 Jul 20 [IMG 4499]
- (228) Photo Depiction of FEDFIRE and BHR Personnel on 12 Jul 20 [IMG 4552]
- (229) Summary of Interview of (b) (6) (FEDFIRE)
- (230) USS BONHOMME RICHARD CAD Police Event Log (Part 2)
- (231) Photo Depiction of FEDFIRE Personnel and (b) (6) entering ship via SDFD Truck 17 Ladder on 12 Jul 20 [DSC 06842]
- (232) Photo Depiction of FEDFIRE Personnel and (b) (6) entering ship via SDFD Truck 17 Ladder on 12 Jul 20 [DSC 06841]

- (233) Photo Depiction of SDFD Truck 11 Ladder on 12 Jul 20 [DSC 06820]
- (234) Photo Depiction of FEDFIRE and SDFD Personnel on 12 Jul 20 [DSC 06819]
- (235) Photo Depiction of SDFD and BHR Personnel Assembling Rescue Teams on 12 Jul 20 [IMG 4560]
- (236) Summary of Interview of (b) (6) (NASSCO)
- (237) Summary of Interview of (b) (6) (SWRMC)
- (238) USS BONHOMME RICHARD Timeline of Events of 12 Jul 20
- (239) USS BONHOMME RICHARD Helmet Camera Footage 1035 Local Time on 12 Jul 20
- (240) CNRSWINST 3440.1B Regional Emergency Management Plan
- (241) USS RUSSELL Engineering Log of 12 Jul 20 to 13 Jul 20
- (242) Summary of Interview of (b) (6) (BHR)
- (243) Summary of Second Interview of (b) (6) (BHR)
- (244) Summary of Interview of (b) (6) (BHR)
- (245) Summary of Interview of (b) (6) (BHR)
- (246) SCADA Logs and Summary of Fire Activity of Chris Eaton
- (247) Summary of Interview of (b) (6) (BHR)
- (248) Summary of Interview of (b) (6) (RSL)
- (249) NAVSEA Regional Maintenance Center ECC Deck Log of 14 Jul 20
- (250) Photo Depiction of USS BONHOMME RICHARD Deck Log Notes of 12 Jul 20 [JPG 120720]
- (251) USS BONHOMME RICHARD Safety Officer Unofficial Deck Log of 12 Jul 20
- (252) Photo Depiction of USS BONHOMME RICHARD Ship Fire of 12 Jul 20 [DSC 06873]
- (253) Photo Depiction of USS BONHOMME RICHARD Deck Log Notes of 13 Jul 20 [JPG 130720]
- (254) Naval Base San Diego Daily C4I Log (Part 1 of 7) of 13 Jul 20
- (255) Summary of Interview of (b) (6) (SWRMC)
- (256) Summary of Interview of (b) (6) (BHR)
- (257) Summary of Interview of (b) (6) (FEDFIRE)
- (258) Photo Depiction of Nozzle Spray into Upper V from Sideport Door on 12 Jul 20 [IMG 3253]
- (259) Summary of Interview of (b) (6) (BHR)
- (260) Summary of Interview of (b) (6) (BHR)
- (261) Summary of Interview of (b) (6) (BHR)
- (262) Summary of Interview of (b) (6) (BHR)
- (263) Summary of Interview of (b) (6) (BHR)
- (264) Summary of Interview of (b) (6) (BHR)
- (265) Summary of Interview of (b) (6) (FEDFIRE)
- (266) Fire Incident CMD 2 Channel (Part 2) [Audio]
- (267) Photo Depiction of San Diego Harbor Police Boats on 12 Jul 20 [DSC 06870]
- (268) Photo Depiction of San Diego Harbor Police Boats on 12 Jul 20 [DSC 06866]
- (269) Photo Depiction of San Diego Harbor Police Boats on 12 Jul 20 [DSC 06876]
- (270) Photo Depiction of San Diego Harbor Police Boats on 12 Jul 20 [DSC 06881]

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- (271) USS BONHOMME RICHARD Deck Log Notes of 20 Jul 20 [JPG 200720]
- (272) ESG-3 USS BONHOMME RICHARD Fire Presentation of 14 Jul 20
- (273) Summary of Interview of (b) (6) (BXR)
- (274) Photo Depiction of San Diego Harbor Police Boats on 12 Jul 20 [IMG 4570]
- (275) Photo Depiction of San Diego Harbor Police Boats on 12 Jul 20 [DSC 06887]
- (276) Summary of Interview of (b) (6) (RSL)
- (277) Photo Depiction of San Diego Harbor Police Boats on 12 Jul 20 [DSC 06880]
- (278) Photo Depiction of San Diego Harbor Police Boats on 12 Jul 20 [JPG 1044]
- (279) Photo Depiction of San Diego Harbor Police Boats on 12 Jul 20 [DSC 06862]
- (280) Photo Depiction of San Diego Harbor Police Boats on 12 Jul 20 [DSC 06889]
- (281) Photo Depiction of San Diego Harbor Police Boats on 12 Jul 20 [DSC 06860]
- (282) USS BONHOMME RICHARD CAD Police Event Log (Part 1)
- (283) Photo Depiction of HSC-3 Helo Water Drop at 2122 Local Time on 13 Jul 20 [DSC 06935]
- (284) Photo Depiction of Aerial Imagery Illustrating Firefighting Progress on 13-14 Jul 20 [IMG 1993]
- (285) Email from (b) (6) (NAVSEA) of 141256U JUL 20
- (286) Email from (b) (6) (NAVSEA) of 150401U JUL 20
- (287) Email from (b) (6) (NAVSEA) of 151226U JUL 20
- (288) Email from (b) (6) (NMCC) of 141212U JUL 20
- (289) USS BONHOMME RICHARD Updated Navy Blue Message from ESG-3 of O 151448Z JUL 20
- (290) "All Fires on the Bonhomme Richard Are Now Out, Navy Says," Military.com, 16 Jul 20 [Media]
- (291) Email from RDML Eric VerHage (NAVSEA) of 122128U JUL 20
- (292) Email from NAVSEA CDO of 121748U JUL 20
- (293) Summary of Interview of (b) (6) (SWRMC)
- (294) Summary of Interview of (b) (6) (BHR)
- (295) Timeline of USS BONHOMME RICHARD Fire from (b) (6) (SWRMC)
- (296) Photo Depiction of USS BONHOMME RICHARD Deck Log of 12 Jul 20 [JPG 001]
- (297) Naval Base San Diego Daily C4I Log (Part 2 of 7) of 13 Jul 20
- (298) Summary of Interview of (b) (6) (FEDFIRE)
- (299) Summary of Interview of (b) (6) (CNBP)
- (300) Summary of Interview of (b) (6) (NAVFAC)
- (301) USS BONHOMME RICHARD CAD Police Event Log (Part 3)
- (302) Summary of Interview of (b) (6) (BHR)
- (303) Summary of Interview of (b) (6) (BHR)
- (304) Summary of Interview of (b) (6) (NBSD)
- (305) Summary of Interview of (b) (6) (BHR)
- (306) USS BONHOMME RICHARD Incident Action Plan of 12 Jul 20
- (307) Summary of Interview of (b) (5) (PHIBRON-5)
- (308) Summary of Interview of (b) (6) (FEDFIRE)

- (309) Summary of Interview of (b) (6) (SWRMC)
- (310) Summary of Interview of (b) (6) (FEDFIRE)
- (311) Summary of Interview of (b) (6) (CNSP)
- (312) Summary of Interview of (b) (6) (NBSD)
- (313) Summary of Interview of (b) (6) (NAVFAC)
- (314) Summary of Interview of CAPT Nieswiadomy, Mark (NBSD)
- (315) Summary of Interview of (b) (6) (NBSD)
- (316) Summary of Interview of (b) (6) (NAVSEA)
- (317) Summary of Interview of (b) (6) (SWRMC)
- (318) Photo Depiction of SWRMC Command Duty Officer Log of 12 Jul 20 [JPG 001]
- (319) SWRMC Command Duty Officer Log of 12 Jul 20
- (320) Summary of Interview of (b) (6) (NAVSEA)
- (321) Summary of Interview of CAPT Hart, David (SWRMC)
- (322) Summary of Interview of (b) (6) (SWRMC)
- (323) Summary of Interview of (b) (6) (SWRMC)
- (324) Summary of Interview of (b) (6) (SWRMC)
- (325) Summary of Interview of (b) (6) (SWRMC)
- (326) Summary of Interview of (b) (6) (SWRMC)
- (327) Summary of Interview of (b) (6) (SWRMC)
- (328) Email from (b) (6) (NAVSEA) of 140604U JUL 20
- (329) Email from (b) (6) (NAVSEA) of 151533U JUL 20
- (330) Email from (b) (6) (NAVSEA) of 121549U JUL 20
- (331) Summary of Interview of (b) (6) (CNSP)
- (332) Summary of Interview of (b) (6) (ESG-3)
- (333) Summary of Interview of (b) (6) (SWRMC)
- (334) Summary of Interview of (b) (6) (CNSP)
- (335) Summary of Interview of (b) (6) (ESG-3)
- (336) USS BONHOMME RICHARD Fuel and Water Reports of 1 May 20 to 13 Jun 20
- (337) USS BONHOMME RICHARD Engineering Log of Apr 20
- (338) Summary of Interview of (b) (6) (USCG)
- (339) Summary of Interview of (b) (6) (BHR)
- (340) Summary of Interview of (b) (6) (NAVSEA)
- (341) Summary of Interview of (b) (6) (NAVSEA)
- (342) NAVSEA Ship Incident Response Center LHD-1 Class Equipment & Systems - Fire Protection
- (343) NAVSEA Ship Incident Response Center LHD-1 Class Equipment & Systems - Medical
- (344) NAVSEA Ship Incident Response Center LHD-1 Class Equipment & Systems - Damage Control (Created 2014)
- (345) NAVSEA Ship Incident Response Center LHD-1 Class Equipment & Systems - Damage Control (Updated 2015)
- (346) Email from Naval Sea Systems Command Emergency Operations Center of 121411 Z JUL 20

- (347) Summary of Interview of (b) (6) (NAVSEA)
- (348) Summary of Interview of (b) (6) (CNRSW)
- (349) Summary of Interview of (b) (6) (CNRSW)
- (350) Summary of Interview of VADM Lindsey, Yancy (CNIC)
- (351) Summary of Interview of (b) (6) (RSL)
- (352) NSBD Navy Blue Message of Z 122023Z JUL 20
- (353) Email from RDML Eric H. VerHage (CNRMC) of 150527U JUL 20
- (354) Summary of Interview of (b) (6) (NAVFAC)
- (355) Summary of Interview of (b) (6) (NAVFAC)
- (356) Summary of Interview of (b) (6) (NAVFAC)
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- (358) Email from (b) (6) (NAVFAC) of 291203U SEP 20
- (359) Summary of Interview of (b) (6) (NAVFAC)
- (360) Summary of Interview of (b) (6) (RSL)
- (361) Summary of Interview of (b) (6) (SWRMC)
- (362) SDFD Rescue Drill Manual Chapter 3 of Dec 18
- (363) Summary of Interview of (b) (6) (FEDFIRE)
- (364) CNRSW Commanders Update Brief on USS BONHOMME RICHARD Fire
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- (375) Summary of Interview of (b) (6), Jeruel (BHR)
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- (379) USS BONHOMME RICHARD Deck Log of Jan 20
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- (381) NAVSEA Brief from Ship Incident Response Center of 14 Jul 20
- (382) USS BONHOMME RICHARD Fire Timeline and Commanding Officer Priorities
- (383) USS BONHOMME RICHARD Deck Log (Part 4) of 12 Jul 20
- (384) USS BONHOMME RICHARD Timeline Photo Report of 12 Jul 20
- (385) CNRSW Chronological Incident Report of USS BONHOMME RICHARD Fire
- (386) USS BONHOMME RICHARD Deck Log (Part 3) of 12 Jul 20
- (387) SWRMC Statement of Work Section (Fire Safety) of 10 Jul 17
- (388) Photo Depiction of USS BONHOMME RICHARD Fire of 12 Jul 20 [IMG 4581]

- (389) "Firefighting Teams Briefly Removed from Bonhomme Richard Amid 'Shift in the Ship's List,'" Navy Times, 16 Jul 20 [Media
- (390) "Navy Fights Fire From the Air after Explosion aboard USS Bonhomme Richard," Seapower Magazine, 13 Jul 20 [Media]
- (391) Summary of Interview of (b) (6) (HSC-3)
- (392) Email from (b) (6) (NAVSEA) of 140951U JUL 20
- (393) Summary of Interview of (b) (6) (HSC-3)
- (394) Summary of Interview of USFP Personnel (USFP)
- (395) HSC-3 Crews List and Flight Information for Firefighting
- (396) Photo Depiction of USS BONHOMME RICHARD Deck Log Notes of 12 Jul 20 [JPG 120720]
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- (398) ECC and ENC Top Watch Notes of 13 Jul 20
- (399) SWRMC Environmental, Safety and Health Bridgeline Handwritten Notes
- (400) Photo Depiction of USS BONHOMME RICHARD Deck Log Notes of 13 Jul 20 [JPG 130720]
- (401) Summary of Interview of (b) (6) (FEDFIRE)
- (402) Email from NAVSEA CDO of 130411U JUL 20
- (403) Email from (b) (6) (NAVSEA) of 131526U JUL 20
- (404) Summary of Interview of (b) (6) (SWRMC)
- (405) Summary of Interview of (b) (6) (NAVSEA)
- (406) Summary of Interview of (b) (6) (GPC)
- (407) SWRMC Top Watch Notes of 13 Jul 20
- (408) Summary of Interview of (b) (6) (BHR)
- (409) SWRMC Code 900 ERC Top Watch Notes of 14-19 Jul 20
- (410) Email from (b) (6) (NAVSEA) of 140413U JUL 20
- (411) NBSD Daily C4I Log (Part 4 of 7) of 15 Jul 20
- (412) Email from (b) (6) (NAVSEA) of 151534U JUL 20
- (413) NBSD Daily C4I Log (Part 5 of 7) of 15 Jul 20
- (414) Summary of Interview of (b) (6) (ESG-3)
- (415) Summary of Second Interview of (b) (6) (BHR)
- (416) USS BONHOMME RICHARD Compartment Lists and NAVSEA Engineering Assessment Plan (Part 1)
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- (418) Summary of Interview of (b) (6) (BHR)
- (419) Summary of Interview of (b) (6) (FEDFIRE)
- (420) SWRMC Watch Notes of 14 Jul 20
- (421) Email from (b) (6) (NAVSEA) of 151953U JUL 20
- (422) USS BONHOMME RICHARD Incident Detail Report of 12-17 Jul 20
- (423) Email from (b) (6) (NAVSEA) of 240839U JUL 20
- (424) Email from (b) (6) (NAVSEA) of 171943U JUL 20

- (425) Summary of Interview of (b) (6) (BHR)
- (426) SWRMC ECC Watchbill Notes of 17 Jul 20
- (427) Summary of Interview of (b) (6) (JPM)
- (428) PHIBRON-5 EOC Notes on BHR Firefighting Efforts of 19 Jul 20
- (429) PHIBRON-5 EOC Notes on BHR Firefighting Efforts of 21 Jul 20
- (430) SWRMC Handwritten Notes of 15 Jul 20
- (431) Summary of Interview of (b) (6) (BHR)
- (432) USS BONHOMME RICHARD Deck Log (Part 6) of 16 Jul 20
- (433) USS BONHOMME RICHARD Deck Log (Part 3) of 15 Jul 20
- (434) SWRMC ECC Notes of 15 Jul 20
- (435) USS BONHOMME RICHARD Commanding Officer Priorities List of 16 Jul 20
- (436) "USS Bonhomme Richard Fire Extinguished; CO Thanks Crew For 'Strength and Resilience,'" USNI News, 16 Jul 20 [Media]
- (437) Handwritten Phone Talker Notes for SWRMC and USS KANSAS CITY
- (438) Email from (b) (6) (NAVSEA) of 171231U JUL 20
- (439) Summary of Interview of (b) (6) (SWRMC)
- (440) Summary of Interview of (b) (6) (SWRMC)
- (441) USS BONHOMME RICHARD Deck Log (Part 1) of 13 Jul 20
- (442) Email from (b) (6) (NAVSEA) of 131300U Jul 20
- (443) Summary of Interview of (b) (6) (BHR)
- (444) SWRMC (Code 900) Watch Notes of 13 Jul 20
- (445) SWRMC Notes on Fires, Floods, Structure, Stability of 14 Jul 20
- (446) Summary of Interview of (b) (6) (BHR)
- (447) Email from (b) (6) (SWRMC) of 161204U JUL 20
- (448) Email from (b) (6) (NAVSEA) of 161151U JUL 20
- (449) Email from (b) (6) (SWRMC) of 161428U JUL 20
- (450) "'All Known Fires' Out Aboard Bonhomme Richard, Admiral Says," NAVY TIMES, 16 Jul 20 [Media]
- (451) Naval Base San Diego Daily C4I Log (Part 7 of 7) of 15 Jul 20
- (452) Photo Depiction of USS BONHOMME RICHARD Deck Log Notes of 21 Jul 20 [JPG 001]
- (453) Summary of Interview of (b) (6) (NCFD)
- (454) Summary of Interview of (b) (6) (RSL)
- (455) Summary of Interview of (b) (6) (FEDFIRE)
- (456) Base Operations Center Daily Brief of 12 Jul 20
- (457) Summary of Interview of (b) (6) (BHR)
- (458) Summary of Interview of CAPT Rodriguez, Tony (PHIBRON-5)
- (459) Summary of Interview of (b) (6) (PHIBRON-5)
- (460) Summary of Interview of (b) (6) (CNSP)
- (461) ESG-3 Subordinate Command ISIC Shift Recommendation of R061912Z MAR 20
- (462) PHIBRON FIVE ISIC Shift of BHR to PHIBRON FIVE of P122149Z MAR 20
- (463) Summary of Interview of RDML Ver Hage, Eric (CNRMC)

- (464) Summary of Interview of (b) (6) (CNSP)
- (465) Summary of Interview of (b) (6) (CNRMC)
- (466) COMNAVREGSWINST 5450.4 Mission, Functions and Tasks of Naval Base San Diego of 12 Sep 19
- (467) U.S. Navy Regulations, Chapter 8
- (468) Coordination Comments and Input on Development of OPNAVINST 3440.18 (Action Officer Review
- (469) CNICINST 3440.17 V1 Sec 4 Navy Installation Emergency Management Program Manual of 23 Jan 06
- (470) Summary of Interview of VADM Galinis, William (NAVSEA)
- (471) Summary of Interview of RDML Bolivar, Bette (CNRSW)
- (472) U.S. Fleet Forces (N43) Response to Request for Information Ltr 5830 N01/007 of 3 Sep 20
- (473) U.S. Pacific Fleet (N43) Response to Request for Information Ltr 5830 N43/1098 of 11 Sep 20
- (474) SWRMCINST 5100.11C Fire Response Plan of 31 Jan 20
- (475) Summary of Interview of (b) (6) (SWRMC)
- (476) NASSCO-NAVSEA Solicitation, Offer and Award Contract for FY18 USS BONHOMME RICHARD DPMA Availability of 19 Dec 17
- (477) USS BONHOMME RICHARD Emergency Department Practice Management Association FY18 Weekly Production Meeting Week 88 of Availability of 6-12 Jul 20
- (478) Amendment of Solicitation/Modification of Contract of 13 Jun 19
- (479) Amendment of Solicitation/Modification of Contract of 7 Nov 19
- (480) Summary of Interview of (b) (6) (SWRMC)
- (481) Summary of Interview of RDML Brown, Scott (CPF)
- (482) Summary of Second Interview of (b) (6) (BHR)
- (483) Summary of First Interview of (b) (6) (BHR)
- (484) Summary of Interview of (b) (6) (BHR)
- (485) Summary of Interview of (b) (6) (BHR)
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- (487) USS BONHOMME RICHARD NTP 8010 Brow Requirement Deviation of 29 Jan 20
- (488) DD Form 1348-1A Shipment Receipt Document for United States Munitions List Items of 27 Jul 20
- (489) Summary of Interview of (b) (6) (BHR)
- (490) Summary of Interview of (b) (6) (BHR)
- (491) Handwritten Statement from Unknown BONHOMME RICHARD Sailor
- (492) BHR List of All Spaces Onboard Organized by Responsible Work Center
- (493) Summary of Interview of (b) (6) (BHR)
- (494) NCIS Second Interview of (b) (6) (BHR)
- (495) Summary of Interview of (b) (6) (BHR)
- (496) Summary of First Interview of (b) (6) (BHR)
- (497) USS BONHOMME RICHARD Quick Reference Zone Inspector Sheet

- (498) Summary of Interview of (b) (6) (BHR)
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- (500) USS BONHOMME RICHARD Zone Inspection Related Information of 24 Aug 20
- (501) Summary of Interview of (b) (6) (BHR)
- (502) USS BONHOMME RICHARD Deck Department Zone Inspection List
- (503) USS BONHOMME RICHARD Zone Inspection Plan of 2020
- (504) USS BONHOMME RICHARD Week 6 Zone Roster
- (505) USS BONHOMME RICHARD Deck Dept 8 O'Clock Reports of 20 May 20
- (506) NASSCO USS BONHOMME RICHARD FY18 DPMA System Restoration of 29 Jun 20
- (507) USS BONHOMME RICHARD Engineering Log of May 20
- (508) USS BONHOMME RICHARD Engineering Log of Jun 20
- (509) Photo Depiction of USS BONHOMME RICHARD Deck Log of 10-11 Jul 20 [JPG 001]
- (510) USS BONHOMME RICHARD Deck Log (Part 1) of 10-17 Jul 20
- (511) Photo Depiction of USS BONHOMME RICHARD Deck Log Notes of 10-11 Jul 20 [JPG 1007201]
- (512) Photo Depiction of USS BONHOMME RICHARD Deck Log Notes of 10-11 Jul 20 [JPG 1007202]
- (513) Photo Depiction of USS BONHOMME RICHARD Deck Log Notes of 10-11 Jul 20 [JPG 1007203]
- (514) Photo Depiction of USS BONHOMME RICHARD Deck Log Notes of 12 Jul 20 [JPG 1207201]
- (515) USS BONHOMME RICHARD Deck Log of 18-23 Jul 20
- (516) Photo Depiction of USS BONHOMME RICHARD Deck Log Notes of 12 Jul 20 [JPG 1207202]
- (517) USS BONHOMME RICHARD Damage Control Logs and Diagrams
- (518) USS BONHOMME RICHARD Engineering Dept 8 O'Clock Reports of 18 May 20
- (519) Summary of Interview of (b) (6) (SWRMC)
- (520) USS BONHOMME RICHARD Active Departure from Specification List
- (521) USS BONHOMME RICHARD DPMA Situation Report 088
- (522) 8010 Fire Safety Council Meeting Minutes on Temporary Firemain Inspection, Operation, Care and Testing of 12 Feb 19
- (523) 8010 Fire Safety Council Meeting Minutes on Temporary Firemain Concerns for Undocking and Return to NBSD of 17 Dec 19
- (524) Email from (b) (6) (NBSD) of 210837U NOV 19
- (525) NASSCO Rental Return Worksheet ICO National Steel Shipbuilding Co. of 3 Jan 20
- (526) USS BONHOMME RICHARD Engineering Log of Dec 19
- (527) NASSCO Description of Temporary Firemain Configuration During Transit to NBSD
- (528) Email from (b) (6) (SWRMC) of 211408U DEC 19
- (529) Index Responses from SWRMC Request for Information Ltr N00/126 of 24 Nov 20
- (530) Summary of Third Interview of (b) (6) (BHR)
- (531) Summary of First Interview of (b) (6) (BHR)

- (532) 8010 Fire Safety Council Meeting Minutes on Firemain and Hot Work Restoration of 6 Jan 20
- (533) 8010 Fire Safety Council Meeting Minutes USS BONHOMME RICHARD on Fire Main and Hot Work Restoration of 6 Jan 20
- (534) USS BONHOMME RICHARD DPMA Situation Report 083
- (535) USS BONHOMME RICHARD Damage Control Central Log of 12 Jul 20
- (536) USS BONHOMME RICHARD Ship Information Book Rev. 5 Vol. 2 Pt. 2 Machinery Plant: Auxiliary Machinery, Piping, Air Conditioning, Ventilation and Heating Systems Chapter 12 of 31 Jul 16
- (537) USS BONHOMME RICHARD Inactive Equipment Maintenance Report
- (538) NCIS Interview of (b) (6) (BHR) [Disk]
- (539) Summary of Interview of (b) (6) (BHR)
- (540) NCIS Interview of (b) (6) (BHR) on 21 Jul 20
- (541) Accomplished Preventative (SKED) Maintenance for ER09 of 28 Oct 20
- (542) NCIS Interview of (b) (6) (SWRMC)
- (543) NCIS Interview of (b) (6) (BHR)
- (544) NCIS Results of Interview of (b) (6) (BHR)
- (545) NAVSEA Selected Record Drawing of AFFF, CO2 and Dry Chemical System Diagram
- (546) USS BONHOMME RICHARD Ship Information Book Rev. 3 Vol. 2 Pt. 2, Machinery Plant: Auxiliary Machinery, Piping, Air Conditioning, Ventilation, and Heating Systems Chpaters 27-34 of 15 Aug 14
- (547) 8010 Fire Safety Council Meeting Minutes on Fuel Load of 7 Apr 20
- (548) Summary of Interview of (b) (6) (PHIBRON-5)
- (549) Accomplished Preventative (SKED) Maintenance for ER04 Division of 28 Oct 20
- (550) Summary of Interview of (b) (6) (BHR)
- (551) USS BONHOMME RICHARD Current Ship's Maintenance Project
- (552) NCIS Interview of (b) (6) (BHR)
- (553) Summary of Interview of (b) (6) (BHR)
- (554) Summary of Interview of (b) (6) (BHR)
- (555) (b) (6) Navy and Marine Corps Achievement Medal of 18 Nov 20
- (556) Navy and Marine Corps Achievement Medal ICO (b) (6) (BHR)
- (557) Summary of Interview of (b) (6) (BHR)
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- (560) Summary of Interview of (b) (6) (BHR)
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- (564) Summary of Interview of (b) (6) (BHR)
- (565) Summary of Interview of (b) (6) (SWRMC)
- (566) Summary of Interview of (b) (6) (SWRMC)
- (567) FSO Designation Letter ICO (b) (6) (SWRMC) of 5 Oct 18

- (568) Summary of Interview of (b) (6) (CNSP)
- (569) Photo Depiction of Location of Lower V AFFF Push Buttons [JPG 26784]
- (570) Photo Depiction of BHR AFFF Push Buttons [JPG 1208]
- (571) Photo Depiction of BHR AFFF Push Buttons [JPG 1207]
- (572) Photo Depiction of BHR AFFF Push Buttons [JPG 1206]
- (573) USS BONHOMME RICHARD Command Duty Officer Job Qualification Requirements
- (574) USS BONHOMME RICHARD Damage Control Training Team Flying Squad/IET 1-8 Toxic Gas Event Brief of Mar 20 to May 20
- (575) USS BONHOMME RICHARD Interactive Damage Control Presentation
- (576) USS BONHOMME RICHARD Tag-Out Log of 2018-2020
- (577) USS BONHOMME RICHARD Fire Detection System(s) of 8 Aug 19
- (578) Summary of Interview of (b) (6) (BHR)
- (579) Summary of Interview of (b) (6) (SWRMC)
- (580) Summary of Interview of (b) (6) (CNRMC)
- (581) BONHOMME RICHARD Casualty Report 617 of 19 May 20
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- (584) Self Contained Breathing Apparatus Allowance Equipage List of 8 Jan 20
- (585) 8010 Fire Safety Council Meeting Minutes on DCRS Layup of 8 Nov 18
- (586) 8010 Fire Safety Council Meeting Minutes on Movement of 2M and 2F Repair Locker of 23 Apr 20
- (587) 8010 Fire Safety Council Meeting Minutes on Brow Conditions of 12 Jun 19
- (588) Email from (b) (6), NBSD Port Operations of 130930U DEC 19
- (589) USS BONHOMME RICHARD Emergency Brow Shift of 15 Jan 20
- (590) SWRMC SW20 FMAA Results of 27 Jan 20
- (591) 8010 Fire Safety Council Meeting Minutes USS BONHOMME RICHARD - Temporary Quarterdeck Shift of 28 May 20
- (592) Summary of Interview of (b) (6) (BHR)
- (593) 8010 Fire Safety Council Meeting Minutes on NTP 8010 Brow Requirement Deviation of 29 Jan 20
- (594) USS BONHOMME RICHARD Egress Brow and Quarterdeck Movement of 8 Jul 20
- (595) 8010 Fire Safety Council Meeting Minutes on Egress Brow and Quarterdeck Movement of 8 Jul 20
- (596) Summary of Interview of (b) (6) (NAVSEA)
- (597) NCIS Interview of (b) (6) (BHR)
- (598) NCIS Interview of (b) (6) (BHR)
- (599) NCIS Interview of (b) (6) (BHR)
- (600) NCIS Interview of (b) (6) (BHR)
- (601) NCIS Results of Interview of (b) (6) (BHR)
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- (603) Summary of Interview of (b) (6) (BHR)
- (604) Diagram of USS BONHOMME RICHARD Lower V

- (605) NCIS Interview of (b) (6) (NAVSEA)
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- (607) BHRINST 3100.2C Commanding Officer's Standing Orders of 16 Mar 20
- (608) NCIS Verbal Update from (b) (6) (NAVSEA)
- (609) Summary of Interview of (b) (6) (BHR)
- (610) Fire Safety Council Assignment Memorandum for USS BONHOMME RICHARD FY18 DPMA of 5 Oct 18
- (611) Summary of Interview of (b) (6) (BHR)
- (612) 8010 Fire Safety Council Meeting Minutes on Temporary Firemain of 12 Feb 19
- (613) Summary of Interview of (b) (6) (SWRMC)
- (614) 8010 Fire Safety Council Meeting Minutes on Temporary Fireman Inspection, Operation, Care, and Testing of 12 Feb 19
- (615) Summary of Interview of (b) (6) (SWRMC)
- (616) Fire Safety Council (FSC) Assignment Memorandum for USS BONHOMME RICHARD FY19 DPMA of 10 Oct 18
- (617) Summary of Interview of (b) (6) (SWRMC)
- (618) Summary of Interview of (b) (6) (SWRMC)
- (619) (b) (6) Designation as SWRMC Fire Safety Officer for the USS BONHOMME RICHARD of 17 Jun 19
- (620) Command Fire Safety Officer Written and Oral Exam for (b) (6) of 24 Sep 19
- (621) Fire Safety Council Assignment Memorandum for USS BONHOMME RICHARD FY18 Data Processing Management Association (DPMA) of 5 Oct 18
- (622) Command Fire Safety Officer Written and Oral Exam for (b) (6) of 24 Sep 19
- (623) Designation as SWRMC Fire Safety Officer for USS BONHOMME RICHARD of 2 Dec 19
- (624) Regional Maintenance Center Fire Safety Officer JQR Rev 1 Feb 16
- (625) NCIS Interview of (b) (6) (BHR)
- (626) Fire Safety Council Assignment Memorandum for USS BONHOMME RICHARD Fiscal Year 2019 Docking Phase Maintenance Availability of 29 Oct 19
- (627) 8010 Fire Safety Council Meeting Minutes on Fire Prevention, Firefighting, FZB, Safety Walkthroughs, Hotwork, Installed FM Systems, Fire Drills, F&ES, Shipyard Evolutions, Lessons Learned and Unplanned Events of 29 Oct 18
- (628) Summary of Interview of (b) (6) (SWRMC)
- (629) 8010 Fire Safety Council Meeting Minutes on Portable Extinguisher Removal of 8 Nov 18
- (630) 8010 Fire Safety Council Meeting Minutes on Chapter 12 Fire Drill Waiver of 8 Nov 18
- (631) 8010 Fire Safety Council Meeting Minutes on Portable Extinguisher Removal of 8 Nov 18
- (632) 8010 Fire Safety Council Meeting Minutes on DCRS Layup of 8 Nov 18
- (633) USS BONHOME RICHARD DCTT Event Brief Chapter 12 Fire Drill on 18 Dec 18
- (634) 8010 Fire Safety Council Meeting Minutes on Emergency Brow Access of 23 Jan 19
- (635) NAVBASESANDIEGOINST 5450.8T NBSD Information Handbook of 14 Jun 19

- (636) Email from (b) (6) (NBSD) of 240636U AUG 20
- (637) Email from (b) (6) (NBSD) of 240705U AUG 20
- (638) USS BONHOMME RICHARD Ammo Movement of 15 Jan 20
- (639) Summary of Interview of (b) (6) (SWRMC)
- (640) USS BONHOMME RICHARD Plan of the Day of 10 Jul 20
- (641) Summary of Interview of (b) (6) (SWRMC)
- (642) USS BONHOMME RICHARD Fire Prevention and Housekeeping Report of 5 Nov 18
- (643) USS BONHOMME RICHARD Walk-Through Data Hits by BHR CI Team of 14 Sep 20
- (644) Summary of Interview of (b) (6) (SWRMC)
- (645) Summary of Interview of (b) (6) (SWRMC)
- (646) Memorandum for the Record N00/015 of 16 Oct 20
- (647) NASSCO Logistics/ Removal Temp Service Plan for USS BONHOMME RICHARD of 13 Apr 20
- (648) Index Responses to SWRMC Request for Information Ltr 5830 N00/076 of 27 Oct 20
- (649) 8010 Fire Safety Council Meeting Minutes on Fire Detection Systems of 8 Aug 19
- (650) 8010 Fire Safety Council Meeting Minutes on Portable Fire Extinguisher Displacement of 31 Jan 19
- (651) 8010 Fire Safety Council Meeting Minutes on Fixed Extinguishing System Hazards of 5 Jun 19
- (652) SWRMC Periodic Fire Drill Package for USS BONHOMME RICHARD of 31 Jan 19
- (653) 8010 Fire Safety Council Meeting Minutes on 8010 Chapter 12 Fire Drill Schedule and Expectations of 14 Dec 18
- (654) 8010 Fire Safety Council Meeting Minutes on Chapter 12 Fire Drill Schedule and Expectations of 14 Dec 18
- (655) SWRMC Periodic Fire Drill Package USS BONHOMME RICHARD of 31 Jan 19
- (656) SWRMC Observation Training Onboard USS BONHOMME RICHARD of 23 Jan 19
- (657) 8010 Fire Safety Council Meeting Minutes on NBSD Federal Fire Department TTX of 29 Jan 19
- (658) FEDFIRE Memo ICO Ship Familiarization Tour of 25 Aug 20
- (659) 8010 Fire Safety Council Meeting Minutes on Temporary Firemain Hose Protection of 14 Mar 19
- (660) Email from (b) (6) (SWRMC) of 171446U AUG 20
- (661) Email from (b) (6) (SWRMC) of 171445U AUG 20
- (662) Evaluation of USS BONHOMME RICHARD CNO Availability 8010 Periodic Fire Drill of 31 Jan 19
- (663) SWRMC Evaluation of USS BONHOMME RICHARD CNO Availability 8010 Periodic Fire Drill of 31 Jan 19
- (664) 8010 Fire Safety Council Meeting Minutes on Chapter 12 +180 Drill Waiver of 3 May 19
- (665) USS BONHOMME RICHARD 8010 Chapter 12 Drill Evaluation Criteria of 2 Jul 19
- (666) Periodic Fire Drill Package Onboard USS BONHOMME RICHARD at NASSCO San Diego Shipyard of 23 Jul 19

- (667) NAVSEA 8010 Incident Command Structure Presentation
- (668) 8010 Chapter 12 +180 Fire Drill Outbrief of 24 Jul 19
- (669) USS BONHOMME RICHARD 8010 Chapter 12 +180 Fire Drill Evaluation and Required Corrective Actions of 24 Jul 19
- (670) SWRMC Evaluation of USS BONHOMME RICHARD 8010 Chapter 12 +180 Fire Drill Evaluation and Required Corrective Actions of 24 Jul 19
- (671) SWRMC Evaluation of USS BONHOMME RICHARD 8010 Chapter 12 +180 Fire Drill Evaluation and Required Corrective Actions of 24 Jul 19
- (672) 8010 Fire Safety Council Meeting Minutes on 8010 Chapter 12 +180 Drill Outbrief of 24 Jul 19
- (673) SWRMC Evaluation of USS BONHOMME RICHARD 8010 Chapter 12 +180 Fire Drill Evaluation and Required Corrective Actions of 24 Jul 19
- (674) USS BONHOMME RICHARD Chapter 12 Drill Date and Time of 13 Nov 19
- (675) 8010 Fire Safety Council Meeting Minutes on Chapter 12 Drill Date and Time of 13 Nov 19
- (676) 8010 Fire Safety Council Meeting Minutes on Chapter 12 Drill Date and Time of 13 Nov 19
- (677) 8010 Fire Safety Council Meeting Minutes on Movement of Chapter 12 +360 Drill Date of 20 Feb 20
- (678) Email from (b) (6) (NBSD) of 050812U MAR 20
- (679) USS SHOUP 8010 Chapter 12 Fire Drill of 26 Aug 20
- (680) Email from (b) (6) (SWRMC) of 050709U MAR 20
- (681) Email from (b) (6) (NBSD) of 161008U MAR 20
- (682) Email from (b) (6) (SWRMC) of 161045U JUL 20
- (683) CNIC FRAGO 002 to CNIC PLANORD for COVID-19 Response of O 192303Z MAR 20
- (684) Email from (b) (6) (SWRMC) of 161047U JUL 20
- (685) Email from (b) (6) (CNRSW) of 131742U OCT 20
- (686) CNIC FRAGO 004 to CNIC PLANORD for COVID-19 Response O 0122117Z APR 20
- (687) Summary of Interview of (b) (6) (CNIC)
- (688) Reportable Fire Events Minutes of 23 Apr 20
- (689) Email from (b) (6) (SWRMC) of 161045U MAR 20
- (690) USS BONHOMME RICHARD Training Calendar of Events
- (691) Email from (b) (6) (CNRSW) of 251714U AUG 20
- (692) USS BONHOMME RICHARD MOB-D 1.4 Afloat Training Group Western Pacific End of Mission Report of 9 Dec 16
- (693) Email from (b) (6) (CNSP) of 161419U DEC 16
- (694) USS BONHOMME RICHARD Mission Area Certification Completion Dates
- (695) ATG San Diego BHR Fleet Support Operations - Medical End of Mission Report of 15-19 Oct 18
- (696) ATG San Diego BHR Mobility - Damage Control End of Mission Report of 15-19 Oct 18

- (697) USS BONHOMME RICHARD Damage Control Training Team Binder
- (698) USS BONHOMME RICHARD Damage Control Qualifications Sheet of 16 Sep 20
- (699) USS BONHOMME RICHARD Modified Fire Drill Calendar of 10 Sep 20
- (700) Command Investigation into the Fire Onboard the USS OSCAR AUSTIN of 18 Dec 18
- (701) Summary of Interview of (b) (6) (BHR)
- (702) USS BONHOMME RICHARD MOB-D Warfare Area Drill Scores of 14 Jan 16 to 19 Jun 20
- (703) USS BONHOMME RICHARD Fire Drill Calendar
- (704) Summary of Interview of (b) (6) (BHR)
- (705) Commander, US Pacific Fleet Underway Checklist for COVID-19 Environment of 17 Apr 20
- (706) The Half-Life of Scared - COVID-19 Message of R 070120Z APR 20
- (707) Email from (b) (6) (CNSP) of 222204U APR 20
- (708) USS BONHOMME RICHARD Commanding Officer's Philosophy
- (709) USS BONHOMME RICHARD FLTMPs 12 Month Training Plan Outlook of 12 Aug 20
- (710) USS BONHOMME RICHARD FLTMPs Required vs. Onboard Graduates
- (711) USS BONHOMME RICHARD Sailors Onboard of Dec 16 and Jul 20
- (712) Summary of Interview of (b) (6) (BHR)
- (713) Summary of Interview of (b) (6) (BHR)
- (714) Memorandum of Agreement between SWRMC and BONHOMME RICHARD - NAVSEA 8010 Applicability for Fire Prevention and Fire Response for the USS Bonhomme Richard FY19 DPMA of 17 Oct 18
- (715) Memorandum of Agreement between SWRMC and BONHOMME RICHARD - NAVSEA 8010 Applicability for Fire Prevention and Fire Response for the USS Bonhomme Richard FY18 DPMA of 12 Dec 19
- (716) Memorandum of Agreement NAVSEA 8010 Applicability for Fire Prevention and Fire Response for the USS BONHOMME RICHARD (LHD 6) FY18 DPMA
- (717) USS BONHOMME RICHARD Fire Safety Watch Training Minutes of 29 Oct 18
- (718) USS BONHOMME RICHARD Manning Summary of May 18 to Jul 20
- (719) USS BONHOMME RICHARD AMS List of 13 Jul 20
- (720) List of USS BONHOMME RICHARD Personnel Not on the Duty Section Roster of Aug 19 to Jul 20
- (721) Active Duty Promotions to the Permanent Grades of Captain, Commander, Lieutenant Commander, Lieutenant and Chief Warrant Officers in the Line and Staff Corps of R 261919Z MAY 20
- (722) Summary of Interview of (b) (6) (BHR)
- (723) USS BONHOMME RICHARD BBD Alignment of 12 Jul 20
- (724) OPNAVINST 3120.32D Standard Organization and Regulations of the U.S. Navy CH-1 of 15 May 17
- (725) Photo Depiction of USS BONHOMME RICHARD Duty Section 5 of 8 (Page 1 of 2) of 11 Jul 20 [JPG 001]

- (726) Photo Depiction of USS BONHOMME RICHARD Duty Section 5 of 8 (Page 2 of 2) of 11 Jul 20 [JPG 002]
- (727) USS BONHOMME RICHARD SSDF Watchbill of 11 Jul 20
- (728) USS BONHOMME RICHARD Plan of the Day of 11-12 Jul 20
- (729) NBSD Gate 6 Base Access Control History Report of 11-12 Jul 20
- (730) BHR Response Memo to Request for Information Ltr 5830 00/XXX of 25 Aug 20
- (731) USS BONHOMME RICHARD Fire Damage Assessment Report of 1 Aug 20
- (732) BHR Response Memo to Request for Information Ltr 5830 00/015 of 13 Aug 20
- (733) BHR Senior Medical Officer Justification of Missing Reports Memo of 13 Aug 20
- (734) BHR Response Memo to Request for Information Ltr 5830 00/028 of 18 Aug 20
- (735) BHR Security Officer Response to Request for Information Memo of 21 Aug 20
- (736) USS BONHOMME RICHARD Damage Control Central Log of 12 Jul 20
- (737) BONHOMME RICHARD Patient Under Investigation Tracker of 1 Apr 20 to 31 Jul 20
- (738) USS BONHOMME RICHARD Medical and Dental 8 O'Clock Reports of 11 Jul 20
- (739) USS BONHOMME RICHARD Coronavirus Disease 2019 Impacts Ltr 1000 00/07 of 5 Aug 20
- (740) Summary of Interview of (b) (6) (PHIBRON-1)
- (741) Summary of Interview of VADM Kitchener, Roy (CNSP)
- (742) Summary of Interview of VADM (Ret) Brown, Richard (CNSP)
- (743) Summary of Interview of (b) (6) (PHIBRON-1)
- (744) Summary of Interview of (b) (6) (ESG-3)
- (745) Summary of Interview of (b) (6) (CNSP)
- (746) Summary of Interview of (b) (6) (SWRMC)
- (747) Summary of Second Interview of (b) (6) (CNSP)
- (748) Summary of First Interview of (b) (6) (CNSP)
- (749) 8010 Fire Safety Council Meeting Minutes USS BONHOMME RICHARD - Defueling of 27 Nov 18
- (750) USS BONHOMME RICHARD Ordnance Move of 20 Nov 18
- (751) Designation of Area Commands for Major Shipboard Non-Nuclear Casualties of R 192325Z DEC 20
- (752) Summary of Interview of RDML Greene, William (USFFC)
- (753) Email from (b) (6) (SWRMC) of 091302U APR 20
- (754) Email from (b) (6) (PACFLT) of 091341U APR 20
- (755) Memorandum of Agreement NAVSEA 8010 Applicability for Fire Prevention and Fire Response for the USS BONHOMME RICHARD FY19 Docking Phased Maintenance Availability of 17 Oct 18
- (756) MOA between Mid-Atlantic Regional Maintenance Center and USS WASP of 12 Nov 19
- (757) Summary of Interview of (b) (6) (NAVSEA)
- (758) Fleet Review Panel of Surface Readiness (Balisle Report) of 26 Feb 10
- (759) Summary of Interview of (b) (6) (SWRMC)
- (760) Email from (b) (6) (SWRMC) of 011413U MAY 18

- (761) Area 106-3 Industrial Ship Safety for Fire Prevention and Response of 14 Jan 20
- (762) USS MIAMI Fire Corrective Action Review and Assessment Presentation of 16 Jul 20
- (763) Summary of Interview of (b) (6) (SWRMC)
- (764) Summary of Interview of (b) (6) (SWRMC)
- (765) Summary of Interview of (b) (6) (SWRMC)
- (766) Summary of Interview of (b) (6) (SWRMC)
- (767) Summary of Interview of (b) (6) (SWRMC)
- (768) CNO-PSA Avail ESH-FSO Assignments of 1 Mar 19
- (769) Summary of Interview of (b) (6) (SWRMC)
- (770) Email from (b) (6) (SWRMC) of 151352U JAN 19
- (771) Summary of Interview of (b) (6) (NBSD)
- (772) SWRMC Corrective Action Request SSSD-2019-0148 of 20 Jul 20
- (773) SWRMC Corrective Action Request SSSD-2020-0236 of 20 Jul 20
- (774) SWRMC Corrective Action Request SSSD-2020-0272 of 20 Jul 20
- (775) SWRMC Corrective Action Request SSSD-2019-0903 of 20 Jul 20
- (776) Email from (b) (6) (SWRMC) of 270952U MAY 20
- (777) Email from (b) (6) (SWRMC) of 070658U JAN 20
- (778) Summary of Interview of (b) (6) (SWRMC)
- (779) Email from (b) (6) (SWRMC) of 130837U JUL 20
- (780) Email from (b) (6) (SWRMC) of 131539U JUL 20
- (781) Summary of Interview of (b) (6) (NAVSEA)
- (782) SWRMC POM 18 Fire Safety Officer Issue Paper - OPNAV N43 Adjudicated
- (783) Consolidated POM 19 Fire Safety Officer Issue Paper
- (784) Forward Deployed Regional Maintenance Center Safety Specialists POM 19 Issue Paper
- (785) SERMC POM 18 Fire Safety Officer Issue Paper Rev. 2 - OPNAV N43 Adjudicated
- (786) MARMC POM 18 Fire Safety Officers - OPNAV N43 Adjudicated
- (787) FDRMC POM 18 Fire Safety Officer Issue Paper
- (788) CNRMC POM 20 Fire Safety Officer Issue Paper
- (789) Summary of Interview of (b) (6) (OPNAV)
- (790) SWRMC Base Contractor Performance Assessment Report of 30 Sep 17
- (791) Amendment of Solicitation/Modification of Contract of 25 Sep 19
- (792) SWRMC Base Contractor Performance Assessment Report of 30 Sep 18
- (793) SWRMC Index Responses to Request for Information Ltr 5830 N00/076 of 27 Oct 20
- (794) Email from (b) (6) (NAVSEA) of 211725U SEP 17
- (795) Email from (b) (6) (SWRMC) of 141651U JUN 17
- (796) SWRMC Surface Ship Temporary Fire Protection Requirements of 4 Oct 17
- (797) NAVSEA Surface Ship Temporary Fire Protection Requirements of 14 Mar 18
- (798) Email from (b) (6) of 031019U JAN 19
- (799) CNRMC Report on Major Fire Drill Conducted at SWRMC Ltr 470 C200/200 of 10 Aug 20
- (800) SWRMC Index Responses to Request for Information Ltr 5830 N00/103 of 5 Nov 20
- (801) Email from (b) (6) (SWRMC) of 151417U AUG 18

- (802) Email from (b) (6) (SWRMC) of 241114U JAN 19
- (803) 8010 Drills of 1 Jan 10 to 12 Jul 20
- (804) SWRMC Evaluation of USS PORTLAND 8010 Drill of 9 May 19
- (805) Evaluation USS STOCKDALE CNO Availability Fire Drill (Periodic) of 22 Nov 16
- (806) Email from (b) (6) (SWRMC) of 161046U MAR 17
- (807) Report on Major Fire Drills Conducted on 24 Feb 16 and 20 Apr 16 at SWRMC of 2 Sep 16
- (808) SWRMC Final Report on Major Fire Drill Conducted 31 Oct 18 Onboard USS MAKIN ISLAND Moored at Naval Base San Diego Pier 12 of 13 Dec 18
- (809) Report on Major Fire Drill Conducted at SWRMC on 2 Aug 17 of 6 Dec 17
- (810) SWRMC 8010 CY18 Major Fire Drill USS MAKIN ISLAND Milestones of 5 Oct 18
- (811) Graduated Practice Drill USS MAKIN ISLAND Major Fire Drill Exercise of 9 Oct 18
- (812) CNIC Request for Information Ltr 5830 N00/016 of 25 Aug 20
- (813) CNRMC Report on Major Fire Drill Conducted at SWRMC Ltr 4790 C200/053 of 27 Feb 19
- (814) Report on Major Fire Drill Conducted at SWRMC on 5 Feb 20 of 10 Aug 20
- (815) Email from (b) (6) (CNRSW) of 211841U AUG 20
- (816) Email from (b) (6) (SWRMC) of 101144U FEB 17
- (817) Email from (b) (6) (SWRMC) of 091157U JUL 18
- (818) USS HOWARD Damage Control Training Team SWRMC Periodic NTP 8010 Chapter 12 Major Fire Drill Plan of 1 Mar 18
- (819) Email from (b) (6) (SWRMC) of 091155U AUG 18
- (820) DCTT Event Brief Condition III Flying Squad / Fire & Emergency Services Chapter 12 Fire Drill of Nov 18 to Jan 19
- (821) Email from (b) (6) (SWRMC) of 251150U JAN 19
- (822) Email from (b) (6) (SWRMC) of 201633U MAR 18
- (823) Email from (b) (6) (SWRMC) 211500U MAR 18
- (824) Email from (b) (6) (SWRMC) of 101400U MAY 18
- (825) USS SAN DIEGO SWRMC Drill Package of 14 Jun 18
- (826) Email from (b) (6) (SWRMC) of 021440U JUL 18
- (827) USS BUNKER HILL (CG-52) Damage Control Training Team SWRMC Periodic NTP 8010 Chapter 12 Major Fire Drill Plan of 2 Jul 18
- (828) Email from (b) (6) (SWRMC) 311300U JUL 18
- (829) USS HOWARD SWRMC Periodic Fire Drill Package of 9 Aug 18
- (830) Email from (b) (6) (SWRMC) of 231432U OCT 18
- (831) Email from (b) (6) (National City) of 081127U AUG 17
- (832) Email from (b) (6) (National City) of 111400U SEP 17
- (833) Email from (b) (6) (CNRSW) of 181514U OCT 17
- (834) Email from (b) (6) (National City) of 011141U MAR 18
- (835) Email from (b) (6) (SWRMC) of 050902U SEP 17
- (836) Evaluation of USS ZUMWALT PSA/CNO Availability Periodic Fire Drill of 27 Oct 17
- (837) Email from (b) (6) (CNRSW) of 061324U MAR 18

- (838) Email from (b) (6) (SWRMC) of 191300U APR 18
- (839) Email from (b) (6) (SWRMC) of 141400U JUN 18
- (840) USS PORTLAND NAVSEA Technical Publication 8010 Chapter 12 Assessment Drill of 28 Nov 18
- (841) Email from (b) (6) (SWRMC) of 121346U DEC 18
- (842) Summary of Interview of (b) (6) (FEDFIRE)
- (843) Email from (b) (6) (SWRMC) of 081400U MAR 18
- (844) Email from (b) (6) (CNRSW) of 201025U MAR 18
- (845) Email from (b) (6) (SWRMC) of 201506U MAR 18
- (846) Email from (b) (6) (CNRSW) of 201146U MAR 18
- (847) Email from (b) (6) (SWRMC) of 171321U MAY 18
- (848) NAVSEA 8010 Shipboard Availability Fire Prevention and Fire Response of Feb 19
- (849) USS PINCKNEY In Hull Central and Off Hull Incident Command Post of 1 Mar 18
- (850) SWRMC Notes of USS CHAMPION Drill Observations of 8 Mar 18
- (851) Email from (b) (6) (SWRMC) of 241425U APR 18
- (852) Email from (b) (6) (SWRMC) of 121300U SEP 18
- (853) USS MAKIN ISLAND CH 13 Observation Training Day of 15 Oct 18
- (854) Email from (b) (6) (SWRMC) of 071105U FEB 19
- (855) Email from (b) (6) (SWRMC) of 271330U OCT 17
- (856) Evaluation of USS RUSSELL CNO Avail Periodic Fire Drill of 20 Sep 17
- (857) Evaluation of USS PAUL HAMILTON CNO Avail Periodic Fire Drill of 23 Aug 17
- (858) SWRMC 8010 Chapter 12 Drill +180 Evaluation of USS BOXER of 29 Jun 17
- (859) Email from (b) (6) (CNSP) of 281529U FEB 20
- (860) USS AMERICA SWRMC 8010 MFD Chapter 12-13 Drill Evaluation of 18 Apr 18
- (861) USS PEARL HARBOR SWRMC 8010 Major Fire Drill Evaluation of 6 Nov 18
- (862) Email from (b) (6) (SWRMC) of 131149U NOV 18
- (863) USS PORTLAND SWRMC 8010 MFD Chapter 12 Drill Evaluation of 4 Dec 18
- (864) Email from (b) (6) (SWRMC) of 091427U MAY 17
- (865) SWRMC 8010 Chapter 12 Drill Evaluation of USS NEW ORLEANS of 29 Aug 17
- (866) Evaluation of USS FORTWORTH CNO Availability Periodic Fire Drill of 23 Oct 17
- (867) Email from (b) (6) (SWRMC) of 131501U APR 18
- (868) Email from (b) (6) (SWRMC) of 141517U MAY 18
- (869) Email from (b) (6) (SWRMC) of 101254U DEC 18
- (870) Email from (b) (6) (SWRMC) of 271357U SEP 18
- (871) Evaluation of USS HIGGINS CNO Availability 8010 +180 Periodic Fire Drill of 5 Mar 19
- (872) Email from (b) (6) (CNSP) of 311559U OCT 17
- (873) Email from (b) (6) (SWRMC) of 121545U JAN 18
- (874) Email from (b) (6) (SWRMC) of 271021U DEC 18
- (875) SWRMC 8010 Fire Drill Lessons Learned of 20 Sep 18
- (876) USS BONHOMME RICHARD Repair Party Manual of 9 Aug 15
- (877) CNSP/CNSL CNO Availability Best Practices of 30 Dec 19

- (878) Summary of Interview of (b) (6) (NAVSEA)
- (879) Summary of Interview of (b) (6) (CNRMC)
- (880) Summary of Interview of (b) (6) (CNRMC)
- (881) Summary of Interview of (b) (6) (CNRMC)
- (882) CNRMC Approved Org Chart of 27 Feb 20
- (883) Summary of Interview of (b) (6) (NAVSEA)
- (884) Email from (b) (6) of 071238U APR 16
- (885) Email from (b) (6) (NAVSEA) of 071126U APR 16
- (886) Email from (b) (6) of 080513U APR 16
- (887) Email from (b) (6) of 110839U APR 16
- (888) Email from (b) (6) (NAVSEA) of 250546U MAY 16
- (889) Email from (b) (6) of 131038U JUN 16
- (890) Email from (b) (6) (NAVSEA) of 240848U JUN 16
- (891) Email from (b) (6) (CNRMC) of 131649U Apr 16
- (892) Email from (b) (6) (NAVSEA) of 131046U JUN 16
- (893) Summary of Interview of (b) (6) (NAVSEA)
- (894) Email from (b) (6) (CNRMC) of 241220U MAY 16
- (895) Email from (b) (6) (CNRMC) of 241156U MAY 16
- (896) Email from (b) (6) (CNRMC) of 130455U APR 16
- (897) Email from (b) (6) of 131008U JUN 16
- (898) CNRMCINST 5450.1 NRMO Working Relationships of 23 May 13
- (899) Summary of Interview of (b) (6) (NAVSEA)
- (900) NRMO San Diego 31 July 2015 SWRMC and NASSCO-SD Struggle to Meet Fire Safety Requirements Summary
- (901) Temporary Fire Protection Improvements Needed of 20 Jun 16
- (902) Email from (b) (6) (CNRMC) of 201530 Z JUN 20
- (903) Email from (b) (6) (CNRMC) of 071236U JUN 17
- (904) NRMO San Diego Notice Slide of 5 Sep 13
- (905) USS CHANCELLORSVILLE Firewatch Discrepancies of 3 Aug 12
- (906) Firezone Boundary and Fire Safety Violations of 31 Aug 12
- (907) Fire Safety and Facility Inspection at BAE Shipyard of 21 Sep 12
- (908) Fire and Electrical Safety at CMSD of 2 Nov 12
- (909) Unsafe Hot Work in Graving Dock at Naval Base San Diego of 25 Jan 13
- (910) Fire Safety in BAE's Dry Dock of 31 May 13
- (911) Ongoing Dry Dock Fire Safety Oversight of 9 Aug 13
- (912) USS ESSEX Fire and Corrective Actions Taken of 6 Sep 13
- (913) NAVSEA USS ESSEX Fire and Corrective Actions Taken of 6 Sep 13
- (914) NRMO San Diego USS ESSEX Fire and Corrective Actions Taken (Encl. 3) of 6 Sep 13
- (915) Hot Work Control Deficiencies Resulting in Multiple Fires of 20 Dec 13
- (916) BAE Fire Prevention and Safety of 21 Feb 14

- (917) Fire Protection for USS ARDENT in NBSD Graving Dock Requires Improvement of 21 Jan 16
- (918) SW18 FMAA Results - Diagram of Temporary De-watering Systems of 29 Jan 18
- (919) Email from (b) (6) (NASSCO) of 051128U MAR 20
- (920) Quick Deficiency Resolution Enables Sufficient Fire Response of 30 Jan 15
- (921) Email from (b) (6) (NAVSEA) of 131141U SEP 16
- (922) NAVSEA Note 5215 Cancellation of NAVSEA Instructions of 17 Oct 18
- (923) Summary of Interview of RADM Downey, James (CNRMC)
- (924) Summary of Interview of (b) (6) (NRMO)
- (925) Summary of Interview of (b) (6) (NAVSEA)
- (926) Summary of Interview of (b) (6) (NAVSEA)
- (927) Summary of Interview of RDML Lloyd, Jason (NAVSEA)
- (928) Summary of Interview of (b) (6) (SWRMC)
- (929) Summary of Interview of (b) (6) (SWRMC)
- (930) Summary of Interview of (b) (6) (SWRMC)
- (931) Summary of Interview of (b) (6) (NAVSEA)
- (932) NAVSEA Technical Authorities of 5 Oct 20
- (933) NAVSEA Engineering and Technical Authority Manual of 6 Jun 11
- (934) Summary of Interview of (b) (6) (NAVSEA)
- (935) Summary of Interview of (b) (6) (NAVSEA)
- (936) NAVBASESANDIEGOINST 5450.8T NBSD Information Handbook of 14 Jun 19
- (937) Firefighting Department San Diego Community Risk Assessment - Standards of Cover of 1 Dec 19
- (938) Summary of Interview of (b) (6) (NBSD)
- (939) CNIC F&ES Staffing and Response Time Objectives for Shipboard Fire Suppression Advisory of 12 May 15
- (940) Navy Fire & Emergency Services SD Metro Standard Operating Guideline - Shipboard Firefighting of 10 Oct 12
- (941) Summary of Interview of (b) (6) of 20 Oct 20
- (942) Summary of Interview of (b) (6) (SDFD)
- (943) 2020 Master Annual Training Plan for FEDFIRE San Diego Personnel of 29 Oct 19
- (944) 2020 Metro Annual Training Plan
- (945) CNIC Shipyard Fire & Emergency Services Proficiency Training Requirements for Shipboard Emergency Response of 19 Mar 14
- (946) CNRSW Response Memo to Request for Information Ltr 5830 N00/139 of 10 Dec 20
- (947) CNRSW Index Responses to Request for Information Ltr 5830 N00/139 of 10 Dec 20
- (948) Fire Chief Duty Tasks List of 9 Sep 20
- (949) Fire Chief Training Information 2020
- (950) FEDFIRE Shipboard Fire Tactics and Strategies Training Presentation
- (951) Interview Review of (b) (6) (FEDFIRE)
- (952) Summary of Interview of (b) (6) (FEDFIRE)
- (953) Email from (b) (6) (SWRMC) 191151U MAR 20

- (954) CNRSW and City of Coronado Mutual Aid Agreement of 20 Apr 18
- (955) San Diego County Fire Mutual Aid Agreement of 2 Nov 92
- (956) City of San Diego and Commander, NBSD Mutual Aid Agreement of 21 Mar 91
- (957) Summary of Interview of (b) (6) (CNRSW)
- (958) Memorandum for the Record 5830 N00/158 of 4 Feb 21
- (959) Summary of Interview of (b) (6) (CNRSW)
- (960) Approved Naval Base San Diego Emergency Maintenance Plan of 11 Oct 17
- (961) USS BHR CDO, BOC and IMT Watchstanders 12 Jul 20 to 16 Jul 20
- (962) Summary of Interview of (b) (6) (NBSD)
- (963) Summary of Interview of (b) (6) (NBSD)
- (964) Naval Base San Diego Hazard Specific Annex 3 Fire Hazards
- (965) Naval Base San Diego Hazard Specific Appendix Checklist
- (966) Email from (b) (6) (NBSD) of 300844U OCT 18
- (967) Email from (b) (6) (NBSD) of 091033U OCT 18
- (968) Summary of Interview of (b) (6) (NBSD)
- (969) Email from (b) (6) (NBSD) of 240923U AUG 20
- (970) Email from (b) (6) (NBSD) of 010949U APR 20
- (971) Email from (b) (6) (NBSD) of 240827U AUG 20
- (972) Email from (b) (6) (NBSD) of 240917U AUG 20
- (973) Report of Common Discrepancies throughout Piers 1-7 of 25 Apr 20
- (974) Email from (b) (6) (NBSD) of 131155U APR 20
- (975) Photo Depiction of USS BONHOMME RICHARD Alongside Pier [IMG 952994]
- (976) Email from (b) (6) (BHR) of 051542U SEP 18
- (977) Email from (b) (6) (NBSD) of 131111U SEP 18
- (978) Email from (b) (6) (NBSD) of 130721U SEP 18
- (979) Unified Facilities Criteria Dockside Utilities for Ship Service of 1 Sep 12
- (980) Email from (b) (6) (CNRSW) of 241652U AUG 20
- (981) Email from (b) (6) (NBSD) 231645U JUL 20
- (982) NAVFAC Pier 2 Inspection Report of 11 Jul 18
- (983) Email from (b) (6) (NBSD) of 231636U JUL 20
- (984) Unified Facilities Criteria Design Piers and Wharves of 24 Jan 17
- (985) Email from (b) (6) (NAVFAC) of 201233U JUL 20
- (986) Summary of Interview of (b) (6) (CNRSW)
- (987) Summary of Interview of (b) (6) (CNRSW)
- (988) Summary of Interview of (b) (6) (CNRSW)
- (989) Summary of Interview of (b) (6) (CNRSW)
- (990) Summary of Interview of (b) (6) (CNRSW)
- (991) CNIC Fire & Emergency Services Program Compliance Assessment for CNRSW San Diego Metro Fire District of 24 Feb 14
- (992) Summary of Interview of (b) (6) (CNIC)
- (993) Summary of Interview of (b) (6) (CNIC)
- (994) NSIRC Presentation of BHR Fire of 15 Jul 20

- (995) Photo Depiction of BHR Forward Stack [IMG 7584]
- (996) Photo Depiction of Inside BHR Superstructure [PNG 288]
- (997) Photo Depiction of Inside BHR Superstructure [PNG 291]
- (998) Photo Depiction of Inside BHR Superstructure [PNG 290]
- (999) Photo Depiction of BHR Superstructure [ASI 1510]
- (1000) Photo Depiction of BHR Superstructure [ASI 1512]
- (1001) Photo Depiction of BHR Flight Deck [ASI 1471]
- (1002) Photo Depiction of USS BONHOMME RICHARD Quick Acting Water Tight Door on 8 Oct 20 [IMG 1061]
- (1003) SECNAV Press Release Decommission USS BONHOMME RICHARD of 30 Nov 20
- (1004) Decommission for USS BONHOMME RICHARD CNO Message of 261923Z JAN 21
- (1005) Email from (b) (6) (CNSP) of 21721U OCT 20
- (1006) USS FITZGERALD Response to Request for Information Ltr 5830 N00/033 of 1 Sep 20
- (1007) Email from (b) (6) (NAVFAC) of 011246U DEC 20
- (1008) Final Hose Justification of 8 Aug 20
- (1009) CNRSW GPC Purchase Request Form of 9 Sep 20
- (1010) (b) (6) Purchase Card Request of 6 Aug 20
- (1011) Email from (b) (6) (Code 15) of 011420U DEC 20
- (1012) NBSD Navy Blue Message of Z 122233Z JUL 20
- (1013) Summary of Interview of (b) (6) (CNSP)
- (1014) USS BONHOMME RICHARD Fire Patient Tracking of 12 Jul 20
- (1015) Request for Information Related to USS BONHOMME RICHARD (LHD 6) Fire
- (1016) Email Correspondence from (b) (6) (BHR) of 100854U DEC 20
- (1017) Email from (b) (6) (SDFD) of 301113U Nov 20
- (1018) Email from (b) (6) (CFD) of 271658U NOV 20
- (1019) Command Investigation into Fire Onboard USS MIAMI of 19 Jun 14
- (1020) USS MIAMI Fire Panel Recommendations (Redacted) of 16 Nov 12
- (1021) USS MIAMI Fire Panel Priority Recommendations Status Spreadsheet of 3 Sep 20
- (1022) USS MIAMI Fire Panel Recommendation Closure Status (Score Card) of 3 Sep 20
- (1023) Types of Reportable Fires Web Enabled Safety System of 26 Aug 20
- (1024) Consolidated COMNAVSAFECEN Afloat Safety Advisory Message 1-20 of R 201549Z FEB 20
- (1025) NFIRS NAVSEA PFOR Web Enabled Safety System Comparison
- (1026) Web Enabled Safety System (WESS) Fire Under Reporting of 26 Aug 20
- (1027) Email from (b) (6) (NAVSEA) of 110537U Jan 21
- (1028) Email from (b) (6) (NAVSEA) of 050945U Jan 21
- (1029) Command Investigation into Fire onboard USS GUNSTON HALL of 3 Apr 15
- (1030) Command Investigation into Fire onboard USS IWO JIMA of 6 May 20
- (1031) Command Investigation of Class A Fire onboard USS DEVASTATOR of 3 Apr 19
- (1032) Command Investigation into Class C Fire onboard USS CHAMPION of 11 Feb 20
- (1033) Command Investigation of Fire onboard USS HUE CITY of 14 Apr 14
- (1034) Command Investigation into Fire onboard USS BOXER of 2 Mar 18

- (1035) Command Investigation into Class A Fire onboard USS DEVASTATOR of 3 Apr 19
- (1036) Email from (b) (6) (SWRMC) of 292054U NOV 19
- (1037) FEDFIRE USS CHAMPION After Action Report of 5 Dec 19
- (1038) Fire & Emergency Services Fire Prevention Investigation Report of 28 Mar 20
- (1039) Command Investigation into Class A Fire onboard USS HARPERS FERRY of 3 Sep 20
- (1040) Email from (b) (6) (CNSP) of 300409U MAR 20
- (1041) Email from (b) (6) (SWRMC) of 030820U SEP 20
- (1042) Email from (b) (6) (SWRMC) of 030807U SEP 20
- (1043) Email from (b) (6) (SWRMC) of 291318U MAR 20
- (1044) NAVSEA USS HARPERS FERRY Safety Fact Sheet
- (1045) Email from (b) (6) (CNSP) of 061502U MAY 20
- (1046) "Russia's Only Aircraft Carrier Burning After Welding Mishap, At Least 1 Dead," USNI News, 12 Dec 19 [Media]
- (1047) "New Chinese Assault Carrier Catches Fire," Forbes, 11 Apr 20 [Media]
- (1048) "French Submarine Burns in Unbelievably Fierce Fire for 14 Hours," Defense News, 16 Jun 20 [Media]
- (1049) Closure of USS MIAMI Fire Panel Recommendations of 24 Feb 14
- (1050) Summary of Interview of (b) (6) (USFFC)
- (1051) Second Endorsement on USS CHAMPION Fire of 1 May 20
- (1052) Final Endorsement on USS OSCAR AUSTIN Fire of 9 May 19
- (1053) Damage Control Board of Directors Presentation of 1 Jul 19
- (1054) Damage Control Board of Directors Minutes of 1 Jul 19
- (1055) Damage Control Board of Directors Memorandum of 25 Sep 19
- (1056) Damage Control Board of Directors Memorandum of 18 Nov 19
- (1057) COMNAVSURFPAC/COMNAVSURFLANTINST 3541.1A Standard Repair Party Manual for Naval Surface Forces of 11 Mar 15
- (1058) Damage Control Board of Directors Power Point of 4 Dec 19
- (1059) Damage Control Board of Directors Minutes of 4 Dec 19
- (1060) Email from RDML William Greene (USFF) of 290646U FEB 20
- (1061) Damage Control Board of Directors Minutes of 21 Sep 20
- (1062) Damage Control Board of Directors Presentation of 21 Sep 20
- (1063) Email from (b) (6) (CNAP) of 260624U JUN 12
- (1064) Email from (b) (6) (CNAP) of 270648U AUG 12
- (1065) Email from (b) (6) (CNAP) of 240919U OCT 12
- (1066) Email from (b) (6) (CNAP) of 020638U OCT 12
- (1067) USS MIAMI Fire Lessons Learned Flag/SES Integration Group Update of 4 Mar 13
- (1068) Email from (b) (6) (CNAP) of 010649U MAY 13
- (1069) Email from (b) (6) (CNAP) of 220656U MAY 13
- (1070) Improving Shipyard Fire Prevention and Response Message of R 261400Z JUL 12
- (1071) USS MIAMI Fire Panel Recommendation Discussion Paper of 31 Mar 14
- (1072) Summary of Interview of (b) (6) (NAVSEA)
- (1073) Promulgation of Ship Safety Manual for Fire Prevention and Response of 6 Feb 14

- (1074) 8010 Industrial Ship Safety Manual for Fire Prevention and Response of 17 Jul 18
- (1075) USS MIAMI Fire Panel Priority Recommendations and Objective Quality Evidence of 10 Mar 14
- (1076) Executive Agent for Damage Control Update of 14 Apr 14
- (1077) Email from (b) (6) (CNRMC) of 120904U DEC 16
- (1078) FY-15 NAVSEA Standard Items Change One of 16 Jun 14
- (1079) Email from (b) (6) (COMPACFLT) of 061247Z OCT 20
- (1080) Closure of USS MIAMI Fire Panel Recommendations of 7 Apr 14
- (1081) SWRMC Fleet Maintenance Activity Assessment Results of 27 Feb 20
- (1082) SWRMC Fleet Maintenance Activity Assessment Results of 27 Jan 20
- (1083) Summary of Interview of (b) (6) (NAVSEA)
- (1084) Summary of Interview of (b) (6) (NAVSEA)
- (1085) Summary of Interview of (b) (6) (NAVSEA)
- (1086) 8010 Requirements Invoked in Repair Contracts Email of 31 Jul 19
- (1087) 8010 vs Contract Invoked Requirements for 26 Items in Gap Analysis Report of 29 Jul 19
- (1088) 8010 vs Contract Invoked Requirements for 26 Items in Gap Analysis Spreadsheet of 31 Jul 19
- (1089) Assessment of Fire Safety Programs with Focus on Fire Protection and Prevention Report of 21 Feb 20
- (1090) NAVSEA Presentation on Industrial Fire Safety, Fire Prevention and Control
- (1091) Email from (b) (6) (COMPACFLT) of 271235U FEB 20
- (1092) Email from RDML William Greene (USFF) of 280621U FEB 20
- (1093) Closure of USS MIAMI Fire Panel Recommendations of 21 Dec 15
- (1094) Email from (b) (6) (SWRMC) of 061551U OCT 16
- (1095) OPNAVINST 3541.1G Surface Ship and Submarine Survivability Training Requirements of 7 Mar 16
- (1096) Damage Control Assistant & Senior Enlisted Training Course Control of Oct 19
- (1097) Damage Control Repair Party Leader Training Course Control Document of Feb 20
- (1098) Advanced Shipboard Fire Fighting Training Course Control Document of Apr 15
- (1099) General Shipboard Firefighting (Great Lakes) Training Course Control Document of Sep 17
- (1100) General Shipboard Fire Fighting SCBA Training Course Control Document of Oct 16
- (1101) Shipboard Fire Fighting Integrated Team Trainer Training Course Control Document of Nov 16
- (1102) Shipboard Firefighting & Damage Control Emergency Team Trainer Training Course Control Document of Dec 19
- (1103) Summary of Interview of (b) (6) (SWOS)
- (1104) Commander, Naval Sea Systems Command Firefighting Training Observations of 9 Jun 16
- (1105) Summary of Interview of (b) (6) (SWOS)
- (1106) CNIC Shipyard Fire & Emergency Services Requirement of 24 Jul 12

- (1107) Email from (b) (6) (FEDFIRE) of 130848U NOV 20
- (1108) OPNAVINST 3440.18 Procedures and Reporting Requirements for Major Shipboard Non-Nuclear Casualties While In Port at U.S. Naval Installation or a U.S. Ship Repair or Construction Activity of 13 Nov 18
- (1109) Email from (b) (6) (USFF) of 290928U NOV 16
- (1110) Command Tasker System Report on Development of OPNAVINST 3440.18 - Tasker #0453-15 (2015 Tasker)
- (1111) OPNAV N4 Information Brief - Major Shipboard Non-Nuclear Casualty Instruction of 11 Jun 18
- (1112) Email from (b) (6) (USFF) of 041232U FEB 15
- (1113) Command Tasker System Report on Development of OPNAVINST 3440.18 - Tasker #1345-17 (2017 Tasker)
- (1114) Command Tasker System Report on Development of OPNAVINST 3440.18 - Tasker #1166-18 (2018 Tasker)
- (1115) OPNAVINST 34XX.XX Procedures and Reporting Requirements Flag/SES Coordination Page of Jul 18
- (1116) Email from (b) (6) (OPNAV) of 311302U AUG 18
- (1117) Coordination Comments and Input on Development of OPNAVINST 3440.18 (GOFO/SES Review)
- (1118) Email from (b) (6) (NAVSEA) of 041207U JUL 18
- (1119) Email from (b) (6) (NAVSEA) of 241027U JUL 18
- (1120) Maritime Operations Center Standing Order Number 326 of 14 Feb 18
- (1121) COMUSFLTFORCOM Norfolk, VA Designation of Area Commands for Major Shipboard Non-Nuclear of R 192325Z DEC 20
- (1122) SWRMC Fire Response Plan of 31 Jan 20
- (1123) MARMCINST 11320.1D - Fire Response Plan of 22 Jul 20
- (1124) Formal Review and Assessment of USS MIAMI Fire Corrective Action Effectiveness of 16 Jul 20
- (1125) Formal Review and Assessment of USS MIAMI Fire Corrective Action Effectiveness Recommendations of 12 Aug 20
- (1126) Commander, Naval Air Forces Advance Change Notice One for Standard Repair Party Manual of 26 Aug 20
- (1127) CNSF Post-BHR OPT Actions Memo
- (1128) Commander, Naval Surface Forces Aviation Type Commander Fire Safety Assessment Program of 18 Sep 20
- (1129) Fire Marshal 8010 Evaluation Sheet Template
- (1130) Commander, Naval Surface Forces Redline Instruction 3504.1E of 23 Sep 20
- (1131) Commander, Naval Surface Forces 8010 Compliance and Reporting Guidance of 2 Oct 20
- (1132) Commander, Pacific Fleet Assignment of Responsibility for USS BONHOMME RICHARD Fire of 22 Oct 20
- (1133) NAVSEA Directed Fire Prevention Requirements of 231419Z Oct 20

~~CUI~~

- (1134) Commander, Naval Surface Forces USS BONHOMME RICHARD Fire Follow up Actions Tracking of 3 Nov 20
- (1135) Commander, Naval Surface Forces Advance Change Notice for Redline Instruction of 6 Nov 20

~~CUI~~

Appendix B: References

- (a) JAGINST 5800.7G (JAGMAN), Chapter II
- (b) 31 U.S.C. §3721, Military Personnel and Civilian Employees' Claims Act
- (c) National Incident Management System (NIMS), 3d Ed.
- (d) NTTP 3-20.31, Surface Ship Survivability
- (e) DoDI 6055.17, DoD Emergency Management (EM) Program
- (f) UFC 4-150-02, Dockside Utilities for Ship Service, With Change 5
- (g) UFC 4-152-01, Design: Piers and Wharves
- (h) U.S. Navy Regulations
- (i) OPNAVINST 11320.23G, Navy Fire and Emergency Services Program
- (j) OPNAVINST 3040.5E, Procedures and Reporting Requirements for Nuclear Reactor and Radiological Accidents
- (k) OPNAVINST 3120.32 (series), Standard Organization and Regulations of the U.S. Navy (SORM)
- (l) OPNAVINST 3440.17A, Navy Installation Emergency Management Program
- (m) OPNAVINST 3440.18, Procedures and Reporting Requirements for Major Shipboard Non-Nuclear Casualties While In Port at a U.S. Naval Installation or a U.S. Ship Repair or Construction Activity
- (n) OPNAVINST 3541.1 (series), Surface Ship and Submarine Survivability Training Requirements
- (o) OPNAVINST 5100.23H, Safety and Occupational Health Program
- (p) OPNAVINST 5400.45, Standard Navy Distribution List, Administrative Organization of the Operating Forces of the U.S. Navy (SNDL)
- (q) OPNAVINST 5450.339, Mission, Functions, and Tasks of Commander, Navy Installations Command
- (r) NAVSEAINST 5400.95G, Waterfront Engineering and Technical Authority Policy
- (s) NAVSEAINST 5400.97C, Virtual SYSCOM Engineering and Technical Authority Policy
- (t) NAVSEA Technical Publication, Industrial Ship Safety Manual for Submarines, S9002-AK-CCM-010/6010
- (u) NAVSEA Technical Publication, Industrial Ship Safety Manual for Fire Prevention and Response, S0570-AC-CCM-010/8010
- (v) NAVSEA Ships' Technical Manual (NSTM) Chp 074 Vol 3, Rev 7, Gas Free Engineering
- (w) NAVSEA Ships' Technical Manual (NSTM) Chp 077, Rev 8, Personnel Protection Equipment
- (x) NAVSEA Ships' Technical Manual (NSTM) Chp 079 Vol 1, Rev 2, Damage Control, Stability and Buoyancy
- (y) NAVSEA Ships' Technical Manual (NSTM) Chp 555 Vol I, Rev 15, Surface Ship Firefighting

- (z) NAVSEA USS BONHOMME RICHARD (LHD-6) Fire Failure Review Board (NAVSEA FRB)
- (aa) CNICINST 3440.17, Navy Installation Emergency Management (EM) Program
- (ab) CNICINST 5450.6, Mission Functions and Tasks of Commander, Navy Region Southwest
- (ac) COMUSFLTFORCOMINST 4790.3, Joint Fleet Maintenance Manual (JFMM)
- (ad) COMNAVSURFORINST 3120.1, Zone Inspections
- (ae) COMNAVSURFPACINST/COMNAVSURFLANTIST 3502.7A, Surface Force Training and Readiness Manual (SFTRM)
- (af) COMNAVSURFPACINST/COMNAVSURFLANTINST 3504.1 (Series), MOB-D Mission Area Standards Operating Procedures (Red Lines)
- (ag) COMNAVSURFPACINST/COMNAVSURFLANTLINST 3541.1A, Standard Repair Party Manual for Naval Surface Force
- (ah) NFPA 1405, Guide for Land-Based Fire Department that Respond to Marine Vessel Fires

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Appendix D: BONHOMME RICHARD Fire Timeline

Below is a timeline of the first several hours of the response effort to the fire aboard USS BONHOMME RICHARD (LHD-6). In general, this timeline aligns with the sequence of events developed by the Naval Sea Systems Command (NAVSEA) Failure Review Board (FRB), with several minor variations. The greater length and scope of this investigation permitted detailed interviews with hundreds of witnesses and allowed this investigation to corroborate their recollection of key events with time-stamped audio and visual evidence.

Major Events from 0745 – 1100 on 12 July 2020			
	BONHOMME RICHARD	FEDFIRE	Municipal Agencies
745	Duty Section Turnover		
746			
747			
748			
749			
750			
751			
752			
753			
754			
755			
756			
757			
758			
759			
800			
801			
802	(b) (6) observes Lower V looks "foggy"		
803			
804			
805			
806			
807			
808			
809			
810	(b) (6) observes smoke, runs to report to OOD		
811			
812			
813			

814	calls DC Central, (b) (6)	
815	(b) (6) dispatched as investigator	
816	(b) (6) descends	
817	Lower V ramp, runs to	
818	DCRS 5M, yells for OOD to "call it away"	
819		
820	OOD calls DC Central --	
821	after hearing no IMC	
822	announcement, OOD calls casualty from Quarterdeck	
823		
824		
825	(APPROXIMATE)	
826	Unsuccessful attempts to	FEDFIRE dispatched
827	access Lower V by (b) (6),	
828	(b) (6) (b) (6)	
829		FEDFIRE units arrive at Pier 2,
830	0829: EDO logs "5M	BHR directs FEDFIRE to port
831	manned and ready"	ACE
832		
833	(APPROXIMATE)	
834	(b) (6) and (b) (6)	
835	out as investigators	
836		
837		
838		
839	(APPROXIMATE)	
840	Team led by (b) (6)	Deck Log: "Naval Base San
841	descends to Upper V and	Diego Fire Department On-
842	returns	Scene"
843		
844		
845		
846		
847		FEDFIRE Engine 16, assisted by
848		(b) (6), lays hose
849	(APPROXIMATE)	from potable riser, up port ACE,
850	Team led by (b) (6)	down to Lower V
851	descends to Upper V,	
852	unsuccessfully attempts to	Despite laying hose down to

853	locate hose at port/starboard sideport door fire stations	Lower V, FEDFIRE Engine 16 withdraws without turning on water due to SCBA low air alarm	
854			
855			
856			
857			
858			
859			
900			Initial SDFD units arrive on Pier 2
901			
902			
903			
904	EDO notes six-man team on air (no witness corroboration)		
905			
906			Additional municipal units arrive on Pier 2
907			
908			
909		FEDFIRE Truck 17 relieves Engine 16, descends to Lower V, employs water for cooling/heat detection, withdraws to Hangar Truck 17 is accompanied by (b) (6)	
910	(APPROXIMATE) CO arrives at ICP		
911			
912			
913			
914			
915	CDO (with CO concurrence) orders non-SCBA wearing personnel to evacuate		
916			
917			
918			
919			
920		FEDFIRE Engine 12, accompanied by (b) (6), relieves Truck 17 on Upper V ramp -- (b) (6) leaves Engine 12 and withdraws with Truck 17 to the Hangar	
921			
922			
923			
924			
925			SDFD (b) (6) enters sideport door alone to investigate source of fire
926		FEDFIRE Engine 12 team member receives SCBA low air alarm, causing Engine 12 to back-out before reaching Lower V	
927			
928			
929			
930	Engineering Log: "NBSD FIRE DEPT. ASSUMED CONTROL OF ALL FIREFIGHTING EFFORTS"		
931			SDFD directed to depart Hangar by FEDFIRE
932			

933		FEDFIRE Engine 19 relieves Engine 12 near Upper V ramp	SDFD (b) (6) radios that he has found the fire (in Upper V)
934			
935		Upon reaching Upper V, Engine 19 encounters SDFD teams entering via the sideport door -- Engine 19 exits via the sideport door without reaching Lower V	
936			
937			SDFD (b) (6)'s team enters Upper V to investigate
938			
939			
940	EDO logs: "Ordered IET to abandon ship"		SDFD (b) (6)'s team departs, discusses fire location with (b) (6) on pier
941			
942			
943			
944	Aft shore power secured		
945			SDFD (b) (6)'s team reenters BHR, descends to Lower V (app. 5 – 10 feet past the ramp), withdraws due to unfamiliarity with the compartment
946			
947			
948			
949			
950			
951			
952			Additional SDFD teams enter and begin combatting the fire in Upper V (FIRST AGENT ON FIRE)
953			
954		FEDFIRE terminates attack on port ACE and stages outside of sideport door	
955			
956			
957			
958			
959			
1000			
1001			SDFD conducts continuous firefighting effort in Upper V. Multiple teams enter and rotate through firefighting. One team focuses on fighting radiant fires in Upper V, the second sprays water down the Lower V ramp
1002			
1003			
1004			
1005			
1006			
1007			
1008			
1009			
1010			
1011			
1012			

1013			
1014			
1015	BHR DC Sailors develop plan to enter ship and align AFFF sprinkling, approved by CO		[Redacted]
1016			
1017			
1018			
1019			
1020			
1021			
1022			
1023			
1024			
1025			
1026			
1027			
1028			
1029	By the time BHR Sailors attempt to execute, civilian firefighters are withdrawing		
1030			
1031			
1032			
1033			
1034			
1035			
1036			
1037		ICP directs evacuation of BHR	SDFD (b) (6) says "this space [Upper V] is about to blast"
1038			ICP directs evacuation of BHR
1039			
1040			
1041			
1042			
1043			SDFD pulls hoses and equipment out of BHR
1044			
1045			
1046			
1047			
1048			
1049			
1050	Massive Explosion		
1051	Pier Evacuated. All units conduct an accountability check. ICP moved to base of pier, then again to SAR Swimming Pool parking lot.		
1052			

1053	
1054	
1055	
1056	
1057	
1058	
1059	
1100	

Appendix E: BONHOMME RICHARD FSC Minutes

The information contained in this table was included verbatim from Fire Safety Council (FSC) meeting minutes. Any inconsistencies in naming conventions or typos are original.

Meeting Date	Attendees	Topics Discussed
29 OCT 2018	(b) (6)	Fire Prevention - Firefighting - FZB – FM - Safety Walkthroughs - Hotwork - Installed FM Systems - Fire Drills - F&ES - Shipyard Evolutions - Lessons Learned - Unplanned Events
08 NOV 18	(b) (6)	CH12 Fire Drill Waiver
08 NOV 18	(b) (6)	DCRS Lay-up
08 NOV 18	(b) (6)	Portable Extinguisher Removal
27 NOV 2018	(b) (6)	Defueling
14DEC2018	(b) (6)	8010 CH12 Fire Drill Schedule and Expectations

18JAN2019	(b) (6)	IMC Outage
23JAN2019	(b) (6)	Emergency Brow Access
25JAN2019	(b) (6)	Lube Oil Transfer
29JAN2019	(b) (6)	NBSD Federal Fire Dept. TTX
31JAN2019	(b) (6)	IMC Temporary Outage
31JAN2019	(b) (6)	Portable Fire Extinguisher Displacement
06FEB2019	(b) (6)	Fire Zone Boundary Mitigations for CHT Hydroblasting
12FEB2019	(b) (6)	Temporary Firemain Inspection, Operation, Care, and Testing
22FEB2019	(b) (6)	AUX 6-73-0-E Fire Protection

01MAR2019	(b) (6)	Temp FM Hose Reroute
13MAR2019	(b) (6)	Temp FT #13 Valve Replacement
14MAR2019	(b) (6)	Fire Zone Boundary FR 81 Access Cut
14MAR2019	(b) (6)	Temporary Firemain Hose Protection
29MAR2019	(b) (6)	Quarterdeck Move
29MAR2019	(b) (6)	Fuel Piping Drain MMR #2
29APR2019	(b) (6)	Ballasting Plan using Temp Firemain -
03MAY2019	(b) (6)	CH12 +180 Drill Waiver
05JUN2019	(b) (6)	Fixed Extinguished System Hazards

	(b) (6)	
12JUN2019	(b) (6)	Brow Conditions
12JUN2019	(b) (6)	Temporary Firemain Conditions in Dry Dock
02JUL2019	(b) (6)	8010 CH12 Drill Evaluation Criteria
16JUL2016	(b) (6)	Temp FM Hose Repositioning
24JUL2019	(b) (6)	8010 CH 12 +180 Fire Drill Outbrief
30JUL2019	(b) (6)	Temporary Firemain Piping Repair
08AUG2019	(b) (6)	Fire Detection System(s)

08AUG2019	(b) (6)	Rescue & Assistance Between BONHOMME RICHARD and HIGGINS
23AUG2019	(b) (6)	Temporary FM Configuration
23AUG2019	(b) (6)	Fire Zone Boundary Door 02-65-4
04SEP2019	(b) (6)	Fire Zone Boundary Taken Out of Service 01-33-3; 1-33-2; 01-47-7
110SEP2019	(b) (6)	Primary Brow
08 OCT 19	(b) (6)	Ammo Movements to Support Weaponing Quals
24 OCT 19	(b) (6)	Fire Zone Boundary 1-33-2 and 1-32-4 Doors Removed for Preservation
13 NOV 19	(b) (6)	CHP 12 Drill Date and Time
19 NOV 19	(b) (6)	Fire Zone Boundary 02-65-5 Door Removal
17 DEC 19	(b) (6)	Temp Firemain Concerns for Undocking and return to NBSD

	(b) (6)	
18 DEC19	(b) (6)	Going to Single Brow for Undocking
1/6/20	(b) (6)	Fire Main and Hot Work Restoration
15JAN20	(b) (6)	Emergency Brow Shift
15JAN20	(b) (6)	Ammo Movement
29JAN2020	(b) (6)	NTP 8010 Brow Requirement Deviation
18FEB2020	(b) (6)	Lube Oil Onload
20 FEB 2020	(b) (6)	Movement of CH 12 +360 Drill Date

21FEB2020	(b) (6)	Ammo Movement
06MAR2020	(b) (6)	F2B Door Removal
20MAR2020	(b) (6)	Temporary Quarterdeck Shift
02APR2020	(b) (6)	Fire Zone Boundary 02-33-8 Door Removal
07APR2020	(b) (6)	Fuel Onload
08APR2020	(b) (6)	IMC Outage
29APR2020	(b) (6)	IMC Outage
23APR2020	(b) (6)	Movement of 2M and 2F DCRS
30APR2020	(b) (6)	Lube Oil transfer

28MAY2020	(b) (6)	Temporary Quarterdeck Shift
08JUL2020	(b) (6)	Egress Brow and Quarterdeck Movement
08JUL2020	(b) (6)	Ammo Movement

Appendix F: SWRMC 8010 Manual Drills 17 July 2018 to 12 July 2020

Below is a table of SWRMC 8010 Manual drill requirements from 17 July 2018 to 12 July 2020. Gray boxes indicate no drill was required within this time period. Green boxes indicate the drill was completed on time. Orange boxes indicate the drill was completed, but outside of the 8010 Manual time requirement. Red boxes indicate no drill was completed, meaning the 8010 Manual requirement was not met. This table was developed from numerous pieces of evidence, including [26400, 4894, 5447, 5324, 2659, 5784, 5350, 5712, 5736, 6975, 5293].

Appendix D 8010 Manual Drill Requirements vs. Actual Drills Conducted (17 July 2018 - 12 July 2020)										
Ship	Start of Availability	+ 30 Drill Due Date	Date Actual +30 Drill	First + 180 Drill Due Date	Date Actual +180 Drill	Second + 180 Drill Due Date	Date Actual +180 Drill	Third + 180 Drill Due Date	Date Actual +180 Drill	End of Availability Period
USS PAUL HAMILTON (DDG 60)	25-Jul-16	24-Aug-16		20-Feb-17		19-Aug-17		15-Feb-18		19-Aug-18
USS NEW ORLEANS (LPO 18)	9-Jan-17	8-Feb-17		7-Aug-17		3-Feb-18		2-Aug-18		4-Oct-18
USS FORT WORTH (LCS 3)	1-May-17	31-May-17	23-Nov-18	27-Nov-17		26-May-18		22-Nov-18		23-Mar-19
USS COMBENS (CG 63)	6-Jun-17	6-Jul-17		2-Jan-18		1-Jul-18		28-Dec-18		30-Aug-19
USS JACKSON (LCS 6)	29-Jun-17	29-Jul-17		29-Jan-18		24-Jul-18		20-Jan-19		31-Oct-19
USS MAKIN ISLAND (LHD 8)	31-Jul-17	30-Aug-17	31-Oct-18	26-Feb-18		25-Aug-18		21-Feb-19		30-Aug-19
USS CHOSIN (CG 65)	14-Aug-17	13-Sep-17		10-Mar-18		8-Sep-18		7-Mar-19		3-Jan-20
USS COMSTOCK (LSD 45)	28-Aug-17	27-Sep-17		26-Mar-18		22-Sep-18		21-Mar-19		13-May-19
USS JOHN FINN (DDG 103)	22-Jan-18	21-Feb-18		20-Aug-18		16-Feb-19		15-Aug-19		27-Jul-19
USS CHAMPION (MCM 4)	29-Jan-18	28-Feb-18	31-Jul-18	27-Aug-18	28-Jan-19	23-Feb-19		22-Aug-19		15-Oct-19
USS FRACKNEY (DDG 91)	12-Feb-18	14-Mar-18		10-Sep-18		9-Mar-19		5-Sep-19		31-Aug-18
USS GABRIELLE GIFFORDS (LCS 16)	26-Feb-18	28-Mar-18		24-Sep-18		23-Mar-19		19-Sep-19		30-Sep-19
USS HOWARD (DDG 83)	26-Feb-18	28-Mar-18	23-Aug-18	24-Sep-18		23-Mar-19		19-Sep-19		30-Sep-19
USS PRINCETON (CG 59)	5-Mar-18	4-Apr-18		1-Oct-18		30-Mar-19		26-Sep-19		27-Sep-18
USS AMERICA (LHA 6)	19-Mar-18	19-Apr-18		15-Oct-18		13-Apr-19		10-Oct-19		8-Mar-19
USS CAPE ST. GEORGE (CG 71)	19-Mar-18	19-Apr-18		15-Oct-18		13-Apr-19		10-Oct-19		23-Aug-19
USS PEARL HARBOR (LSD 52)	21-May-18	20-Jun-18	6-Nov-18	17-Dec-18		15-Jun-19		12-Dec-19		31-May-19
USS SAN DIEGO (LPO 23)	23-May-18	20-Jun-18	15-Nov-18	25-Dec-18		23-Jun-19		20-Dec-19		13-May-19
USS BUNKER HILL (CG 52)	25-Jun-18	25-Jul-18		21-Jan-19		20-Jul-19		16-Jan-20		14-Dec-18
USS OMAHA (LCS 12)	5-Jul-18	4-Aug-18	10-Aug-18	31-Jan-19		30-Jul-19		26-Jan-20		31-Mar-19
USS HIGGINS (DDG 76)	27-Aug-18	26-Sep-18	19-Sep-18	25-Mar-19	5-Mar-19	21-Sep-19	30-Jul-19	19-Mar-20		13-Mar-20
USS COMBENS (CG 63)	1-Oct-18	31-Oct-18		29-Apr-19		26-Oct-19		23-Apr-20		12-Jul-20
USS STERRETT (DDG 52)	5-Oct-18	4-Nov-18	8-Nov-18	3-May-19		30-Oct-19		27-Apr-20		28-Jun-19
USS BONHOMME RICHARD (LHD 6)	5-Nov-18	5-Dec-18	31-Jan-19	3-Jun-19	23-Jul-19	30-Nov-19		28-May-20		12-Jul-20
USS PORTLAND (LPO 27)	19-Nov-18	19-Dec-18	4-Dec-18	17-Jun-19	9-May-19	14-Dec-19		11-Jun-20		12-Jul-20
USS O'KANE (DDG 77)	14-Jan-19	13-Feb-19	12-Feb-19	12-Aug-19	16-Jul-19	8-Feb-20		6-Aug-20		10-Jun-20
USS DEVEY (DDG 105)	12-Feb-19	14-Mar-19	12-Mar-19	10-Sep-19		8-Mar-20		4-Sep-20		29-Nov-19
USS SHOUP (DDG 98)	04-Mar-19	3-Apr-19	16-Apr-19	30-Sep-19	23-Oct-19	28-Mar-20		24-Sep-20		12-Jul-20
USS SCOUT (MCM 8)	11-Mar-19	10-Apr-19		7-Oct-19		4-Apr-20		1-Oct-20		12-Jul-20
USS CORONADO (LCS 4)	12-Mar-19	11-Apr-19	21-Mar-19	8-Oct-19		5-Apr-20		2-Oct-20		13-Jan-20
USS MICHAEL MONSOOR (DDG 100)	02-Apr-19	2-May-19	26-Apr-19	23-Oct-19		26-Apr-20		23-Oct-20		12-Jul-20
USS ESSER (LHD 3)	08-Apr-19	8-May-19	2-May-19	4-Nov-19		2-May-20		23-Oct-20		6-Dec-18
USS RUSHMORE (LSD 47)	05-May-19	5-Jun-19	20-Jun-19	2-Dec-19	12-Feb-20	30-May-20		26-Nov-20		12-Jul-20
USS ANCHORAGE (LPO 23)	08-Jul-19	7-Aug-19	22-Aug-19	3-Feb-20		1-Aug-20		28-Jan-21		12-Jul-20
USS LAKE CHAMPLAIN (CG 57)	30-Sep-19	30-Oct-19	29-Oct-19	27-Apr-20		24-Oct-20		22-Apr-21		5-Jun-20
USS STETHAM (DDG 63)	01-Oct-19	31-Oct-19		28-Apr-20		25-Oct-20		23-Apr-21		12-Jul-20
USS DECATUR (DDG 73)	01-Oct-19	31-Oct-20	14-Nov-19	29-Apr-20		25-Oct-20		23-Apr-21		12-Jul-20
USS STOCKDALE (DDG 106)	18-Nov-19	18-Dec-19	5-Feb-20	15-Jun-20		12-Dec-20		10-Jun-21		11-May-20
USS STETHAM (DDG 63)	1-Oct-19	31-Oct-19	31-Oct-19	28-Apr-20		25-Oct-20		23-Apr-21		12-Jul-20
USS MOBILE BAY (CG 53)	3-Feb-20	4-Mar-20		31-Aug-20		27-Feb-21		26-Aug-21		12-Jul-20
USS JACKSON (LCS 6)	17-Feb-20	18-Mar-20		14-Sep-20		13-Mar-21		9-Sep-21		12-Jul-20
USS SPRUANCE (DDG 101)	17-Feb-20	18-Mar-20		14-Sep-20		13-Mar-21		9-Sep-21		12-Jul-20
USS HARRIS FERRY (LSD 43)	24-Feb-20	25-Mar-20		21-Sep-20		20-Mar-21		16-Sep-21		12-Jul-20
USS JOHN P. MURTHA (LPO 26)	4-May-20	3-Jun-20		30-Nov-20		29-May-21		25-Nov-21		12-Jul-20
USS BOXER (LHD 4)	15-Jun-20	15-Jul-20		11-Jan-21		10-Jul-21		8-Jan-22		12-Jul-20

Key:	
No Drill Requirement Within Time Frame	
No Drill Completed	
Drill Completed After Due Date	
Drill Completed Before Due Date	

Appendix G: Explanation of Availability Process for Ship Maintenance

1. An availability is defined as the time when a U.S. Naval warship is made available to a maintenance activity (i.e., private shipyard or naval shipyard) for the accomplishment of maintenance and alterations. While there are different kinds of availabilities, generally, the ship is rendered incapable of fully performing its assigned missions and tasks due to the nature of the repair work. When the work is being performed by a maintenance activity, a Naval Supervisory Authority (NSA) is assigned, who is in charge of coordinating all the maintenance functions on hull, mechanical, electrical, and combat equipment and systems beyond the organizational capability or capacity of the ship.
2. A vessel's availability is a scheduled period of time, normally conducted in a shipyard, to perform maintenance on and modernization of the vessel and its systems. Navy maintenance is classified into three capability levels with each level increasing in capability required to perform the intended maintenance. The lowest maintenance level, organizational-level maintenance, consists of all maintenance actions within the capability of the ship's crew, known as Ship's Force. Typical organizational-level maintenance includes preventative maintenance (cleaning, lubricating, and operability testing) and corrective maintenance (component replacement and troubleshooting). This level of maintenance is promulgated by the ship-specific maintenance plan. The second level, intermediate-level maintenance, is defined as the maintenance requiring skills and facilities normally beyond those of the organizational level but does not require depot-level skills. Intermediate-level maintenance is performed by fleet maintenance activities (i.e., shore-based maintenance commands, naval shipyards, and Regional Maintenance Centers (RMC)) and is promulgated by the fleet commander or authorized representative. Maintenance periods requiring scheduling and accomplishment at the intermediate level are considered a non-Chief of Naval Operations (CNO) availability due to the nature of the repair work and ship's assigned tasking. Intermediate-level maintenance consists of but is not limited to all organizational-level maintenance, installation of alterations (modifications), provision of services (i.e., power, gas, and specific tools), and technical assistance to Ship's Force in diagnosing and repair. The highest maintenance level, depot-level maintenance, consists of maintenance requiring facilities and capabilities beyond the intermediate level and is performed by the public or private shipyards. Depot-level maintenance assignments are promulgated by the CNO and scheduled according to the ship-class specific maintenance plan. Depot-level maintenance periods are classified as CNO availabilities.
3. The planning phase for a CNO availability starts as far out as two years prior to the availability start date with the initial issue of the Availability Work Package (AWP). The AWP consists of maintenance actions, known interchangeably as work items or jobs, and ship alterations identified by Ship's Force, Naval Sea Systems Command (NAVSEA), and other supporting engineering commands, classified by codes. The initial AWP identifies the known work and class alterations that must be completed during the availability. Additional work items are identified and added to the AWP during work discovery periods scheduled during the planning phase. The discovery periods are conducted by Ship's Force with oversight and assists from the fleet support activities specializing in pre-availability testing and ship deficiency identification.

4. A CNO availability relies not only on one command, but rather multiple commands and supporting activities to ensure the successful planning and execution of the maintenance period. The CNO staff-level, maintains, reviews, and approves the maintenance program master plan for all class ships. At the Fleet and Type Commanders (TYCOMS) level, they maintain the depot maintenance intervals and cycles for ships under their command, and plan for and monitor availability executions to achieve a balance of cost and schedule. For NAVSEA, they are the lead technical authority, establishing performance standards for the accomplishment of all maintenance and modernizations, and ensuring the executing activities perform the repairs and modernization within the scope of the work authorized. The NSA coordinates and integrates all maintenance actions accomplished by all executing activities during a CNO availability and is responsible for the on-time completion of all work. The Lead Maintenance Activity (LMA) is responsible for all work being accomplished and possesses the authority to organize, structure, and coordinate all execution matters. The executing activities are the specific commands and private companies contracted to perform certain maintenance actions during the availability. Finally, Ship's Force is required to maintain open communication and provide support, when needed, to the NSA and the executing activities.

Appendix H: Glossary

Term	Definition
Acetylene Gas Systems	A colorless, combustible gas with a distinctive, garlic-like odor (C ₂ H ₂).
Aft	The stern of a ship.
Aircraft Rescue Firefighting	The firefighting actions taken by fire and emergency services personnel to control or extinguish fire involving, or adjacent to, aircraft on the ground.
Alarm System	Generic term for any initiating device and/or notification appliances. In some cases, a single locally-produced component could serve as both an initiating device and notification appliance.
Automatic Sprinkler System	A fire extinguishing system with pipes and automatically activating heads which distributes water or water-based extinguishing agents over a fire area.
Availability	Any maintenance, modernization period where industrial work is performed/managed by a Lead Maintenance Activity (LMA).
B Phase Ground	This is a system in which the transformer secondary is delta-connected with one corner of the delta solidly grounded. Also referred to as corner-grounded delta systems, grounded phase services and end-grounded delta systems.
Basic Life Support	A level of hospital emergency medical care that includes any or all Emergency Medical Responder (EMR) and Emergency Medical Technician (EMT) procedures as defined by the U.S. Department of Transportation (USDOT) and National Highway Traffic Safety Administration (NHTSA) National Standard Curricula.

Batt Phone	An individual-to-individual call system using four digit phone numbers.
Berth	Designated location in a port or harbor where a ship is moored while it is not at sea.
Casualty Control System (CASCON)	The shipboard system that replaces the ship's permanent casualty reporting, announcing, and communication system; used to report fires inside the ship to the central location (i.e., the CASCON Station).
Chief of Naval Operations (CNO) Scheduled Availability	Maintenance, modernization periods where industrial work is performed that are scheduled by the CNO. Examples include Regular Overhaul, Complex Overhaul, Engineered Overhaul, Refueling Overhaul, Refueling Complex Overhaul, Engineered Refueling Overhaul, Depot Modernization Period, Planned Incremental Availability, Docking Planned Incremental Availability, Selected Restricted Availability (SRA), Docking SRA, Phased Maintenance Availability, Docking Phased Maintenance Availability, Extended SRA, Extended Docking SRA, Incremental SRA, Interim Drydock Availability (IDD), Pre-Inactivation Restricted Availability (PIRA), and Inactivation Availability.
Class "A" Fire	Class "A" fires involve wood and wood products, cloth, textiles and fibrous materials, paper and paper products.
Class "B" Fire	Class "B" fires involve flammable and combustible liquids such as gasoline, diesel fuel (F-76), jet fuels, hydraulic fluid and lube oil. Class "B" fires also involve flammable gases, such as acetylene.

Class "C" Fire	Class "C" fires are energized electrical fires.
Class "D" Fire	Class "D" fires involve combustible metals, such as magnesium and titanium.
Cofferdam	Any plug, patch, or dry chamber installed externally to the hull of a ship or submarine at or below the waterline in order to secure or dewater an area or system to enable shipboard or diver personnel to conduct maintenance or repairs to the hull or system. They could be as simple as a wooden plug inserted into a round opening or as complex as a dry chamber for a shaft coating repair.
Combustible	A material that, in the form in which it is used and under the conditions anticipated, will ignite and burn; a material that does not meet the definition of noncombustible or limited-combustible; or any liquid that has a closed cup flash point at or above 150 degrees Fahrenheit, as determined by National Fire Protection Association (NFPA) Codes and Standards 30, Flammable and Combustible Liquids Code. The terminology of “flammable” and “combustible” liquid is sometimes used interchangeably due to differing definitions in industry, regulatory bodies, and the military.
Company	A group of members under direct control of an officer, who are trained and equipped to perform assigned tasks.
Consolidated	A fire department that serves more than one installation command, e.g., multiple installments that are collocated in the same geographical area. The consolidated fire department is managed by a single fire and emergency services staff.

Coveralls	A loose-fitting, one-piece work garment, consisting of a trouser-like portion and a top with or without sleeves, worn over other clothing.
Damage Control (DC) Central	The central location where reports from shipboard repair parties (fire responders) are received, the overall condition of the ship is evaluated and corrective actions to be taken are directed in the most effective manner. Graphic records of the damage are made on various DC diagrams and status boards as reports are received. During large availabilities, DC Central may be moved off the ship.
Disaster Response	The portion of the fire and emergency services program that deals with controlling and mitigating unforeseen incidents, which exceed the affected installation's normal capabilities.
Dispatch Time	The point of receipt of the emergency alarm at the public safety answering point to the where sufficient information is known to the dispatcher and applicable units are notified of the emergency.
Emergency Dispatch Center	The central location in the region (Federal or civilian) that receives emergency calls and dispatches Fire & Emergency Services (F&ES). The emergency dispatch center is equivalent to the Region or Installation emergency dispatch center, and may also be referred to as the Public Safety Access Point (PSAP).
Emergency Medical Responder	An individual trained to provide initial care for sick or injured persons, per the U.S. DoT and NHTSA National Standard Curricula.
Emergency Medical Services (EMS)	A system of trained, certified, and properly equipped personnel that

	provide triage, treatment, and transportation of the sick and injured to Medical Treatment Facilities (MTF).
Emergency Operations Center (EOC)	The site from which Navy Installations or civil government officials (municipal, county, State and Federal) exercise direction and control in an emergency. The Installation EOC is a National Incident Management System (NIMS)-compliant multi-agency coordination system utilizing the Incident/Unified Command System's (ISC) organizational structure to provide an Installation staff to support execution of the Installation Emergency Management (EM) Plan, Anti-Terrorism (AT) Plan, other supporting plans, Defense Support to Civil Authorities (DSCA) missions, the Operational Plans of assigned Combatant, Component, & Fleet Commanders, and the National Response Plan. The mission of the Installation EOC is to support the Incident Commander (IC) or Unified Commander (UC) during emergencies with resource management support and establishing strategic/operational-level objectives, as necessary. The EOC is responsible for coordination and liaison with local, other service, and/or private response and recovery assets. From the Installation EOC, the Installation Commanding Officer (CO) exercises and executes Operational Control (OPCON) over all assigned Installation assets and may reallocate those assets on its own volition to support affected areas during an emergency.
Emergency Response Team (ERT)	Ship Repair and/or Construction Activity (SRCA), Ship's Force and

	F&ES personnel who respond to major fires and constitute the incident management structure.
Engine Company	A complement of emergency response personnel staffing a fire department pumper. The engine company's primary role during fire incidents is to establish a water supply and deliver water through hose lines to control the fire.
Fire and Emergency Services (F&ES)	The organization responsible for the primary response to fires. The civilian (federal or otherwise) fire department.
Fire and Emergency Services (F&ES) Chief	An individual who is responsible for a single or multiple commands and may be responsible to multiple COs.
Fire Boundary	A fire boundary is a temporary boundary set during a fire by immediate fire responders or firefighters by closing doors, hatches, and other closures.
Fire Investigation	An examination of a fire scene to determine the origin and cause of the fire, any special circumstance surrounding the fire, and to develop lessons learned. A fire investigation may also serve as the basis for a criminal investigation if the fire is determined to be of incendiary or suspicious origin.
Fire Prevention	The portion of the fire protection program aimed at preventing the outbreak of fire through education, inspection, enforcement, and investigation.
Fire Protection Systems	Equipment installed in buildings and other structures designed to detect fires, provide alarm indication of fire or to control or extinguish fires.
Fire Response Plan	Plan required by Occupational Safety and Health Standards for Shipyard Employment, 29 Code of Federal Regulations (CFR) Part 1915 Subpart P, Fire Protection in

	Shipyards Employment, that establishes in advance the actions to be taken at the time of a fire.
Fire Safety Council	Collectively, the persons designated by the SRCA, the ship CO, the Naval Supervising Authority (NSA) and the Engineering Planning Department (EPD) Representative (when a Naval Shipyards is the LMA) (as assigned) to approve ship-specific configurations relevant to the requirements of this manual.
Fire Safety Officer (FSO)	The SRCA representative to the Fire Safety Council (FSC).
Fire Safety Watch (FSW)	The watchstanders assigned specific fire related watchstanding duties such as patrolling the ship and manning CASCON/DC Central/Quarterdeck. Usually FSWs are Ship's Force personnel on ships in commission and are SRCA personnel during new construction pre-commissioning and during inactivation and recycling availabilities after decommissioning.
Fire Suppression Systems	A fire protection system that automatically controls and suppresses fires including automatic sprinkler systems, wet and dry chemical systems, and foam systems.
Fire Zone Boundary	A fire zone boundary is a permanent, continuous, interior bulkhead or deck system designed to limit the passage of flame and smoke beyond a fire zone and provides protected staging areas for firefighters.
Firemain	Supplies water pressure for several other cruising and battle systems.
Halon	A fire extinguishing agent that uses fluorine, chlorine, bromine, or iodine based hydrocarbons to interfere with the combustion process.

Head	Ship's toilet.
Hog	Deviation of the keel from a straight line, in which the keel is concave downward.
Hot Work	Flame heating, welding, torch cutting, brazing, carbon arc gouging, and other operations that produce heat, by any means, of 400 degrees Fahrenheit or more.
Hot Work Permit	A permit used to authorize the use of welding, soldering or other open flame devices on Navy installations.
Hull	The frame or body of a ship or boat exclusive of masts, yards, sails, and rigging.
In-Service	Nuclear-powered ships are assigned an active status of In-Service approximately two to four weeks (two to four months for aircraft carriers) prior to the commencement of Sea Trials and maintain this status until commissioning.
Incident Command System (ICS)	A standardized incident EM construct specifically designed to provide for the adoption of an integrated organizational structure that reflects the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries. ICS is the combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure, designed to aid in the management of resources during incidents. It is used for all kinds of emergencies and is applicable to small as well as large and complex incidents. ICS is the standard organizational process used by F&ES departments.
Incident Commander (IC)	The individual responsible for all incident activities, including the development of strategies and tactics and the ordering, and the ordering

	and release of resources. The IC has overall authority and responsibility for conducting incident operations and is responsible for the management of all incident operations at the incident site.
In-Hull	As it relates to the 8010 Manual, on-ship incident command staff.
Jacob's Ladder	Portable ladder, with rope or wire sides and wooden rungs, slung over the side for temporary use.
Lead Maintenance Activity (LMA)	The single activity responsible for integrating all maintenance and modernization on U.S. Naval ships during any type availability.
List	“Listing” is a nautical term to describe when a vessel takes on water and tilts to one side. A ship could list either to port (left) or starboard (right). By contrast, a ship is said to be “trimming” when she tips forward or backward.
Major Fire	A fire that has progressed beyond the incipient stage, beyond the ability of the initial responders (usually Ship's Force on ships in commission) to control, and is still not under control when the first hose team outfitted in SCBAs and Firefighting Ensembles (FFE) needs to be relieved. A multi-level fire is a major fire.
Mutual Aid	An agreement among emergency responders to lend assistance across jurisdictional boundaries. This may occur due to an emergency response that exceeds the capacity of local resources, such as a disaster or a multiple-alarm fire. Mutual aid includes those responders with whom a formal standing agreement exists for cooperative EM on a continuing basis. For example, a shipyard or Navy Region may have a Mutual Aid Agreement (MAA)

	with civilian municipal fire and emergency responders.
Mutual Aid Agreement (MAA)	An arrangement with neighboring jurisdictions that establishes joint response of designated emergency services apparatus and personnel on pre-determined incident types.
Naval Reactors Representative's Office	The Naval Reactors Representative's Office in the Naval Shipyard and Nuclear Capable Construction Shipyard responsible for oversight of Naval Nuclear Propulsion Plant (NNPP) matters.
Naval Supervising Authority (NSA)	The NSA is an echelon 3 command (e.g., Supervisors of Shipbuilding (SUPSHIP), Regional Maintenance Center (RMC) or naval shipyard) having inherent COMNAVSEASCOM technical and contracting warrants. The NSA is the single naval activity responsible for the contract administration, project management, technical authority and quality assurance of work accomplished by activities working within the assigned availability or new construction contract. The NSA would provide the oversight required to ensure that work in the assigned availability is authorized, controlled, executed and verified to be in compliance with applicable technical requirements and policies.
Off-Hull	As it relates to the 8010 Manual, off-ship incident command staff.
Operations Risk Management	The process of identifying, assessing, and controlling risks and making operational decisions that balance risk with mission benefit.

P-100	Self-priming, diesel-driven dewatering pumps that pump about 100 Gallons-Per-Minute (GPM).
P-250	Gasoline-driven pumps used for dewatering.
Personal Protective Equipment (PPE) and Clothing	PPE and clothing that meets the applicable NFPA requirements and are suitable for the tasks that emergency services personnel are expected to perform.
Pitch	Fore-and-aft angular motion of a ship's bow or stern in a seaway about the athwartships axis. See also "sway" and "yaw."
Port	The left-hand side of a ship when looking forward; the opposite of "starboard."
Project Support Engineer (PSE)	A PSE is the equivalent to a trouble-desk person at a naval shipyard. A PSE is an engineer assigned to a maintenance team. A PSE typically acts as a liaison between the waterfront operations and engineering, to help get engineering answers quickly.
Quay Wall	A quay wall is an earth retaining structure which is used to dock floating vessels and transfer goods.
Radiological Emergency Response Organization	Designated personnel at a Naval Nuclear Propulsion Program (NNPP) facility/organization who are assigned to respond to nuclear or radiological emergencies associated with U.S. nuclear-powered warships and associated radioactive material.
Regional Fire Department	A single fire department that services all installations in a region, which may include multiple installation fire and emergency stations organized and aligned under a CNIC recognized region.
Regional Maintenance Center (RMC)	A Navy activity that is an NSA when contracting for ship maintenance, and is a SRCA/LMA

	when performing shipboard maintenance.
Regional Operations Center (ROC)	<p>A ROC is a NIMS-compliant multi-agency coordination system utilizing the Incident/Unified Command System’s organizational structure to provide a collaboration point and operations center for Region staff to support execution of the Region Emergency Management (EM) Plan, Anti-Terrorism (AT) Plan, other supporting plans, DSCA missions, the Operational Plans of assigned Combatant, Component, & Fleet Commanders, and the National Response Plan. Activities include, but are not limited to, intelligence gathering, suspicious incident tracking, Common Operational Picture (COP) development & input, resource management, coordination with</p> <p>Federal/DoD/State/Local/Private/Host Nation agencies & department, and implementation of precautionary/preventive measures to deter/detect events and/or mitigate potential effects. Post-event activities include, but are not limited to, resource management, strategic guidance/direction, and coordination & liaison with Federal, Department of Defense, State, Local, Other Service, and/or Private (or host nation) response and recovery assets while supporting subordinate installations during emergencies. The function of the ROC is principally to establish strategic priorities for one or more incidents at the Installation level and allocate limited Regional/Installation resources among incident locations.</p>
Repair Lockers (DCRS)	Storage spaces within the ship which contain DC equipment for the repair

	and control of damage due to battle, flooding, or fire.
Risk Analysis	A study of program elements posing a hazardous situation, to assess the probability and severity of an incident prior to devising a means of controlling the hazardous situation.
Roll	Side-to-side angular motion of a ship about its longitudinal axis. See also “pitch,” “sway,” and “yaw.”
Sag	Deviation of the keel from a straight line when the keel is concave upward. Also, the concave curve of a towline said to have catenary.
Scuttle	Small, quick-closing access hole.
Sea Trials	The testing phase of a ship.
Self-Contained Breathing Apparatus (SCBA)	A breathing air system that allows emergency services personnel to enter hazardous or oxygen deficient atmospheres.
Ship Repair and/or Construction Activity (SRCA)	The Shipbuilder or LMA that performs industrial work (maintenance, repair, modernization, inactivation, and/or construction) on Navy vessels. This includes Naval Shipyards, RMCs, Trident Refit Facilities (TRFs), Fleet Maintenance Activities (FMAs), private repair shipyards, and new construction shipyards.
Ship's Force	Members of ship's company.
Shoring	Process of placing props against a structure or cargo to prevent braking, sagging, or movement in a seaway, or to hold ship upright in dry dock.
Sideport	Used to transport cargo to the ship by forklift.
Situational Report (SITREP)	A special report generally in a prescribed format, required to keep higher authority advised. Required under certain predictable circumstances, but also may be required at any time.

SKED	Automated Planned Maintenance System Scheduling Tool.
Smoke Boundary	A smoke boundary is a bulkhead, deck, or other fume-tight boundary which is set during a fire to limit smoke spread and air supply to a fire.
Stability	Ability of a ship to right itself after being heeled over.
Starboard	The right-hand side of a ship when looking forward. Opposite of “port.”
Stern Gate	Stern ramp/door that provides access to the Well Deck for landing craft and vehicles.
Submersible pump	Watertight electric pump that could be lowered into a flooded compartment to pump it out.
Sway	Motion of a ship in which it is displaced laterally, as distinct from rolling. See also “pitch,” “roll,” and “yaw.”
Type III Navy Working Uniform (NWU)	An organizational uniform worn by all U.S. Navy members.
Watertight Bulkhead	Large bulkheads that split the hull of a ship into separate sections.
Wye Gate	A piping connection with a large inlet section and two smaller outlet sections to permit hook up of two hoses to one pump outlet.
Yaw	Failure of a vessel to hold a steady course because of forces of wind, sea, damage to vessel, etc. In towing, yaw angle is the difference between the tow’s heading and the tug’s heading. Yawing can be manifested by an oscillation of the tow’s heading by a small angle to either side of the base course, with the tow remaining on the same track as the tug.

Appendix I: Acronym List

Acronym	Full Description
2M	Miniature/Microminiature Electronics Repair.
3M	Maintenance & Material Management System
AAR	After Action Report
ABT	Automatic Bus Transfer
ACDO	Assistant Command Duty Officer
ACE	Aircraft Elevator
ADCON	Administrative Control
AEL	Allowance Equipage List
AFFF	Aqueous Film Forming Foam
AIRFOR	Commander, Naval Air Forces
ALNAV	All Navy Message
ALT	Acquisition, Logistics and Technology
AMR	Auxiliary Machinery Room
AMS	Aviation Structural Mechanic Structures
AOR	Area of Responsibility
APCD	Air Pollution Control District
ASFP	Flying Squad/At-Sea Fire Party
ATF	Bureau of Alcohol, Tobacco Firearms and Explosives
ATFP	Anti-Terrorism Force Protection
ATG	Afloat Training Group
ATGPAC	Afloat Training Group Pacific
ATGSD	Afloat Training Group San Diego
ATHOC	AtHoc Emergency Mass Notification System
ATTWO	Anti-Terrorism Tactical Watch Officer
AWP	Availability Work Package
BA	Blitz Attack
BBD	Billet Based Distribution
BLS	Basic Life Support
BLUF	Bottom Line Up Front
BOC	Base Operations Center
C2	Command and Control
C3F	Commander, United States THIRD Fleet
C5I	Command, Control, Communications, Computers, Combat Systems & Intel
CAD	Computer-Aided Dispatch
CALFIRE	California Department of Forestry and Fire Protection
CALOES	California Office of Emergency Services
CAR	Corrective Action Report

CASCON	Casualty Control System
CASREP	Casualty Report
CAT	Crisis Action Team
CBRD	Chemical, Biological and Radiological Defense
CDO	Command Duty Officer
CE	Combat Electronics
CFR	Code of Federal Regulations
CHENG	Chief Engineer
CHT	Collection, Holding, Transfer
CIC	Combat Information Center
CIV	Civilian
CMAV	Continuous Maintenance Availability
CMF	Combined Maritime Forces
CNAF	Commander Naval Air Forces
CNAP	Commander Naval Air Force, United States Pacific Fleet
CNIC	Commander, Navy Installation Command
CNO	Chief of Naval Operations
CNRMC	Commander, Navy Region Maintenance Center
CNRSW	Commander, Navy Region Southwest
CNSF	Commander, Naval Surface Forces
CNSL	Commander, Naval Surface Force Atlantic
CNSP	Commander, Naval Surface Force Pacific Fleet
CO	Commanding Officer
COMNAVSAFECEN NOR VA	Commander, Naval Safety Center Norfolk Virginia
COMNAVSURFLANT	Commander, Naval Surface Force Atlantic
COMNAVSURFPAC	Commander, Naval Surface Force Pacific
COMPACFLT	Commander, United States Pacific Fleet
COMSUBLANT	Commander, Submarine Force Atlantic
COMSUBPAC	Commander, Submarine Force Pacific
COMTHRDFLT	Commander, United States THIRD Fleet
COMUSFLTFORMCOM	Commander, United States Fleet Forces Command
CONEX	Container Express
CONUS	Continental United States
COOP	Continuity of Operations
COP	Common Operational Picture
COS	Chief of Staff
COVID-19	Coronavirus Disease-2019
CPF	Commander, Pacific Fleet
CPO	Chief Petty Officer
CPU	Computer Processing Unit

CSG-1	Carrier Strike Group ONE
CSPCD	Combat Systems Production Complete Date
CTS	Command Tasker System
CUSFFC	Commander, United States Fleet Forces Command
CVN	Nuclear Aircraft Carrier
CWO	Chief Warrant Officer
DC	Damage Control
DC Central	Damage Control Central
DCA	Damage Control Assistant
DCASE	Damage Control Assistant - Senior Enlisted
DCBOD	Damage Control Board of Directors
DCMA	Damage Control Material Assessment
DCRS	Damage Control Repair Station
DCTT	Damage Control Training Team
DDG	Guided Missile Destroyer
DFM	Diesel Fuel, Marine
DFR	Damage & Fire Recoverability
DFS	Departure From Specification
DHS	Department of Homeland Security
D-Level	Depot-Level
DOD	Department of Defense
DoN	Department of the Navy
DPG	Defense Planning Guidance
DPMA	Docking Phased Maintenance Availability
DSCA	Defense Support to Civil Authorities
EA	Executive Assistant
EAP	Engineering Assessments Pacific
EBAC	Emergency Breathing Air Compressor
ECC	Emergency Command Center
ECP	Entry Control Point
ED	Executive Director
EDG	Emergency Diesel Generator
EDO	Engineering Duty Officer
EEBD	Emergency Escape Breathing Device
EFR	Engineering Field Representative
EM	Emergency Management
EMO	Emergency Management Officer
EMR	Emergency Medical Responder
EMS	Emergency Medical Services
EMT	Emergency Medical Technician

EOC	Emergency Operations Center
EOD	Explosive Ordinance Disposal
EOOW	Engineering Officer of the Watch
EPA	Environmental Protection Agency
EPCC	Electric Plant Control Console
EPD	Engineering Planning Department
ER	Emergency Room
ER04	Engineering Repair Workcenter 04
ER09	Engineering Repair Workcenter 09 (Damage Control Petty Officer)
ERT	Emergency Response Team
ESAMS	Enterprise Safety Applications Management System
ESG-3	Expeditionary Strike Group THREE
ESH	Environmental Safety & Health
ESSM	Emergency Ship Salvage Material
ETA	Estimated Time of Arrival
F&ES	Fire and Emergency Service
FAA	Federal Aviation Administration
FEDFIRE	Federal Firefighting Department
FEMA	Federal Emergency Management Agency
FF	Firefighter
FFE	Firefighting Ensemble
FITREP	Fitness Report
FLIR	Forward Looking Infrared
FLTMPS	Fleet Training Management and Planning System
FMA	Fleet Maintenance Activity
FMAA	Fleet Maintenance Activity Assessment
FRAGO/FRAGORD	Fragmentary Order
FRB	Failure Review Board
FRE	Final Regulatory Evaluation
FRM	Frame
FRP	Fire Response Plan
FRV	Flame Resistant Variant
FSC	Fire Safety Council
FSO	Fire Safety Officer
FSP	Fire Safety Plan
FSW	Fire Safety Watch
FTA	Fleet Technical Assistance
FTS	Full-Time Support
FWD	Forward
FY	Fiscal Year

GEARS	Global Electronic Approval Routing System
GFSO	Government Fire Safety Officer
GMO	General Medical Officer
GPC	Global Phillips Cartner
GPM	Gallons-Per-Minute
GS	General Schedule
H2S	Hydrogen Sulfide
HAR	Hazard Assessment Report
HAS	Hazard-Specific Appendix
HFP	Heptafluoropropane
HPAC	High-Pressure Air Compressor
HPCON	Health Protection Condition
HPD	Headquarters Policy Directive
HPWM	High-Pressure Water Mist
HQ	Headquarters
HRMC	Hawaii Regional Maintenance Center
HYDRA	Hierarchical Yet Dynamically Reprogrammable Architecture
IAP	Incident Action Plan
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
IDD	Interim Drydock Availability
IDLH	Inherently Dangerous to Life & Health
IEM	Inactive Equipment Maintenance
IET	Inport Emergency Team
I-Level	Intermediate Level
IMO	International Maritime Organization
IMT	Incident Management Team
INSURV	Board of Inspection and Survey
IPTD	Integrated Project Team Development
IRCP	Interoperability Radio Communication Plan
ISEA	In Service Engineering Agent
ISIC	Immediate Superior In Command
ITO	Installation Training Officer
IVCS	Integrated Voice Communication System
IVO	In Vicinity Of
JAGC	Judge Advocate General Corps
JAGMAN	Manual of the Judge Advocate General
JIC	Joint Intelligence Center
JP-5	Fuel, Jet Propulsion

JQR	Job Qualification Requirement
LDO	Limited Duty Officer
LHA	Landing Helicopter Assault
LHD	Landing Helicopter Dock
LMA	Lead Maintenance Activity
LO	Lube Oil
LOA	Light-Off Assessment
Lower V	Lower Vehicle Stowage Area
LP	Low-Pressure
LPD	Landing Platform/Dock
LPO	Leading Petty Officer
LSD	Dock Landing Ship
MA	Material Assessment
MAA	Mutual Aid Agreement
MAC-MO	Multi-Award Contract/Multi-Order
MAO	Medical Administration Officer
MARMC	Mid-Atlantic Regional Maintenance Center
MC	Main Circuit
MCAS	Marine Corps Air Station
MCPON	Master Chief Petty Officer of the Navy
MCRD	Marine Corps Recruit Depot
MDO	Maintenance Duty Officer
MEF	Marine Expeditionary Forces
MFD	Miramar Fire Department
MIP	Maintenance Index Page
MM	Millimeter
MMR	Main Machinery Room
MOA	Memorandum of Agreement
MOB-D	Mobility-Damage Control
MOU	Memorandum of Understanding
MSMO	Multi-Ship Multi Option
MTE	Man, Train & Equip
MTF	Military Treatment Facility
NASSCO	General Dynamics National Steel and Shipbuilding Company
NAVCRUITRACOM	Navy Recruit Training Command
NAVFAC	Naval Facilities Engineering Systems Command
NAVOSH	Navy Occupational Safety & Health
NAVSAFCEN	Naval Safety Center
NAVSEA	Naval Sea Systems Command

NAVSEA 00C	Naval Sea Systems Command, Director of Ocean Engineering/Supervisor o (SUPSALV)
NAVSEA 07B	Naval Sea Systems Command Undersea Warfare
NBSD	Naval Base San Diego
NCFD	National City Fire Department
NCIS	Naval Criminal Investigative Service
NETC	Naval Training & Education Command
NFIRS	National Fire Incident Reporting System
NFPA	National Fire Protection Association
NFTI	Naval Firefighting Thermal Imaging
NHTSA	National Highway Traffic Safety Administration
NIMS	National Management Incident System
NMCI	Navy & Marine Corps Intranet
NNPP	Naval Nuclear Propulsion Program
NRF	National Response Framework
NRMO	Navy Regional Maintenance Office
NRRO	Naval Reactors Representative Office
NRT	National Response Team
NSA	Naval Supervising Authority
NSF	Naval Security Force
NSI	NAVSEA Standard Item
NSIRC	NAVSEA Ship Incident Response Center
NSRO	NAVSEA Shipyard Representative Office
NSWCPD	Naval Surface Warfare Center, Philadelphia Division
NSY	Naval Shipyard
NWRMC	Northwest Regional Maintenance Center
NWU	Navy Working Uniform
OFRP	Optimized Fleet Response Plan
OJAG	Office of the Judge Advocate General
OOC	Out of Commission
OOD	Officer of the Deck
OPCON	Operational Control
OPNAV	Office of the Chief of Naval Operations
OSD	Office of the Secretary of Defense
OSPR	California Office of Spill Prevention and Response
PAO	Public Affairs Officer
PAX	Passengers
PB4M	Planning Board for Maintenance
PCA	Program Compliance Assessment
PCD	Planned Completion Date

PCO	Procurement Contracting Officer
PECU	Portable Exothermic Cutting Unit
PEO	Program Executive Officer
PHIBRON	Amphibious Squadron
PHIBRON-1	Commander, Amphibious Squadron ONE
PHIBRON-5	Commander, Amphibious Squadron FIVE
PIRA	Pre-Inactivation Restricted Availability
PKP	Potassium Bicarbonate
PLANORD	Planning Order
PM	Project Manager
PMA	Phased Maintenance Activities
PMS	Planned Maintenance System
PNSY	Portsmouth Naval Shipyard
POM	Program Objective Memorandum
PPBE	Program, Planning, Budget & Execution
PPE	Personal Protective Equipment
PPM	Parts-Per-Million
PQS	Personnel Qualification Standard
PSAP	Public Safety Access Point
PSE	Project Support Engineer
PSI	Pounds-Per-Square-Inch
PSNS	Puget Sound Naval Shipyard
PT	Project Team
PW	Public Works
PWAY	Passageway
PWO	Public Works Officer
R&A	Rescue & Assistance
RADM	Relational Administrative Data Management System / Rear Admiral
RAM	Upper Rotary Axial Water Driven Fan
RAS	Replenishment at Sea
RCS	Regional Communications Systems
RDC	Region Dispatch Center
RE	Recurring Event
READ-E 3	Readiness Evaluation #
RFS	Request for Support
RIC	Rapid Intervention Crew
RLSO	Region Legal Service Office Southwest
RMC	MaintenanceRegional Center
ROC	Regional Operations Center
ROC-POE	Required Operational Capabilities and Projected Operational Environment

ROM	Restriction of Movement
SA	Situational Awareness
SACC	Supporting Arms Coordination Center
SAR	Search and Rescue
SAT	Satisfactory
SBS	Shipbuilding Specialist
SCBA	Self-Contained Breathing Apparatus
SCORE	Southern California Offshore Range
SDFD	San Diego Fire Department
SDM	Ship Design Manager
SDO	Squadron Duty Officer
SEA 05	Naval Systems Engineering Directorate
SEA 21	Director of Surface Ship Maintenance and Modernization
SECNAV	Secretary of the Navy
SERMAC	Southeast Regional Maintenance Center
SFTRM	Surface Force Training & Readiness Manual
SHIPALT	Ship Alteration
SIB	Safety Investigation Board
SIQ	Sick-in-Quarters
SITREP	Situation Report
SMO	Senior Medical Officer
SOG	Standard Operating Guide
SOP	Standard Operating Procedure
SOPV	Solenoid Operated Pilot Valves
SPG	Service Program Guidance
SRA	Selected Restricted Availability
SRCA	Ship Repair and/or Construction Activity
SRF	Ship Repair Facility
SSCL	Senior Shore Leader Course
SSN	Ship, Submersible, Nuclear
SSRAC	Standard Specification for Ship Repair & Alteration Committee
STBD	Starboard
SUBFOR	Commander, Submarine Forces
SUBLANT	Commander, Submarine Force Atlantic
SUBPAC	Commander, Submarine Force, U.S. Pacific Fleet
SUPSALV	Supervisor of Salvage and Diving
SUPSHIPS	Supervisors of Shipbuilding
SURFOR	Commander, Naval Surface Forces
SUV	Sports Utility Vehicle
SWO	Surface Warfare Officer / Senior Watch Officer

SWOS	Surface Warfare Officer School
SWRMC	Southwest Regional Maintenance Center
SWSC	Surface Warfare Schools Command
SYSCOM	Systems Command
TAD	Temporary Additional Duty
TCCD	Training Course Control Document
TIC	Thermal Imaging Camera
TORIS	Training & Operational Readiness Information Services
TORIS-TFOM	Training & Operational Readiness Information Services-Training Figure of
TRF	Trident Refit Facilities
TSO	Temporary Standing Order
TWH	Technical Warrant Holder
TYCOM	Type Commander
U/I	Under Instruction
UC	Unified Commander
UFC	Unified Facilities Criteria
UNSAT	Unsatisfactory
Upper V	Upper Vehicle Stowage Area
UPS	Uninterrupted Power Supply
USAR	Urban Search and Rescue Team
USCG	U.S. Coast Guard
USDOT	United States Department of Transportation
USMC	U.S. Marine Corps
USN	United States Navy
USNORTHCOM	U.S. Northern Command
USS Inc.	United Support Services, Inc.
VOC	Volatile Organic Compound
WBC	Watchbill Coordinator
WCS	Work Center Supervisor
WESS	Web Enable Safety System
XO	Executive Officer

Appendix J: Navy Enlisted Ratings

Abbreviation	Full Term
ABE	Aviation Boatswain's Mate, Equipment
AG	Aerographer's Mate
AO	Aviation Ordnanceman
DC	Damage Controlman
PR	Aircrew Survival Equipmentman
AW	Aircrewman
AWF	Aircrewman Mechanical
AWO	Aircrewman Operator
AWR	Aircrewman Tactical Helicopter
AWS	Aircrewman Helicopter
AWV	Aircrewman Avionics
AN	Airman
AC	Air Traffic Controller
ABF	Aviation Boatswain's Mate, Fuels
AB	Aviation Boatswain's Mate, Handling
AE	Aviation Electrician's Mate
AT	Aviation Electronics Technician
AD	Aviation Machinist's Mate
AZ	Aviation Maintenance Administration Man
AM	Aviation Structural Mechanic
AME	Aviation Structural Mechanic, Equipment
AS	Aviation Support Equipment Technician
BM	Boatswain's Mate
BU	Builder
CE	Construction Electrician
CM	Construction Mechanic
CTI	Cryptologic Technician Interpretive
CTT	Cryptologic Technician Technical
CTR	Cryptologic Technician Collection
CTM	Cryptologic Technician Maintenance
CTN	Cryptologic Technician Networks
CS	Culinary Specialist
EM	Electrician's Mate
ET	Electronics Technician
EA	Engineering Aide
EN	Engineman
EO	Equipment Operator
FC	Fire Controlman
FN	Fireman
GSE	Gas Turbine Systems Technician Electrical

GSM	Gas Turbine Systems Technician Mechanical
GM	Gunner's Mate
HM	Hospital Corpsman
HT	Hull Maintenance Technician
IT	Information Systems Technician
IS	Intelligence Specialist
IC	Interior Communications Electrician
LN	Legalman
LS	Logistics Specialist
MR	Machinery Repairman
MM	Machinist's Mate
MC	Mass Communication Specialist
MA	Master-At-Arms
MN	Mineman
MT	Missile Technician
MU	Musician
NC	Navy Counselor
ND	Navy Diver
OS	Operations Specialist
PS	Personnel Specialist
QM	Quartermaster
RP	Religious Program Specialist
SN	Seaman
SH	Ship's Serviceman
ST	Sonar Technician
STG	Sonar Technician - Surface
SWCC	Special Warfare Boat Operator
SO	Special Warfare Operator
SW	Steelworker
UCT	Underwater Construction Team
UT	Utilitiesman
YN	Yeoman

Appendix K: Members of the Command Investigation Team

Name / Rank	Designator / Rate / Title	Command / Organization
VADM Scott Conn	1320	COMTHIRDFLT
VADM DeWolfe Miller	1320	COMNAVAIRPAC
RDML Timothy Kott	1110	COMCARSTRKGRU 1
(b) (6)	1110	COMCARSTRKGRU 7
(b) (6)	1110	TACTRAGRUPAC
(b) (6)	2500	RLSO SOUTHWEST
(b) (6)	1310	COMNAVAIRPAC
(b) (6)	1110	COMDESRON 21
(b) (6)	1310	COMPHIPBRON 6
(b) (6)	1110	OFFICE OF THE ASSISTANT SECRETARY OF THE NAVY
(b) (6)	1110	AFLOATRAGRUPACIFIC
(b) (6)	1110	COMNAVAIRPAC
(b) (6)	1310	TACTRAGRUPAC
(b) (6)	1110	COMTHIRDFLT

(b) (6)	6130	COMEXSTRKGRU 2
(b) (6)	6130	BEACHMASTER UNIT 1 SEA COMP
(b) (6)	2500	RLSO SOUTHWEST
(b) (6)	1440	COMNAVAIRPAC
(b) (6)	1110	AFLOATRAGRU PACIFIC
(b) (6)	1110	AFLOATRAGRU PACIFIC
(b) (6)	1110	COMNAVSURFPAC
(b) (6)	1710	JFC NAPLES
(b) (6)	6130	COMNAVSURFPAC
(b) (6)	6200	COMNAVAIRPAC
(b) (6)	2500	RLSO SOUTHWEST
(b) (6)	2500	RLSO SOUTHWEST
(b) (6)	1110	AFLOATRAGRU PACIFIC
(b) (6)	1110	EWTG PACIFIC
(b) (6)	6180	NAVSEA MARITIME C4I SYSTEMS

(b) (6)	1110	ENGASMPAC
(b) (6)	6200	COMNAVAIRPAC
(b) (6)	1110	CENSURFCOMBATSYS TRNG
(b) (6)	1310	COMCARSTRKGRU
(b) (6)	2500	RLSO SOUTHWEST
(b) (6)	1310	COMCARSTRKGRU 1
(b) (6)	1710	COMNAVSURFPAC
(b) (6)	1110	COMNAVSURFPAC
(b) (6)	1110	AFLOATRAGRU PACIFIC
(b) (6)	2500	RLSO SOUTHWEST
(b) (6)	1110	DDG-91 PINCKNEY
(b) (6)	1160	COMNAVSURFPAC
(b) (6)	7131	NAVAL SMALL CRAFT INSTRUCTION TECHNICAL TRNG SCOL SEA COMP
(b) (6)	7411	HSM-78 HELMARSTRKRON
(b) (6)	Command Master Chief	DDG-106 STOCKDALE

(b) (6)	Command Master Chief	COMCARSTRKGRU 1
(b) (6)	Damage Controlman	COMNAVAIRLANT
(b) (6)	Damage Controlman	AFLOATRAGRU PACIFIC
(b) (6)	Hull Technician	NIWC PACIFIC
(b) (6)	Information Systems Technician	COMCARSTRKGRU 1
(b) (6)	Information Systems Technician	COMCARSTRKGRU 1
(b) (6)	Legalman	AFLOATRAGRU PACIFIC
(b) (6)	Yeoman	CG 57 LAKE CHAMPLAIN
(b) (6)	Legalman	COMTHIRDFLT
(b) (6)	Yeoman	HSM-41HELMARSTRKRON
(b) (6)	Yeoman	COMCARSTRKGRU 1
(b) (6)	Yeoman	DDG-76 HIGGINS
(b) (6)	Yeoman	HSM-78 HELMARSTRKRON

(b) (6)	Sonar Technician	AFLOATRAGRU PACIFIC
(b) (6)	Electrician's Mate	AFLOATRAGRU PACIFIC
(b) (6)	Electrician's Mate	AFLOATRAGRU PACIFIC
(b) (6)	Boatswain's Mate	AFLOATRAGRU PACIFIC
(b) (6)	Master at Arms	AFLOATRAGRU PACIFIC
(b) (6)	Legalman	RLSO SOUTHWEST
(b) (6)	Machinist's Mate	DEFSVCOFF WEST SAN DIEGO
(b) (6)	Mass Communication Specialist	CVN-70 CARL VINSON
(b) (6)	Information Systems Technician	CG-57 LAKE CHAMPLAIN
(b) (6)	Civilian	CNIC
(b) (6)	Civilian	NAVSEA 05D
(b) (6)	Civilian	CNSL
(b) (6)	Civilian	USMMA

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(b) (6)	Civilian	USMMA, FDNY
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