

**SECRET**

DEPARTMENT OF THE NAVY
 COMMANDER
 UNITED STATES PACIFIC FLEET
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IN REPLY REFER:

5830
 Ser N00/S06
 11 Apr 22

FINAL ENDORSEMENT on RDML Christopher J. Cavanaugh, USN ltr 5830 of 29 Oct 21

From: Commander, U.S. Pacific Fleet
 To: File

Subj: COMMAND INVESTIGATION OF THE APPARENT STRIKING OF A
 SUBMERGED OBJECT BY USS CONNECTICUT (SSN 22) WHILE UNDERWAY IN
 THE U.S. SEVENTH FLEET AREA OF OPERATIONS ON 2 OCTOBER 2021

Encl: (131) ~~(S)~~ USS CONNECTICUT Leadership and Personnel Readiness (undated)
 (132) ~~(S)~~ CAPT [REDACTED] (b) (6), USN – Summary of Interview of 31 Jan 22
 (133) (U) LCDR [REDACTED] (b) (6), JAGC, USN email of 31 Jan 22
 (134) ~~(S)~~ COMSUBPAC Morning Status Report of 15 Apr 21
 (135) (U) LCDR [REDACTED] (b) (6), JAGC, USN email of 3 Feb 22
 (136) ~~(S)~~ Commander, Task Force SEVEN FOUR ltr Ser N00/S-002 of 31 Jan 22
 (137) ~~(S)~~ COMPACFLT ltr Ser N00/S04 of 15 Feb 22
 (138) ~~(S/NF)~~ NGA ltr Ser 2022/00552 of 25 Mar 22
 (139) (U) COMPACFLT Msg 290205Z Mar 22, COMPACFLT/COMUSFLTFORCOM
 Fleet Order #1, Safe Operations are Effective Operations

1. (U) I carefully reviewed the subject investigation along with the endorsements by Commander, U.S. Seventh Fleet (C7F); Commander, Submarine Forces U.S. Pacific Fleet (CSP); and Commander, Submarine Forces (CSF). This Final Endorsement provides a complete product that describes what happened, promulgates lessons learned, memorializes completed corrective actions, documents accountability, and delineates pending actions that must be finalized with a sense of urgency.

2. (U) On 2 October 2021, USS CONNECTICUT (SSN 22) grounded on an uncharted seamount while operating submerged in a poorly surveyed area in international waters in the Indo-Pacific region. This grounding was preventable. As documented by the investigation, this grounding resulted from an accumulation of unit-level errors and omissions in three areas: (1) navigation planning; (2) watch team execution; and (3) risk management – all of which fell far below Navy standards.

3. [REDACTED] (b) (1) (A)

[REDACTED]

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(b) (1) (A)

4. (U) When speaking to a group of investors in October 1987, Alcoa Chief Executive Officer Paul O'Neil surprised the audience when he identified the most important element of the company's future success: Safety. Mr. O'Neil stated: "Every year, numerous Alcoa workers are injured so badly that they miss a day of work. Our safety record is better than the general American workforce, especially considering that our employees work with metals that are 1,500 degrees and machines that can rip a man's arm off. I intend to make Alcoa the safest company in America. I intend to go for zero injuries."¹ The results: Alcoa's injury rate dropped from 1.86 lost work days per 100 workers to 0.2. Meanwhile, Alcoa's market capitalization increased by \$27 billion.²

5. (U) Entrusted with the lives of the Sailors serving this great nation, we must apply Paul O'Neil's safety-focused mindset to our operations. When it comes to safe and effective operations, my Commander's Guidance is clear and unequivocal – if there is a doubt, there is no doubt: operating safely comes first. We must be the world's safest fighting force. The transfer effects of prioritizing safety include greater attention to detail in performing operational tasks, enhanced procedural compliance, and a questioning attitude that constantly seeks improvement – all of which increases the readiness of forces and our lethality in combat. Our emphasis on operational safety and risk management will manifest in operational excellence.

Executive Summary

6. (U) As documented in the investigation, on 2 October 2021, CONNECTICUT grounded on an uncharted bathymetric feature (seamount) while operating submerged in a poorly surveyed area in international waters in the Indo-Pacific region. This grounding was preventable. It resulted from an accumulation of unit-level errors and omissions in (1) navigation planning; (2) watch team execution; and (3) risk management – all of which fell far below U.S. Navy

¹ Rodd Wagner, "Have We Learned the Alcoa Keystone Habit Lesson?" January 22, 2019, *Forbes.com*, <https://www.forbes.com/sites/roddwagner/2019/01/22/have-we-learned-the-Alcoa-Keystone-Habit-Lesson/sh=67ecdea058ba> (accessed March 31, 2022).

² Jack Benton, "Video – Safety Leadership Explained by Former Alcoa CEO Paul O'Neil -- #Safety #Leadership," June 19, 2020, *ehssafetynewsamerica.com*, <https://www.ehssafetynews.com/2020/06/19/video-safety-leadership-explained-by-former-alcoa-ceo-paul-oneil> (accessed March 30, 2022).

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standards. The grounding resulted in 11 injuries, damaged the submarine,³ and removed the submarine from operational tasking for a significant period of time.

7. (U) In order to ensure the investigation represents a comprehensive summary of what happened and what we are doing to learn from and remedy the causal and contributing factors, I directed C7F to supplement its endorsement with subsequent reviews from CSP and CSF. I appreciate the self-reflection and critical assessments from the operational commander and Submarine Force as a whole, and from each of these commanders individually.

8. [REDACTED] (b) (1) (A) [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Lessons Learned and Corrective Actions

9. [REDACTED] (b) (1) (A) [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

a. [REDACTED] (b) (1) (A) [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

b. [REDACTED] (b) (1) (A) [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

c. [REDACTED] (b) (1) (A) [REDACTED]
[REDACTED]

³ The "Initial Structural Damage Assessment" (see enclosure 105) will be updated approximately 60 days after CONNECTICUT's drydock repairs are complete.

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(b) (1) (A)

[Redacted]

10. (b) (1) (A)

[Redacted]

a. (b) (1) (A)

[Redacted]

b. (b) (1) (A)

[Redacted]

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(b) (1) (A) [Redacted]

c. (b) (1) (A) [Redacted]

(1) (b) (1) (A) [Redacted]

(2) (b) (1) (A) [Redacted]

(3) (U) Finally, the Wholeness Review must result in clear guidance on appropriately balancing mission accomplishment with operational safety – and if there is a doubt, there is no doubt: operating safely comes first.

11. (b) (1) (A) [Redacted]

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(b) (1) (A)

12. (b) (1) (A)

Prioritizing Safety

13. (U) Referring back to the lessons of Paul O'Neil – when safety improves, “it will be because the individuals at this company have agreed to become part of something important. They’ve devoted themselves to creating a habit of excellence. Safety will be an indicator that we’re making progress in changing our habits across the entire institution. That’s how we should be judged.”⁴

14. (U) The Navy must also be judged by safety. Fostering a culture of safety requires clear guidance from the Commander combined with concrete actions that prioritize safety.

a. (U) Commander’s Guidance. My guidance to all individuals and units within the CPF enterprise is clear and unequivocal – if there is a doubt, there is no doubt: operating safely comes first. This investigation highlighted the tension between the imperative operational requirement for CONNECTICUT to deploy on time against the ship’s overall readiness to deploy. Exercising the wisdom of hindsight, CSDS-5 (the superior closest to the problem) along with CSP and CTF 74 missed critical opportunities to identify and correct root causes of operational deficiencies. These missed opportunities did not result from misconduct, malfeasance, or neglect – as the chain-of-command took corrective actions to address CONNECTICUT’s deficiencies. Given the inherently dangerous nature of Naval operations, we cannot become a risk averse or zero defect organization. But we can and we must do better. If there is a doubt, leaders must prioritize safety by applying the time and resources to fix the problem, or otherwise seek the necessary time and resources from higher authority.

b. (U) Concrete Actions. Using the lessons of this investigation as a foundation, we are working as a team to introspectively learn from our mistakes and immediately get better. As

⁴ Rodd Wagner, “Have We Learned the Alcoa Keystone Habit Lesson?” January 22, 2019, *Forbes.com*, <https://www.forbes.com/sites/roddwagner/2019/01/22/have-we-learned-the-Alcoa-Keystone-Habit-Lesson/sh=67ecdea058ba> (accessed March 30, 2022).

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documented in paragraph 15 below, this investigation delineates 28 corrective actions, of which 14 actions are complete, 13 actions are in progress, and 1 action is enduring. I am firmly confident these significant improvements will make the Submarine Force and the Fleet a safer and more lethal fighting force.

Findings of Fact, Opinions, and Recommendations

15. (U) Subject to the additions and modifications as noted below, I approve the findings of fact, opinions, and recommendations of the investigating officer as modified by the C7F endorsement. Enclosures (131) through (138) are incorporated into this investigation.

a. (U) Findings of Fact: In addition to the additions and modifications below, I highlight several Findings of Fact when particularly salient to the investigation and lessons learned.

(1) (U) Finding of Fact 73 is modified to add enclosures (131) through (134).

(2) (U) Finding of Fact 74 is modified to add enclosures (131) through (133) and read: "Before departing San Diego, CONNECTICUT conducted a safety stand-down to address deficiencies noted by a command-level critique of the pier allision. CSDS-5 did not attend the safety stand-down."

(3) (b) (1) (A) [Redacted]

(4) (U) Finding of Fact 90 is modified to add enclosures (132) and (135) and read: "On 19 May 2021, CSDS-5 briefed COMSUBPAC and CTF-74 on CONNECTICUT's deployment readiness, including performance and trends in Operational Fundamentals. During this brief, CSDS-5 discussed CONNECTICUT's pier allision in San Diego in April 2021, its impact on the CO, and the strengths and weaknesses of the ship's leadership team."

(5) (U) Finding of Fact 101 is modified to add enclosure (135) and read: "CTF-74 does not recall being briefed on CONNECTICUT's 14 April 2021 pier allision in San Diego. CTF-74 was surprised there was little discussion on this issue given the fact that the investigation report was endorsed after the ship deployed." Note: Findings of Fact 90 and 101 establish CSP and CTF 74 have different perspectives related to whether and to what extent CSDS-5 briefed CSP and CTF 74 on CONNECTICUT's allision with a pier on 14 April 2021. Notwithstanding this difference, this deployment readiness brief represents another critical missed opportunity to identify underlying problems and address root causes of operational deficiencies.

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(6) [REDACTED] (b) (1) (A)

(7) (U) Additional Finding of Fact 319: "CONNECTICUT did not submit a special incident operational report (OPREP) for its 14 April 2021 pier allision in San Diego as required by OPNAVINST 3100.6K, which requires OPREP-3 reporting for allisions. Enclosures (132) through (134)." CONNECTICUT did submit a voice report of the allision, which was reported through the operational and administrative chains-of-command.

b. (U) Subject to the modifications and additions as noted below, the Opinions as modified are approved. In addition, I highlight several Opinions when particularly salient to the investigation and lessons learned.

(1) (U) Opinion 3 states: "A grounding at this speed and depth had the potential for more serious injuries, fatalities, and even loss of the ship. Injuries onboard CONNECTICUT were relatively minor. Eleven total crew members were physically injured. The two most serious injuries were a fractured right scapula and a mild head trauma."

(2) (U) Opinion 4 notes: "Actions immediately following the grounding were effective. The crew put the ship in a stable condition on the surface, managed injuries and equipment damage, and transited to Guam safely and securely."

(3) (U) Opinion 25 is modified to read: "CSDS-5, the CO, XO, COB, NAV, and ANAV missed a significant opportunity for self-reflection and improvement following the pier allision in April 2021. This mishap resulted from multiple errors and omissions by the navigation team, failure of the OOD to take decisive action upon recognizing danger, and lack of CO involvement. After the pier allision on 14 April 2021, the ship conducted a safety stand-down to address these problems – but the ship and CSDS-5 did not adequately address the root causes of the allision during the deployment training and certification process."

(4) [REDACTED] (b) (1) (A)

(5) [REDACTED] (b) (1) (A)

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(b) (1) (A)

(6) (b) (1) (A)

(7) (b) (1) (A)

c. (U) Subject to the modifications and additions as noted below, the Recommendations as modified are approved. In addition, I highlight several Recommendations when particularly salient to the investigation and lessons learned. Recommendations are listed as (1) *complete* (final corrective action complete); (2) *in progress* (corrective action commenced but not final); or (3) *ongoing* (action continues into the future). The CPF N4 (Fleet Logistics) is directed to track and report the results of all actions to implement the following recommendations.

(1) (U) Recommendations 1 through 5: *Complete* (with the exception of pending requests at Navy Personnel Command for Detachment for Cause for each individual listed).

(2) (U) Recommendation 6: *Complete*.

(3) (U) Recommendation 7: *Complete* (with the exception of a pending request for Detachment for Cause at Navy Personnel Command).

(4) (b) (1) (A)

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(5) [REDACTED] (b) (1) (A)

[REDACTED]

(6) (U) Recommendation 11: *In progress*. Recommendation 11 is modified to add the following sentence: “CSF will report the findings of the Fleet Response Training Plan Wholeness Review to Commander, U.S. Pacific Fleet (CPF) and Commander, U.S. Fleet Forces (CUSFFC) within 30 days after completion.” As documented in the CSP and CSF endorsements, CSP and CSL completed a navigation training stand-down for all submarine crews to assess navigation planning and execution process, including specific lessons learned from the CONNECTICUT grounding. In addition, CSF’s endorsement describes its ongoing FRTP Wholeness Review to broadly and deeply assess the entire training and certification model across all aspects of submarine combat mission areas and core competencies.

(7) [REDACTED] (b) (1) (A)

[REDACTED]

(8) (U) Recommendation 13: *In progress*. Recommendation 13 is modified to add the following sentence: “CSF will report the findings of this review to CPF and CUSFFC within 30 days after completion.” CSF is incorporating a 360 review and Navy Command Leadership Assessment and Selection Program (NCLASP) into the command qualification process. Two pilot studies have been completed during Submarine Command Courses, which will guide development of the required NCLASP model being created by the Navy Submarine Medical Research Laboratory.

(9) (U) Recommendation 14: *Complete*. As documented in CSP’s endorsement, additional data from NAVSEA establishes that bottom sounder reliability is not a SEAWOLF class-wide problem. CSP and CSL will remain diligent in monitoring for any future issues.

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(10) [REDACTED] (b) (1) (A)

(11) [REDACTED] (b) (1) (A)

(12) [REDACTED] (b) (1) (A)

(13) (U) Additional Recommendation 21 (paragraph 8(o) of C7F endorsement):
In progress. Per the CSP endorsement, on 9 September 2021 (prior to the grounding), CSP directed CSDS-5 to cease the locally-established practice of conducting predeployment training for SEAWOLF-class submarines away from homeport due to concerns for the high operational tempo that this practice generates and the attendant impact on crew morale. The ongoing FRTP Wholeness Review is addressing the other aspects of this recommendation.

(14) (U) Additional Recommendation 22 (paragraph 8(p) of C7F endorsement):
In progress. The ongoing FRTP Wholeness Review is addressing this recommendation.

(15) (U) Additional Recommendation 23 (paragraph 8(q) of C7F endorsement): *Ongoing.* C7F is working closely with cognizant Task Force Commanders to implement an enduring, systematic process to address this recommendation.

(16) [REDACTED] (b) (1) (A)

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(b) (1) (A)

(17) (b) (1) (A)

(18) (b) (1) (A)

(19) (b) (1) (A)

(20) (U) Additional Recommendation 28: *Complete*. CPF will take appropriate administrative action for the former CSDS-5. This administrative action will address specific areas for improvement consistent with the lessons learned in this investigation.

Summary

16. (U) The Submarine Force is a proud and distinctly professional institution that exemplifies the highest possible standards of excellence. Operating as a team, we must never become complacent – and we will neither tire nor falter in demanding our best possible performance. In doing so, we must be clear-eyed in assessing our mistakes, urgent in taking corrective action while implementing lessons learned, and firmly confident in our ability to conduct safe and effective operations in protecting the national security interests of our nation.

17. (U) I commend the crew of CONNECTICUT for their actions immediately following the grounding. Acting with the utmost poise and distinct professionalism, the crew stabilized the ship, treated their injured shipmates, managed damage to the ship, and conducted a safe and secure transit to Guam.

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18. (U) By copy of this investigation and endorsements, I direct C7F, CSF, and CSP to aggressively address and track the issues identified in the subject investigation.

19. (U) As a co-equal stakeholder in the Submarine Force conducting safe and effective operations, I have provided a copy of this investigation and endorsements to CUSFFC for information, review and any additional action, as appropriate. In addition, Enclosure 139 (Fleet Order #1 – Safe Operations are Effective Operations) represents the first in a series of CPF/CUSFFC messages addressing critical issues we see in the Fleet. CPF and CUSFFC will continue to work in concert to clearly communicate expectations on safety, leadership, warfighting readiness, and discipline.

20. (U) I have provided a copy of this investigation and endorsements to the Naval Safety Command, the Navy's lead for safety policy, risk management, assurance, and promotion.

21. (U) Finally, I have provided this report and endorsements to the Learning to Action Board for its oversight function. While the corrective actions delineated herein are specifically addressed to the Submarine Force, the lessons learned – including reinforcing the most demanding navigation standards, improving the deployment training and certification process, and enhancing operational and administrative oversight – apply broadly to all Navy operations.

22. (U) My point of contact is [REDACTED] (b) (6)



S. J. PAPARO

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