

SUPPORTING STATEMENT - PART A

Challenges of Operational Environments Study – OMB Control Number 0703-COPE

1. Need for the Information Collection

Recent suicide clusters aboard Naval vessels (e.g., the USS George Bush, the USS George Washington) have highlighted a critical need to better understand risk factors for suicide among various shipboard environments (e.g., in maintenance yards, at sea). Unfortunately, extremely limited research to date has identified individual and organizational factors that are directly associated with harmful and destructive behaviors, including suicidality, in a variety of Naval environments. In response, the Office of Naval Research and the Defense Health Agency have funded a longitudinal study called the Challenges of Operational Environments Study to identify specific shipboard stressors associated with different phases of the aircraft carrier life cycle and determine the effects of these stressors on Sailor's mental and behavioral health and readiness. Research is needed to provide the Navy with in-depth information on specific risks to Sailors at each phase of the carrier cycle, such that allocation of resources to prevent suicidality and other mental/behavioral health problems can be tailored to meet potentially unique needs at each phase. Additionally, findings from the proposed effort will be used to develop targeted recommendations to improve Sailor mental health and well-being that will be provided directly to Navy leaders.

The Commanding Officers of the USS George Washington and the USS John C. Stennis have authorized the research team to collect these data and have certified that active duty Sailors will be off duty during data collection (see letters of request included in this request). Additionally, this research has the support of Naval Air Forces Atlantic (AIRLANT). Following each data collection event, the research team will provide briefs directly to the senior leadership of each ship as well as AIRLANT.

Furthermore, the proposed research will provide critical information that can be used in support of requirements set forth in Department of Defense Directive (DoDD) 6490.02E (Comprehensive Health Surveillance), DoDD 6200.04 (Force Health Protection), Department of Defense Instruction (DoDI) 1010.10 (Health Promotion and Disease/Injury Prevention), DoDI 6400.09 (DoD Policy on Integrated Primary Prevention of Self-Directed Harm and Prohibited Abuse or Harm), and DoDI 6490.16 (Defense Suicide Prevention Program). For example, DoDD 6490.02E states that, "Health surveillance systems shall continuously capture data on occupational and environmental exposures to potential and actual health hazards and link with medical surveillance data to monitor the health of the DoD's population and identify potential risks to health, thereby enabling timely interventions to prevent, treat, or control disease and injury and reinforce the provision of optimal medical care... Health surveillance activities shall be prioritized based upon the greatest beneficial impact on commanders' FHP planning, response, and decision making." DoDD 6200.04 states that, "The Commanders, supervisors, individual Service members, and the Military Health System (MHS) shall promote, improve, conserve, and restore the physical and mental well being of members of the Armed Forces across the full range of

military activities and operations.” It further states that DoD Components shall, “Continuously assess and mitigate health and safety hazards during training and operations, both in garrison and deployed, applying the principles of operational risk management” and “The Department of Defense shall pursue scientific and technological advancements to improve and protect the health of the force through medical research, development, clinical investigations, technology insertion, and appropriate acquisition strategies.” The proposed survey will be used to accomplish these requirements.

2. Use of the Information

The purpose of the present study is to identify work-related stressors and individual and organizational factors that are associated with mental and behavioral health issues over time as certain Naval vessels transition throughout the various phases of the ship’s life cycle (e.g., in prolonged maintenance phases, during sea trials, throughout homeport shift). With permission from the Commanding Officer (CO) of the ship, researchers from the Naval Health Research Center will work collaboratively with identified points of contact to plan and execute each data collection event with as minimal interference with the ship’s normal operations as possible.

For each data collection event, a team of researchers from the Naval Health Research Center will be dispatched to the ship and will collect data in an appropriate location with high foot traffic and ample seating (e.g., near the galley). When necessary and with permission of the ship’s point of contact, the research team may break into groups to visit additional locations (e.g., off-site locations, workstations in specific departments). The research team will collect data over an approximately one week period and will be in the designated locations throughout the entire workday and during additional times (e.g., during the late evening, in the early morning) to accommodate those working during non-day shifts. In anticipation of their arrival and throughout the week of data collection, announcements will be made over the 1MC (the ship’s loudspeaker) by the CO or their designee and via other modalities (e.g., emails, group texts) to inform Sailors of the research team’s presence and purpose. The research team will invite all Sailors attached to that ship to participate in the study and will follow a detailed informed consent procedure summarizing their rights as participants and explaining that data collection will be anonymous and the efforts taken to protect their responses and identities.

Those who consent to participate in the study will be handed an iPad on which they can take the survey electronically using survey software. The iPads will be preloaded with the survey, which utilize offline mode and will not require internet access. Following participation in the survey, the participant will return the iPad to a research team member stationed in a specific location and will receive their \$15 Amazon gift card for their participation. The researcher will clean the iPad with an antibacterial wipe (to be consistent with a requirement established during COVID-19 protocols) and will note the distribution of the gift card with a tally mark on a tracking sheet. No other invitations or communications will be sent to participants after their participation in the survey, but they will be able to obtain a printed copy of mental health resources at their request. Sailors will be eligible to take the survey at multiple time points if attached to the same ship over time, but their eligibility will not be contingent upon prior participation.

At preplanned points throughout the data collection cycle (e.g., midweek, end of the week), the research team will take the study iPads to an appropriate location (e.g., their hotel rooms) to connect the iPads to the internet and upload collected data to the online survey system website. Once uploaded, data is no longer recorded on the individual iPads. When not in direct possession of the research team, the library of iPads (~ 100 iPads) will remain locked in designated access secured areas (e.g., a designed area within the Medical Department such as the Senior Medical Officer's private office). Data collection will cease at the designated end date or when the supply of incentives has been exhausted (e.g., 1,000 survey responses for data collections aboard aircraft carriers).

Once all data has been uploaded and the research team returns to the Naval Health Research Center, they will proceed with data analysis in two phases (preliminary data analysis and supplementary data analysis). Upon completion of the preliminary data analysis (~2 months later), senior members of the research team (e.g., the Principal Investigator, Co-investigator) will return to the ship to brief senior leadership on preliminary findings. Every effort will be made to ensure that findings are briefed to the ship's leadership in a timely manner. Thus, successful data collection efforts will result in timely briefs to senior leadership and relevant military stakeholders, as well as provide opportunities for the development of scientific reports and/or presentations to relevant audiences (e.g., military medical providers, peer-reviewed journals).

Furthermore, the research team may invite Sailors to participate in focus groups as part of this effort. Focus groups will involve either (1) discussions of work-related stressors and command climate and their effect on Sailor health and well-being (referred to as the COPE Focus Group) or (2) discussions of how programs, policies, and procedures were influenced and changes enacted following briefs to Command leadership (referred to as the Implementation Focus Group). Because these focus group guides were determined to be non-sensitive, these additional study materials have been attached to this packet as supplementary documentation rather than information collection instruments requiring OMB approval in accordance with the Paperwork Reduction Act. These focus group guides have also been submitted for Navy Survey Approval.

3. Use of Information Technology

Responses will be collected 100% electronically. Sailors stationed aboard each ship surveyed will be invited to participate in this voluntary effort. Those who provide informed consent will be handed an iPad on which they can take the survey electronically using survey software. These iPads will have the survey available in an offline mode and will not require network connectivity, which will enable Sailors to participate regardless of the ship's network connectivity. These strategies have been used successfully in a range of data collection events in a variety of military settings, including shipboard specific settings.

4. Non-duplication

The information obtained through this collection is unique and is not already available for use or adaptation from another cleared source.

5. Burden on Small Businesses

This information collection does not impose a significant economic impact on a substantial number of small businesses or entities.

6. Less Frequent Collection

The proposed effort has been designed to include data collection approximately twice a year over a three-year period. However, due to the unique nature of the ship's operational requirements, data collection may not adhere to a strict every six-month frequency. Instead, data collection will occur on occasion with relevant time points capturing every major phase of the ship's life cycle (i.e., maintenance period, sea trials, homeport shift, pre-deployment work ups, deployment, post-deployment). The research team will work closely with the ship's leadership to ensure they are capturing data collection at these key intervals while minimizing burden to the ship and the Sailors. For some phases (e.g., pre-deployment work-ups and deployment), data collection will occur more frequently than every six months, but a minimum of three months will pass between data collection efforts. The research team will accommodate the ship's schedule as appropriate, even if this means missing a critical phase for a given ship. The research team will also work collaboratively to ensure that respondents do not become frustrated or disenfranchised with oversampling.

7. Paperwork Reduction Act Guidelines

This collection of information does not require collection to be conducted in a manner inconsistent with the guidelines delineated in 5 CFR 1320.5(d)(2).

8. Consultation and Public Comments

Part A: PUBLIC NOTICE

A 60-Day Federal Register Notice (FRN) for the collection published on Wednesday, November 22nd, 2023. The 60-Day FRN citation is 88 FR 81374.

No comments were received during the 60-Day Comment Period.

A 30-Day Federal Register Notice for the collection published on Monday, July 15, 2024. The 30-Day FRN citation is 89 FR 57397.

Part B: CONSULTATION

Members of the research team worked closely with representatives from the different Naval commands as well as Naval Air Forces Atlantic to ensure that no existing data collection efforts are able to complete the study objectives. Specifically, there are no ongoing assessments of work-related stressors over time that are able to monitor how these stressors change as the ship undergoes all of the phases of its life cycle or their corresponding impact on Sailor health and well-being.

Members of the research team also consulted representatives from the Psychological Health Center of Excellence (PHCoE) and the Defense Suicide Prevention Office (DSPO). Representatives from PHCoE noted complemented the study design, approved of the use of validated survey measures when appropriate, and the expected deliverables associated with this survey. They had no specific suggestions for changes, nor did they report concerns about duplication of effort/survey with other existing efforts or length of the survey. Representatives from DSPO noted that the merits of the study are solid and would be interested in a brief on results of the study when available. They also noted that the suicide-based questions “are fine and align with other research currently being performed in support of DSPO.” During the survey approval process, we also consulted with OPA regarding the phrasing of gender and sexual orientation questions to ensure that they are consistent with current policy and guidance.

9. Gifts or Payment

Respondents (Navy Sailors) who are in an off-duty status when participating in the study will be eligible to receive a \$15 Amazon gift card (while supplies last). This incentive has undergone legal review at the Naval Health Research Center and has been determined to be in compliance with all federal regulations.

10. Confidentiality

A Privacy Act Statement is not required for this collection because we are not requesting individuals to furnish personal information for a system of records.

A System of Records Notice (SORN) is not required for this collection because records are not retrievable by PII.

A Privacy Impact Assessment (PIA) is not required for this collection because PII is not being collected electronically. In accordance with the Institutional Review Board Protocol for the proposed effort (NHRC.2018.0016), data will be collected electronically unless there are unsurmountable technological difficulties preventing electronic data collection.

Paper records will be converted to digital records as soon as possible upon return from the data collection event and then all paper copies will be shredded. Electronic records will be retained for a period of not less than five years, after which point it will be destroyed. A certificate of data disposition will be retained by the Psychological Health and Readiness Department at the Naval Health Research Center in accordance with existing policies and regulations (e.g., records schedule).

11. Sensitive Questions

Respondents will be asked to complete a number of mental and behavioral health screeners, which includes questions on suicidality. Specifically, the survey includes the Patient Health Questionnaire (PHQ)-9 which includes a question asking whether respondents have been bothered by “thoughts that you would be better off dead or hurting yourself in some way” within the past 2 weeks. This scale is a validated measure (see Kroenke, Spitzer, & Williams, 2001; Spitzer, Williams, & Kroenke, 1999) that has been used

extensively in prior research (e.g., Costantini, Pasquarella, Odone, et al., 2021). Additionally, the survey includes a shortened version of the Self-Injurious Thoughts and Behaviors Inventory (SITBI; Nock, Holmberg, Photos, & Michel, 2007). Inclusion of these items is essential given the number of Sailors who have died by suicide while aircraft carriers have been undergoing refueling and complex overhaul (a prolonged maintenance period) on the USS George Washington. By including these items on our survey, we will be able to examine different work-related stressors as well as individual and organizational factors that may be associated with suicidality in this specific high risk Naval environment. Additionally, we will be able to better inform recommendations and policy changes that may reduce risk of suicide in this unique setting.

The survey also includes a module for suicides or suicide clusters, which includes the Brief Suicide Cognition Scale (Rudd & Bryan, 2021). If there are additional suicides or suicide clusters among the Sailors on these specific ships during the study period, the research team will ask the Commanding Officer whether they would like the Brief Suicide Cognition Scale to be included within the study. With the CO's permission, this 6-item validated measure which has been shown to be a useful indicator of further suicide risk over time, would provide Navy leadership with critical information about additional risk of suicide among the crew. While the survey will remain anonymous and thus individual sailors at risk for suicide cannot be identified, inferential statistics can be used to identify characteristics that may be associated with greater risk of suicide, which could inform provision of critical mental health resources and policy change.

The survey uses the OMB Race and Ethnicity Question with Minimum Categories Only (figure 3 of OMB's new Statistical Policy Directive No. 15) rather than Figures 1 or 2 out of concern for survey burden and to protect anonymity. Figure 1 runs the risk of identifying participants, which would reduce the likelihood we would receive appropriate response rates and honest opinions. We opted for Figure 3 rather than Figure 2 out of concerns for survey burden given the survey's already long length.

12. Respondent Burden and its Labor Costs

Part A: ESTIMATION OF RESPONDENT BURDEN

1) Collection Instrument(s)

Challenges of Operational Environments Survey

- a) Number of Respondents: 5,000
- b) Number of Responses Per Respondent: 1-2
- c) Number of Total Annual Responses: 10,000
- d) Response Time: 25 minutes
- e) Respondent Burden Hours: 4,167 hours

2) Total Submission Burden

- a) Total Number of Respondents: 5,000
- b) Total Number of Annual Responses: 10,000
- c) Total Respondent Burden Hours: 4,167 hours

Part B: LABOR COST OF RESPONDENT BURDEN

1) Collection Instrument(s)

Challenges of Operational Environments Survey

- a) Number of Total Annual Responses: 10,000
- b) Response Time: 25 minutes
- c) Respondent Hourly Wage: \$24.20
- d) Labor Burden per Response: \$10.08
- e) Total Labor Burden: \$100,833

2) Overall Labor Burden

- a) Total Number of Annual Responses: 10,000
- b) Total Labor Burden: \$100,833

The source for estimates of annual wage was determined using federal pay scales for active duty service members. Because the proposed effort will be completed by Navy Sailors who may range in rank from an E-1 to an O-6, we presented hourly wage as a range. The average reported reflects the hourly wage of an E-5 with 12-40 years of military service due to the expected distribution of rank at the Naval commands surveyed (e.g., enlisted personnel vastly outnumber officer personnel, there are more junior enlisted Sailors than senior enlisted Sailors at the commands surveyed).

13. Respondent Costs Other Than Burden Hour Costs

There are no annualized costs to respondents other than the labor burden costs addressed in Section 12 of this document to complete this collection.

14. Cost to the Federal Government

Part A: LABOR COST TO THE FEDERAL GOVERNMENT

1) Collection Instrument(s)

Challenges of Operational Environments Survey

- a) Number of Total Annual Responses: 10,000
- b) Processing Time per Response: 0.5 hours
- c) Hourly Wage of Worker(s) Processing Responses: \$33.33
- d) Cost to Process Each Response: \$16.67
- e) Total Cost to Process Responses: \$166,650

2) Overall Labor Burden to the Federal Government

- a) Total Number of Annual Responses: 10,000
- b) Total Labor Burden: \$166,650

Indicated processing time per response includes time to collect data, upload responses, and clean and prepare data for analysis. Note that most of these activities may be for multiple respondents concurrently, which suggests a significant cost savings compared to the numbers reported here. The answers reported in 14.1C-E and 14.2A-B assume that processing time cannot be done concurrently and thus represents a maximum amount of cost to the federal government.

Part B: OPERATIONAL AND MAINTENANCE COSTS

1) Cost Categories

- a) Equipment: \$0 (All equipment for this study was purchased by the Naval Health Research Center's Psychological Health and Readiness Department prior to the pandemic for use by researchers conducting a variety of studies as a shared asset. For this reason, these costs are not attributable to operational and maintenance costs for this study.)
- b) Printing: \$0 (Printing is available at no cost at the Naval Health Research Center)
- c) Postage: \$0 (No postage is required for this survey.)
- d) Software Purchases: \$0 (All required software has already been purchased by the government.)
- e) Licensing Costs: \$9,550
- f) Other: \$150,000 (Participants receive a \$15 incentive for participating in the proposed study.)

2) Total Operational and Maintenance Cost: \$159,550

Part C: TOTAL COST TO THE FEDERAL GOVERNMENT

1) Total Labor Cost to the Federal Government: \$166,650

2) Total Operational and Maintenance Costs: \$159,550

3) Total Cost to the Federal Government: \$326,200

15. Reasons for Change in Burden

This is a new collection with a new associated burden.

16. Publication of Results

Findings from each data collection event will be prepared into briefings for military leadership, which will remain available for those with appropriate security clearances and need to know in accordance with Department of Navy policies. Additionally, results of this study will be compiled and prepare for publication in one or more documents including conference presentations, peer-reviewed manuscripts, and/or technical reports. The exact nature of these deliverables will depend on the results. At minimum, one scientific manuscript summarizing descriptive statistics of work-related stressors across the phases of the aircraft carrier life cycle will be prepared by the end of the period of performance, which is currently expected to last four years (i.e., one year after the final year of data collection, currently expected to be 2028).

17. Non-Display of OMB Expiration Date

We are not seeking approval to omit the display of the expiration date of the OMB approval on the collection instrument.

18. Exceptions to “Certification for Paperwork Reduction Submissions”

We are not requesting any exemptions to the provisions stated in 5 CFR 1320.9.