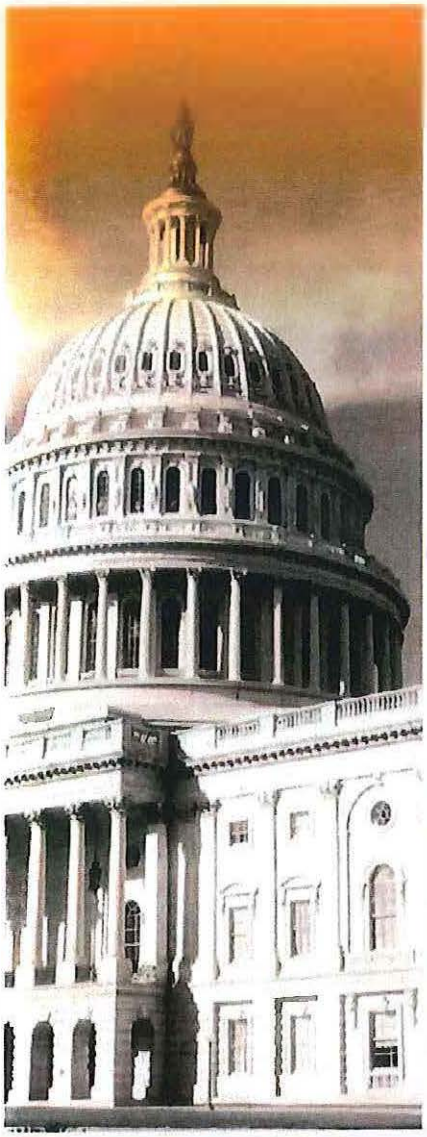
INSPECTOR GENERAL

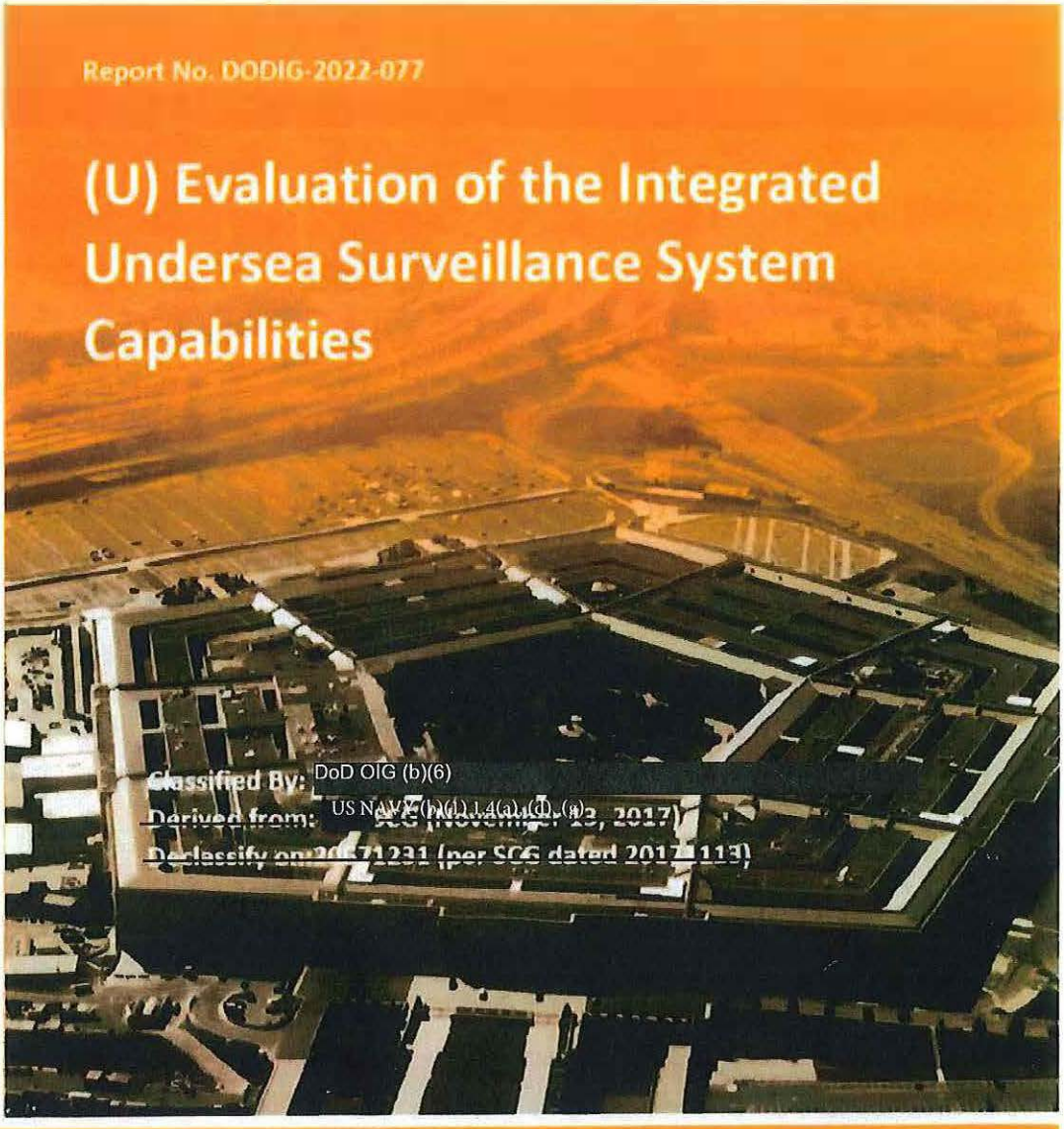
U.S. Department of Defense

MARCH 28, 2022



Report No. DODIG-2022-077

(U) Evaluation of the Integrated Undersea Surveillance System Capabilities



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INTEGRITY * EFFICIENCY * ACCOUNTABILITY * EXCELLENCE

US NAVY (b)(1) 1.4(a), (d), (g)

US NAVY (b)(1) 1.4(a), (d), (g)

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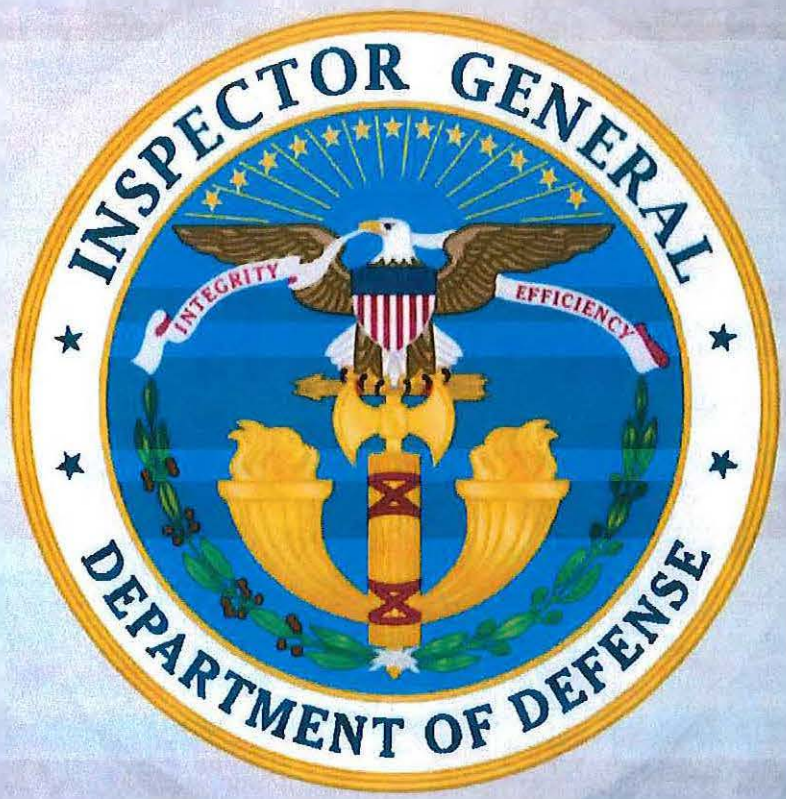

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US NAVY (b)(1) 1.4(a), (d), (g)

(U) Results in Brief

(U) Evaluation of the Integrated Undersea Surveillance System Capabilities

(U) March 28, 2022

(U) Objective

(U) The objective of this evaluation was to determine whether the current and planned Integrated Undersea Surveillance System (IUSS) is able to meet antisubmarine warfare theater requirements.

(U) Findings

(S//US NAVY (b)(1) 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

- (~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)
- (~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)
- (~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)
- (~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)
- (~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)

(U) Recommendations

(S) US NAVY (b)(1) 1.4(a), (d), (g)

(~~CUI~~) US NAVY (b)(1) 1.7(c)

(U) Additionally, as a result of management comments to the draft report, we revised the following two recommendations to the Deputy Chief of Naval Operations for Manpower, Personnel, Training and Education to:

- (U) Implement measures to improve Sonar Technician, Submarine and Sonar Technician, Surface manning at the Operational Control Centers for Commander, Undersea Surveillance and Naval Oceanographic Processing Facilities, and onboard Tactical-Auxiliary Oceanographic Ships Sea Components; provide funding to support a study to validate the current occupational standards associated with IUSS operations, based on the requirements identified by the occupational standards; and fund a feasibility study to determine if a new personnel rating is warranted.

(U) Results in Brief

(U)Evaluation of the Integrated Undersea Surveillance Systems Capabilities

- (U) Develop a plan to incentivize re-tours at Commander Undersea Surveillance, the Naval Oceanographic Processing Facilities, and onboard Tactical-Auxiliary Oceanographic Ships Sea Components.

(U) Management Comments and Our Response

(U) The Undersea Warfare Division (OPNAV N97) Director agreed with Recommendation 1a, 1c, and 1d, however, his responses only partially addressed the recommendations. We consider the recommendations unresolved and open. His response to Recommendation 1b, addressed the recommendation. Therefore the recommendation is resolved and closed.

(U) The Department of the Navy, Office of the Assistant Secretary (Research, Development and Acquisition) agreed with Recommendation 2; however, his response only partially addressed the recommendation. We consider the recommendation unresolved and open.

(U) The Deputy Chief of Naval Operations for Manpower, Personnel, Training and Education did not provide comments to the draft report; therefore the recommendation is unresolved and open.

(U) The Submarine Force, U.S. Pacific Fleet Commander responded to Recommendations 3 and 4. However, he has no authority to affect the recommended changes to Navy personnel structure. We will close the recommendation once the Deputy Chief of Naval Operations for Manpower, Personnel, Training and Education develops and implements a plan to incentivize re-tours at the CUS, the NOPFs, and onboard T-AGOS Sea Components.

(U) Please see the Recommendation Table on the next page for the status of the recommendations.

(U) Recommendations Table

(U)

Management	Recommendations Unresolved	Recommendations Resolved	Recommendations Closed
(U) Undersea Warfare Division (OPNAV 97) Director	1a, 1c	1d	1b
(U) Assistant Secretary of the Navy for Research, Development, and Acquisition	2		
(U) Deputy Chief of Naval Operations for Manpower, Personnel, Training, and Education	3, 4		

(U)

(U) Please provide Management Comments by April 26, 2022.

(U) NOTE: The following categories are used to describe agency management's comments to individual recommendations.

- **(U) Unresolved** – Management has not agreed to implement the recommendation or has not proposed actions that will address the recommendation.
- **(U) Resolved** – Management agreed to implement the recommendation or has proposed actions that will address the underlying finding that generated the recommendation.
- **(U) Closed** – OIG verified that the agreed upon corrective actions were implemented.

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
4800 MARK CENTER DRIVE
ALEXANDRIA, VIRGINIA 22350-1500

March 28, 2022

MEMORANDUM FOR ASSISTANT SECRETARY OF THE NAVY FOR RESEARCH, DEVELOPMENT AND ACQUISITION
ASSISTANT SECRETARY OF THE NAVY FOR RESEARCH, DEVELOPMENT, AND ACQUISITION
DEPUTY CHIEF OF NAVAL OPERATIONS FOR MANPOWER, PERSONNEL, TRAINING, AND EDUCATION

(U) SUBJECT: Evaluation of the Integrated Undersea Surveillance System Capabilities (Report No. DODIG-2022-077)

(U) This final report provides the results of the DoD Office of Inspector General's evaluation. We previously provided copies of the draft and requested written comments on the recommendations. We considered management's comments on the draft report when preparing the final report. These comments are included in the report.

(U) This report contains six recommendations that are considered unresolved and require additional comments and one recommendation that is closed. Therefore, as discussed in the Recommendations, Management Comments, and Our Response section of this report, the recommendations will remain unresolved until an agreement is reached on the actions to be taken to address the recommendations. Once an agreement is reached, the recommendation will be considered resolved but will remain open until adequate documentation has been submitted showing that the agreed-upon action has been completed. Once we verify the action is complete, the recommendations will be closed.

(U) DoD instruction 7650.03 requires the recommendations be resolved promptly. Therefore, please reconsider and provide additional comments to the unresolved recommendations within 30 days of the release of this final report.

(U) If you have any questions or would like to meet to discuss the evaluation, please contact DoD OIG (b)(6) at (703) 699-DoD or DoD OIG (b)(6) or DoD OIG (b)(6) at 703-604-DoD or DoD OIG (b)(6) We appreciate the cooperation and assistance received during the evaluation.

Randolph R. Stone
Assistant Inspector General for Evaluations
Space, Intelligence, Engineering, and Oversight

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(U) Introduction

(U) Objective

(U) The objective of this evaluation was to determine whether current and planned Integrated Undersea Surveillance System (IUSS) capabilities are able to meet anti-submarine warfare (ASW) theater requirements. See Appendix A for the scope, methodology, and prior coverage related to the evaluation objective.

(U) Background

(S//[redacted]) US NAVY (b)(1) 1.4(a), (d), (g)

(S//[redacted]) US NAVY (b)(1) 1.4(a), (d), (g)

(~~CUI~~) ASW is a core U.S. Navy mission. ASW enhances the Joint Force Commander's ability to gain, sustain, and exploit maritime superiority, protect vital Joint Force assets, and enable the successful completion of Joint Operations. This is accomplished through deterring enemy submarine aggression and establishing a secure friendly maneuver area for maritime forces. To execute these objectives, ASW assets must conduct Joint Intelligence Preparation of the Operational Environment, offensive ASW, and defensive ASW. This construct provides a layered defense that assures the detection and neutralization of enemy submarines, which reduces risk to the Joint Force.

(U) The History of the Integrated Undersea Surveillance System

(~~CUI~~) In 1950, the Office of Naval Research funded the development of an undersea surveillance system designed to detect and track Soviet submarines. The system that resulted was given the then classified name Sound Surveillance System, more commonly known as SOSUS.

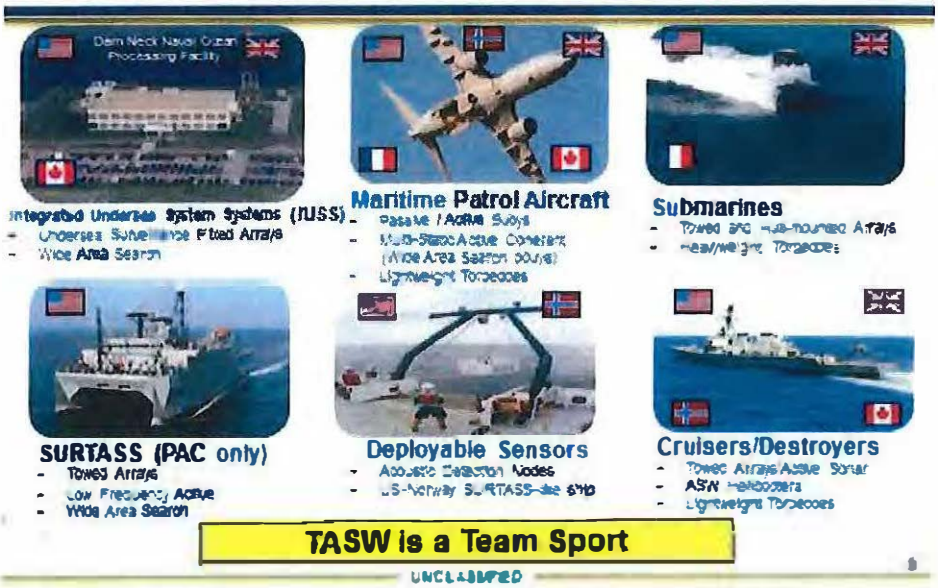
(~~CUI~~) The U.S. Navy placed fixed arrays, which are a network of hydrophones, on the ocean floor. The fixed arrays are connected by underwater cables to on-shore processing centers called Naval Facilities, later designated as Naval Oceanographic

(~~CUI~~) Processing Facilities (NOPFs). The first prototype of a full-size SOSUS installation was deployed in January 1952.

(~~CUI~~) In the 1980s, the network of fixed arrays was augmented by acoustic surveillance ships equipped with the Surveillance Towed Array Sensor System (SURTASS), which is an array on a towed line over 8,000 feet long. The overall system, including both the fixed and towed arrays, was designated the IUSS. In the late 1980s, the IUSS reached its Cold War peak with 11 NOPFs, 14 SURTASS equipped ships, and 2 Ocean Systems commanders, later designated the Commander Undersea Surveillance (CUS), manned by approximately 4,000 personnel.

(~~CUI~~) Figure 1 depicts how the IUSS supports ASW. Tactical ASW is a multi-platform, multi-nation mission which is comprised of U.S. and partner nation aircraft, submarines, surface ships, and the IUSS assets. The photos show (from left to right, top row) the NOPF headquarters building in Dam Neck, Virginia, an example of the type of wide area surveillance aircraft used to support ASW, and a submarine with a towed array. The bottom row (from left to right) shows a SURTASS equipped ship, a photo of newly developed deployable sensors being placed on a vessel, and a surface vessel.

(U) Figure 1. Tactical Anti-Submarine Warfare Forces



(U) Source: Commander Undersea Forces, "Theater Anti-Submarine Warfare Update," dated June 17, 2019.

(U) Post-Cold War Strategy Leads to an Integrated Undersea Surveillance System Funding Reduction

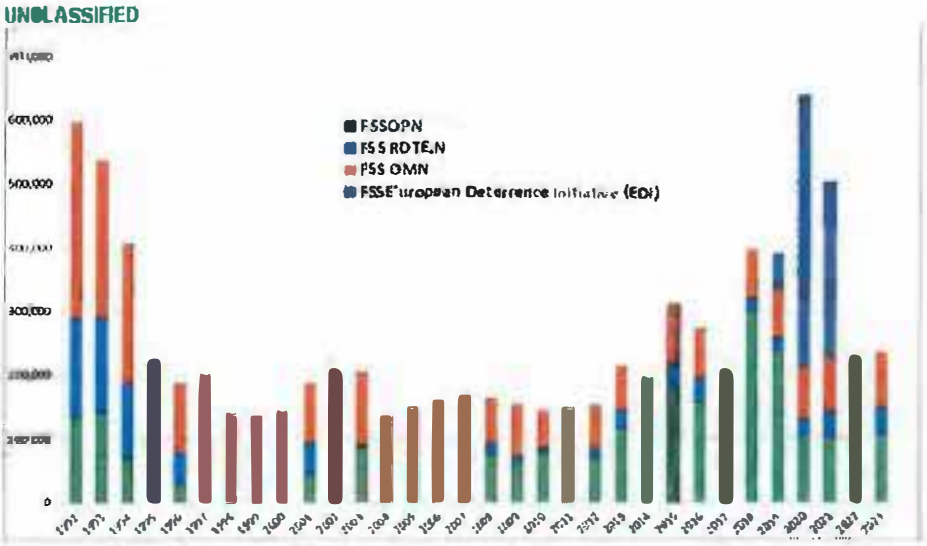
(~~CUI~~) The U.S. Post-Cold War strategy led to a reduction of IUSS funding. As a result of the demise of the Soviet Union, after the end of the Cold War, U.S. Navy national maritime policies de-emphasized efforts in some naval warfare areas. This strategic direction, derived from the Presidential National Security Strategy, represented a fundamental shift away from open-ocean warfighting. By 2010, the IUSS program consisted of only two NOPFs, five SURTASS equipped ships (all in the Pacific Theater), and a single system command (CUS), manned by approximately 1,000 personnel.

(~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)

(~~CUI~~) In response to the capabilities gap, the FY 2019 U.S. Navy budget added funding for IUSS infrastructure improvements, operational support, and battlespace preparation through the European Deterrence Initiative production surge through FY 2021. The European Deterrence Initiative marked funds for the installation of new undersea infrastructure, the refurbishment of older infrastructure, and research and development for other rapidly deployable systems.

(U) Figure 2 illustrates the reduction in the IUSS funding after the Cold War through the FY 2019 President's Budget Request.

(U) Figure 2. IUSS Post-Cold War Funding Profile



(U) Source: Assistant Secretary of the Navy for Research, Development, and Acquisition, "Report to Congress for the Recapitalization of the Existing System for Undersea Fixed Surveillance," dated February 22, 2018.

(U) Integrated Undersea Surveillance System Capabilities Provide Support to Anti-Submarine Warfare

(~~CUI~~) The IUSS mission is to provide global maritime acoustic surveillance and timely ASW reporting to the Theater ASW Commander using persistent long-range, fixed, and mobile systems. The IUSS accomplishes this mission through detection, classification, tracking, reporting, and dissemination of data on submarines, surface ships, and Maritime Patrol aircraft. Additional IUSS mission areas include gathering long-term oceanographic and geophysical information, support of environmental assessment projects, marine mammal research, and counter-narcotics efforts. There are currently three components of the IUSS: the fixed surveillance system (FSS), the mobile surveillance system or SURTASS, and the deployable surveillance systems (DSS). The CUS is responsible for the readiness of the IUSS program. See Appendix B for a detailed description of the FSS and the SURTASS.

(~~CUI~~) The FSS is the central component for the IUSS. The FSS provides persistent, undersea surveillance in open-ocean and littoral waters. A secondary FSS mission is to provide indications and warnings for interdiction of surface vessels of interest in support of maritime homeland defense.

~~(CUI)~~ Figure 3 shows retired (red), current operational (blue), and proposed (green) worldwide FSS locations, as of May 2021.

~~(S//~~ US NAVY (b)(1) 1.4(a),(d), (g)

~~(CUI)~~ The mobile surveillance system provides additional range for the IUSS. The SURTASS is the mission equipment deployed on five Tactical-Auxiliary Oceanographic Ships (T-AGOS) in the Pacific Theater. The SURTASS consists of a twin-line variant towed array, providing significantly improved performance in shallow water and environments with increased ambient noise. Four of the five T-AGOS have an active array component and all five have advanced on-board processing.

~~(CUI)~~ The DSS is the newest component added to the IUSS program. Since this technology is still being tested, we have excluded it from our evaluation. However, the design for the DSS is to provide an underwater surveillance capability for missions that are more transitory in nature or in less predictable locations. The DSS is predicted to provide survivable, on-call, surge coverage that is more responsive than other fixed or mobile sensors.

~~(S//~~ US NAVY (b)(1) 1.4(a), (d), (g)

(S// US NAVY 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

(S// US NAVY (b)(1) 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

(S// US NAVY (b)(1) 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

(U) The Russian Submarine Threat

(S// US NAVY 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

(S// USNAVY 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

(S// US NAVY 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

Introduction

(S// US NAVY 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

(S// US NAVY (b)(1) 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

(U) The Chinese Submarine Threat

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

(TS// US NAVY (b)(1) 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

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[1] (S// US NAVY 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

Introduction

(S// US NAVY (b)(1) 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

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(~~S//NF~~) US NAVY (b)(1) 1.4(a), (d),(g)

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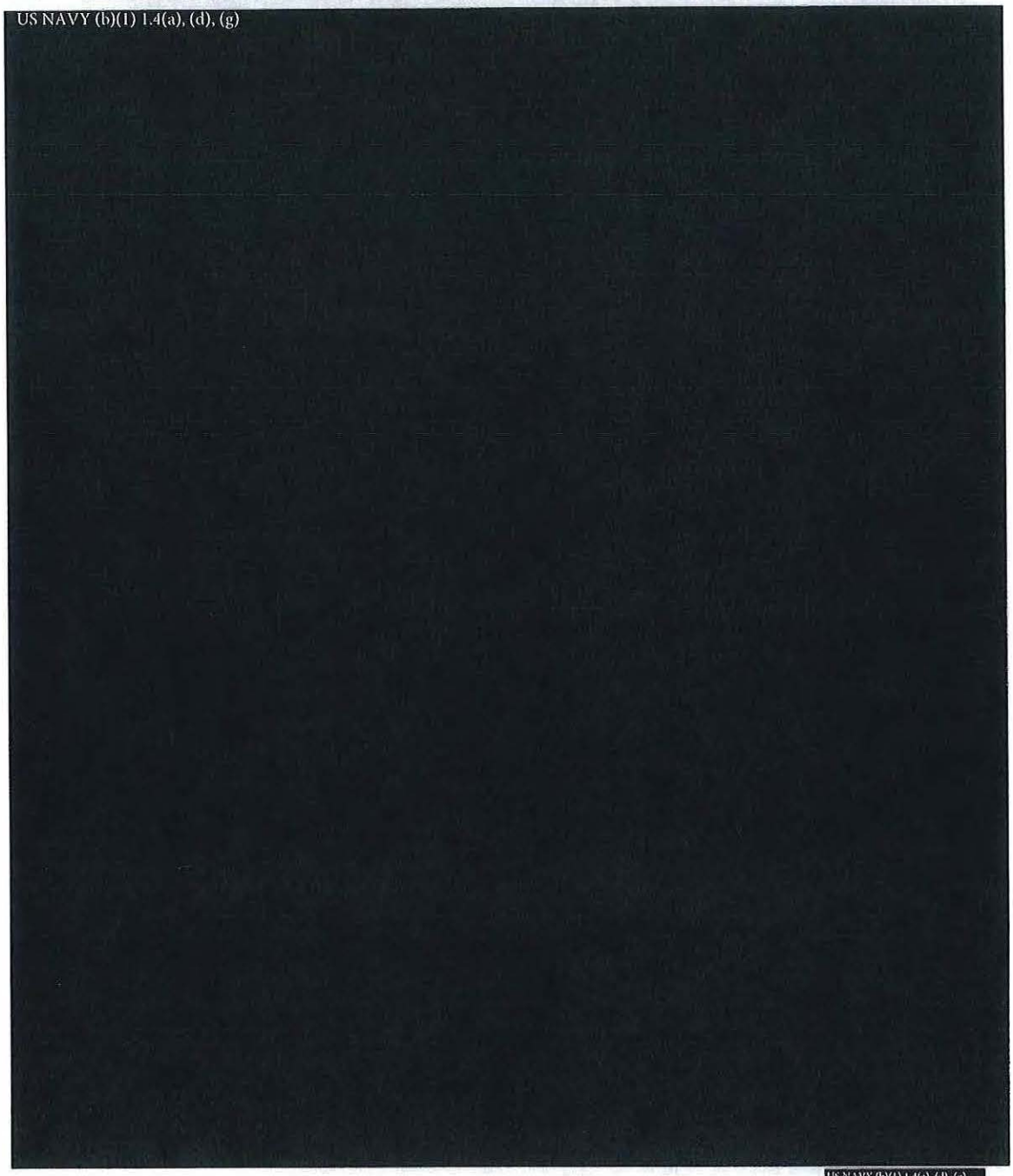

(S// US NAVY 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

(U) Review of Internal Controls

(U) DoD Instruction 5010.40 requires DoD organizations to implement a comprehensive system of internal controls that provides reasonable assurance that programs are operating as intended and to evaluate the effectiveness of the controls.[2] We did not evaluate internal controls during this evaluation.

[2] (U) DoD Instruction 5010.40, "Managers' Internal Control Program Procedures," May 30, 2013.

(U) Finding

(~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)

(~~S~~/ US NAVY 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

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- (~~S//NF~~) USNAVY (b)(1) 1.4(a), (d), (g)
- (~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)
- (~~S//NF~~) US NAVY (b)(1) 1.4(a),(d),(g)
- (~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)

(~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)

(~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)

(~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)

(~~S//~~US NAVY 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

(~~CUI~~) We identified two categories of requirements associated with the employment and design of the IUSS. The only Theater requirements, for operational collection and reporting to the IUSS customers, are for a SURTASS presence in the USEUCOM and USINDOPACOM AORs. The other identified requirements are for overall FSS array performance, which help determine design specifications and capabilities against submarine threats. We found no Theater requirement for specific IUSS capabilities. The requirements for a SURTASS presence, rather than for IUSS capabilities, limit Theater Commanders' ability to successfully request additional resources that may allow the IUSS to meet ASW requirements.

(U) Theater Requirements

(~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)

(U) System Performance Requirements

(~~S//NF~~) USNAVY (b)(1) 1.4(a), (d), (g)

Findings

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

(S// US NAVY 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

(S// US NAVY 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

(S// US NAVY 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

[3] (U) Legacy arrays are arrays installed prior to 2000.

[4] (U) Design service life is the intended years an array was designed to operate before being replaced, upgraded or decommissioned.

Finding

(U) Figure 6. Design Life for Operational Fixed Sensor Arrays

(U) Source: CUS, "Integrated Undersea Surveillance System (IUSS)," dated May 19, 2021.

(~~S~~// US NAVY 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

(~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)

Finding

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

US NAVY (b)(1) 1.4(a), (d), (g)

(U) Source: CUS, "Integrated Undersea Surveillance System (IUSS) Overview," dated September 3, 2019.

[5] (U) An out-of-area deployment is when a threat submarine leaves its normal operating area and proceeds to a sector of the ocean that they do not normally deploy.

Finding

(S//[redacted]) US NAVY (b)(1) 1.4(a), (d), (g)

[redacted]

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

[redacted]

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

[redacted]

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

[redacted]

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

[redacted]

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

[redacted]

Finding

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

US NAVY (b)(1) 1.4(a), (d), (g)

US NAVY (b)(1) 1.4(a), (d), (g)

(U) Source: Fixed Surveillance System (IUSS) Overview, dated August 19, 2019.

US NAVY (b)(1) 1.4(a), (d), (g)

(S//US NAVY 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

- (S//US NAVY 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)
- (S//[redacted]) US NAVY (b)(1) 1.4(a), (d), (g)

- (S//[redacted]) US NAVY (b)(1) 1.4(a), (d), (g)

(TS//[redacted]) US NAVY (b)(1) 1.4(a), (d), (g)

(S//[redacted]) US NAVY (b)(1) 1.4(a), (d), (g)

(S//[redacted]) US NAVY (b)(1) 1.4(a), (d), (g)

(S//[redacted]) US NAVY (b)(1) 1.4(a), (d), (g)

[6] (U) The reach-back cell is within the NOPF and is part of the FSS component of USS. The reach-back cell reviews and confirms watch floor and system data.

Finding

(~~TS~~// US NAVY (b)(1) 1.4(a), (d), (g)) USNAVY (b)(1) 1.4(a), (d),(g)

US NAVY (b)(1) 1.4(a), (d), (g)

US NAVY (b)(1) 1.4(a), (d), (g)

(U) The U.S. Navy Highlights IUSS Requirement and Capabilities

(~~CUI~~) US NAVY (b)(1) 1.7(e)

(~~CUI~~) USNAVY(b)(1) 1.7(e)

- (S) US NAVY (b)(1) 1.4(a), (d), (g)
- (~~S//NF~~) USNAVY(b)(1) 1.4(a),(d),(g)
- (~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)
- (S) US NAVY (b)(1) 1.4(a), (d), (g)
- (~~S//NF~~) USNAVY(b)(1) 1.4(a),(d),(g)
- (~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)

Finding

(~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)

- (~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)

(~~S//~~ US NAVY 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

(~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)

(~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)

(U) The Tactical-Auxiliary Oceanographic Ships

(~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)

Finding:

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

(U) The Requirement for SURTASS Capability in USEUCOM

(S//[redacted]) US NAVY (b)(1) 1.4(a), (d), (g)

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

(CUI) US NAVY (b)(1) 1.7(e)

(S//[redacted]) US NAVY (b)(1) 1.4(a), (d), (g)

Finding

(S//US NAVY 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

7 (U) Having the "tail wet" indicates that the towed array was deployed and that SURTASS was conducting operations.

Finding

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

US NAVY (b)(1) 1.4(a), (d), (g)

(U) Source: Johns Hopkins Briefing: SURTASS Passive and Atlantic Operations in the Atlantic.

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

Finding

(~~S//NF~~) USNAVY(b)(1) 1.4(a),(d),(g)

- (S) US NAVY (b)(1) 1.4(a), (d), (g)
- (~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)
- (~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)
- (S) US NAVY (b)(1) 1.4(a), (d), (g)
- (S// US NAVY (b)(1) 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)
- (~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)

(~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)

[8] (~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

- (S//NF) US NAVY (b)(1) 1.4(a), (d), (g)
- (S//NF) US NAVY (b)(1) 1.4(a), (d), (g)
- (S//NF) US NAVY (b)(1) 1.4(a), (d), (g)
- (S) US NAVY (b)(1) 1.4(a), (d), (g)

Finding

(S) US NAVY (b)(1) 1.4(a), (d), (g)

(~~CUI~~) US NAVY (b)(1) 1.7(e)

[redacted]

[9] (U) A U.S. Navy rating is an occupation that enlisted members of the U.S. Navy are trained in, and generally remain in that occupation for their career.

Finding

(~~S~~// US NAVY (b)(1) 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

(~~S~~// US NAVY 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

(~~S~~// US Navy 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

(~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)

(U) Recommendations, Management Comments and Our Response

(U) Revised Recommendations

(U) As a result of management comments to the draft report, we revised Recommendation 3 and Recommendation 4 to include Navy personnel deployed on T-AGOS ships.

(U) Recommendation 1a.

(S) US NAVY (b)(1) 1.4(a), (d), (g)

(U) Undersea Warfare Division (OPNAV N97) Director Comments

(S) US NAVY (b)(1) 1.4(a), (d), (g)

(U) Our Response

(S) US NAVY (b)(1) 1.4(a), (d), (g)

- (S) US NAVY (b)(1) 1.4(a), (d), (g)
- (S) US NAVY (b)(1) 1.4(a), (d), (g)
- (S) US NAVY (b)(1) 1.4(a), (d), (g)
- (S) US NAVY (b)(1) 1.4(a), (d), (g)

(U) We will close this recommendation once the OPNAV 97 Director provides documentation on the Navy's plan to accelerate fixed sensor technology.

(U) Recommendation 1b.

(S) US NAVY (b)(1) 1.4(a), (d), (g)

(U) Undersea Warfare Division (OPNAV N97) Director Comments

(S) US NAVY (b)(1) 1.4(a), (d), (g)

(U) Our Response

(S) US NAVY (b)(1) 1.4(a), (d), (g)

(U) Recommendation 1c.

(S) US NAVY (b)(1) 1.4(a), (d), (g)

(U) Undersea Warfare Division (OPNAV N97) Director Comments

(S) US NAVY (b)(1) 1.4(a), (d), (g)

Finding

(U) Our Response

(S) US NAVY (b)(1) 1.4(a), (d), (g)

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

(S//NF) US NAVY (b)(1) 1.4(a), (d), (g)

(U) Recommendation 1d.

(S) US NAVY (b)(1) 1.4(a), (d), (g)

(U) Undersea Warfare Division (OPNAV N97) Director Comments

(S) US NAVY (b)(1) 1.4(a), (d), (g)

(U) Our Response

(S) US NAVY (b)(1) 1.4(a), (d), (g)

(U) Recommendation 2

(S) US NAVY (b)(1) 1.4(a), (d), (g)

(U) Assistant Secretary of the Navy for Research, Development and Acquisition Comments

(S) US NAVY (b)(1) 1.4(a), (d), (g)

(U) Our Response

(S) US NAVY (b)(1) 1.4(a), (d), (g)

(S) US NAVY (b)(1) 1.4(a), (d), (g)

(U) Recommendation 3

(U) We recommend the Deputy Chief of Naval Operations for Manpower, Personnel, Training and Education develop and implement measures to improve Sonar Technician, Submarine and Sonar Technician, Surface manning at the Operational Control Centers for Commander, Undersea Surveillance and Naval Oceanographic Processing Facilities, and onboard Tactical-Auxiliary Oceanographic Ships Sea Components. Additionally, we recommend the Deputy Chief of Naval Operations for Manpower, Personnel, Training and Education provide funding to support a study to validate the current occupational standards associated with Integrated Undersea Surveillance System operations; based on the requirements identified by the occupational standards, a feasibility study should be completed to determine if a new rating is warranted.

(U) Management Comments Required

(U) The Deputy Chief of Naval Operations for Manpower, Personnel, Training and Education did not provide comments to the draft report; therefore the recommendation is unresolved and will remain open. We request the Deputy Chief provide comments to the final report. We will close the recommendation once the Deputy Chief provides and implements the plan to improve manning at the CUS, the NOPFs, and onboard T-AGOS Sea Components.

(U) Recommendation 4

(U) We recommend the Deputy Chief of Naval Operations for Manpower, Personnel, Training and Education, in coordination with the Integrated Undersea Surveillance System Type Commander, develop a plan to incentivize re-tours at Commander Undersea Surveillance, the Naval Oceanographic Processing Facilities, and onboard Tactical-Auxiliary Oceanographic Ships Sea Components.

(U) Management Comments Required

(U) The Deputy Chief of Naval Operations for Manpower, Personnel, Training and Education did not provide comments to the draft report; therefore the recommendation is unresolved and will remain open. The Submarine Force, U.S. Pacific Fleet Commander responsed with comments, however, he has no authority to affect the recommended changes to Navy personnel structure. We request the Deputy Chief provide comments to the final report. We will close the recommendation once the Deputy Chief develops and implements a plan to incentivize re-tours at the CUS, the NOPFs, and onboard T-AGOS Sea Components.

(U) Appendix A

(U) Scope and Methodology

(U) We conducted this evaluation from May 2019 through August 2021 in accordance with the Council of Inspectors General on Integrity and Efficiency Quality Standards for Inspection and Evaluation.[10] Those standards require that we plan and perform the evaluation to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our evaluation objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our evaluation objectives.

(U//[redacted]) USNAVY(b)(1) 1.7(e)

(U//[redacted]) USNAVY(b)(1) 1.7e

(U//[redacted]) US NAVY (b)(1) 1.7e

(S//[redacted]) USNAVY(b)(1) 1.4(a),(d),(g)

[10] (U) Due to the Coronavirus Disease-19, the evaluation was suspended from March 16, 2020, through February 15, 2021.

(S//US NAVY (b)(1) 1.4(a), (d), (g)) US NAVY (b)(1) 1.4(a), (d), (g)

(U) Use of Computer-Processed Data

(U) We did not use computer-processed data to perform this evaluation.

(U) Prior Coverage

(U) There has been no prior coverage on the IUSS during the last five years. We conducted an internet search of the secure integrated cloud database, the gao.gov web site, and the oversight.gov website to determine if there were any reports with significant findings and recommendation related to our evaluation objective.

(U) Appendix B

(U) IUSS Components

(U) There are currently three components of IUSS: the FSS, the SURTASS, and the DSS.

(U) Fixed Surveillance System

(~~CUI~~) The FSS detect, track, localize, and report all generations of diesel and nuclear submarines as well as vessels of interest in support of force protection, homeland defense, and maritime domain awareness. The primary mission of the FSSs is to provide vital tactical cueing to the theater commander for threat prosecution and force protection through the detection, tracking, and localization of threat submarines and surface vessels of interest. The secondary mission of the FSS is to provide tactical cuing for interdiction of surface vessels of interest in support of maritime homeland security. The FSSs include both the SOSUS and Fixed Distributed System (FDS).

(U) Sound Surveillance Systems

(~~CUI~~) The SOSUS, a baseline component of the IUSS, is a fixed, passive, undersea surveillance sensor and processing system. The first SOSUS arrays were deployed in the 1950s and continue to supply valuable surveillance data.

(C//[redacted]) US NAVY (b)(1) 1.4(a), (d), (g)

[redacted]

(S//[redacted]) US NAVY (b)(1) 1.4(a), (d), (g)

[redacted]

(U) Fixed Distributed Systems

(S//[redacted]) US NAVY (b)(1) 1.4(a), (d), (g)

[redacted]

(S//[redacted]) US NAVY (b)(1) 1.4(a), (d), (g)

[redacted]

(S) US NAVY (b)(1) 1.4(a), (d), (g)

[redacted]

(U) Mobile Surveillance System, SURTASS

(U) The SURTASS is a mobile acoustic surveillance system that provides undersea surveillance in open-ocean and littoral waters. The SURTASS provides detection, classification, localization, tracking and reporting of modern nuclear submarines, diesel-electric submarines, and commercial shipping to Theater ASW commanders.

(~~CUI~~) US NAVY (b)(1) 1.7(c)

[redacted]

(~~CUI~~) US NAVY (b)(1) 1.7(e)

(U) The T-AGOS class is a catamaran-style Small Water plane Area Twin Hull also known as SWARTH, designed for stability in a high sea state. The T-AGOS are non-commissioned, U.S. Navy auxiliary ships operated by the Military Sealift Command and have no offensive or defensive capabilities.

(~~CUI~~) US NAVY (b)(1) 1.7(e)

(U) DSS Sensors

(~~CUI~~) The DSS is the newest platform to be added to the IUSS family. Since this technology is still being tested, we have excluded it from our evaluation. The DSS is designed to expand on established FSS and SURTASS systems and to address current and next-generation surveillance requirements by leveraging undersea unmanned vehicles, unmanned surface vehicles, and undersea robotics. The DSS would provide an underwater surveillance capability for missions that are more transitory in nature or in less predictable locales. It could provide survivable, on-call, surge coverage that is more responsive than other fixed or mobile sensors. Specific capabilities could include providing cuing and detection via a three increment approach to fielding. Increment 1-Deep Water Passive is partially operational, increment 2-Deep Water Active is approved and the scheduled contract award is for FY 2024, and increment 3-Mobile Passive Active System is looking at initiating in FY 2026.

(~~S//NF~~) US NAVY (b)(1) 1.4(a), (d), (g)

(U) Appendix C Management Comments

US NAVY (b)(1) 1.4(a), (d), (g)

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
RESEARCH DEVELOPMENT AND ACQUISITION
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MEMORANDUM FOR DEPARTMENT OF DEFENSE INSPECTOR GENERAL

SUBJECT: (U) Navy's Response to Department of Defense Inspector General Draft Report dated August 18, 2021, Project No. D2019-DEVOSA-0155.000, "Evaluation of the Integrated Undersea Surveillance System Capabilities"

Enclosures: (1) Director, Undersea Warfare Division, Ser N97/21S144683 dtd 18 Nov 21
(2) Commander Submarine Force, U.S. Pacific Fleet, Ser N00/S023, dtd 19 Nov 21

(U) As requested, the Navy submits the following comments regarding the Department of Defense, Inspector General Draft Report, dated August 18, 2021, Project No. D2019-DEVOSA-0155.000, "Evaluation of the Integrated Undersea Surveillance System (IUSS) Capabilities":

- (U) The Navy agrees with recommendation 2.
- US NAVY (b)(1) 1.4(a), (d), (g)
- US NAVY (b)(1) 1.4(a), (d), (g)
- (U) Enclosures (1) and (2) provide the Navy's responses to recommendations 1, 3, and 4.

(U) My point of contact for this matter is DoD OIG (b) Office of DASN Ships, (703) 692 DoD

Frederick J. Stefany
Principal Civilian Deputy Assistant Secretary of the Navy
(Research Development and Acquisition)
Performing the Duties of the Assistant Secretary of the Navy
(Research Development and Acquisition)

Enclosures:
As stated

US NAVY (b)(1) 1.4(a), (d), (g)

Subj: (U) DOD IG RECOMMENDATIONS REQUIRING COMMENT FROM IUSSTYPE COMMANDER

US NAVY (b)(1) 1.4(a), (d), (g)

J.T. JABLON

US NAVY (b)(1) 1.4(a), (d), (g)

US NAVY (b)(1) 1.4(a), (d), (g)

DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON DC 20350-2000

5041
Ser N97/21S144683
18Nov21

From: Director, Undersea Warfare Division (OPNAV N97)
To: Department of Defense Inspector General – Deputy, Assistant Inspector General Acquisition and Sustainment Management

Subj: EVALUATION OF THE INTEGRATED UNDERSEA SURVEILLANCE SYSTEMS CAPABILITIES FOR DOD OIG DISCUSSION DRAFT REPORT [PROJECT NO. D2019-DEVOSA-0155.000]

Ref: (a) DoDOIG Discussion Draft Report PROJECT NO. D2019-DEVOSA-0155.000

Encl: (1) SURTASS Distribution Plan

US NAVY (b)(1) 1.4(a), (d), (g)

US NAVY (b)(1) 1.4(a), (d), (g)

(1) (U) N97 Response: Agree.

US NAVY (b)(1) 1.4(a), (d), (g)

US NAVY (b)(1) 1.4(a), (d), (g)

(1) (U) N97 Response: Agree.

US NAVY (b)(1) 1.4(a), (d), (g)

Classified by: US Navy (b)(6)
Derived from: US NAVY (b)(1), 1.4(a), (d), (g)
Declassify on:

US NAVY (b)(1) 1.4(a), (d), (g)

US NAVY (b)(1) 1.4(a), (d), (g)

US NAVY (b)(1) 1.4(a), (d), (g)

USNAVY(b)(1) 1.4(a), (d), (g)

(1) (U) N97 Response: Agree.

US NAVY (b)(1) 1.4(a), (d), (g)

US NAVY (b)(1) 1.4(a), (d), (g)

(1) (U) N97 Response: Agree.

US NAVY (b)(1) 1.4(a), (d), (g)

2. (U) Points of contact: (US NAVY (b) (703-695- US NIPR: US NAVY
and SIPR: US US NAVY (b) (703-695 US NIPR:
US NAVY (b)(6) and SIPR: US NAVY

D.G. PERRY

USNAVY (b)(1) 1.4(a), (d), (g)

DEPARTMENT OF THE NAVY
Commander Submarine Force
Commander Submarine Force, U.S. Pacific Fleet
1430 Morton Street
Pearl Harbor, HI 96860-4464

5830
Ser N00/8023
19Nov21

From: Commander Submarine Force, U.S. Pacific Fleet
To: Department of Defense Inspector General

Subj: (U) DOD IG RECOMMENDATIONS REQUIRING COMMENT FROM IUSS TYPE COMMANDER

Encl: (1) N974B DoD IG Response D2019-DEV0SA-0155.001 (SNF)

Recommendations Requiring Comment (U)

1. (U) Recommendation #3: We recommend the Deputy Chief of Naval Operations for Manpower, Personnel, Training and Education create a rating for Integrated Undersea Surveillance System sonar technicians and include a study to transition some of the duties to a full time civilian workforce.

US NAVY (b)(1) 1.4(a), (d), (g)

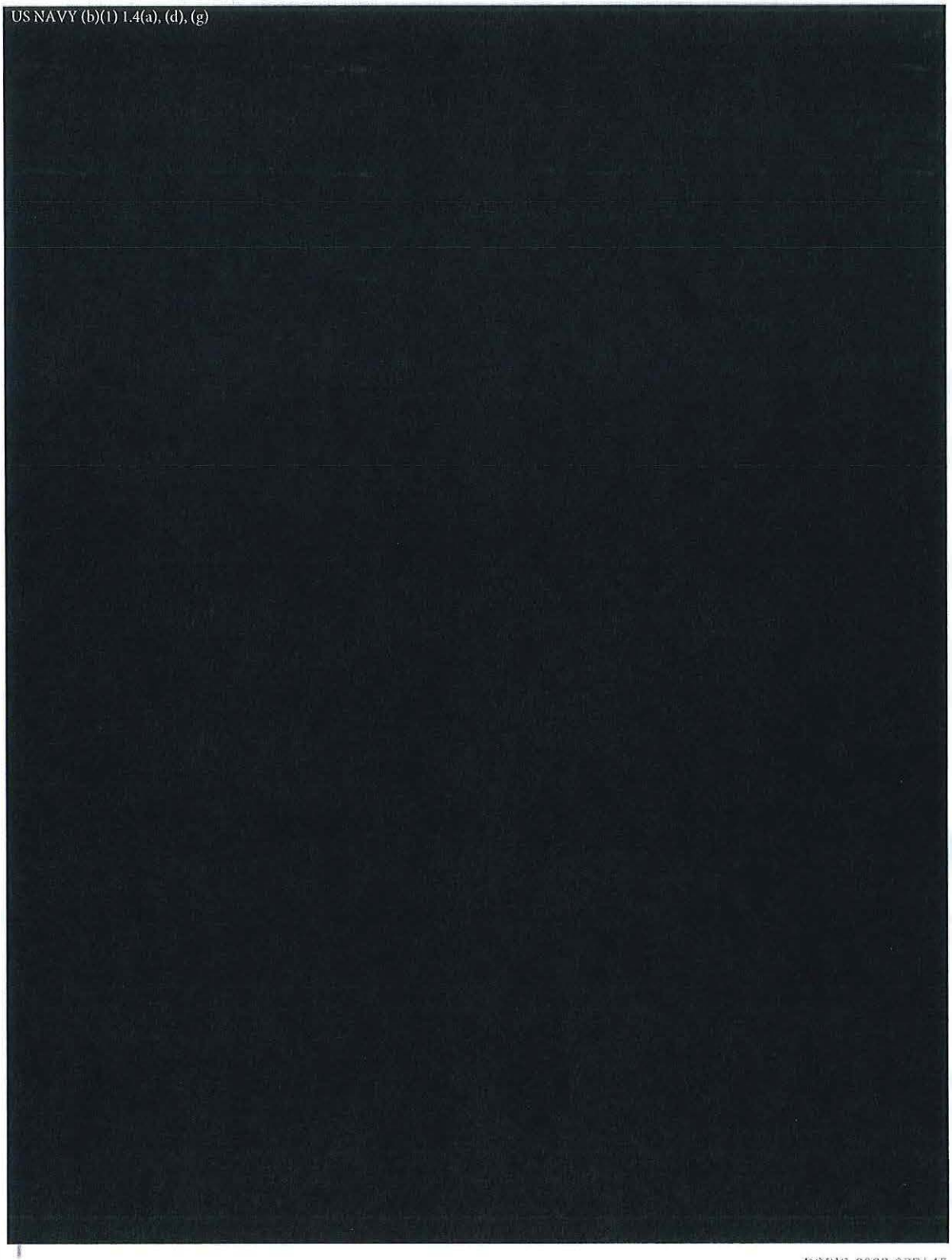
IUSS TYCOM Comments (U)

1. (U) Recommend changing #3 to read "): *(U) We recommend the Deputy Chief of Naval Operations for Manpower, Personnel, Training and Education develop and implement measures to improve STS and STG manning at the Operational Control Centers for Commander, Undersea Surveillance and Naval Oceanographic Processing Facilities, and onboard the TAGOS Sea Components. Additionally, we recommend the Deputy Chief of Naval Operations for Manpower, Personnel, Training and Education provide funding to support a study to validate the current occupational standards associated with Integrated Undersea Surveillance System operations; based on the requirements identified by the occupational standards, a feasibility study should be completed to determine if a new rating is warranted." And DELETE section referring to "conducting a study to transition some of the duties to a full time civilian workforce."*

a. (U) CUS/IUSS Civilian Personnel strength has grown from 67 FTE in FY15 and FY22, with an additional 37 FTE to 149 in FY22, with an additional manpower growth requested in POM24; ~30 of the FTE growth between FY15 and FY22 were allotted for developing a full time civilian analyst workforce (both journeyman and master analyst levels).

Classified by: US NAVY (b)(1) 1.4(a), (d), (g), (b)(6)
Derived from:
Declassify on:

US NAVY (b)(1) 1.4(a), (d), (g)


US NAVY (b)(1) 1.4(a), (d), (g)

(U) Acronyms

(U)

AOR	Area of Responsibility
ASW	Anti-Submarine Warfare
CUS	Commander, Undersea Systems
CUI	Controlled Unclassified Information
DSS	Deployable Sensor Systems
FDS	Fixed Distributed System
FSS	Fixed Sensor System
[redacted]	US NAVY (b)(1) 1.4(a), (d), (g)
IUSS	Integrated Undersea Sensor System
LFA	Low Frequency Active
M/V	Motor Vessel
N81	U.S. Navy Assessments Division
N97	IUSS Resource Command
NOPF	Naval Ocean Processing Facilities
ONI	Office of Naval Intelligence
PMS 485	Maritime Surveillance Systems Program Office
Pd	Probability of Detection
RFN	Russian Federation Navy
[redacted]	US NAVY (b)(1) 1.4(a), (d), (g)
SOSUS	Sound Surveillance System
SURTASS	Surveillance Towed Array Sensor System
SURTASS-E	Surveillance Towed Array Sensor System-Expeditionary
T-AGOS	Tactical-Auxiliary Oceanographic Ships
USEUCOM	U.S. European Command
USINDOPACOM	U.S. Indo-PacificCommand
USNS	United States Navy Ship

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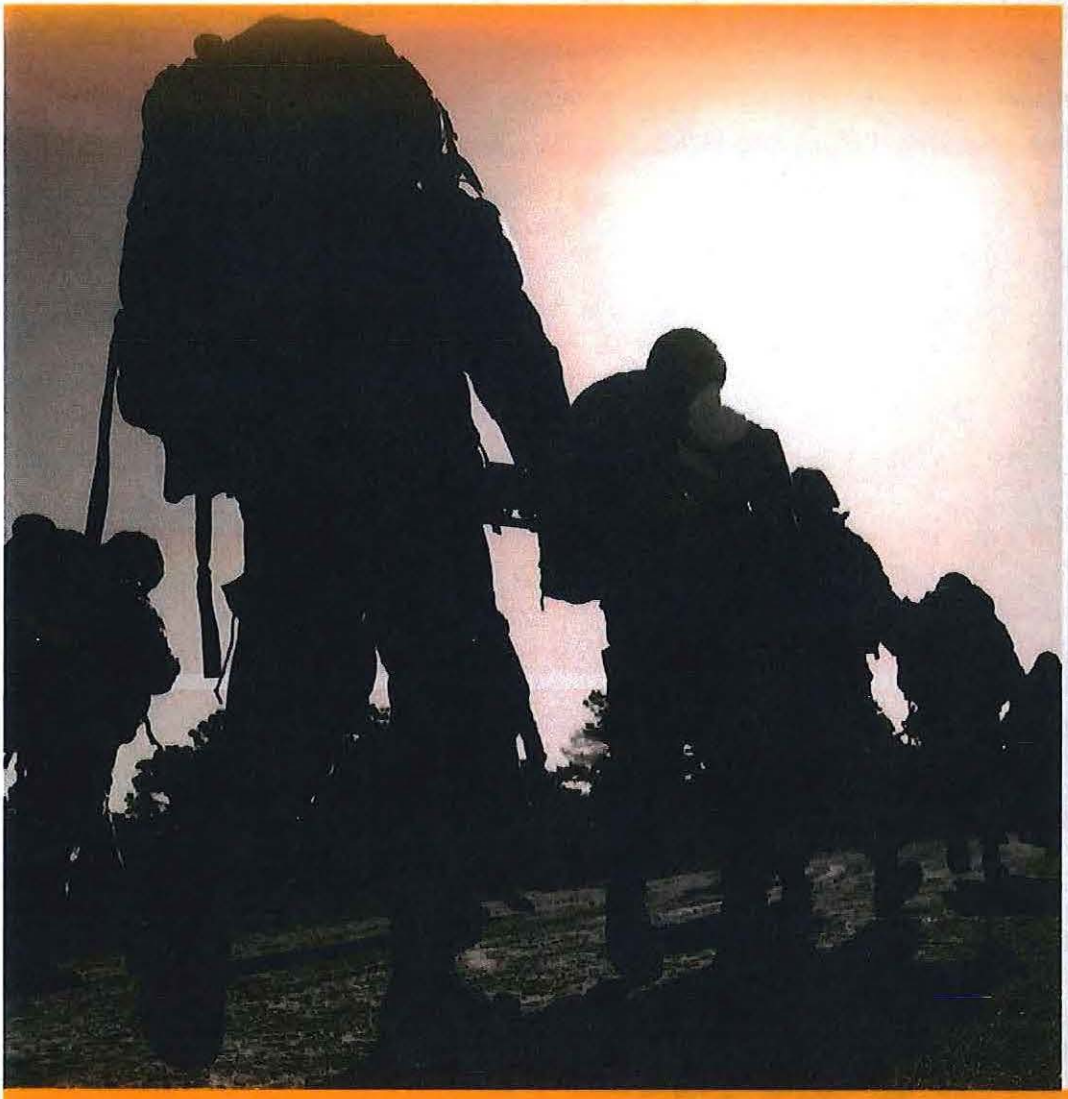

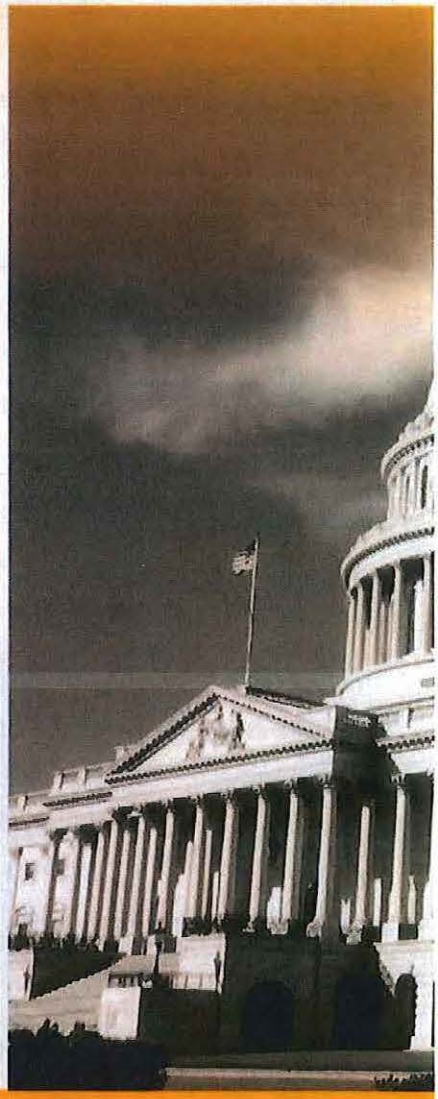

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