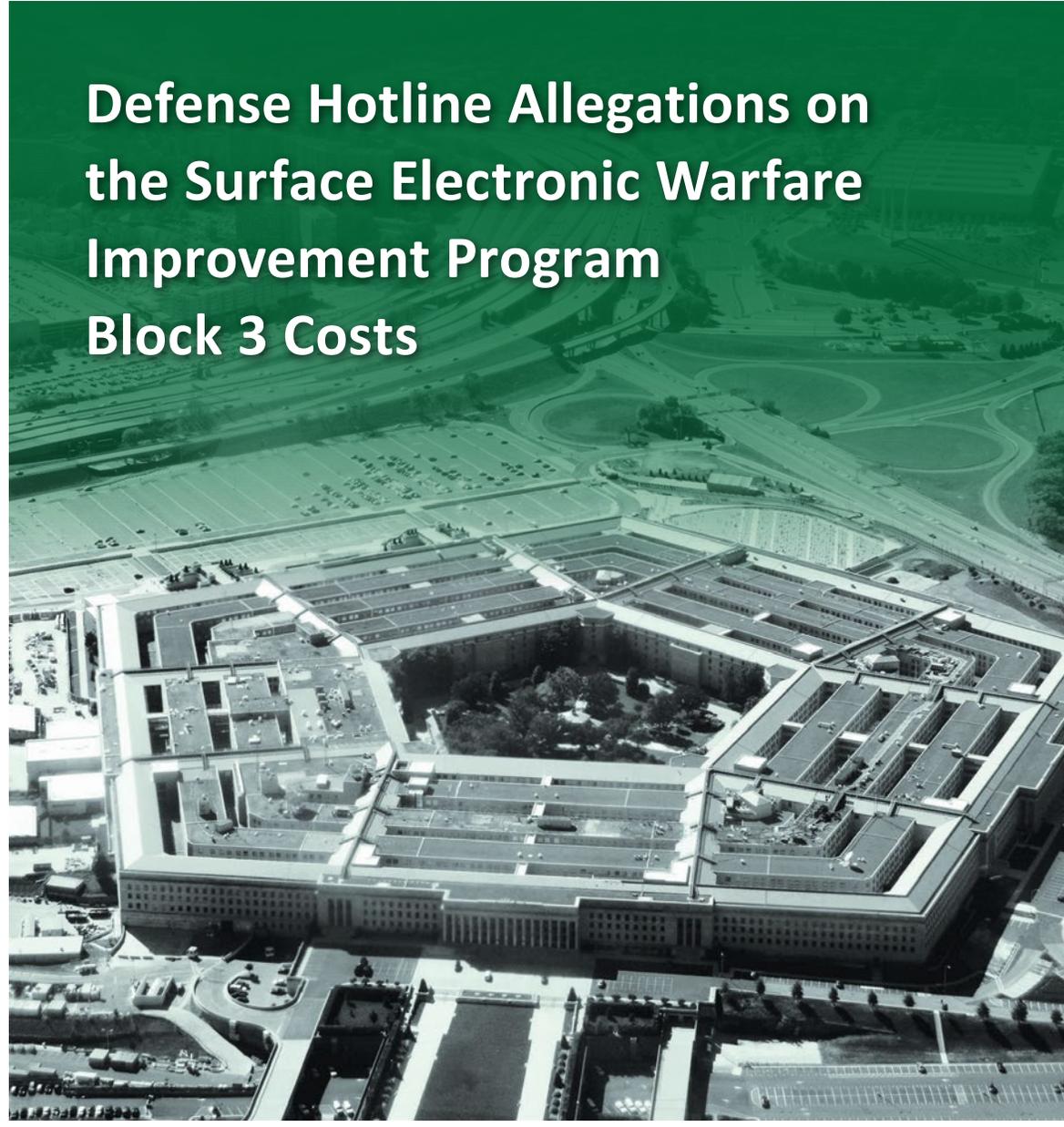


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# INSPECTOR GENERAL

*U.S. Department of Defense*

NOVEMBER 9, 2017



## Defense Hotline Allegations on the Surface Electronic Warfare Improvement Program Block 3 Costs

INTEGRITY ★ EFFICIENCY ★ ACCOUNTABILITY ★ EXCELLENCE

The document contains information that may be exempt from mandatory disclosure under the Freedom of Information Act.

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INTEGRITY ★ EFFICIENCY ★ ACCOUNTABILITY ★ EXCELLENCE

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# Results in Brief

## *Defense Hotline Allegations on the Surface Electronic Warfare Improvement Program Block 3 Costs*

November 9, 2017

### Objective

We conducted this audit in response to allegations made to the Defense Hotline. We determined whether the Surface Electronic Warfare Improvement Program (SEWIP) Block 3 experienced significant cost increases over original estimates.

### Background

The DoD Office of Inspector General received three Defense Hotline complaints alleging SEWIP Block 3 experienced significant cost increases over original Engineering and Manufacturing Development (EMD) phase estimates. The EMD phase is to develop, build, and test a product to verify that all operational requirements have been met, and to support production or deployment decisions. Within the complaints, we reviewed seven allegations related to cost increases, under bidding, scope increases, and program baseline approval and determined that:

- three of seven allegations were substantiated,
- two of seven allegations were partially substantiated, and
- two of seven allegations were not substantiated.

We address the primary allegation of cost increases over the original EMD phase estimates in the body of this report. See Appendix B for a detailed description of each allegation and whether it was substantiated.

### Background (cont'd)

The Program Executive Office Integrated Warfare Systems Above Water Sensors (PEO IWS 2.0) reports to Program Executive Office Integrated Warfare System (PEO IWS) and manages the \$5.7 billion SEWIP procurement. SEWIP is an upgrade to the AN/SLQ-32 electronic warfare system (AN/SLQ-32). The AN/SLQ-32 provides early detection, signal analysis, threat warning, and protection from anti-ship missiles. PEO IWS 2.0 is modernizing the AN/SLQ-32 with four incremental upgrades, Blocks 1 through 4. SEWIP Block 3 will provide an improved electronic attack capability. Electronic attack neutralizes anti-access systems; suppresses adversarial integrated air defense systems; denies adversarial battlespace awareness sensors; degrades adversarial offensive capabilities; and denies effective adversarial command, control, and communications. On February 12, 2015, the Naval Sea Systems Command (NAVSEA) awarded a contract to Northrop Grumman to design and develop SEWIP Block 3. The contract included an option for the EMD phase with an original value of \$91.7 million.

### Finding

(FOUO) SEWIP Block 3 experienced significant cost increases. Specifically, between August 2014 and March 2017, Northrop Grumman's original SEWIP Block 3 proposed cost estimate significantly increased from [REDACTED] to potentially [REDACTED] for the EMD phase. The cost increases occurred because PEO IWS 2.0 officials had NAVSEA award the contract based on Northrop Grumman's technical proposal that ultimately contained [REDACTED]. Additionally, PEO IWS 2.0 officials did not approve an EMD phase cost baseline estimate. As a result, PEO IWS 2.0 officials may pay up to [REDACTED] more than the original estimated cost to complete fewer deliverables than agreed to in the original contract during the EMD phase. A deliverable is any item developed by the contractor and delivered as part of the contract. Additionally, PEO IWS 2.0 officials may complete the EMD phase at least [REDACTED] behind schedule and may complete initial production later than planned.



# Results in Brief

## *Defense Hotline Allegations on the Surface Electronic Warfare Improvement Program Block 3 Costs*

### **Finding (cont'd)**

(FOUO) Finally, PEO IWS 2.0 officials could incur a program deviation by exceeding the Acquisition Program Baseline (APB) maximum research, development, test, and evaluation cost of [REDACTED], which could result in the Department of the Navy requesting additional funds to provide the SEWIP Block 3 improved electronic attack capability. The APB documents the performance requirements, schedules, and estimated program costs. A program deviation occurs when the program manager believes costs in the APB will exceed the maximum cost set by the program office.

- continue to monitor actual research, development, test, and evaluation costs and report to the Principal Military Deputy, Assistant Secretary of the Navy (Research, Development, and Acquisition), if PEO IWS 2.0 officials anticipate a program deviation requiring an APB revision.

### **Recommendations**

We recommend that the Program Executive Officer, PEO IWS:

- finalize discussions with Northrop Grumman and, if appropriate, issue a contract modification, with NAVSEA assistance, agreeing to the restructured EMD phase;
- establish an approved EMD phase cost baseline estimate to consistently measure and control costs for SEWIP Block 3;
- verify that Northrop Grumman adequately meets the established EMD phase baseline estimate to minimize existing or future problems;
- (FOUO) continue to document Northrop Grumman's contract performance, including Northrop Grumman's [REDACTED], in the Contractor Performance Assessment Reporting System (CPARS) to assist agencies in evaluating contractor past performance and awarding future contracts; and

### **Management Comments and Our Response**

The Commander, NAVSEA, responding for the Program Executive Officer, PEO IWS, addressed the specifics of the recommendations.

The Commander, NAVSEA, agreed in principle with our recommendation to finalize discussions with Northrop Grumman. On September 29, 2017, NAVSEA issued a partial termination of the EMD phase; therefore, we consider this recommendation closed.

The Commander, NAVSEA, agreed with our recommendation to establish an approved EMD phase cost baseline estimate. The Commander stated that PEO IWS 2.0 plans to establish an EMD phase cost baseline by December 28, 2017. We consider this recommendation resolved and open. We will close this recommendation when PEO IWS demonstrates that it established a SEWIP Block 3 EMD phase cost baseline.

The Commander, NAVSEA, agreed with our recommendation to verify that Northrop Grumman adequately meets the established EMD phase cost baseline estimate. The Commander stated that after the EMD cost baseline is established and approved, PEO IWS will continue to review earned value management data and cost reports on a monthly basis to monitor contract performance. We consider this recommendation resolved and open. We will close this recommendation when PEO IWS demonstrates that it reviewed earned value management data and cost reports on a monthly basis to monitor contract performance.



# Results in Brief

## *Defense Hotline Allegations on the Surface Electronic Warfare Improvement Program Block 3 Costs*

### **Management Comments (cont'd)**

~~(FOUO)~~ The Commander, NAVSEA, agreed with our recommendation to document Northrop Grumman's contract performance in CPARS. The Commander stated that PEO IWS will continue to document Northrop Grumman's performance in CPARS on an annual basis. As such, PEO IWS submitted the second annual CPARS report on September 7, 2017, that documented Northrop Grumman's [REDACTED] performance; therefore, we consider this recommendation closed.

The Commander, NAVSEA, agreed in principle with our recommendation to monitor actual research, development, test, and evaluation costs and report anticipated program deviations. The Commander stated that PEO IWS reviews expenditures on a monthly basis across the program and that costs are reported to the Principal Military Deputy, Assistant Secretary of the Navy (Research, Development, and Acquisition) at least quarterly. On September 20, 2017, PEO IWS reported research, development, test, and evaluation costs. Therefore, we consider this recommendation closed.

## **Recommendations Table**

<b>Management</b>	<b>Recommendations Unresolved</b>	<b>Recommendations Resolved</b>	<b>Recommendations Closed</b>
Program Executive Officer, Program Executive Office Integrated Warfare System	None	1.b and 1.c	1.a, 1.d, and 1.e

The following categories are used to describe agency management comments to individual recommendations:

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



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

November 9, 2017

MEMORANDUM FOR FOR NAVAL INSPECTOR GENERAL

SUBJECT: Defense Hotline Allegations on the Surface Electronic Warfare  
Improvement Program Block 3 Costs (Report No. DODIG-2018-025)

(FOUO) We are providing this report for your information and use. The DoD Office of Inspector General received three Defense Hotline complaints that alleged the Surface Electronic Warfare Improvement Program (SEWIP) Block 3 experienced significant cost increases over original estimates. SEWIP Block 3 experienced significant cost increases from [REDACTED] to potentially [REDACTED] for the Engineering and Manufacturing Development phase.

We considered management comments on a draft of this report when preparing the final report. Comments from the Commander, Naval Sea Systems Command conformed to the requirements of DoD Instruction 7650.03.

We appreciate the courtesies extended to the staff. Please direct questions to Mr. Kenneth VanHove at (216) 535-3777 (DSN 499-9946).

Handwritten signature of Troy M. Meyer in black ink.

Troy M. Meyer  
Principal Assistant Inspector  
General for Audit

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## Acronyms and Abbreviations

# Introduction

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## Objective

We conducted this audit in response to allegations made to the Defense Hotline. We determined whether the Surface Electronic Warfare Improvement Program (SEWIP) Block 3 experienced significant cost increases over original estimates. See Appendix A for a discussion of the scope and methodology and prior audit coverage related to the objective.

## Background

The DoD Office of Inspector General (DoD OIG) received three Defense Hotline complaints alleging SEWIP Block 3 experienced significant cost increases over original Engineering and Manufacturing Development (EMD) phase estimates.<sup>1</sup> Within the complaints, we reviewed seven allegations related to cost increases, under bidding, scope increases, and program baseline approval and determined that:

- three of seven allegations were substantiated,
- two of seven allegations were partially substantiated, and
- two of seven allegations were not substantiated.

See Appendix B for a detailed description of each allegation and whether it was substantiated. We address the primary allegation of cost increases over original EMD phase estimates in the body of our report.

## **SEWIP**

The Program Executive Office Integrated Warfare System (PEO IWS) manages surface ship and submarine combat technologies and systems. The Program Executive Office Integrated Warfare Systems Above Water Sensors (PEO IWS 2.0) reports to PEO IWS and manages the \$5.7 billion SEWIP procurement. According to an Assistant Secretary of the Navy (Research, Development, and Acquisition) official, the Principal Military Deputy, Assistant Secretary of the Navy (Research, Development, and Acquisition) is the milestone decision authority for SEWIP Block 3. The milestone decision authority has the overall responsibility for the program. SEWIP is an upgrade to the AN/SLQ-32 electronic warfare system (AN/SLQ-32). The AN/SLQ-32, introduced in the late 1970s, provides early detection, signal analysis, threat warning, and protection from anti-ship

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<sup>1</sup> The EMD phase is to develop, build, and test a product to verify that all operational requirements have been met, and to support production or deployment decisions.

missiles. PEO IWS 2.0 is modernizing the AN/SLQ-32 with four incremental upgrades, Blocks 1 through 4. The Department of the Navy (Navy) designated SEWIP Blocks 1, 2, and 3 as Acquisition Category II programs.<sup>2</sup> SEWIP Block 4 is a future planned upgrade. Table 1 shows the SEWIP Blocks, acquisition phase, and capability.

*Table 1. SEWIP Acquisition Phase and Capabilities*

SEWIP Blocks	Acquisition Phase	SEWIP Capability
Block 1	Full-Rate Production*	Electronic Warfare
Block 2	Full-Rate Production	Electronic Support
Block 3	EMD	Electronic Attack
Block 4	N/A	Advanced Electro-optic and Infrared

\* Full rate production is the final production when the system, supporting material, and services for a program are delivered to the users.

### **SEWIP Block 3**

According to Northrop Grumman officials, SEWIP Block 3 is a state-of-the-art shipboard electronics development effort. SEWIP Block 3 is intended to provide an improved electronic attack capability. Electronic attack neutralizes anti-access systems; suppresses adversarial integrated air defense systems; denies adversarial battlespace awareness sensors; degrades adversarial offensive capabilities; and denies effective adversarial command, control, and communications. See the following figure for a picture of the SEWIP Block 3.

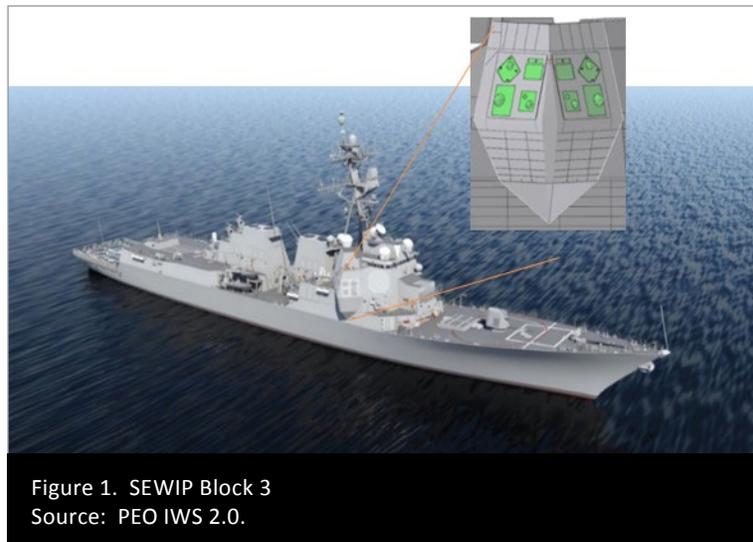


Figure 1. SEWIP Block 3  
Source: PEO IWS 2.0.

<sup>2</sup> Acquisition Category II programs are major systems that are estimated to require a total procurement between \$835 million and \$2.79 billion.

## **SEWIP Block 3 Contract**

The Naval Sea Systems Command (NAVSEA) provides contracting support for PEO IWS programs, including SEWIP. On February 12, 2015, NAVSEA awarded contract N00024-15-C-5319 with cost and fixed-price line items to Northrop Grumman for SEWIP Block 3. The contract required Northrop Grumman to complete the preliminary design and included options for EMD, low-rate initial production (initial production), long lead-time materials, and engineering services.<sup>3</sup> The contract has a period of performance through September 30, 2020.

NAVSEA established the option for EMD as a cost-plus-incentive-fee line item. Federal guidance states that a cost-plus-incentive-fee contract is a cost-reimbursement contract.<sup>4</sup> Cost-reimbursement contracts are used when circumstances do not allow the agency to sufficiently define its requirements or uncertainties involved in contract performance do not permit costs to be estimated with sufficient accuracy.<sup>5</sup> Cost-plus-incentive-fee contracts specify a target cost, a target fee, minimum and maximum fees, and a fee adjustment formula and are appropriate for development and test programs when a cost-reimbursement contract is necessary and a target cost and a fee adjustment formula can be negotiated to motivate the contractor to manage effectively.<sup>6</sup> As of July 5, 2017, the total contract-funded amount for the EMD phase was \$123.9 million.

## **Review of Internal Controls**

(~~FOUO~~) 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.<sup>7</sup> We identified internal control weaknesses for SEWIP Block 3 costs. Specifically, PEO IWS 2.0 officials had NAVSEA award the contract based on Northrop Grumman's technical proposal that ultimately contained [REDACTED]. Additionally, PEO IWS 2.0 officials did not approve an EMD phase cost baseline estimate. We will provide a copy of the report to the senior official responsible for internal controls in the Navy.

<sup>3</sup> Low-rate initial production is the initial production of a system when a minimum quantity is produced for testing. Long lead-time materials are components of a system for which the times to design and fabricate are the longest, and may require an early commitment of funds to meet the earliest possible date of system completion.

<sup>4</sup> Federal Acquisition Regulation, Subpart 16.304, "Cost-Plus-Incentive-Fee Contracts."

<sup>5</sup> Federal Acquisition Regulation, Subpart 16.301-2, "Cost-Reimbursement Contracts Application."

<sup>6</sup> Federal Acquisition Regulation, Subpart 16.405-1, "Cost-Plus-Incentive-Fee Contracts."

<sup>7</sup> DoD Instruction 5010.40, "Managers' Internal Control Program Procedures," May 30, 2013.

## Finding

### Cost of SEWIP Block 3 Increased Significantly

(FOUO) SEWIP Block 3 experienced significant cost increases. Specifically, between August 2014 and March 2017, Northrop Grumman's original SEWIP Block 3 proposed cost estimate significantly increased from [REDACTED] to potentially [REDACTED] for the EMD phase. The cost increases occurred because PEO IWS 2.0 officials had NAVSEA award the contract based on Northrop Grumman's technical proposal that ultimately contained [REDACTED]. Additionally, PEO IWS 2.0 officials did not approve an EMD phase cost baseline estimate. As a result, PEO IWS 2.0 officials may pay up to [REDACTED] more than the original estimated cost to complete fewer deliverables than agreed to in the original contract during the EMD phase.<sup>8</sup> Additionally, PEO IWS 2.0 officials may complete the EMD phase at least [REDACTED] behind schedule and may complete initial production later than planned. Finally, PEO IWS 2.0 officials could incur a program deviation by exceeding the Acquisition Program Baseline (APB) maximum research, development, test, and evaluation cost of [REDACTED], which could result in the Navy requesting additional funds to provide the SEWIP Block 3 improved electronic attack capability.<sup>9</sup>

### EMD Phase Cost Increases

(FOUO) SEWIP Block 3 experienced significant cost increases. Specifically, between August 2014 and March 2017, Northrop Grumman's original SEWIP Block 3 proposed cost estimate significantly increased from [REDACTED] to potentially [REDACTED] for the EMD phase. In February 2013, NAVSEA issued a competitive solicitation for SEWIP Block 3. In August 2014, NAVSEA received final contractor proposals. Northrop Grumman proposed a total cost plus fee of [REDACTED] to complete the EMD phase. The Navy determined that Northrop Grumman's system was [REDACTED]. NAVSEA awarded Northrop Grumman a contract including a target cost plus fee of \$91.7 million to complete the SEWIP Block 3 EMD phase. Northrop Grumman was required to engineer, design, and develop SEWIP Block 3 and produce, test, and deliver two Engineering Development Models (models).

<sup>8</sup> A deliverable is any item developed by the contractor and delivered as part of the contract.

<sup>9</sup> The APB documents the performance requirements, schedules, and program cost funding and estimates.

(FOUO) The models may be used for developmental and operational testing to demonstrate performance, and to finalize proposed production specifications and drawings. Northrop Grumman was required to:

- develop, integrate, and qualify the models for environmental qualification compliance that will validate the system meets environmental requirements;
- plan and conduct a maintainability demonstration that will verify compliance with system maintainability requirements. The demonstration also serves as validation of planned maintenance;
- develop and implement measures to protect the models' critical information and technology that will protect against the unplanned loss of SEWIP Block 3 systems; and
- configure one model for a large radar cross section. According to PEO IWS officials, a radar cross section is a measure of how detectable an object is by radar, which is affected by several of the object's factors, such as size, material, and the radar angle. An object with a large radar cross section, such as an aircraft carrier, has a high radar detection return due to its design.

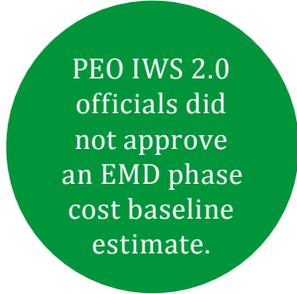
(FOUO) Beginning in December 2015, Northrop Grumman informed PEO IWS 2.0 and NAVSEA officials that it would not be able to complete the EMD phase for the original target cost. Between December 2015 and March 2017, Northrop Grumman informed PEO IWS 2.0 and NAVSEA officials several times that the cost estimates for the EMD phase increased. On March 24, 2017, Northrop Grumman proposed [REDACTED] to complete the revised EMD phase.

## **(FOUO) Technical Proposal [REDACTED] and EMD Phase Cost Baseline Estimate Not Approved**

(FOUO) PEO IWS 2.0 officials had NAVSEA award the contract based on Northrop Grumman's technical proposal that ultimately contained [REDACTED]. More specifically, beginning in December 2015, Northrop Grumman officials presented to the Navy that costs increased because its technical proposal included [REDACTED]. According to a Northrop Grumman presentation, the original technical proposal [REDACTED]. Northrop Grumman provided PEO IWS 2.0 a [REDACTED] in the original technical proposal to justify cost increases over original estimates. For example, Northrop Grumman [REDACTED] [REDACTED] in its technical proposal, which [REDACTED] to the original cost estimate.

(FOUO) Additionally, Northrop Grumman's technical proposal included [REDACTED] Northrop Grumman's technical proposal indicated that Northrop Grumman would [REDACTED] developed during the [REDACTED] which is a Navy program that [REDACTED] costs increased in several instances because [REDACTED]. According to Northrop Grumman officials, [REDACTED] Northrop Grumman provided PEO IWS 2.0 a [REDACTED] that were [REDACTED]. For example, Northrop Grumman proposed to use an [REDACTED] Northrop Grumman [REDACTED]. However, Northrop Grumman informed PEO IWS 2.0 officials that the [REDACTED] Northrop Grumman explained that it relied heavily on the [REDACTED] for the SEWIP Block 3 proposal but additional effort was required to [REDACTED] to meet the SEWIP Block 3 program needs. Ultimately, the expected benefit from the [REDACTED] resulting in increased costs beyond what Northrop Grumman originally proposed.

Additionally, PEO IWS 2.0 officials did not approve an EMD phase cost baseline estimate. DoD guidance requires program managers to conduct an integrated baseline review (IBR) on contracts with earned value management requirements.<sup>10</sup> During an IBR, the DoD and contractor jointly assess risks and plans for completing the contract. A key element of the IBR is the mutual understanding of the cost baseline estimate. The DoD guidance presents the importance of maintaining cost baseline estimates throughout the acquisition cycle and explains that failure to meet baseline estimates indicates existing or future problems. The DoD guidance also indicates that deviations from the baseline identify areas of risk that require management attention. Addressing the risk areas increases the ability to successfully execute the project within cost. Government Accountability Office report, GAO-15-188, "Defense Acquisitions: Better Approach Needed to Account for Number, Cost, and Performance of Non-Major Programs," March 2, 2015, states that the lack of baseline cost data prevents the DoD from consistently measuring program performance.



PEO IWS 2.0 officials did not approve an EMD phase cost baseline estimate.

<sup>10</sup> Office of the Under Secretary of Defense (Acquisition, Technology and Logistics), "The Program Manager's Guide to the Integrated Baseline Review Process," June 4, 2003. Earned value management provides a disciplined, structured, objective, and quantitative method to integrate technical work scope, cost, and schedule objectives into a single cohesive contract baseline.

(FOUO) Between December 2015 and March 2017, Northrop Grumman presented several EMD phase cost estimates. According to a NAVSEA official, PEO IWS 2.0 officials never approved the EMD phase baselines because Northrop Grumman's cost estimates were consistently above the [REDACTED] target cost plus fee Northrop Grumman proposed at contract award. In December 2015, Northrop Grumman formally requested an over target baseline to [REDACTED]. An over target baseline is when the contractor cannot meet the original cost estimate and requests to establish a new cost baseline.

(FOUO) PEO IWS 2.0 officials did not approve the [REDACTED] over target baseline proposed by Northrop Grumman. PEO IWS 2.0 officials stated that it did not approve the over target baseline because Northrop Grumman did not provide sufficient data to justify the cost increase. PEO IWS 2.0 officials determined that rather than approve the increased costs, the baseline would be reviewed during the January 2016 IBR. During the January 2016 IBR, Northrop Grumman presented an increased EMD phase cost baseline estimate of [REDACTED]. PEO IWS 2.0 officials did not approve the baseline estimate and instead required Northrop Grumman to formally submit a new cost baseline estimate once all IBR action items were completed. According to PEO IWS 2.0 officials, Northrop Grumman provided insufficient data at the IBR to justify the cost baseline estimate of [REDACTED]. However, a PEO IWS 2.0 official explained that PEO IWS 2.0 continued to fund the cost increases without an approved baseline estimate because Northrop Grumman was meeting the technical requirements.

(FOUO) In March 2016, Northrop Grumman submitted an updated request for an over target baseline of [REDACTED]. NAVSEA requested additional information from Northrop Grumman to assist in approving the over target baseline. The information requested included circumstances that necessitated the need for an over target baseline, if Northrop Grumman anticipated going over schedule, and steps taken by Northrop Grumman to ensure the newly proposed cost baseline was realistic. Northrop Grumman officials stated that they complied with DoD requirements and provided sufficient data, including comprehensive cost data, to support an over target baseline. According to a NAVSEA official, Northrop Grumman did not adequately justify the cost increases and therefore, PEO IWS 2.0 and NAVSEA have not approved a cost baseline. Just 2 months later in May 2016, Northrop Grumman identified that the EMD phase cost estimate increased another [REDACTED] to a total of [REDACTED].

(FOUO)  
 In May 2016,  
 Northrop Grumman  
 identified that the  
 EMD phase cost estimate  
 increased another  
 [REDACTED] to a total of  
 [REDACTED] a cost  
 increase of [REDACTED]  
 over the original  
 estimate.

(FOUO) [REDACTED], a cost increase of [REDACTED] over the original estimate. According to a Northrop Grumman presentation, the cost increase was mainly because of [REDACTED]. PEO IWS 2.0 officials informed Northrop Grumman that [REDACTED] was not affordable. As a result, in May 2016, Northrop Grumman and PEO IWS 2.0 began revising the original EMD phase statement of work to control the cost increase. For example, Northrop Grumman is no longer required to produce, test, and deliver one model that includes the large radar cross section. Additionally, the environmental qualification testing and maintainability demonstrations on the model will be funded and completed at a later date and the development and implementation of measures to protect critical information and technology for foreign military sales will be deferred to a future contract.

(FOUO) Northrop Grumman estimated the cost reductions associated with the revised EMD phase to be [REDACTED], which resulted in a total completion cost of [REDACTED]. According to a PEO IWS 2.0 official, the cost estimate of approximately [REDACTED] to complete the revised EMD phase. Therefore, in December 2016, NAVSEA requested that Northrop Grumman submit an updated proposal formally detailing the costs to complete the revised EMD phase. In March 2017, Northrop Grumman submitted a revised proposal with a proposed cost of [REDACTED] to complete the revised EMD phase, an increase of [REDACTED] over the original Northrop Grumman proposed cost to complete fewer deliverables than agreed to in the original contract. According to Northrop Grumman officials, the additional cost increase was because [REDACTED]

(FOUO)  
In March 2017,  
Northrop Grumman  
submitted a revised  
proposal with a proposed cost  
of [REDACTED] to complete  
the revised EMD phase, an  
increase of [REDACTED]  
over the original  
Northrop Grumman  
proposed cost.

(FOUO) As of June 26, 2017, PEO IWS 2.0 officials stated that Northrop Grumman and PEO IWS 2.0 have not agreed on the total cost to complete the revised EMD phase and have not established an EMD phase cost baseline estimate measuring the performance and controlling costs for SEWIP Block 3. PEO IWS 2.0 officials stated that Northrop Grumman continuously provided [REDACTED]. NAVSEA officials anticipate issuing a contract modification signed by the NAVSEA contracting officer and the

(FOUO) Northrop Grumman contract representative that agrees to the restructured EMD phase and establishes an EMD phase cost baseline estimate. PEO IWS 2.0, with NAVSEA assistance, should finalize discussions with Northrop Grumman and, if appropriate, issue a contract modification agreeing to the restructured EMD phase. PEO IWS 2.0 should also establish an approved EMD phase cost baseline estimate to consistently measure the performance and control costs for SEWIP Block 3. Additionally, PEO IWS 2.0 should verify that Northrop Grumman meets the established EMD phase baseline estimate to minimize existing or future problems.

(FOUO) PEO IWS 2.0 documented in the Contractor Performance Assessment Reporting System (CPARS) [redacted] Federal guidance requires that past performance evaluations, including the contractor’s record of controlling costs, be reported in the CPARS, for future source selection.<sup>11</sup> CPARS is a system that collects and manages Government-wide assessment reports on a contractor’s performance and provides a record for a specific period of time. PEO IWS 2.0 rated Northrop Grumman as [redacted] Northrop Grumman acknowledged that the [redacted] PEO IWS 2.0 should continue to document Northrop Grumman’s contract performance, including Northrop Grumman’s [redacted], in CPARS to assist agencies in evaluating contractor past performance and awarding future contracts.

### Navy May Pay More and Obtain Less than Originally Planned at a Later Date

(FOUO) PEO IWS 2.0 officials may pay up to [redacted] more than the original estimated cost to complete fewer deliverables than agreed to in the original contract during the EMD phase. Northrop Grumman proposed it would cost [redacted] to complete fewer deliverables than originally agreed to on the EMD phase for SEWIP Block 3. According to the revised statement of work, Northrop Grumman would not

(FOUO)  
PEO IWS 2.0  
officials may pay  
up to [redacted]  
more than the original  
estimated cost to complete  
fewer deliverables than  
agreed to in the original  
contract during the  
EMD phase.

<sup>11</sup> Federal Acquisition Regulation, Subpart 42.15, “Contractor Performance Information.”

(FOUO) be [REDACTED]  
[REDACTED]  
[REDACTED].

### ***SEWIP Block 3 EMD Potentially Behind Schedule***

(FOUO) PEO IWS 2.0 officials may complete the EMD phase at least [REDACTED] behind schedule. Northrop Grumman was originally scheduled to deliver the first model in March 2018 and the second model in April 2018. Northrop Grumman proposed that revisions to the EMD phase would [REDACTED]  
[REDACTED].

Additionally, the EMD phase could be further impacted because of the partial stop work order. In September 2016, NAVSEA directed Northrop Grumman to stop work on portions of the EMD phase that PEO IWS 2.0 and Northrop Grumman were revising. For the next 10 months, NAVSEA extended the partial stop work order to give PEO IWS 2.0 and Northrop Grumman time to finalize revisions to the statement of work. The impact of the stop work order cannot be fully determined until PEO IWS 2.0 and Northrop Grumman agree on a revised statement of work. As of June 27, 2017, PEO IWS 2.0 and Northrop Grumman have not agreed on a revised statement of work and the partial stop work order remains in effect.

### ***SEWIP Block 3 Initial Production Potential Schedule Delays***

(FOUO) PEO IWS 2.0 officials may complete initial production later than planned. Northrop Grumman was originally scheduled to deliver the initial production units between third quarter FY 2019 and first quarter FY 2020.

Northrop Grumman notified NAVSEA that EMD phase revisions would adjust the final delivery of the initial production units. Northrop Grumman's unsolicited proposal revised the original schedule to deliver the initial production units between [REDACTED] and [REDACTED].

According to Northrop Grumman officials, [REDACTED]  
[REDACTED]  
[REDACTED]

For example, Northrop Grumman stated that [REDACTED]  
[REDACTED]  
[REDACTED]

Additionally, Northrop Grumman notified NAVSEA that initial production units could be



PEO IWS 2.0 officials may complete initial production later than planned.

(FOUO) delayed because of [REDACTED]. Northrop Grumman proposed that it needs [REDACTED]  
[REDACTED]

(FOUO) PEO IWS 2.0 officials stated that they will not consider changes to the initial production schedule. As of July 2017, PEO IWS 2.0 officials have not exercised the option for initial production long lead-time material purchases, which could delay delivery of the initial production unit until at least the [REDACTED]  
[REDACTED]. PEO IWS 2.0 officials stated that they do not agree with Northrop Grumman's proposed initial production schedule delays. These schedule delays may affect the Navy's [REDACTED].

### ***Navy Could Exceed the Acquisition Program Baseline Threshold***

(FOUO) PEO IWS 2.0 officials could incur a program deviation by exceeding the APB maximum research, development, test, and evaluation cost of [REDACTED], which could result in the Navy requesting additional funds to provide the SEWIP Block 3 improved electronic attack capability. In July 2014, the Principal Military Deputy, Assistant Secretary of the Navy (Research, Development, and Acquisition), approved the APB for SEWIP Block 3. The APB identified a research, development, test, and evaluation cost of [REDACTED] with a maximum cost of [REDACTED], allowing for an increase of [REDACTED]. However, Northrop Grumman estimated a potential [REDACTED] cost increase over the original proposed total cost plus fee of [REDACTED] for the EMD phase. PEO IWS 2.0 officials stated that they have the ability to control cost increases by managing research, development, test, and evaluation areas.

DoD guidance states that a program deviation occurs when the program manager believes current cost estimates will exceed the APB maximum cost set by the program office.<sup>12</sup> Navy guidance requires program managers to immediately report program deviations from an approved APB to the milestone decision authority.<sup>13</sup> PEO IWS 2.0 stated that it does not expect to experience a deviation because it is currently executing within its independent government estimate for research, development, test, and evaluation costs. PEO IWS 2.0 should continue to monitor actual research, development, test, and evaluation costs and report to the Principal Military Deputy, Assistant Secretary of the Navy (Research, Development, and Acquisition), if PEO IWS 2.0 officials anticipate a program deviation requiring an APB revision.

<sup>12</sup> "Defense Acquisition Guidebook," September 16, 2013.

<sup>13</sup> Secretary of the Navy Instruction 5000.2E, "Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System," September 1, 2011.

## Management Actions

On August 31, 2017, NAVSEA exercised the option to purchase long lead-time materials for initial production. Additionally, after the issuance of the draft report, NAVSEA issued a contract modification that partially terminated EMD phase items on September 29, 2017. The partial termination replaced the stop work order and eliminated a number of deliverables, including the large radar cross section, environmental qualification testing, maintainability demonstrations, and implementation of measures to protect critical information and technology for foreign military sales.

## Management Comments on the Finding and Our Response

### *Naval Sea Systems Command Comments*

The Commander, NAVSEA, responding for the Program Executive Officer, PEO IWS, provided comments on the finding. According to the Commander:

- (FOUO) PEO IWS recommended replacing [REDACTED] with the current most likely estimate at completion of [REDACTED]. The Commander stated that the [REDACTED] estimate includes additional scope and assumptions that were not contained in the original contract and were never incorporated into the contract. PEO IWS recommended using the [REDACTED] estimate at completion, reducing the percentage cost growth from [REDACTED] to [REDACTED].
- PEO IWS recommended clarifying that the maximum cost refers to the research, development, test, and evaluation cost. Additionally, PEO IWS recommended clarifying that the SEWIP Block 3 has been executing within its independent government estimate for research, development, test, and evaluation costs and is not expected to experience a deviation.
- (FOUO) PEO IWS recommended separating the [REDACTED] and the EMD phase cost baseline estimate discussions for clarification. The Commander stated that the [REDACTED] were the cause of the cost increases, not the fact that an EMD phase cost baseline was not approved. The Commander stated that the approved baseline would have formally documented the cost base for earned value reporting but would not have altered Northrop Grumman's estimate at completion. PEO IWS recommended clarifying that the EMD phase cost baseline was never formally established because Northrop Grumman did not provide sufficient data or justification to support its cost growth.

- PEO IWS recommended removing that the EMD phase could be further behind schedule because of the partial stop work order. PEO IWS stated there is no rationale to support that the stop work order would cause additional EMD schedule delays.

The Commander, NAVSEA, responding for the Program Executive Officer, PEO IWS provided clarification on several statements in the report. Specifically PEO IWS recommended that we revise the report to:

- clarify that NAVSEA, with assistance from PEO IWS 2.0 officials, awarded the contract;
- include a timeline of events that expands on the specific internal control weaknesses;
- clarify that NAVSEA provides contracting support for PEO IWS programs, including SEWIP;
- clarify that the deferred measures to protect critical information and technology are related to foreign military sales;
- clarify that CPARS is the mechanism that the Government uses to input information about contractor performance;
- clarify that the initial production proposal was unsolicited; and
- account for the fact that the contract option for long lead-time materials was exercised on August 31, 2017, and supports delivery of an on-time initial production unit in accordance with contract terms.

### *Our Response*

We revised the report for additional clarity based on comments provided by the Commander, NAVSEA. However, we did not make the following adjustments.

- (FOUO) PEO IWS recommended replacing [REDACTED] with the current most likely estimate at completion of [REDACTED]. On March 24, 2017, Northrop Grumman proposed [REDACTED] to complete the revised EMD phase. The Commander, NAVSEA, stated that PEO IWS 2.0 plans to establish an EMD phase cost baseline by December 28, 2017. PEO IWS 2.0 and Northrop Grumman have not agreed on the total cost to complete the revised EMD phase and have not established an EMD phase cost baseline estimate measuring the performance and controlling costs for SEWIP Block 3. Until the final cost baseline is established in December 2017, PEO IWS 2.0 officials may pay up to [REDACTED] more than the original estimated cost to complete fewer deliverables than agreed to in the original contract during the EMD phase as provided in the most recent unsolicited Northrop Grumman proposal.

- ~~(FOUO)~~ The Commander stated that the [REDACTED] were the cause of the cost increase, not the fact that an EMD phase cost baseline was not approved. The Commander also stated that the approved baseline would have formally documented the cost base for earned value reporting but would not have altered Northrop Grumman's estimate at completion. However, DoD guidance explains that failure to meet baseline estimates indicates existing or future problems. The DoD guidance also states that deviations from the baseline identify areas of risk that require management attention. Addressing the risk areas increases the ability to successfully execute the project within cost. Additionally, PEO IWS recommended clarifying that the EMD phase cost baseline was never formally established because Northrop Grumman did not provide sufficient data or justification to support its cost growth. The report includes several statements that indicate Northrop Grumman did not adequately justify the cost increases and therefore, PEO IWS 2.0 and NAVSEA have not approved a cost baseline.
- PEO IWS recommended including a timeline of events to expand on the specific internal control weaknesses. The items PEO IWS recommended adding to the report to clarify the internal control weakness are already incorporated throughout the report. For example, the report identifies that NAVSEA received the final contractor proposals in August 2014, NAVSEA awarded the contract in February 2015, and the EMD IBR was held in January 2016.
- ~~(FOUO)~~ PEO IWS recommended clarifying that the contract option for long lead-time materials was exercised on August 31, 2017, and supports delivery of an on-time initial production unit in accordance with contract terms. We incorporated that the long lead-time materials contract option was exercised on August 31, 2017. However, the exercise of long lead-time materials on August 31, 2017, could still delay delivery of the initial production unit until at least the [REDACTED] because Northrop Grumman proposed that it needs [REDACTED]  
[REDACTED]  
[REDACTED] The earliest delivery date for the initial production units would be [REDACTED], which is still later than the original scheduled delivery dates of third quarter FY 2019 and first quarter FY 2020.

## Recommendations

### Recommendation 1

We recommend that the Program Executive Officer, Program Executive Office Integrated Warfare System:

- a. **Finalize discussions with Northrop Grumman and, if appropriate, issue a contract modification, with Naval Sea Systems Command assistance, agreeing to the restructured Engineering and Manufacturing Development phase.**

#### *Naval Sea Systems Command Comments*

The Commander, NAVSEA, responding for the Program Executive Officer, PEO IWS, agreed in principle with our recommendation and stated that Northrop Grumman and the Government were unable to reach a bilateral agreement for the EMD phase contract modification. According to the Commander, the Government issued a partial termination of the EMD phase on September 29, 2017, that restructured the EMD phase.

- b. **Establish an approved Engineering and Manufacturing Development phase cost baseline estimate to consistently measure and control costs for Surface Electronic Warfare Improvement Program Block 3.**

#### *Naval Sea Systems Command Comments*

The Commander, NAVSEA, responding for the Program Executive Officer, PEO IWS, agreed with our recommendation and stated that PEO IWS 2.0 plans to establish an EMD phase cost baseline within 90 days after the execution of the partial termination of the EMD phase. According to the Commander, the target completion date is December 28, 2017.

- c. **Verify that Northrop Grumman adequately meets the established Engineering and Manufacturing Development phase baseline estimate to minimize existing or future problems.**

#### *Naval Sea Systems Command Comments*

The Commander, NAVSEA, responding for the Program Executive Officer, PEO IWS, agreed with our recommendation and stated that after the EMD cost baseline is established and approved, PEO IWS will continue to review earned value management data and cost reports on a monthly basis and continue to work with the Defense Contract Management Agency and the Defense Contract Audit Agency to monitor contract performance. According to the Commander, the target completion date is December 28, 2017.

- d. **(FOUO) Continue to document Northrop Grumman's contract performance, including Northrop Grumman's [REDACTED], in the Contractor Performance Assessment Reporting System to assist agencies in evaluating contractor past performance and awarding future contracts.**

*Naval Sea Systems Command Comments*

The Commander, NAVSEA, responding for the Program Executive Officer, PEO IWS, agreed with our recommendation and stated that PEO IWS will continue to document Northrop Grumman's performance in CPARS on an annual basis. According to the Commander, PEO IWS submitted the second annual CPARS report on September 7, 2017.

- e. **Continue to monitor actual research, development, test, and evaluation costs and report to the Principal Military Deputy, Assistant Secretary of the Navy (Research, Development, and Acquisition), if the Program Executive Office Integrated Warfare Systems Above Water Sensors officials anticipate a program deviation requiring an Acquisition Program Baseline revision.**

*Naval Sea Systems Command Comments*

The Commander, NAVSEA, responding for the Program Executive Officer, PEO IWS, agreed in principle with our recommendation and stated that PEO IWS reviews expenditures on a monthly basis across the program and that costs are reported to the Principal Military Deputy, Assistant Secretary of the Navy (Research, Development, and Acquisition), at least quarterly. The Commander also commented that the recommendation suggests that PEO IWS does not currently monitor costs. According to the Commander, this action was completed on September 20, 2017.

*Our Response*

The Commander, NAVSEA, responding for the Program Executive Officer, PEO IWS, addressed the specifics of the recommendations. We clarified Recommendation 1.e to include continuous monitoring. We consider Recommendations 1.a, 1.d, and 1.e closed. We obtained documentation from PEO IWS 2.0 to verify that:

- NAVSEA issued the partial termination of the EMD phase on September 29, 2017;
- **(FOUO)** PEO IWS documented Northrop Grumman's performance within CPARS on September 7, 2017, that documented Northrop Grumman's [REDACTED] performance; and

- PEO IWS reported research, development, test, and evaluation costs to the Principal Military Deputy, Assistant Secretary of the Navy (Research, Development, and Acquisition), on September 20, 2017.

We consider Recommendations 1.b and 1.c resolved and open. We will close Recommendation 1.b when PEO IWS demonstrates that it established a SEWIP Block 3 EMD phase cost baseline to measure and control costs, and Recommendation 1.c when PEO IWS demonstrates that it reviewed earned value management data and cost reports on a monthly basis to monitor contract performance.

## Appendix A

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### Scope and Methodology

We conducted this performance audit from January 2017 through September 2017 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our finding and conclusion based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our finding and conclusion based on our audit objective.

We met with the following organizations and identified their roles and responsibilities related to SEWIP Block 3 to determine whether SEWIP Block 3 experienced significant cost increases over original estimates.

- Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics
- Assistant Secretary of the Navy for Research, Development, and Acquisition
- PEO IWS 2.0
- NAVSEA
- Northrop Grumman

We obtained and reviewed acquisition and contract documentation from June 2009 through June 2017 provided by PEO IWS 2.0, NAVSEA, and Northrop Grumman. Specifically, we reviewed documentation provided by PEO IWS 2.0 and NAVSEA including the single acquisition management plan, acquisition decision memorandum, capabilities development document, APB, IBR documentation, solicitations, Northrop Grumman proposals, business clearance memoranda, source selection documentation, the contract and contract modifications, statements of work, and limitation of funds memoranda. We reviewed documentation provided by Northrop Grumman including original and updated contract proposals, contract performance reports, estimates at completion, over target baseline requests, and invoices.

We analyzed NAVSEA's contract documentation to determine whether the Navy followed Federal and DoD guidance when awarding the SEWIP Block 3 contract. We reviewed Northrop Grumman's proposals received in response to the solicitation for SEWIP Block 3. We analyzed updated versions of the statement of work to identify the changes in Northrop Grumman's requirements. Additionally, we compared the APB to DoD and Navy guidance to determine whether a potential program deviation occurred.

We analyzed Northrop Grumman's documentation to determine if SEWIP Block 3 experienced significant cost increases over original estimates. We reviewed contract performance reports, estimates at completion, and over target baseline requests to identify cost increases over original estimates. We analyzed Northrop Grumman's original and updated proposals to identify justification for cost increases. We also provided portions of the discussion draft report to Northrop Grumman officials, considered their comments, and made changes to the report where appropriate.

We reviewed the following Federal, DoD, and Department of the Navy guidance:

- Federal Acquisition Regulation Part 15, "Contracting by Negotiation," Subpart 15.1, "Source Selection Processes and Techniques"
- Federal Acquisition Regulation Part 15, "Contracting by Negotiation," Subpart 15.4, "Contract Pricing," 15.404-1, "Proposal Analysis Techniques"
- Federal Acquisition Regulation Part 42, "Contract Administration and Audit Services," Subpart 42.15, "Contractor Performance Information"
- Office of the Under Secretary of Defense (Acquisition, Technology, and Logistics), "The Program Manager's Guide to the Integrated Baseline Review Process," June 4, 2003
- DoD Instruction 5000.02, "Operation of the Defense Acquisition System," January 7, 2015
- Defense Acquisition University – Acquisition Community Connection, "Defense Acquisition Guidebook," September 16, 2013
- Secretary of the Navy Instruction 5000.2E, "Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System," September 1, 2011

## Use of Computer-Processed Data

We did not rely on computer-processed data to perform this audit.

## Prior Coverage

During the last 5 years, the DoD OIG issued one report discussing SEWIP. Unrestricted DoD OIG reports can be accessed at <http://www.dodig.mil/reports>.

### **DoD OIG**

(~~FOUO~~) Report No. DODIG-2017-063, "Surface Electronic Warfare Improvement Program [REDACTED]," March 13, 2017.

The audit determined whether the Navy effectively developed and managed capabilities for SEWIP. The final report is classified.

## Appendix B

### SEWIP Block 3 Defense Hotline Allegations

The DoD OIG received three Defense Hotline complaints that made seven SEWIP Block 3 allegations. Table 2 details the date, allegation, and whether the allegations were substantiated, partially substantiated, or not substantiated.

(FOUO) Table 2. SEWIP Block 3 Defense Hotline Allegations

(FOUO) Date	Allegation	Substantiation
04/15/16	(FOUO) Northrop Grumman revealed a more than [REDACTED] increase in baseline estimates during the January IBR. Northrop Grumman understated the new baseline and significant increase in the EMD phase is anticipated.	(FOUO) <b>Substantiated.</b> In January 2016, Northrop Grumman and PEO IWS 2.0 officials held an IBR. Northrop Grumman presented an EMD phase cost baseline estimate of [REDACTED], which was [REDACTED] more than the original proposed cost of [REDACTED]. By March 2017, that estimate increased to [REDACTED].
	(FOUO) Northrop Grumman [REDACTED] this program with a confidence to execute within budget and schedule factor of less than [REDACTED].	(FOUO) <b>Partially Substantiated.</b> We identified Northrop Grumman [REDACTED] when submitting its technical proposal to NAVSEA because it did [REDACTED]. We could not determine whether Northrop Grumman [REDACTED] confident that it could execute the requirements within its proposed budget and schedule.
	The new baseline is pending Navy Program Management Office approval.	<b>Substantiated.</b> PEO IWS 2.0 officials did not approve an EMD phase cost baseline estimate.
	The Navy Program Management Office issued a request for proposal in February 2016 with new requirements. The award of this new scope will mask the current overrun on the base program.	<b>Not Substantiated.</b> We did not identify additional requirements or work scope added to the EMD phase in February 2016 by PEO IWS 2.0 officials to mask the cost increase. (FOUO)

(FOUO) Table 2. SEWIP Block 3 Defense Hotline Allegations (cont'd)

(FOUO) Date	Allegation	Substantiation
06/09/16	(FOUO) Northrop Grumman reflected a cost increase of more than [REDACTED] over the contract value during the January 2016 IBR.	(FOUO) <b>Substantiated.</b> In January 2016, Northrop Grumman and PEO IWS 2.0 officials held an IBR. Northrop Grumman presented an EMD phase cost baseline estimate of [REDACTED] which was [REDACTED] more than the original proposed cost of [REDACTED].
	At the end of January 2016, the SEWIP Program Management Office issued a request for proposal to Northrop Grumman for additional work scope to attempt to mask the cost increase on the base EMD program.	<b>Not Substantiated.</b> We did not identify additional requirements or work scope added by PEO IWS 2.0 to the EMD phase at the end of January to mask the cost increase.
08/16/16	(FOUO) SEWIP just completed a comprehensive estimate at completion. The estimate at completion came to [REDACTED]. Northrop Grumman [REDACTED] estimate at completion to their customer. The current program baseline is \$90 million.	(FOUO) <b>Partially Substantiated.</b> In August 2016, Northrop Grumman reflected to PEO IWS 2.0 officials an estimate at completion of [REDACTED] the original proposed cost was [REDACTED]. However, we could not identify whether the actual estimate at completion was [REDACTED].  (FOUO)

# Management Comments

## Naval Sea Systems Command



DEPARTMENT OF THE NAVY  
NAVAL SEA SYSTEMS COMMAND  
1333 ISAAC HULL AVE SE  
WASHINGTON NAVY YARD DC 20376-0001

IN REPLY REFER TO  
7500  
Ser 00N/321  
5 Oct 17

From: Commander, Naval Sea Systems Command  
To: Department of Defense Inspector General

Subj: DEFENSE HOTLINE ALLEGATIONS ON THE SURFACE ELECTRONIC  
WARFARE IMPROVEMENT PROGRAM BLOCK 3 COSTS

Ref: Department of Defense Inspector Report Project No. D2017-D000AT-0069.000

Encl: (1) NAVSEA Responses to Recommendations in Subject DODIG Draft Report

1. Enclosure (1) contains NAVSEA's responses to the recommendations in the referenced audit report.

2. NAVSEA concurs in principle with recommendations 1 a. and 1 e. and concurs with recommendations 1 b. through 1 d.

2. For additional information, contact [REDACTED], [REDACTED] or [REDACTED].

  
JON E. NELSON  
By direction

Copy to:  
NAVINSGEN (N14)

## Naval Sea Systems Command (cont'd)

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NAVSEA RESPONSE  
TO  
DODIG (DRAFT) REPORT ON SEWIP BLOCK 3 COSTS  
(Project No. D2017-D000AT-0069.000)

**Finding:** Engineering and Manufacturing Development (EMD) Phase Cost Increases

The DoDIG found that SEWIP Block 3 “experienced significant cost increases.” The report states that “between August 2014 and March 2017 [the Contractor’s] original SEWIP Block 3 proposed cost estimate significantly increased from [REDACTED] to potentially [REDACTED] for the EMD phase.” PEO IWS recommends replacing [REDACTED] with the current most likely Estimate at Completion (EAC) [REDACTED]. The [REDACTED] estimate was provided by the Contractor at the request of PEO IWS 2.0 and includes additional scope and assumptions that were not contained in the original contract and were ultimately never incorporated into the contract. Due to those factors, [REDACTED] cannot be used to accurately measure cost growth for the scope of work reviewed during the audit. Using the EAC reduces the percentage cost growth from [REDACTED] to [REDACTED]. PEO IWS recommends making these updates throughout the report.

As part of this finding, the report states that the program could incur a program deviation by exceeding the Acquisition Program Baseline maximum cost. PEO IWS concurs with the statement in principle but recommends clarifying that the “maximum cost” refers to the “maximum RDT&E cost.” Additionally, PEO IWS recommends clarifying that, to date, SEWIP Block 3 has been executing within its Independent Government Estimate for RDT&E costs and is not expected to experience a deviation. PEO IWS recommends making these clarifications throughout the report.

**Finding:** Technical Proposal [REDACTED] and EMD Phase Cost Baseline Estimate Not Approved

The DoDIG found that PEO IWS “awarded the contract based on [the Contractor’s] technical proposal that ultimately contained [REDACTED] and did not approve an EMD phase cost baseline estimate.” PEO IWS recommends separating these findings for clarification. The [REDACTED] that underpinned the Contractor’s proposal were the cause of the cost increase, not the fact that an EMD phase cost baseline was not approved. An approved baseline would have formally documented the cost base for earned value reporting but would not have altered the contract’s target price or EAC. PEO IWS recommends clarifying that the EMD phase cost baseline was never formally established due to the Contractor not providing to provide sufficient data or justification to support their cost growth.

**Finding:** Navy May Pay More and Obtain Less than Originally Planned at a Later Date

The DoDIG found that the program revised the scope of the contract via a partial stop work order to stop work on portions of the EMD phase. The report states that “the EMD phase

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Enclosure (1)

## Naval Sea Systems Command (cont'd)

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could be further behind schedule because of the partial stop work order." PEO IWS recommends removing this sentence because there is no rationale that supports the assertion that the stop work order, which removed scope from the contract, would cause additional EMD schedule delays.

**Clarification:**

The report states that "PEO IWS 2.0 officials, with NAVSEA assistance, awarded the contract." Since NAVSEA, not PEO IWS 2.0, officially awards contracts, PEO IWS recommends updating the language to state that "NAVSEA, with assistance from PEO IWS 2.0 officials, awarded the contract." PEO IWS recommends making this update throughout the document.

**Clarification:**

The Internal Controls section, as written, implies that the program office did not attempt to implement any cost control mechanisms after contract award. PEO IWS recommends clarifying the following timeline of events to expand on the specific internal control weakness:

- Final proposals were delivered in August 2014
- Contract was awarded in February 2015
- Preliminary Design IBR was conducted in May 2015
- EMD Option was exercised in October 2015
- EMD IBR was conducted in January 2016 (within 180 days of option exercise in accordance with contract)
- To date, the EMD IBR has not been officially closed because the Contractor has not provided sufficient data to justify the cost increase to close out IBR actions and properly baseline the EMD phase (see recommendations 1.a, 1.b, and 1.c)

**Clarification:**

The report states that "the Naval Sea Systems Command (NAVSEA) provides contracting support for SEWIP." PEO IWS recommends updating the sentence to read "...the Naval Sea Systems Command (NAVSEA) provides contracting support for PEO IWS programs, including SEWIP."

**Clarification:**

When discussing the removal of scope, the report states that "measures to protect critical information and technology will be deferred to a future contract." PEO IWS recommends adding ""for foreign military sales" after "technology". Measures to protect critical information and technology are being implanted in the system during EMD and the deferred design work is only applicable to protection required for foreign military sales.

**Clarification:**

When discussing CPARs, PEO IWS recommends revising the statement "CPARS collects and manages assessment reports on contractor's performance and provides a record for a specific time period" to "CPARS is a repository for Government wide reports on contractor's

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Enclosure (1)

## Naval Sea Systems Command (cont'd)

performance and provides a record for a specific period of time". This clarifies that CPARS is the mechanism that the Government uses to input information about contractor performance.

**Clarification:**

The report states that the Contractor submitted a "proposal [that] revised the original schedule to deliver initial production units between [REDACTED] and the [REDACTED]. [REDACTED]." PEO IWS recommends adding the word "unsolicited" in front of proposal to correctly represent the nature of the proposal and clarify that this proposal has not been substantiated or recognized in the contract.

**Clarification:**

The report states that "as of July 2017 PEO IWS 2.0 officials have not exercised the option for initial production long lead-time material purchases which could delay delivery of the initial production unit until at least the [REDACTED]." PEO IWS recommends revising this statement to account for the fact that LLM contract option was exercised on 31 August 2017 and supports delivery of an on-time LRIP unit in accordance with the terms of the contract.

**Audit Recommendation 1.a:**

Finalize discussions with [the Contractor] and, if appropriate, issue a contract modification, with Naval Sea Systems Command assistance, agreeing to the restructured Engineering and Manufacturing Development phase.

**NAVSEA Response:**

**Concur in principle.** After months of discussions between the Contractor and Government, the parties were not able to reach an agreement regarding a bilateral EMD phase contract modification. Therefore, the Government issued a partial termination of EMD (CLIN 0101) to restructure the EMD phase in line with the partial stop work order.

**Action completed on 29 September 2017.**

**Audit Recommendation 1.b:**

Establish an approved Engineering and Manufacturing Development phase cost baseline estimate to consistently measure and control costs for Surface Electronic Warfare Improvement Program Block 3.

**NAVSEA Response:**

**Concur.** PEO IWS 2.0 plans to establish an EMD phase cost baseline during the closure of the EMD Integrated Baseline Review (IBR) which, per the contract, will take place within 90 days after the issue of the execution of the partial termination of EMD (CLIN0101).

**Target completion date is 28 December 2017.**

## Naval Sea Systems Command (cont'd)

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**Audit Recommendation 1.c:**

Verify that [the Contractor] adequately meets the established Engineering and Manufacturing Development phase baseline estimate to minimize existing or future problems.

**NAVSEA Response:**

**Concur.** PEO IWS recommends that the DoDIG consider combining recommendation b and c since they are closely linked. As part of the IBR closure, PEO IWS will review the adequacy of the assumptions underpinning the EMD phase cost baseline. After the EMD cost baseline is established and approved, PEO IWS will continue to review Earned Value Management (EVM) data and cost reports on a monthly basis and continue to work with DCMA and DCAA to monitor contractor performance.

**Target completion date is 28 December 2017.**

**Audit Recommendation 1.d:**

Continue to document [the Contractor's] contract performance, including [the Contractor's] [REDACTED], in the Contractor Performance Assessment Reporting System to assist agencies in evaluating contractor past performance and awarding future contracts.

**NAVSEA Response:**

**Concur.** PEO IWS will continue to document the Contractor's performance in CPARS on an annual basis.

**Action completed. Second annual report submitted on 07 September 2017.**

**Audit Recommendation 1.e:**

Monitor actual research, development, test, and evaluation costs and report to the Principal Military Deputy, Assistant Secretary of the Navy Research, Development, and Acquisition, if the Program Executive Office Integrated Warfare Systems Above Water Sensors officials anticipate a program deviation requiring an Acquisition Program Baseline revision.

**NAVSEA Response:**

**Concur in principle.** The recommendation as currently written inaccurately suggests that PEO IWS does not currently monitor costs. PEO IWS recommends adding the word "continue" at the beginning of the recommendation to accurately reflect that this effort is currently done. PEO IWS reviews expenditures on a monthly basis across the program and costs are reported to Principal Military Deputy, Assistant Secretary of the Navy Research, Development, and Acquisition at least quarterly via the RDAIS database.

**Action completed on 20 September 2017.**

## Acronyms and Abbreviations

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<b>APB</b>	Acquisition Program Baseline
<b>CPARS</b>	Contractor Performance Assessment Reporting System
<b>EMD</b>	Engineering and Manufacturing Development
<b>IBR</b>	Integrated Baseline Review
<b>InTop</b>	Integrated-Topside Science and Technology
<b>NAVSEA</b>	Naval Sea Systems Command
<b>PEO IWS</b>	Program Executive Office Integrated Warfare System
<b>PEO IWS 2.0</b>	Program Executive Office Integrated Warfare System Above Water Sensors
<b>SEWIP</b>	Surface Electronic Warfare Improvement Program



## **Whistleblower Protection**

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