ANAL STREET, ST



# FOR OFFICIAL USE ONLY

# INSPECTOR GENERAL

U.S. Department of Defense

MAY 15, 2015



Naval Air Systems Command Needs to Improve Management of Waiver Requests

#### INTEGRITY $\star$ EFFICIENCY $\star$ ACCOUNTABILITY $\star$ EXCELLENCE

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

# FOR OFFICIAL USE ONLY

#### INTEGRITY \* EFFICIENCY \* ACCOUNTABILITY \* EXCELLENCE

#### **Mission**

Our mission is to provide independent, relevant, and timely oversight of the Department of Defense that supports the warfighter; promotes accountability, integrity, and efficiency; advises the Secretary of Defense and Congress; and informs the public.

#### Vision

Our vision is to be a model oversight organization in the Federal Government by leading change, speaking truth, and promoting excellence—a diverse organization, working together as one professional team, recognized as leaders in our field.



For more information about whistleblower protection, please see the inside back cover.

#### FOR OFFICIAL USE ONLY



# \* HARMENT OF DEFENSE

# **Results in Brief**

Naval Air Systems Command Needs to Improve Management of Waiver Requests

#### May 15, 2015

# Objective

Our objective was to evaluate the Department of the Navy's overall management of waivers and deferrals from operational test requirements for Navy Systems. We evaluated the processes to justify, review, and approve requests for waiver of criteria to certify readiness for operational testing and deferral of operational testing requirements at the Naval Air Systems Command (NAVAIR). This report is the first in a series of reports that will evaluate the Navy's management of waivers and deferrals for weapons systems.

# **Findings**

NAVAIR program managers did not fully implement Navy policy to request waivers and to certify program readiness for initial operational test and evaluation (IOT&E) on the P-8A Poseidon aircraft, Distributed Targeting System, and E-2D Advanced Hawkeye aircraft programs. Specifically, program managers did not:

- request waivers for two programs that had not met all IOT&E certification criteria, and
- clearly document what was done to meet each certification criteria for a third program.

These conditions occurred because Navy policy did not clearly and concisely state program managers must request a waiver whenever a program did not meet all

#### Findings (cont'd)

criteria required to begin IOT&E. Because program managers did not request waivers, the program executive officer could not effectively consider program readiness for entering the IOT&E test phase. As a result, two NAVAIR programs entered and completed IOT&E with unresolved deficiencies affecting threat detection, maneuverability, information exchange, and reliability. These deficiencies diminished the systems' abilities to perform their missions.

Weapon system sponsors within the Office of the Chief of Naval Operations (CNO) did not designate characteristics most critical to providing an effective military capability as primary requirements when writing aircraft requirements documents. Additionally, the Joint Requirements Oversight Council (JROC) review and validation of those aircraft requirements documents did not result in focusing the primary requirements on the accomplishment of critical aircraft missions. These conditions occurred because the Joint Chiefs of Staff (JCS) guidance did not specifically require the sponsors and JROC to make sure systems requirements documents capture characteristics most critical to meeting mission requirements as primary requirements. As a result, weapon system sponsors concurred with the request for waivers without giving the JROC the opportunity to assess the effect of those waivers on the military usefulness of the systems. For example, on the P-8A Poseidon aircraft the sponsor granted a flight deficiency waiver that diminished mission capabilities for Anti-Submarine and Anti-Surface Warfare and Intelligence gathering. Additionally, because the requirements documents did not capture the critical system characteristics as primary requirements, program managers accepted production units with diminished mission effectiveness. For example, at the time of the FRP decision, the program manager for the P-8A Poseidon had accepted 13 aircraft for \$2.6 billion that could not fully perform primary missions.



# **Results in Brief**

Naval Air Systems Command Needs to Improve Management of Waiver Requests

# Recommendations

Among others, we recommend the Assistant Secretary of the Navy for Research, Development, and Acquisition and the Chief of Naval Operations update Navy policy to require program managers to request waivers if they do not meet all criteria required to certify readiness for IOT&E; and require weapon systems sponsors for acquisition programs of interest to the Joint Capability Board or the JROC, to certify to the JCS that approved waivers do not adversely impact primary system requirements or, if there is adverse impact that the system continues to have military value.

We recommend that JCS modify its guidance on writing and reviewing system requirements documents to require sponsors to include system characteristics most critical to mission effectiveness as primary requirements.

# Management Comments and Our Response

The Deputy Department of the Navy Test and Evaluation Executive responding for the Assistant Secretary of the Navy for Research, Development, and Acquisition and the Chief of Naval Operations, agreed with Recommendation A.1. The Deputy, responding for the Assistant Secretary of the Navy for Research, Development, and Acquisition, disagreed with Recommendation B.2, and his comments did not fully address the specifics of the recommendation. Therefore, we request that the Deputy reconsider his response to recommendation B.2 and provide additional comments. The Vice Chairman, Joint Chiefs of Staff agreed with Recommendation B.1 and no further comments are required. Please see the Recommendations Table on the next page

#### **Recommendations Table**

Management	Recommendations Requiring Comment	No Additional Comments Required
Vice Chairman, Joint Chiefs of Staff		B.1
Assistant Secretary of the Navy for Research, Development, and Acquisition	B.2	A.1
Chief of Naval Operations, Director, Innovation, Test and Evaluation, and Technology,		A.1

Please provide Management Comments by June 15, 2015.



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

May 15, 2015

#### MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION, TECHNOLOGY, AND LOGISTICS VICE CHAIRMAN OF THE JOINT CHIEFS OF STAFF DIRECTOR, OPERATIONAL TEST AND EVALUATION NAVAL INSPECTOR GENERAL

SUBJECT: Naval Air Systems Command Needs to Improve Management of Waiver Requests (Report No. DODIG-2015-122)

We are providing this report for review and comment. We determined that the Naval Air Systems Command needs to improve management of waiver requests to allow the program executive officer to better determine program readiness for entering testing to support the full-rate production decision. Also, weapon system sponsors did not fully define the aircraft system characteristics most critical for providing an effective military capability and designate them as primary requirements when writing system requirements documents. Because the requirements documents did not capture the most critical system characteristics as primary requirements, program managers accepted production units with diminished mission effectiveness. For example, at the time of the full-rate production decision, the program manager for the P-8A Poseidon had accepted 13 aircraft for \$2.6 billion that could not fully perform primary missions for Anti-Submarine and Anti-Surface Warfare and Intelligence gathering. We conducted this audit in accordance with generally accepted government auditing standards.

We considered management comments on a draft of this report when preparing the final report. DoD Instruction 7650.03 requires that recommendations be resolved promptly. Comments from the Vice Chairman, Joint Chiefs of Staff addressed the specifics of the recommendation. Comments from the Deputy Department of the Navy Test and Evaluation Executive, responding for the Assistant Secretary of the Navy for Research, Development, and Acquisition and the Chief of Naval Operations agreed with Recommendation A.1 but disagreed with Recommendation B.2. Therefore, we request additional comments on Recommendation B.2 by June 15, 2015.

Please provide comments that state whether you agree or disagree with the findings and recommendations. If you agree with our recommendations, describe what actions you have taken or plan to take to accomplish the recommendations and include the completion dates of your actions. If you disagree with the recommendations or any part of them, please give specific reasons why you disagree and propose alternative action if that is appropriate. You should also comment on the internal control weaknesses discussed in the report.

FOR OFFICIAL USE ONLY

Please send a PDF file containing your comments to <u>audapi@dodig.mil</u>. Copies of your comments must have the actual signature of the authorizing official for your organization. We cannot accept the /Signed/ symbol in place of the actual signature. If you arrange to send classified comments electronically, you must send them over the SECRET Internet Protocol Router Network (SIPRNET).

Please direct questions to me at (703) 604-<sup>(b)(6)</sup> (DSN 664-<sup>(b)(6)</sup>).

Jacqueline L. Wicecarver

Assistant Inspector General Acquisition, Parts, and Inventory

# Contents

Introduction	1
Objective	
Navy Policy on Waivers and Deferrals	1
Secretary of the Navy Instruction 5000.2E	1
Secretary of the Navy Manual M-5000.2	2
Naval Air Systems Command	3
Background on Programs Selected for Review	3
Review of Internal Controls	5
Finding A. Naval Air Systems Command Needs	
to Improve Management of Waiver Requests	6
Program Managers Need to Request Waivers for All Certification Requirements Not Met	6
Operational Test Readiness Review Briefing Charts Need to Address Certification Criteria	10
Navy Policy and Guidance Needed Clarification	11
Program Executive Officer Lacked Important Information for Making Informed Decisions	12
Management Comments on the Finding and Our Response	13
Recommendations, Management Comments, and Our Response	_ 14
Finding B. Requirements Documents Must Identify System Characteristics Most Critical to Providing	
an Effective Military Capability	16
Weapon Sponsors Did Not Fully Define Critical System Characteristics as Primary Requirements	16
Review of Requirements Documents Needs to Focus on Characteristics Most Critical to Accomplish Missions	18
Requirements Documents Need Improvement for Better Visibility of Waiver Approvals and Mission Effectiveness Determinations	19

# Contents (cont'd)

Management Action Started During the Audit	22
Management Comments on the Finding and Our Response	22
Recommendations, Management Comments, and Our Response	24

## **Appendix**

•••	
Scope and Methodology	28
Selection of Programs to Review	29
Use of Computer-Processed Data	29
Prior Coverage	29

# **Management Comments**

Acronyms and Abbreviations	41
Assistant Secretary of the Navy for Research, Development and Acquisition Comments	31
Joint Chiefs of Staff Comments	30



# Introduction

#### **Objective**

Our objective was to evaluate the Department of the Navy's overall management of waivers and deferrals from operational test requirements for Navy systems. We evaluated the processes to justify, review, and approve requests for waiver of criteria to certify readiness for operational testing and deferral of operational testing requirements within the Naval Air Systems Command (NAVAIR). We did not find problems with NAVAIR's management of deferral requests for the programs<sup>1</sup> we reviewed. This report is the first in a series of reports that will evaluate Navy management of waivers and deferrals for weapon systems. See the Appendix for a discussion of our scope and methodology and prior coverage related to the audit objectives.

## **Navy Policy on Waivers and Deferrals**

#### Secretary of the Navy Instruction 5000.2E

Secretary of the Navy Instruction (SECNAVINST) 5000.2E<sup>2</sup> establishes criteria to certify Navy systems as ready to enter into initial operational test and evaluation (IOT&E).<sup>3</sup> IOT&E precedes the full-rate production (final production) decision. The instruction requires the Systems Command commander, program executive officer (PEO), and program manager to conduct an operational test readiness review (OTRR) to certify system readiness to begin IOT&E.

An OTRR is a product and process assessment to make sure that a system can proceed into IOT&E with a high probability of successfully completing operational testing. Upon completing the OTRR, if the System Command commander, PEO, and program manager determine the system is ready to enter IOT&E, they must either certify to the:

- Commander, Operational Test and Evaluation Force that the system is ready for IOT&E, as required by the Test and Evaluation Master Plan (TEMP), with no waivers or deferrals requested, or
- Chief of Naval Operations (CNO) (N84), Director Innovation, Test and Evaluation, and Technology Requirements that the system is ready for IOT&E, with requests for waivers or deferrals.

<sup>&</sup>lt;sup>1</sup> Of the three programs we reviewed, only the program manager for the P-8A Poseidon had requested deferrals of operational test requirements.

<sup>&</sup>lt;sup>2</sup> Secretary of the Navy Instruction (SECNAVINST) 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.

<sup>&</sup>lt;sup>3</sup> Initial Operational Test and Evaluation is the dedicated operational test and evaluation conducted on production representative articles, to determine whether systems are operationally effective, and suitable to support a final production decision.

SECNAVINST 5000.2E also states that, when waiver or deferral requests are anticipated, the program manager must coordinate with the program sponsor; CNO (N84), Director, Innovation, Test, and Evaluation; and the Commander, Operational Test and Evaluation Force before the OTRR. Additionally, when the System Command commander, PEO, and program manager certify system readiness for IOT&E with waivers or deferrals, they must provide the program sponsor within the Office of the CNO an information copy of the certification. The program sponsor must then formally concur with the proposed waivers or deferrals. Concurrence with waivers and deferrals effects program execution as follows:

- **Waivers** are a deviation from the criteria identified for certifying IOT&E readiness. Waivers allow programs to start IOT&E without meeting one or more of the 20 criteria SECNAVINST 5000.2E requires to certify readiness to enter IOT&E. Waivers do not change or delay any system or testing requirements.
- **Deferrals** allow programs to delay the testing of requirements identified in the TEMP, moving testing requirements from IOT&E to a later follow-on test period.

Waiver and deferral approvals can result in more rapid delivery of capabilities to operating Navy Forces. However, the System Command commander, PEO, and program manager must fully evaluate the potential impacts waivers and deferrals have on the mission capability delivered. Waiver criteria to certify readiness for IOT&E or defer operational test requirements could result in premature final production decisions. This could create the need for the costly retrofit of fielded units to deliver operational performance that is less than required to fully meet the expected threat. CNO N84 staff stated that their "approval" of waivers and deferrals indicates that the program manager followed the OTRR process necessary to certify program readiness for IOT&E despite risks.

#### Secretary of the Navy Manual M-5000.2

Secretary of the Navy Manual, M-5000.2,<sup>4</sup> provides additional discretionary guidance relating to the Navy's management of waivers and deferrals.

<sup>&</sup>lt;sup>4</sup> Secretary of the Navy Manual M-5000.2, "Acquisition and Capabilities Guidebook," May 9, 2012, Section 4.6, "Certification of Readiness for Operational Testing."

## **Naval Air Systems Command**

NAVAIR provides support (people, processes, tools, training, mission facilities, and core technologies) to Naval Aviation PEOs and their assigned program managers to help them meet the cost, schedule, and performance requirements of their assigned acquisition programs. NAVAIR's support includes:

- research;
- system design and development;
- acquisition;
- test and evaluation;
- training facilities and equipment;
- repair and modifications; and
- in-service engineering and logistics support.

## **Background on Programs Selected for Review**

We identified three NAVAIR acquisition programs that received final production decisions from April 14, 2012, through April 14, 2014, the P-8A Poseidon aircraft, E-2D Advanced Hawkeye aircraft, and Distributed Targeting System (DTS). The following sections describe those programs.

#### P-8A Poseidon Aircraft

The P-8A Poseidon aircraft program is an Acquisition Category ID<sup>5</sup> major defense acquisition program that had its final production decision on January 3, 2014. The Navy designed the P-8A Poseidon to replace the aging P-3C Orion aircraft. Like the P-3C, the P-8A aircraft provides capabilities for three principal missions:

- anti-submarine warfare;
- anti-surface warfare; and
- intelligence, surveillance, and reconnaissance in maritime operations.

The Capability Production Document<sup>6</sup> (the system requirements document) states that the anti-submarine warfare mission, which detects, tracks, and destroys or neutralizes hostile submarines, was the primary reason the Navy invested in the P-8A aircraft. The anti-surface warfare mission provides maritime superiority

<sup>&</sup>lt;sup>5</sup> Acquisition category ID is a program for which the Under Secretary of Defense for Acquisition, Technology, and Logistics estimates eventual total expenditure for research, development, test, and evaluation of more than \$480 million in FY 2014 constant dollars or, for procurement, of more than \$2.79 billion in FY 2014 constant dollars.

<sup>&</sup>lt;sup>6</sup> "Capability Production Document for the United States Navy P-8A Poseidon Multi-Mission Maritime Aircraft (MMA)," Increment 1, June 22, 2009.

against surface vessels and a common sea surface picture. The intelligence, surveillance, and reconnaissance mission provides a flexible and responsive intelligence gathering capability in support of Joint, Naval, and National interests.

The Navy sought to expedite procuring and deploying the P-8A Poseidon because of concerns with airframe corrosion on the P-3C Orion. While P-3C Orion fatigue has remained a persistent risk, the Navy has inspection, repair, and modification efforts in place to sustain the P-3C Orion fleet until the P-8A Poseidon began replacing the P-3C Orion in 2013. As discussed in DODIG Report 2013-088,<sup>7</sup> the P-8A Poseidon had uncorrected system deficiencies that impacted the above mission capabilities entering IOT&E. However, Navy managers accepted the risk from diminished capabilities and allowed the program to enter into IOT&E, without having to fully correct the deficiencies until after the full-rate production decision.

#### E-2D Advanced Hawkeye Aircraft

The E-2D Advanced Hawkeye aircraft program is an Acquisition Category IC major defense acquisition program that had its final production decision on March 1, 2013. The E-2D aircraft is an all-weather, twin-engine, carrier-based, airborne command, control, and surveillance aircraft designed to extend task force defense boundaries. The aircraft's mission includes:

- advance warning of approaching enemy surface units and aircraft;
- guide interceptor or attack aircraft;
- area surveillance, intercept, and search and rescue;
- communications relay; and
- air traffic control.

The E-2D aircraft replaces the E-2C, multi-mission airborne early warning and airborne battle management command and control aircraft.

#### Distributed Targeting System

The DTS is an Acquisition Category III<sup>8</sup> program that had its final production decision on April 19, 2013. The DTS is designed to improve the attack accuracy using on-board processing of the F/A-18E/F Super Hornet aircraft. The DTS compares the geographic imagery of the ground below from aircraft sensors against reference imagery in a database at National Geospatial-Intelligence Agency. DTS generates a match based on similarities between the imageries to generate

<sup>&</sup>lt;sup>7</sup> (FOUG) Report No. DODIG-2013-088, "The Navy P-8A Poseidon Aircraft Needs Additional Critical Testing Before the Full-Rate Production Decision," June 10, 2013.

<sup>&</sup>lt;sup>8</sup> Acquisition Category III is an acquisition program for which the DoD Component Head estimates eventual total expenditure for research, development, test, and evaluation of less than \$185 million in FY 2014 constant dollars or, for procurement, of less than \$835 million in FY 2014 constant dollars.

targeting coordinates. This capability will better enable the F/A-18E/F aircraft to perform air controller, attack coordination, and reconnaissance missions and to conduct attacks on stationary land targets, such as mobile missile launchers.

#### **Review of Internal Controls**

DoD Instruction 5010.40, "Managers' Internal Control Program Procedures," May 30, 2013, 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. We identified internal control weaknesses in NAVAIR implementation of SECNAVINST 5000.2E policy for requesting waivers and certifying program readiness for IOT&E. We also identified internal control weaknesses in CNO and Joint Chiefs of Staff (JCS) procedures to identify, as primary system requirements, aircraft system characteristics most critical for effective military capability in system requirements documents. These control weaknesses allowed program sponsors to concur with the requests for waivers without a requirement to discuss with the JCS the effects those waivers would have on military utility.<sup>9</sup> We will provide a copy of the report to the senior official responsible for internal controls in the Navy.

<sup>&</sup>lt;sup>9</sup> A system designed for or possessing a number of useful or practical purposes rather than a single, specialized one.

# **Finding A**

# Naval Air Systems Command Needs to Improve Management of Waiver Requests

NAVAIR program managers did not fully implement Navy policy to request waivers and certify program readiness for IOT&E on the P-8A aircraft, DTS, and E-2D aircraft programs. Specifically, program managers did not:

- request waivers for the P-8A and DTS when those programs did not meet all IOT&E certification criteria; and
- clearly document what was done to meet each of the certification criteria for the E-2D.

These conditions occurred because Navy policy did not clearly and concisely state that program managers must request a waiver whenever the program did not meet all criteria required to enter IOT&E. Because program managers did not request waivers, the PEO could not effectively consider program readiness for entering the IOT&E test phase. As a result, the P-8A and the DTS program entered and completed IOT&E with unresolved deficiencies affecting threat detection, maneuverability, information exchange, and reliability. These deficiencies diminished the ability of the P-8A aircraft and the DTS to perform their primary missions.

# Program Managers Need to Request Waivers for All Certification Requirements Not Met

The P-8A program manager did not meet 4 of the 20 criteria specified in SECNAVINST 5000.2E to certify readiness for IOT&E. Although the P-8A program manager requested a waiver from the flight deficiency criteria, a waiver was not requested for three additional criteria. Additionally, the DTS program manager did not request a waiver for one of the certification criteria that the program had not met. Specifically, the program managers did not request waivers when:

- system performance requirements in the test and evaluation master plan (TEMP) were not, or were not projected to be, satisfied;
- necessary logistics support (spares, repair parts, and equipment) was not expected to be available for IOT&E; and
- the Joint Interoperability Test Command (JITC) had not concurred that program interoperability<sup>10</sup> was sufficient to enter IOT&E.

<sup>&</sup>lt;sup>10</sup> The ability to support military operations and effectively exchange information.

#### Meeting Performance Requirements Criterion

The P-8A and the DTS program managers did not request waivers when their programs did not meet performance requirements in the TEMP. SECNAVINST 5000.2E requires programs to demonstrate, through test and evaluation performance, that requirements identified in the TEMP have been satisfied or are projected to meet system requirements.

#### P-8A Poseidon Primary Performance Requirements Not Met

The program manager for the P-8A did not request a waiver from meeting test and evaluation results criteria even though the Operational Test Readiness Review (OTRR) checklist summary showed that the criteria were not met. The briefing charts identified that 12 critical technical parameters and 8 measures of effectiveness were not met at the OTRR on August 28, 2012. The Transition Report<sup>11</sup> was issued more than a year later to support follow-on test and evaluation of the P-8A. The report showed that the P-8A did not meet performance thresholds for four critical technical parameters and two measures of effectiveness.

- **Critical technical parameters** are a measureable critical system characteristic that, when achieved, demonstrate that the program has achieved a desired operational performance capability.
- **Measures of effectiveness** are the data used to measure the mission accomplishment that comes from the use of the system data in its expected environment.

For example, the P-8A could not detect<sup>12</sup> frigates (small, fast military ships) at 110 nautical miles, which was one of the critical technical parameters. Also, the P-8A aircraft that was assigned to the fleet was not cleared to perform aircraft maneuvers at the limited load (force of gravity) capacity, which the system requirements document mandated for the anti-submarine warfare mission. However, program office staff stated that the P-8A could satisfactorily perform the anti-submarine mission while operating at a lessor force of gravity capacity.

P-8A could not detect frigates (small, fast military ships) at 110 nautical miles, which was one of the critical technical parameters.

<sup>11</sup> "P-8A Poseidon Aircraft Integrated Test (IT-5) Technical Evaluation in Support of Operational Test Readiness Review (OTRR) and Transition to Follow-On Operational Test and Evaluation (OT-C2)," October 2, 2013.

<sup>&</sup>lt;sup>12</sup> To classify and identify hostile surface craft in support of the anti-surface warfare mission.

#### Distributed Targeting System Performance Requirement Not Met

(FOUO) The DTS program manager did not request a waiver from the system performance requirements for (b)(3), 10 USC § 130; (b)(7)(E) Test results showed (b)(3), 10 USC § 130; (b)(7)(E)

An April 8, 2011,

Acquisition Decision Memorandum stated that the DTS program manager would not award a contract for a second low-rate initial production lot until the average flight hours between operational mission failures had improved and was no longer a high risk.

Additionally, the DTS Transition Report<sup>13</sup> states the DTS demonstrated performance levels for all tested requirements that met or exceeded threshold requirements (minimum level of performance required) except for the average flight hours between operational mission failures. The DTS Transition Report also stated the system demonstrated an average of 111 flight hours, instead of the minimum requirement of 130 flight hours for average flight hours between operational mission failures. According to program office staff, at the time of the OTRR, the DTS demonstrated an average of 116.9 flight hours between operational mission failures with all reliability growth curves on track to reach the minimum requirement of 130 flight hours before initial operational capability. In addition, the program office staff stated in their comments to the draft report, 28 days after the OTRR, on July 12, 2012, the DTS reached the required 130 flight hours between operational mission failures.

However, 6 months later, the Commander, Operational Test and Evaluation Force report<sup>14</sup> identified the average flight hours between operational mission failures as a deficiency that would have a "moderate impact" on mission accomplishment. Specifically, the report stated an unreliable DTS would result in a mission abort and a degraded capability to provide targeting coordinates to warfighters during amphibious warfare missions. It explained that overall DTS reliability was below the ideal reliability growth curve for the system. The report identified an average of 90.7 flight hours between operational mission failures, significantly lower than the requirement of 130 flight hours between operational mission failures specified in the DTS TEMP.

<sup>&</sup>lt;sup>13</sup> DT/OT Transition Report for AN/AYK-29(v) Distributed Targeting System Technical Evaluation, May 15, 2012.

<sup>&</sup>lt;sup>14</sup> "Distributed Targeting System (DTS) Operational Test Agency Evaluation Report," January 23, 2013.

As of August 1, 2013, almost 8 months after the IOT&E report, the Commander, Operational Test and Evaluation Force memorandum<sup>15</sup> did not include the reliability deficiency as one of the deficiencies that the program manager had corrected.

#### Meeting Necessary Logistical Support Available Criterion

The P-8A program office documented that the logistic support criteria was not met in the OTRR checklist summary but did not request a waiver. SECNAVINST 5000.2E requires that logistic support, including spares, repair parts, and support and ground support equipment, be available to support the planned IOT&E. The P-8A Transition Report<sup>16</sup> for IOT&E states system reliability, maintainability, and availability for the P-8A system design and development was conducted using contractor logistic support maintenance. The transition report for IOT&E also stated that all support products were evaluated as acceptable except for spares and support equipment, because the contractor had not delivered multiple pieces of support equipment.

Consequently, several logistical support tests were not scheduled for completion until just before or shortly after the start of IOT&E. Although the program manager purchased additional support equipment and spares, not all of the support equipment and spares purchased were scheduled for delivery before the start of IOT&E. At the time of the OTRR, the program was at risk for not being able to complete IOT&E because of insufficient spares and support equipment.

#### Meeting Joint Interoperability Test Command Concurrence on Interoperability Progress Criterion

The P-8A aircraft did not meet the interoperability criterion; however, the program manager did not request a waiver from meeting this criterion. SECNAVINST 5000.2E requires programs with interoperability requirements to have an approved information support plan and JITC concurrence that program interoperability was demonstrated during system development sufficiently to enter IOT&E. While the P-8A program manager had an approved information support plan,<sup>17</sup> JITC had not issued a certification of interoperability for the P-8A.

<sup>&</sup>lt;sup>15</sup> "Verification of Correction of Deficiencies (VDC) of the Distributed Targeting System (DTS)," August 1, 2013.

<sup>&</sup>lt;sup>16</sup> "DT/OT Transition Report for P-8A Poseidon Aircraft Integrated Test (IT-4) Technical Evaluation in Support of Operational Test Readiness Review (OTRR) and Transition to Initial Operational Test and Evaluation (OT-C1)," August 22, 2012.

<sup>&</sup>lt;sup>17</sup> On October 8, 2009, the program manager received acceptance from the Director, Commercial Technologies and Systems of the P-8A Poseidon Information Support Plan.

Program office staff stated that JITC did not express concern about interoperability during the OTRR held on August 28, 2012. However, the JITC Acting Chief, Force Application/Force Protection Portfolio, issued an August 2012 memorandum<sup>18</sup> which stated, "... the unresolved deficiencies present a high risk to mission success,

should the P-8A, Increment I, proceed to Initial Operational Test and Evaluation (IOT&E)." JITC concerns included unresolved deficiencies that negatively impacted interoperability in the aircraft's execution of its critical missions. For example, limited reception of satellite communication could result in reduced aircrew situational awareness of emerging threats during P-8A missions. Additionally, interoperability continued as a JITC concern after the P-8A completed IOT&E.

Additionally, interoperability continued as a JITC concern after the P-8A completed IOT&E.

On October 24, 2013, a JITC memorandum<sup>19</sup> granted conditional interoperability certification to the P-8A. The memorandum stated that there were still five interoperability certification requirements that were "partially met," one requirement that was not met, and one requirement not tested. The memorandum explained that the seven certification criteria had a "moderate" operational impact on the system. Interoperability is necessary to support the aircraft's primary missions.

# **Operational Test Readiness Review Briefing Charts Need to Address Certification Criteria**

The OTRR briefing charts from February 1, 2012, for the E-2D, including back-up charts, did not show evidence of how the program manager met 9 of the 20 certification criteria that were checked off on the OTRR Checklist Summary. However, after reviewing the "E-2D AHE Road to IOT&E Deep Dive" briefing charts from January 12, 2012, which were not part of the OTRR briefing, we found support for those nine criteria. Without including the information found in those briefing charts, the OTRR did not fully inform the chairperson or other stakeholders as to whether the program should have entered into IOT&E in support of the final production decision. However, the E-2D program office staff stated that the PEO was provided updates on the status of meeting the 20 certification criteria.

<sup>&</sup>lt;sup>18</sup> "P-8A Poseidon Multi-Mission Aircraft (MMA), Increment 1 Net Ready Key Performance Parameter (NR-KPP) Interim Status," August 2012.

<sup>&</sup>lt;sup>19</sup> JITC memorandum, "Joint Interoperability Certification of the P-8A Multi-Mission Maritime Aircraft (MMA) Increment 1 Build TR-13," October 24, 2013.

The SECNAVINST 5000.2E requires acquisition managers, including the PEO and the program manager, to conduct the OTRR before they certify program readiness for IOT&E. The OTRR is complete when the PEO evaluates and determines system readiness for IOT&E. NAVAIR Instruction 3960.2D,<sup>20</sup> states the program manager's OTRR brief "must address each certification criteria listed in SECNAVINST 5000.2E." In addition, the assistant program manager for test and evaluation with the leader of the program's integrated product team must make sure the OTRR certification criteria checklist shows which certification criteria are met and not met, is complete, and presented to the chairperson of the OTRR.

#### **Navy Policy and Guidance Needed Clarification**

The deficiencies in managing waiver requests and presenting OTRR briefings occurred, because policy in the SECNAVINST 5000.2E and Secretary of the Navy Manual M-5000.2 did not provide adequate clarification and direction to implement policy on waivers and certify program readiness for IOT&E. Most significantly, the SECNAVINST 5000.2E does not clearly and concisely state that program managers must send waiver requests to CNO when they determine they have not satisfied one or more of the certification criteria.

On June 25, 2014, staff in the CNO, Director, Innovation, Test and Evaluation, and Technology (N84) stated that they recognized the need to update SECNAVINST 5000.2E to clarify policy on managing waiver requests. N84 staff explained that they wanted to make sure acquisition managers send a message to N84 to request waivers, when they determine that a system will not meet one or more of the 20 certification criteria for entering IOT&E.

As a way forward, N84 staff stated they were updating SECNAVINST 5000.2E to clarify the section related to waivers. Specifically, they will define terms and identify what documentation program managers should provide in messages to request waivers or deferrals. On August 15, 2014, N84 staff gave us the following draft revision to SECNAVINST 5000.2E that clarified the requirements for requesting waivers and deferrals:

If the System Command commander, Program Executive Officer, direct reporting program managers or program managers determine that any of the 20 criteria identified in paragraph 4.3.2.3.1 have not been adequately satisfied (leading to a deviation from SECNAV policy – formerly known as a waiver), and/or some capabilities identified in the program requirements documents have not been achieved and are not available for testing (deferral of test requirements) he or she will send a message to N84 [Director, Innovation, Test & Evaluation, and Technology Requirements] certifying the system

<sup>&</sup>lt;sup>20</sup> NAVAIR Instruction 3960.2D, "Acquisition Test and Evaluation," May 30, 2012.

is ready to proceed to operational test with test and evaluation exceptions, and include details of the requested deviation(s) from SECNAV policy(s) and/or deferrals of test requirements. Provide information copies to the program sponsor (Navy only, who must provide formal concurrence with deferrals), [Assistant Secretary of the Navy for Research, Development and Acquisition] ASN(RD&A), operational test agency, and when a program is on the OSD [Office of the Secretary of Defense] Test and Evaluation oversight list, to DOT&E [Director, Operational Test and Evaluation] (who must also formally concur with deferrals).

N84 staff stated that their proposed policy updates were in response to our audit of the P-8A Poseidon Aircraft program<sup>21</sup> and our discussions on this audit.

We reviewed the proposed revision to the SECNAVINST 5000.2E policy; however, it did not require program managers to show evidence of what they have accomplished to meet each of the 20 certification criteria to certify readiness for IOT&E in the OTRR brief. We are recommending that the ASN(RDA) and CNO N84 update SECNAVINST 5000.2E and Secretary of the Navy Manual, M-5000.2, Section 4.6, "Certification of Readiness for Operational Testing," to:

- Emphasize that program managers must request waivers whenever they do not meet any of the 20 criteria required for certifying readiness for initial operational test and evaluation; and
- Clarify that OTRR briefings must provide specific explanations of program accomplishments against each of the 20 certification criteria to clearly document either that the criteria has been met or that a waiver or deferral request is necessary.

# **Program Executive Officer Lacked Important Information for Making Informed Decisions**

Because program managers did not request waivers, the PEO could not effectively consider program readiness for entering the IOT&E test phase. As a result, the P-8A and the DTS program entered and completed IOT&E with unresolved deficiencies affecting threat detection, maneuverability, information exchange, and reliability. These deficiencies diminished the systems' ability to perform their missions. For the P-8A, unresolved deficiencies diminished mission capability in the aircraft's primary missions of anti-submarine warfare; anti-surface warfare; and intelligence, surveillance, and reconnaissance. For DTS, the unresolved deficiencies reduced its reliability to perform the amphibious warfare portion of its mission.

<sup>&</sup>lt;sup>21</sup> (FOUO) Report No. DODIG-2013-088, "The Navy P-8A Poseidon Aircraft Needs Additional Critical Testing Before the Full-Rate Production Decision," June 10, 2013.

# Management Comments on the Finding and Our Response

The Deputy Department of the Navy Test and Evaluation Executive, responding for the Chief of Naval Operations, Director, Innovation, Test and Evaluation, and Technology, provided the following comments on the finding. For the full text of the Deputy's comments, see the Management Comments section of the report.

#### Department of the Navy Comments

The Deputy disagreed with the finding; however, the Deputy acknowledged that the current SECNAVINST 5000.2E could be updated to provide more clear guidance and leadership expectations of the OTRR process. The Deputy stated that:

- the finding implies that the only information discussed at the OTRR is regarding certification criteria not met. Additionally, this is the only information provided to the PEO to support his or her decision during the OTRR. This is incorrect, the OTRR is a culmination of many months of effort by the program office and stakeholders to determine the status of the 20 certification criteria and how much detail will be included in the OTRR briefing charts. In addition, there are many layers of expert reviews making sure that the PEO is provided objective data to make an informed decision at the OTRR.
- P-8A OTRR provided the PEO with an extremely detailed briefing with several supporting reports to base the readiness for test decision including draft waivers and deferrals. The OTRR included all program stakeholders, who carefully reviewed the information and advised the PEO on whether certification criteria were satisfactorily met.
- while the report is accurate, the program manager documented what was done to meet each of the certification criteria for the E-2D aircraft program. The report acknowledges that the PEO was presented with evidence on how the program met each of the 20 certification criteria.
- while the report is accurate, the reliability statements on the DTS are misleading. The DTS reached the 130 flight hours between operational mission failures requirement on July 12, 2012, 28 days after the OTRR. The DTS was on a growth curve for reliability above the requirements identified in the TEMP and as such, exceeded the requirement to enter into the IOT&E phase.

#### Our Response

We recognize that during the OTRR program staffs provide the PEO and other stakeholders with information beyond how the programs accomplished the criteria to certify readiness for IOT&E and that there are multiple levels of program review.

However, when program managers request waivers, it serves to highlight to the PEO and other stakeholders specific shortfalls from the criteria that programs must normally meet according to SECNAVINST 5000.2E to demonstrate they are ready to enter IOT&E. The Navy has long recognized the importance to meet these IOT&E certification criteria and to request waivers for any deviations. Specifically, with only minor wording changes, the same 20 certification criteria and provisions to request waivers in the SECNAVINST 5000.2E were also provided in earlier versions of this Instruction, including SECNAVINST 5000.2C, November 19, 2004.

We revised the report to include the Deputy's statement that the DTS reached 130 flight hours between operational mission failures requirement on July 12, 2012. However, our report also states that 6 months later, the Commander, Operational Test and Evaluation Force report identified the average flight hours between operational mission failures as a deficiency that would have a "moderate impact" on mission accomplishment. Specifically, the report identified an average of 90.7 flight hours between operational mission failures, significantly lower than the requirement of 130 flight hours between operational mission failures specified in the DTS TEMP.

# **Recommendations, Management Comments, and Our Response**

#### **Recommendation A.1**

We recommend that the Assistant Secretary of the Navy for Research, Development, and Acquisition and the Chief of Naval Operations, Director, Innovation, Test and Evaluation, and Technology, update:

- 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;" and
- Secretary of the Navy Manual, M-5000.2, "Acquisition and Capabilities Guidebook," May 9, 2012, Section 4.6, "Certification of Readiness for Operational Testing," to:
  - a. Emphasize that program managers must request waivers whenever they do not meet any of the 20 criteria the Secretary of the Navy Instruction 5000.2E requires programs to meet to certify readiness for initial operational test and evaluation; and
  - b. Clarify that Operational Test Readiness Review briefings to stakeholder groups should include specific explanations of program accomplishments against each of the 20 certification

criteria to clearly document either that the criteria was met or a waiver or deferral request was coordinated with the Chief of Naval Operations, Director, Innovation, Test and Evaluation, and Technology; the program sponsors; and the Commander, Operational Test and Evaluation Force.

#### Deputy Department of the Navy Test and Evaluation Executive (N84C) Comments

The Deputy Department of the Navy Test and Evaluation Executive, responding for the ASN(RD&A), agreed, stating that SECNAV will determine the best method to promulgate future Navy acquisition policy. The Deputy further stated that while leadership considers options, he would issue interim guidance to address the waiver and deferral process. The guidance will:

- replace the term "waiver" with "deviation from SECNAV policy," requiring the Program Executive Officer to notify the ASN(RD&A) that a program will proceed to operational test without achieving one or more of the 20 specified certification criteria for starting this test phase;
- replace the term "deferral" with "deferral of test requirements," and will apply to a delay in testing capabilities identified in the current requirements document and agreed-to in the TEMP;
- emphasize that when requesting a deviation in the OTRR certification message, the PEO identifies which of the 20 certification criteria were not met and states why the decision was made to proceed to operational test without meeting those specific criteria; and
- require a summary in the OTRR briefing charts of the program office assessment of the 20 criteria and make sure that each criteria is discussed in adequate detail to support the program office assessment.

#### Our Response

The Deputy addressed the specifics of the recommendation, and no further comments are required.

# **Finding B**

# Requirements Documents Must Identify System Characteristics Most Critical to Providing an Effective Military Capability

Weapon system sponsors within the Office of the CNO did not fully define the aircraft system characteristics most critical for providing an effective military capability. In addition, they did not designate the characteristics as key performance parameters (primary requirements) when writing system requirements documents for the P-8A and E-2D aircraft programs. Additionally, the JCS's Joint Requirement Oversight Council review and validation of those requirements documents did not focus the primary requirements on the accomplishment of critical aircraft missions.

These conditions occurred because JCS guidance did not specifically require the CNO staff and the Joint Requirement Oversight Council (JROC) to make sure the requirements document captures system characteristics that are most critical to meeting mission requirements as primary requirements. As a result, the weapon system sponsors concurred with P-8A and the E-2D waiver requests without giving the JCS the opportunity to assess the effect of those waivers on the military usefulness of the aircraft. Additionally, because the requirements documents did not capture the most critical system characteristics as primary requirements, program managers accepted production units with diminished mission effectiveness. For example, at the time of the final production decision, the program manager for the P-8A Poseidon had accepted 13 aircraft for \$2.6 billion that could not fully perform primary missions for Anti-Submarine Warfare, Anti-Surface Warfare, and Intelligence gathering.

# Weapon Sponsors Did Not Fully Define Critical System Characteristics as Primary Requirements

Weapon system sponsors within the Office of the CNO wrote system requirements documents for the P-8A and E-2D that did not fully define system characteristics associated with the most critical aircraft missions, as primary requirements. The JCIDS Manual<sup>22</sup> states that the sponsor designates "appropriate" system characteristics as primary and secondary requirements; however, the Manual does not emphasize a sponsor's responsibility to make certain that those system

<sup>&</sup>lt;sup>22</sup> The Manual for the Operation of the Joint Capabilities Integration and Development System, January 19, 2012.

Finding B

characteristics most critical to meeting mission requirements are captured as primary requirements. We are recommending the Vice Chairman, JCS, modify the JCIDS Manual to require sponsors to define those system characteristics most critical for providing an effective military capability and designate them as primary requirements when writing system requirements documents. The sections below provide details on shortfalls in defining primary requirements for the P-8A Poseidon and E-2D AHE aircrafts.

#### P-8A Poseidon Aircraft

The Deputy CNO for Air Warfare (N98), the weapon system sponsor for the P-8A, designated system capability requirements directly linked to the aircraft's primary missions to secondary or lower requirement status. CNO N98 staff should have designated performance of anti-submarine warfare; anti-surface warfare; and intelligence, surveillance, and reconnaissance missions as critical system characteristics rather than secondary or lower level requirements.

The systems requirements document states the primary reason the Navy invested in the P-8A aircraft was to fill a capability gap<sup>23</sup> to find, track, and destroy or neutralize hostile submarines to support the anti-submarine warfare mission. The document also identified anti-surface warfare and intelligence, surveillance, and reconnaissance as primary mission areas. Further, it stated the P-8A should have the capability to search for, detect, identify, track, target, engage, and provide damage assessment of maritime targets.

The capabilities the CNO N98 staff defined as primary requirements included basic aircraft performance characteristics such as range and cargo capacity. For example, the P-8A must be able to fly a radius of 1,200 nautical miles while carrying 10,000 pounds of sonobuoys and torpedoes and maintaining a minimum line-of-sight range for sensors and communications.

#### E-2D Advanced Hawkeye Aircraft

The Deputy CNO for Information Dominance (N2/N6), the weapon system sponsor for the E-2D, designated a majority of the radar detection capability to "other system characteristics," in the requirements document. A system characteristic is a third level requirement that is below primary and secondary requirements.

<sup>&</sup>lt;sup>23</sup> Capability gaps are defined as the difference between current capabilities and those needed to perform required missions.

The requirements document for the E-2D<sup>24</sup> explains that the airborne early warning surveillance and command and control systems, which the E-2D uses, provide strike group commanders with real-time threat warnings and tactical analysis to support control of assigned response forces. The document further states that, in conducting the airborne early warning mission, E-2D crews must perform the "core functions" that detect, track, classify and identify contacts in the air and on the sea. Radar detection of air and sea contacts is a core function that the crews must perform to meet the airborne early warning mission.

However, the requirements document only designates the ability to detect air targets without electronic attack (jamming) as a primary requirement.

Requirements to detect air targets with jamming and to detect targets on the surface of the sea are designated as third-level requirements.

Requirements to detect air targets with jamming and to detect targets on the surface of the sea are designated as third-level requirements. As previously explained, the requirements document states that detection of air and sea contacts is a "core function" that E-2D crews must perform to meet the aircraft's airborne early warning mission. Therefore, CNO N2/N6 staff should have designated the abilities to perform radar detection of air and surface threats as primary rather than lower level requirements.

# **Review of Requirements Documents Needs to Focus on Characteristics Most Critical to Accomplish Missions**

The JROC review and validation of the P-8A and E-2D requirements documents did not include a determination that the requirements documents identified those system characteristics most critical to accomplish primary aircraft missions as primary requirements. This did not occur because the JCIDS Manual did not emphasize such a review. For example, the P-8A anti-submarine warfare; anti-surface warfare; and intelligence, surveillance, and reconnaissance critical characteristics were not captured. For the E-2D, radar detection of air and sea threats, a critical system attribute, was not captured.

In a memorandum,<sup>25</sup> the Director, Operational Test and Evaluation notified the Vice Chairman, JCS that the requirements document for the P-8A did not capture as primary requirements those characteristics critical for mission effectiveness. On October 22, 2013, the Vice Chairman, JCS responded to the Director, Operational Test and Evaluation, stating that he shared the Director's concerns regarding the

<sup>&</sup>lt;sup>24</sup> "E-2D Advanced Hawkeye Capability Development Document (CDD) for Milestone C," September 15, 2008.

<sup>&</sup>lt;sup>25</sup> "P8-A Poseidon Multi-Mission Maritime Aircraft Increment 1 Key Performance Parameters," September 4, 2013.

selected primary requirements for the P-8A program and their inability to effectively contribute to operational effectiveness assessments. The Vice Chairman further stated that "amplifying and clarifying" language would be added to the 2012 JCIDS Manual as part of an ongoing update.

However, on August 27, 2014, we received a summary of the 27 "major changes" the JCS planned as updates to the JCIDS Manual, and none of the planned changes directly addressed the described deficiencies above with primary and secondary requirement value selection. We are recommending that the Vice Chairman, JCS modify the JCIDS Manual to add clarifying language to make sure the JROC review of requirements documents includes verifying that weapon system sponsors include characteristics most critical to mission effectiveness as primary requirements.

# **Requirements Documents Need Improvement for Better Visibility of Waiver Approvals and Mission Effectiveness Determinations**

Requirements documents that do not establish, as primary requirements, those system characteristics most critical to mission accomplishments result in:

- the JCS not having visibility over the approval of waiver requests, and
- the Director, Operational Test and Evaluation being hindered in determining the operational effectiveness of weapon systems.

#### Reduced Joint Chiefs of Staff Visibility of Waiver Approvals

Sponsors for the P-8A and E-2D aircraft programs agreed with the waiver request without a requirement to determine the effect those waivers would have on military utility<sup>26</sup> because they did not affect primary requirements. The JROC would have required a review to evaluate the operational risk and military utility of the system if the primary requirement thresholds were not going to be met.

Specifically, the JCIDS Manual states that failure of a system to meet primary requirement thresholds brings the military utility of the system into question and may result in a reevaluation of the program or modification to production increments. Additionally, Chairman of the Joint Chiefs of Staff Instruction 3170.01H<sup>27</sup> states that interaction must occur between Service weapon system sponsors and the JCS, when there are changes during production that require changes to validated primary requirement thresholds.

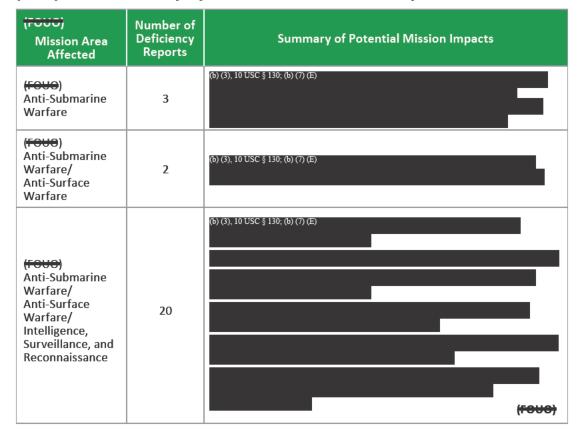
<sup>&</sup>lt;sup>26</sup> A system designed for or possessing a number of useful or practical purposes rather than a single, specialized one.

<sup>&</sup>lt;sup>27</sup> Chairman, Joint Chiefs of the Staff Instruction 3170.01H, "Joint Capabilities Integration and Development System," January 10, 2012.

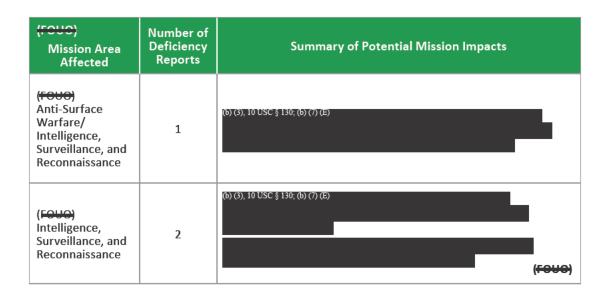
The updated "ready for signature" draft version of the JCIDS Manual, dated November 7, 2014, will clarify the required interaction between the Service weapon system sponsor and the JCS. Specifically, the update explains that failure of a system to meet a validated primary requirement threshold triggers a review by the validation authority and evaluation of operational risk and military utility of the system if the primary requirement threshold is not met. Both the 2012 JCIDS Manual and the planned draft update state that the validation authority is within the JCS for Acquisition Category I programs, such as the P-8A and E-2D aircraft, and for programs designated of interest to the Joint Capability Board or the Joint Requirements Oversight Council of the JCS.

#### P-8A Poseidon

The P-8A PEO requested a waiver of the criterion, no uncorrected flight deficiencies, with CNO concurrence. As part of the waiver request, the program manager listed 28 unresolved flight deficiency reports. The reports identified critical deficiencies that affected the ability of the aircraft to accomplish its primary missions of anti-submarine warfare, anti-surface warfare, and intelligence, surveillance, and reconnaissance. The following table shows the 28 flight deficiencies the program manager listed in his waiver request and the P-8A aircraft mission areas affected.



#### (FOUO) Table: Break out of Deficiencies and Potential Mission Impacts



#### E-2D Advanced Hawkeye

(<del>FOUO</del>) The E-2D PEO also requested a waiver of the criterion, no uncorrected flight deficiencies, which the CNO staff granted. As part of the waiver request, the program manager listed one unresolved flight deficiency report relating to radar detection. Specifically, the deficiency report identified critical problems that would affect the ability of the system to <sup>(0)(3), 10USC § 180; (b)(7)(E)</sup>

We recommend that ASN(RDA) update

SECNAVINST 5000.2.E to require sponsors to certify to the JCS that approved waivers do not adversely affect primary system requirements or, if a proposed waiver does adversely affect primary system requirements, that the system continues to have military utility as described in the JCIDS Manual before approving the waiver.

#### Shortfalls in Defining Primary Requirements for P-8A Poseidon Aircraft Hindered Determination of System Mission Effectiveness

On September 4, 2013, the Director, Operational Test and Evaluation alerted the Vice Chairman, JCS and the Under Secretary of Defense for Acquisition, Technology, and Logistics about shortfalls in defining primary requirements for the P-8A. The Director stated that the lack of primary requirements related directly to mission effectiveness creates a disconnect between the determination of operational effectiveness in test reports and the primary requirement compliance assessments that drive program reviews throughout system development. The Director also stated the aircraft was "fully compliant with KPP/KSA [primary and secondary requirements] thresholds, while having significant shortfalls in mission effectiveness." The Director stated this was an indication that the most essential operational requirements were focused too narrowly. Director, Operational Test and Evaluation IOT&E report<sup>28</sup> P-8A primary requirements thresholds were limited to mission support characteristics, such as basic aircraft performance, availability, survivability, force protection, and information exchange characteristics. The primary

Primary requirements should provide standards for determining mission accomplishment and summarize the reasons for procuring a system.

requirements did not include specific performance thresholds for the critical anti-submarine warfare, anti-surface warfare, or intelligence, surveillance, and reconnaissance mission tasks that define operational effectiveness. The Director stated that, in an extreme case, the contractor could deliver an aircraft that met all the primary requirements but has no mission capabilities. The Director also explained that primary requirements should provide standards for determining mission accomplishment and summarize

the reasons for procuring a system. Because the requirements documents did not capture the most critical system characteristics as primary requirements, program managers accepted production units with diminished mission effectiveness. For example, at the time of the final production decision, the program manager for the P-8A Poseidon had accepted 13 aircraft for \$2.6 billion that could not fully perform primary missions for anti-submarine warfare, anti-surface warfare, and intelligence gathering.

#### **Management Action Started During the Audit**

In response to this audit, the JCS plans to update the JCIDS Manual with clarifying language on writing and reviewing system requirements documents to require:

- sponsors to include system characteristics most critical to mission effectiveness as primary requirements; and
- a JROC review to make sure the system characteristics most critical to meeting mission requirements are captured as primary requirements.

# Management Comments on the Finding and Our Response

The Deputy Department of the Navy Test and Evaluation Executive, responding for the Assistant Secretary of the Navy for Research, Development, and Acquisition, provided the following comments on the finding. For the full text of the Deputy's comments, see the Management Comments sections of the report.

<sup>&</sup>lt;sup>28</sup> "P-8A Poseidon Multi-Mission Maritime Aircraft Initial Operational Test and Evaluation Report," October 2013.

#### Department of the Navy Comments

The Deputy disagreed with the finding stating that:

- the finding implies the only way the program manager and PEOs are informed of a system's required capabilities and determines whether the system is ready to proceed to operational testing is through reading a detailed requirements document. This is incorrect; the requirement document is not the only vehicle for conveying programmatic information to the PEO and program manager.
- resource sponsors, program managers, and PEOs are in daily communications discussing risk, cost, performance, and schedule.
- numerous technical and fiscal realities, as well as actual system capabilities, are included in the decision to test or field the system with a specific level of performance.
- the existing SECNAVINST 5000.2E, paragraph 4.6.2.2 states that when PEOs certify readiness for operational test with exceptions, they must send a message to CNO N84 and provide information copies to the program sponsor for their formal concurrence, and to the ASN(RD&A), and Commander, Operational Test and Evaluation Force.
- this policy makes certain that the PEO delegated Title 10 responsibility from the CNO to develop requirements for systems that will equip the fleet have executed that responsibility and determined the system capabilities are adequate to proceed to operational testing. The Navy views this as adequate oversight and that adding the requirement for the JROC to approval waivers would be a significant administrative burden.
- the Fleet's most urgent need for the P-8A platform was for the anti-submarine warfare mission conducted by the aging P-3C Orion. The mission systems for the anti-submarine warfare and other missions were derivatives of mature technologies that were successfully performed the same missions on the P-3C. The requirements were logically written to define the needed replacement platform, and platform performance was appropriately designated as one of the most critical characteristics of the P-8A as a platform replacement program.

#### Our Response

According to the JCIDS Manual, the purpose of the JCIDS process and resulting system requirements documents is to define authoritative, measurable, and testable requirements across one or more increments of a materiel capability solution. These requirements must be properly defined to allow resources sponsors, PEOs, and program managers to have meaningful discussions of risk, cost, performance, and schedule. Additionally, as further discussed in our response to the Deputy's comments on Recommendation B.2, the failure of a system to meet a validated primary requirement threshold triggers a review by the validation authority and evaluation of operational risk and military utility of the system if the primary requirement threshold is not met. The updated JCIDS Manual<sup>29</sup> states that the validation authority is within the JCS for Acquisition Category I programs, such as the P-8A and E-2D Aircraft we reviewed. Further, Chairman of the Joint Chiefs of the Staff Instruction 3170.01H<sup>30</sup> states that interaction must occur between Service weapon system sponsors and the JCS, when there are changes during production that require changes to validated primary requirement thresholds.

We recognize that the Navy designed the P-8A Poseidon to replace the aging P-3C Orion aircraft. However, the P-8A had 25 critical flight deficiencies that affected the ability of the aircraft to accomplish its primary anti-submarine warfare mission. As discussed in the finding, the Director, Operational Test and Evaluation noted that the lack of primary requirements relating directly to mission effectiveness creates a disconnect between the determination of operational effectiveness in test reporting and the primary requirements compliance assessment that drive program reviews through system development.

# **Recommendations, Management Comments, and Our Response**

#### **Revised Recommendation**

As a result of the Deputy Department of the Navy Test and Evaluation Executive comments to recommendations in a draft of this report, we revised Recommendation B.2 to clarify the need for acquisition programs designated as Acquisition Category I, or of interest to the Joint Capability Board or the JROC, to certify to the Vice Chairman, JCS the impact a waiver of certification criteria has on meeting primary requirements.

#### **Recommendation B.1**

We recommend that Vice Chairman, Joint Chiefs of Staff, modify the Joint Capabilities Integration and Development System Manual to add clarifying language regarding the need for:

a. sponsors to define those system characteristics that are most critical for providing an effective military capability and designate them as primary requirements when writing requirements documents; and

<sup>&</sup>lt;sup>29</sup> Manual for the Operation of the Joint Capabilities Integration and Development System, February 12, 2015.

<sup>&</sup>lt;sup>30</sup> Chairman of the Joint Chiefs of the Staff Instruction 3170.01H, "Joint Capabilities Integration and Development System," January 10, 2012.

b. Joint Requirements Oversight Council review to make sure the system characteristics most critical to mission effectiveness are captured as primary requirements.

#### Vice Chairman, Joint Chiefs of Staff Comments

The Director, Joint Staff, responding for the Vice Chairman, JCS, agreed, stating in February 2015 he signed the updated JCIDS Manual that includes clarifying language to address the recommendation.

#### Our Response

The Director, Joint Staff addressed the specifics of the recommendation, and no further comments are required.

#### Deputy Department of the Navy Test and Evaluation Executive (N84C) Comments

Although not required to comment, the Test and Evaluation Executive agreed with the recommendation and stated that the information was incorporated in the updated JCIDS Manual and there is no impact to existing processes or Navy policy.

#### **Recommendation B.2**

We recommend that Assistant Secretary of the Navy for Research, Development and Acquisition update Secretary of the Navy Instruction 5000.2.E, "Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System," September 1, 2011, to require sponsors of acquisition programs designated as Acquisition Category I, or of interest to the Joint Capability Board or the Joint Requirements Oversight Council, to certify to the Vice Chairman, Joint Chiefs of Staff that:

- a. approved waivers of certification criteria do not adversely impact primary system requirements; or
- b. if a proposed waiver of certification criteria, such as the criteria to meet system performance requirements in the test and evaluation master plan, does adversely impact primary system requirements, that the system continues to have military utility as described in the "Manual for the Operation of the Joint Capabilities Integration and Development System," January 10, 2012 before approving the waiver.

#### Deputy Department of the Navy Test and Evaluation Executive (N84C) Comments

The Deputy Department of the Navy Test and Evaluation Executive responding for the ASN(RD&A) disagreed, stating that adding a requirement for a waiver to be approved by JROC would also drive many flag-level briefings before the waiver would even leave the Navy to start Joint Staffing. Specifically, JROC has Title 10 authority over requirements, not acquisition implementation of them. After JROC validates the requirements, it becomes CNO's responsibility to make sure they are met and ASN(RD&A) responsibility to acquire the appropriate material solution. The Deputy further stated that the PEOs, in consultation with CNO staff, are required to assess whether a system shortfall impacts meeting system requirements when they certify readiness to enter operational test.

As the Deputy previously stated the existing SECNAVINST 5000.2E, paragraph 4.6.2.2 states that when PEOs is certify readiness for operational test with exceptions they must send a message to CNO N84 and provide information copies to the program sponsor for their formal concurrence, and ASN(RD&A) and Commander, Operational Test and Evaluation Force. The Deputy further stated that this policy makes certain that the flag officers delegated Title 10 responsibility from the CNO to develop requirements for systems have executed that responsibility to determine that the system capabilities are adequate to proceed to operational testing.

Furthermore, the Deputy stated that the current waiver and deferral process has historically worked well for all PEO, Air Anti-Submarine Warfare, Assault and Special Missions programs. The recommendation would effectively require major defense acquisition programs to regularly elevate discussions of narrowly scoped individual deficiencies with minimal impact on top-level system performance to the JROC or JCS and would create a significant administrative burden.

#### Our Response

The Deputy did not address the specifics of the recommendation. We understand that it will take additional time to certify to the Vice Chairman, JCS the impact waived criteria has on primary requirements. However, according to Force Structure, Resources and Assessment Directorate (J-8) staff, the JCS would be flexible and try to make the review as short as possible. J-8 staff further stated that being flexible is not a problem as long as the Navy recognizes waiver-related deficiencies early and communications to the JCS.

Additionally, the Deputy stated that the JROC has Title 10 authority over requirements, not the acquisition implementation of them. However, the updated JCIDS process requires JCS involvement when the program manager for an Acquisition Category I or special interest program no longer expects the system to meet its primary mission requirements.

The updated JCIDS Manual explains that failure of a system to meet a validated primary requirement threshold triggers a review by the validation authority and evaluation of operational risk and military utility of the system if the primary requirement threshold is not met. The updated Manual then explains that the validation authority is within the JCS for Acquisition Category I programs, such as the P-8A and E-2D Aircraft, and for programs designated of interest to the Joint Capability Board or the Joint Requirements Oversight Council of the JCS.

Therefore, we request the Deputy provide additional comments on the final report explaining how he would comply with JCIDS Manual without informing JCS when the PEO programs do not meet the primary requirements.

# Appendix

### **Scope and Methodology**

We conducted this performance audit from June 2014 through March 2015 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 findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

We interviewed key personnel and performed fieldwork at the following organizations:

- Joint Staff J-8 Force Structure, Resource, and Assessment, Washington, D.C.
- Director, Operational Test and Evaluation, Washington, D.C.
- Assistant Secretary of the Navy for Research, Development, and Acquisition, Washington, D.C.
- Director, Innovation, Test, and Evaluation, and Technology Requirements, Washington, D.C.
- Commander, Operational Test and Evaluation Force, Norfolk, Virginia
- P-8A Poseidon Aircraft Program Office, Patuxent, Maryland
- E-2D Advanced Hawkeye Aircraft Program Office, Patuxent, Maryland
- Distributed Targeting System Program Office, Patuxent, Maryland

We collected, reviewed, and analyzed documents dated October 2009 through November 2014. We reviewed requirements documents, test and evaluation plans and reports, operational test readiness review checklists and briefing charts, and program certification messages that requested waivers and deferrals to determine whether NAVAIR staff adequately justified, reviewed, and approved the waiver and deferral of operational testing requirements for acquisition of NAVAIR systems.

Additionally, we reviewed program planning and reporting documents and compared them to the policies and guidance in the following DoD and Navy issuances.

- Chairman of the Joint Chiefs of Staff Instruction 3170.01H, "Joint Capabilities Integration and Development System," January 10, 2012
- "Manual for the Operation of the Joint Capabilities Integration and Development System," January 19, 2012
- 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
- Secretary of the Navy Manual 5000.2, "Department of the Navy Acquisition and Capabilities Guidebook," May 9, 2012

### **Selection of Programs to Review**

We obtained a query from Assistant Secretary of the Navy for Research, Development and Acquisition Information Systems database to identify Navy weapon systems acquisition programs that received a final production decision from April 14, 2012, through April 14, 2014. We identified three NAVAIR programs (P-8A Poseidon, E-2D Advanced Hawkeye, and DTS) and conducted a 100-percent review of those programs to evaluate the command's management of the waiver and deferral process.

### **Use of Computer-Processed Data**

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

### **Prior Coverage**

During the last 5 years, the Department of Defense Inspector General (DoD IG) issued one report discussing operational test waivers and deferrals. Unrestricted DoD IG reports can be accessed at http://www.dodig.mil/pubs/index.cfm.

### DoD IG

(FOUO) Report No. DODIG-2013-088, "The Navy P-8A Poseidon Aircraft Needs Additional Critical Testing Before the Full-Rate Production Decision," June 10, 2013.

# **Management Comments**

## Joint Chiefs of Staff Comments

EXTERNAL SUSPENSE 13 Ap	or 15 STA	FF SUSPENSE 7 Apr 1	5 AC	TION NUMBER 15-01107	
TO DJS (6) (6)	4/14 THR	v VDJS (b) (6)	тн	RÚ	
SUBJECT /O-DODIG-FA2 (Project No. D2014-D000		ms Command Need	is to Improve Man	agement of Waver Req	uests
EXECUTIVE SUMMARY 1. <u>Purpose</u> . Provide Staff review and com				Defense (DoD IG) w	ith Joint
2. <u>Issue</u> . The DoD I ii, 15, 17, and 21.	G draft report	provides recomm	mendations for	Joint Stalf action o	on pages
3. <u>Bottom Line</u> . The actions recommende				raft report as writt	en. All
4. Background					
deferrals from opera to improve language manual.	in the Joint C	apabilities Integ	ration and Dev	elopment System («	
to improve language manual.	in the Joint C 2015 JCIDS n G audit team's a. DJS approve <u>1 2/14</u> Disa N, Lt Gen, USA	apabilities Integ nanual, signed b recommendatio e concurrence as pprove	ration and Deve y VCJCS, inclu ons. s stated in the l	elopment System (« des clarifying lang	
to improve language manual. b. The February addresses the DoD I 5. <u>Recommendation</u> Approve <u>OP</u> DAVID L. GOLDFEIN	in the Joint C 2015 JCIDS n G audit team's a. DJS approve <u>1 2/14</u> Disa N, Lt Gen, USA	apabilities Integ nanual, signed b recommendatio e concurrence as pprove	ration and Deve y VCJCS, inclu ons. s stated in the h	elopment System (« des clarifying lang pottom line.	
to improve language manual. b. The February addresses the DoD I 5. <u>Recommendation</u> Approve DAVID L. GOLDFEIN Director, Joint Staff	in the Joint C 2015 JCIDS n G audit team's DJS approve JUN DJS approve DJS approve UN DJS approve AGENCY	apabilities Integ nanual, signed b recommendatio e concurrence as pprove F COORDINATION	ration and Deve y VCJCS, inclu ons. s stated in the h	elopment System (« des clarifying lang pottom line.	
to improve language manual. b. The February addresses the DoD I 5. <u>Recommendation</u> 5. <u>Recommendation</u> DAVID L. GOLDFEII Director, Joint Staff <u>NAME</u> Mr. Carney	in the Joint C 2015 JCIDS n G audit team's h. DJS approve <u>1 11 y</u> Disa N, Lt Gen, USA AGENCY VDJ-8	apabilities Integ nanual, signed b recommendatio e concurrence as pprove F COORDINATE 20 Mar 15	ration and Deve y VCJCS, inclu ns. s stated in the l See	elopment System ( des clarifying lang pottom line. e Me	uage that
to improve language manual. b. The February addresses the DoD I 5. <u>Recommendation</u> 5. <u>Recommendation</u> 5. <u>Recommendation</u> 5. <u>Recommendation</u> 5. <u>Recommendation</u> 5. <u>Recommendation</u> 5. <u>Recommendation</u> 5. <u>Recommendation</u> 5. <u>NAME</u> <u>Mr. Carney</u> 3. <u>GEN Guastella</u>	in the Joint C 2015 JCIDS n G audit team's a. DJS approve <u>1 11 y</u> Disa N, Lt Gen, USA AGENCY VDJ-8 J-8/DDR	apabilities Integ nanual, signed b recommendatio e concurrence as pprove	ration and Deve y VCJCS, inclu ns. s stated in the l See	elopment System ( des clarifying lang pottom line. e Me	uage that
to improve language manual. b. The February addresses the DoD I 5. <u>Recommendation</u> 5. <u>Recommendation</u> DAVID L. GOLDFEIN Director, Joint Staff <u>NAME</u> <u>Vr. Carney</u> <u>3GEN Guastella</u> Col Quinn	in the Joint C 2015 JCIDS n G audit team's h. DJS approve <u>1 11 y</u> Disa N, Lt Gen, USA AGENCY VDJ-8	apabilities Integ nanual, signed b recommendatio e concurrence as pprove F COORDINATE 20 Mar 15	ration and Deve y VCJCS, inclu ns. s stated in the l See	elopment System ( des clarifying lang pottom line. e Me	uage that
to improve language manual. b. The February addresses the DoD I 5. <u>Recommendation</u> 5. <u>Recommendation</u> 5. <u>Recommendation</u> 5. <u>Recommendation</u> 5. <u>Recommendation</u> 5. <u>Recommendation</u> 5. <u>Recommendation</u> 5. <u>Recommendation</u> 5. <u>NAME</u> <u>Mr. Carney</u> 3. <u>GEN Guastella</u>	in the Joint C 2015 JCIDS n G audit team's a. DJS approve M. DJS approve M. Lt Gen, USA AGENCY VDJ-8 J-8/JDR J-8/JCD	apabilities Integ nanual, signed b recommendation concurrence as pprove	ration and Deve y VCJCS, inclu ns. s stated in the l See	elopment System ( des clarifying lang pottom line. e Me	uage that
to improve language manual. b. The February addresses the DoD I 5. <u>Recommendation</u> 5. <u>Recommendation</u> DAVID L. GOLDFEIN Director, Joint Staff <u>NAME</u> <u>Mr. Carney</u> <u>BGEN Guastella</u> <u>Col Quinn</u> No equity No equity No equity	in the Joint C 2015 JCIDS n G audit team's a. DJS approve M. DJS approve M. Lt Gen, USA AGENCY VDJ-8 J-8/JDR J-8/JDR J-8/JCD DIG	apabilities Integ nanual, signed b recommendation concurrence as pprove	ration and Deve y VCJCS, inclu ns. s stated in the l See	elopment System ( des clarifying lang pottom line. e Me	uage that
to improve language manual. b. The February addresses the DoD I 5. <u>Recommendation</u> 5. <u>Recommendation</u> DAVID L. GOLDFEII Director, Joint Staff <u>NAME</u> <u>Mr. Carney</u> <u>3GEN Guastella</u> <u>2d Quinn</u> <u>No equity</u> <u>No equity</u> <u>CAPT Reardans</u>	in the Joint C 2015 JCIDS n G audit team's a. DJS approve J. UJS approve M. USA J. B. DISA AGENCY VDJ-8 J-8/JCD J. B. J. B. J.	apabilities Integ nanual, signed b recommendatio e concurrence as pprove F COORDINATIO DATE 20 Mar 15 20 Mar 15 20 Mar 15 20 Mar 15 2 Apr 15 1 Apr 15	ration and Deve y VCJCS, inclu ns. s stated in the l See	elopment System ( des clarifying lang pottom line. e Me	uage that
to improve language manual. b. The February addresses the DoD I 5. <u>Recommendation</u> 5.	in the Joint C 2015 JCIDS n G audit team's a. DJS approve J. UJS approve M. USA J. B. DISA AGENCY VDJ-8 J-8/JCD J. B. J. B. J.	apabilities Integ nanual, signed b recommendatio e concurrence as pprove F COORDINATIO DATE 20 Mar 15 20 Mar 15 20 Mar 15 20 Mar 15 2 Apr 15 1 Apr 15	ration and Deve y VCJCS, inclu ns. s stated in the l See	elopment System ( des clarifying lang pottom line. e Me	DATE
to improve language manual. b. The February addresses the DoD I 5. <u>Recommendation</u> 5. <u>Recommendation</u> 5. <u>Recommendation</u> DAVID L. GOLDFEII Director, Joint Staff <u>NAME</u> <u>Mr. Carney</u> <u>BGEN Guastella</u> Col Quinn No equity No equity CAPT Reardanz (6) (6)	in the Joint C 2015 JCIDS n G audit team's a. DJS approve J. UJS approve M. USA J. B. DISA AGENCY VDJ-8 J-8/JCD J. B. J. B. J.	apabilities Integ nanual, signed b recommendation concurrence as pprove	ration and Deve y VCJCS, inclu ns. s stated in the l Secon NAME	elopment System ( des clarifying lang pottom line. e Me	DATE

DEPARTMENT OF THE NAVY OFFICE OF THE CHIEF OF NAVAL OPERATIONS 2000 NAVY PENTAGON WASHINGTON, D.C. 20350-2000 IN REPLY REFER TO 14 April 2015 MEMORANDUM FOR INSPECTOR GENERAL, DEPARTMENT OF DEFENSE SUBJECT: Navy Response to DODIG Draft Audit Report, "NAVAL AIR SYSTEMS COMMAND NEEDS TO IMPROVE MANAGEMENT OF WAIVER REQUESTS", D2014-D000AE-164.000, Dated 12 Mar 2015 The Navy has reviewed the subject report and partially concurs with the findings and recommendations. NAVAIRSYSCOM (PMA 290, 324 and 265) and OPNAV N84 assisted the DODIG during the conduct of this audit, and the report and responses were socialized within the offices of the Assistant Secretary of the Navy (Research, Development and Acquisition), the Chief of Naval Operations and NAVAIRSYSCOM. Our response to your draft report is enclosed. Responsibility for implementing the proposed changes that Navy concurs with is the responsibility of OPNAV N84. If you have any questions, please contact Canoll P heade Carroll P. Quade Deputy Department of the Navy Test and Evaluation Executive (N84C)

#### NAVY RESPONSE TO

#### DODIG DRAFT AUDIT REPORT, "NAVAL AIR SYSTEMS COMMAND NEEDS TO IMPROVE MANAGEMENT OF WAIVER REQUESTS", D2014-D000AE-164.000, DATED 12 MARCH 2015

Finding A: Naval Air Systems Command Needs to Improve Management of Waiver Requests

NAVAIR Program Managers (PMs) did not fully implement Navy policy to request waivers and certify program readiness for Initial Operational Test and Evaluation (IOT&E) on the P-8A aircraft, Distributed Targeting System (DTS), and E-2D aircraft programs. Specifically, PMs did not:

- request waivers for the P-8A and DTS when those programs did not meet all IOT&E certification criteria; and
- clearly document what was done to meet each of the certification criteria for the E-2D.

These conditions occurred because Navy policy did not clearly and concisely state that PMs must request a waiver whenever the program did not meet all criteria required to enter IOT&E. Because program managers did not request waivers, the Program Executive Officer (PEO) could not effectively consider program readiness for entering the IOT&E test phase. As a result, the P-8A and the DTS program entered and completed IOT&E with unresolved deficiencies affecting threat detection, maneuverability, information exchange, and reliability. These deficiencies diminished the ability of the P-8A aircraft and the DTS to perform their primary missions.

#### **OPNAV Response:**

#### N84: Do not concur

This finding states that because PMs did not request waivers, the PEO could not effectively consider program readiness for entering the IOT&E test phase. This implies that the only information discussed at the Operational Test Readiness Review (OTRR) is regarding certification criteria not met, and that the only information provided to the PEO to support his or her decision is during the OTRR. This is incorrect.

The OTRR is a culmination of many months of effort by the program office. The program Test and Evaluation Working Integrated Product Team (T&E WIPT), which includes resource sponsors, DOT&E and DASD (DT&E), N842, COTF, logistics, technical test experts, training and other Subject Matter Experts (SMEs), determines the status of each of the 20 items of the OTRR certification criteria. The WIPT also determines the level of detail that each of the criteria should be discussed at the OTRR. Multiple iterations of the brief are developed and reviewed before presenting to the PM and the Deputy PEO before proceeding to the actual OTRR. There are many layers of expert review to ensure that PEO is provided objective data to make an informed decision at the OTRR.

#### NAVY RESPONSE TO

#### DODIG DRAFT AUDIT REPORT, "NAVAL AIR SYSTEMS COMMAND NEEDS TO IMPROVE MANAGEMENT OF WAIVER REQUESTS", D2014-D000AE-164.000, DATED 12 MARCH 2015

The existing SECNAVINST 5000.2 para 4.6.2 states "The SYSCOM commander, PEO, and DRPM shall, unless otherwise directed by ASN(RD&A) for programs on the OSD T&E oversight list, make one of the following certifications". The next two paragraphs of the instruction detail the two certifications, and state that the PEO shall certify, by naval message, that a system is either certified to proceed to Operational Testing (OT) with no exceptions, or certified to proceed to OT with T&E exceptions.

N84 acknowledges that the current SECNAV 5000.2E policy could be updated to provide more clear guidance on leadership expectations of OTRR processes.

#### **NAVAIR Response:**

#### PMA-290: Do not concur

The P-8A OTRR provided the PEO an extremely detailed briefing with several supporting reports for which to base the readiness for test decision upon including each draft wavier and deferral. Additionally, the OTRR included representatives from all program stakeholders and SMEs who carefully reviewed the information and advised the PEO on whether criteria were satisfactorily met including the draft waivers and deferrals.

#### PMA-265: Do not concur

PMA-265 has reviewed the report and believes that while the report is not inaccurate, the reliability statements on DTS are misleading. At the time of OTRR (14 June 2012), there were 116.9 flight hours between operational mission failures with all reliability growth curves on track to reach the minimum requirement of 130 flight hours before initial operational capability. DTS reached the 130 flight hours between operational mission failures requirement 28 days later during OT on 12 July 2012. IAW SECNAVINST 5000.2E, Certification of Readiness for Operational Testing, para 4.6.1 states the requirement of: *T&E results indicate performance thresholds identified in the TEMP have been satisfied or are projected to meet system maturity for the CDD and CPD, as appropriate.* As previously stated, the DTS was on a growth curve for reliability above the requirement to enter into the IOT&E phase.

#### PMA-231: Do not concur

PMA-231 has reviewed the report and believes that while the report is not inaccurate, the PM did document what was done to meet each of the IOT&E certification criteria for the E-2D aircraft program.

As documented in the DoDIG report, charts contained in the 12 January 2012 briefing "E-2D Road to IOT&E Deep Dive" were given to the PEO and staff and certification area SMEs. Additionally, the DoDIG report acknowledges that information contained in the "E-2D Road to

#### NAVY RESPONSE TO

#### DODIG DRAFT AUDIT REPORT, "NAVAL AIR SYSTEMS COMMAND NEEDS TO IMPROVE MANAGEMENT OF WAIVER REQUESTS", D2014-D000AE-164.000, DATED 12 MARCH 2015

IOT&E Deep Dive" charts was provided to the PEO and showed evidence of how the program met each of the 20 OTRR certification criteria. Therefore, the chairperson of the OTRR was presented with the certification criteria checklist and substantiating evidence showing which certification criteria were met and not met.

The 1 February 2012 OTRR briefing provided a checklist summary of the certification criteria listed in SECNAVINST 5000.2E since the chairperson of the OTRR was already provided with the substantiating evidence in the "E-2D Road to IOT&E Deep Dive" charts from 12 January 2012.

**<u>Recommendation A.1</u>**: We recommend that the Assistant Secretary of the Navy for Research, Development, and Acquisition and the Chief of Naval Operations, Director, Innovation, Test and Evaluation, and Technology, update:

- 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;" and
- Secretary of the Navy Manual, M-5000.2, "Acquisition and Capabilities Guidebook," May 9, 2012, Section 4.6, "Certification of Readiness for Operational Testing," to:
  - a. Emphasize that PMs must request waivers whenever they do not meet any of the 20 criteria the Secretary of the Navy Instruction 5000.2E requires programs to meet to certify readiness for IOT&E; and
  - b. Clarify that OTRR briefings to stakeholder groups should include specific explanations of program accomplishments against each of the 20 certification criteria to clearly document either that the criteria was met or a waiver or deferral request was coordinated with the Chief of Naval Operations, Director, Innovation, Test and Evaluation, and Technology; the program sponsors; and the Commander, Operational Test and Evaluation Force.

#### **OPNAV Response:**

#### N84: Concur

 SECNAV is determining the best way to promulgate future Navy acquisition policy (SECNAV 5000.2E). While leadership considers options, the Deputy Department of the Navy T&E Executive (N84C) will promulgate interim guidance to address the waiver and deferral process. Specific items that will be addressed:

#### NAVY RESPONSE TO

#### DODIG DRAFT AUDIT REPORT, "NAVAL AIR SYSTEMS COMMAND NEEDS TO IMPROVE MANAGEMENT OF WAIVER REQUESTS", D2014-D000AE-164.000, DATED 12 MARCH 2015

- a. The use of the term "waiver" in the OTRR process continues to create confusion among Department of Navy acquisition community leaders and staff, as well as the IG audit team. The desired action is for the PEO to notify ASN(RDA) that a program is proceeding to OT without achieving one or more of the 20 specified OT certification criteria. It is not a mechanism for N84 to provide a program with relief from a specific CDD/CPD Requirement. The term "waiver" will be replaced with "Deviation from SECNAV Policy". The term "deferral" will be replaced with "Deferral of Test Requirements" and applies to a delay in testing capabilities identified in the current requirements document and agreed to in the TEMP.
- b. The audit states that there is no requirement to document to the PEO how each of the criteria have been met. Additionally, there has been some discussion that a certification items could be characterized as "partially met". To address these issues, the guidance will read:

"Certification Criteria assessments are binary – 'met' or 'not met'. There is no 'partially met'.

OTRR briefs shall include a summary chart that characterizes program office assessment of each of the 20 criteria for IOT&E (or the tailored set for events other than IOT&E), and ensure that each criterion is discussed in adequate detail to support the program office assessment."

c. As stated above, the SECNAVINST 5000.2E describes that a PEO must request a waiver when certification criteria are not met in three short paragraphs. There is not a single sentence that states the requirement. To clarify this, the interim guidance will state:

"Deviations from SECNAV Policy and Deferral of Test Requirements shall be discussed in the OTRR and formally requested in the OT&E Certification Message. If a deviation or deferral request is anticipated, the PM shall coordinate with the program sponsor (Navy only), CNO (N84)/DC, CD&I, and COMOPTEVFOR / Director, MCOTEA prior to the OTRR. When requesting a Deviation in the OTRR Certification Message, the PEO shall identify which of the 20 certification criteria that are not met, and state why the decision was made to proceed to OT&E without meeting those specific criteria.

When requesting a deferral in the OTRR Certification Message, the PM shall describe 1) the capability limitation 2) the operational impact upon the system under test, and 3) the planned timeframe for testing the capability in a future OT&E period."

#### NAVY RESPONSE TO DODIG DRAFT AUDIT REPORT, "NAVAL AIR SYSTEMS COMMAND NEEDS TO IMPROVE MANAGEMENT OF WAIVER REQUESTS", D2014-D000AE-164.000, DATED 12 MARCH 2015

Finding B: Requirements Documents Must Identify System Characteristics Most Critical to Providing an Effective Military Capability

Weapon system sponsors within the Office of the Chief of Naval Operations (CNO) did not fully define the aircraft system characteristics most critical for providing an effective military capability. In addition, they did not designate the characteristics as key performance parameters (primary requirements) when writing system requirements documents for the P-8A and E-2D aircraft programs. Additionally, the Joint Chiefs of Staff's Joint Requirement Oversight Council (JROC) review and validation of those requirements documents did not focus the primary requirements on the accomplishment of critical aircraft missions.

These conditions occurred because Joint Chiefs of Staff guidance did not specifically require the CNO staff and the JROC to make sure the requirements document captures system characteristics that are most critical to meeting mission requirements as primary requirements. As a result, the weapon system sponsors concurred with P-8A and the E-2D waiver requests without giving the Joint Chiefs of Staff the opportunity to assess the effect of those waivers on the military usefulness of the aircraft. Additionally, because the requirements, PMs accepted production units with diminished mission effectiveness. For example, at the time of the final production decision, the PMs for the P-8A Poseidon had accepted 13 aircraft for \$2.6 billion that could not fully perform primary missions for Anti-Submarine Warfare, Anti-Surface Warfare, and Intelligence gathering.

#### **OPNAV Response:**

#### N84/N803: Do not concur

Finding B implies that the only way a PM/PEO is informed of a system's required capabilities and determines if a system is ready to proceed to operational testing is through reading a detailed requirement document. This incorrectly assumes that the requirement document is the only vehicle for conveying programmatic information to the PEO and PM. Resource sponsors, PEOs and PMs are in daily communications discussing risk, cost, performance and schedule. Numerous technical and fiscal realities, as well as actual system performance, all affect the decision making process associated OTRRs.

Existing SECNAVINST Policy paragraph 4.6.2.2 states that a PEO must execute the following policy when certifying a system to proceed to OT with Exceptions – which encompasses both waivers and deferrals (italics added for accent):

#### NAVY RESPONSE TO

#### DODIG DRAFT AUDIT REPORT, "NAVAL AIR SYSTEMS COMMAND NEEDS TO IMPROVE MANAGEMENT OF WAIVER REQUESTS", D2014-D000AE-164.000, DATED 12 MARCH 2015

"4.6.2.2 Certification for OT With T&E Exceptions Certify to CNO ((N84), DC, CD&I by message that a system is ready for OT\_\_\_\_\_(specific operational test phase), as required by the TEMP, with waiver and or deferral requests. *Provide information copies to the program sponsor (Navy only, who must provide formal concurrence with proposed exceptions)*, ASN(RD&A), COMOPTEVFOR and Director, MCOTEA, and when a program is on the OSD T&E oversight list, to DOT&E."

This policy ensures that the PEO delegated Title 10 responsibility from the CNO to develop requirements for systems that will equip the fleet have executed that responsibility in determining that the system capabilities are adequate to proceed to operational testing. The Navy views this as adequate oversight.

Adding a requirement for a waiver to be approved by the JROC, would also force many Flag level briefs - up to the four star level – before the waiver would even leave the Navy to start Joint Staffing. This is a significant administrative burden that is contradictory to CNO direction and USD AT&L BBP 3.0 guidance and would ultimately impact program execution.

It is also noted that the DODIG audit team chose to ignore OPNAV N84's recommendations to interview the owners of the Navy Requirements process - CNO JCIDS gatekeeper staff (OPNAV N803) and the Requirements Officers (OPNAV N98 for P-8/DTS and OPNAV N2/6 for E-2D), so they would better understand and characterize their role in this process.

#### NAVAIR Response:

#### PMA-290: Do not concur

Do not concur with the finding that Weapon System sponsors within the Office of the CNO did not designate characteristics most critical to providing an effective military capability as primary requirements when writing aircraft requirements documents. The Fleet's most urgent need for the P-8A platform was for the Anti-Submarine Warfare (ASW) mission conducted by the aging P-3C Orion. Mission systems for ASW and other missions were derivatives of mature technologies that were successfully performing the same missions on the P-3C. As such, the requirements were logically written to define the needed replacement platform, and platform performance was appropriately designated as one of the most critical characteristics of the P-8A as a platform replacement program.

**<u>Recommendation B.1:</u>** We recommend that Vice Chairman, Joint Chiefs of Staff, modify the Joint Capabilities Integration and Development System (JCIDS) Manual to add clarifying language regarding the need for:

a. sponsors to define those system characteristics that are most critical for providing an effective military capability and designate them as primary requirements when writing requirements documents; and

#### NAVY RESPONSE TO

#### DODIG DRAFT AUDIT REPORT, "NAVAL AIR SYSTEMS COMMAND NEEDS TO IMPROVE MANAGEMENT OF WAIVER REQUESTS", D2014-D000AE-164.000, DATED 12 MARCH 2015

b. Joint Requirements Oversight Council review to make sure the system characteristics most critical to mission effectiveness are captured as primary requirements.

#### **OPNAV Response:**

#### N84/N803: Concur

This is already incorporated in the existing JCIDS development, staffing and review process. No impact to existing process or Navy policy.

**Recommendation B.2:** We recommend that the Secretary of the Navy update SECNAV Instruction 5000.2.E, "Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System," September 1, 2011, to require sponsors of acquisition programs designated as Acquisition Category I, or of interest to the Joint Capability Board or the Joint Requirements Oversight Council, to certify to the Vice Chairman, Joint Chiefs of Staff that:

- a. approved waivers do not adversely impact primary system requirements; or;
- b. if a proposed waiver does adversely impact primary system requirements, that the system continues to have military utility as described in the "Manual for the Operation of the Joint Capabilities Integration and Development System," January 10, 2012 before approving the waiver.

#### **OPNAV Response:**

#### N803/N84: Do not concur

Services have the Title 10 authority to man, train, and equip. JROC has Title 10 authority over requirements, not acquisition implementation of them. Once the JROC validates the requirements, it becomes the CNO's responsibility to ensure they are met, and ASN(RDA)'s responsibility to acquire the appropriate material solution. The PEO, as ASN(RDA)'s executive agent, in consultation with the CNO staff, is responsible for assessing whether a system shortfall impacts meeting CDD/CPD requirements when certifying a system to proceed to OT. Existing SECNAVINST Policy paragraph 4.6.2.2 states that a PEO must follow the following policy when certifying a system to proceed to OT with Exceptions – which encompasses both waivers and deferrals (italics added for accent):

"Certification for OT With T&E Exceptions



#### NAVY RESPONSE TO

#### DODIG DRAFT AUDIT REPORT, "NAVAL AIR SYSTEMS COMMAND NEEDS TO IMPROVE MANAGEMENT OF WAIVER REQUESTS", D2014-D000AE-164.000, DATED 12 MARCH 2015

Certify to CNO (N84), DC, CD&I by message that a system is ready for OT\_\_\_\_(specific operational test phase), as required by the TEMP, with waiver and or deferral requests. *Provide information copies to the program sponsor (Navy only, who must provide formal concurrence with proposed exceptions)*, ASN(RD&A), COMOPTEVFOR and Director, MCOTEA, and when a program is on the OSD T&E oversight list, to DOT&E."

This policy ensures that the flag officer delegated Title 10 responsibility from the CNO to develop requirements for systems that will equip the fleet have executed that responsibility in determining that the system capabilities are adequate to proceed to Operational Testing.

Adding a requirement for a waiver to be approved by the JROC, would also drive many Flag level briefs - up to the four star level – before the waiver would even leave the Navy to start Joint Staffing.

#### **NAVAIR Response:**

#### PMA-290: Do not concur

The current waiver and deferral process has historically worked well for the P-8A program and for all PEO(A) programs. The current structure and decision level for waivers is effective for ensuring a comprehensive and efficient process for managing Acquisition Category I programs. The DoD IG proposal would effectively require Major Defense Acquisition Programs to regularly elevate discussions of narrowly scoped individual deficiencies with minimal impact on top-level system performance to the JROC or JCS. This would at best create a significant, non-value added administrative burden.

#### **General Comments:**

#### PMA-290:

As discussed in this response, the decision to enter IOT&E was the result of a robust review and risk assessment by key stakeholders of the deficiencies at the time. The deficiencies were assessed to be low risk and not to the degree to delay the start of test and subsequently the fielding of this critical capability to the fleet. The decision was validated by the final IOT&E determination that the platform was Operationally Effective, Operationally Suitable, and Recommended for Fleet Introduction, and again by the P-8A's considerable operational successes during its first two operational deployments. It is especially worth noting that frequent Fleet feedback confirms the long-standing conclusion of the entire Navy test community that the aircraft's ASW systems are a substantial leap forward over all previously fielded P-3C systems even for P-8A Increment 1, and continue to add capability in accordance with a very carefully planned evolutionary upgrade strategy that intelligently balances cost, schedule and

#### NAVY RESPONSE TO DODIG DRAFT AUDIT REPORT, "NAVAL AIR SYSTEMS COMMAND NEEDS TO IMPROVE MANAGEMENT OF WAIVER REQUESTS", D2014-D000AE-164.000, DATED 12 MARCH 2015

performance without assuming unnecessary technical risk. Furthermore, the program's incremental requirements definition strategy is one that should be replicated for future programs if DoD and the Navy are to efficiently and cost-effectively deliver new capabilities in a resource constrained environment.

#### **Classification Review:**

Navy: No classification issues noted.

ASN(RDA) Assistant Secretary of the Navy for Research, Development, and Acquisition

# **Acronyms and Abbreviations**

AHE Advanced Hawkeye

CNO	Chief of Naval Operations
DTS	Distributed Targeting System
IOT&E	Initial Operational Test and Evaluation
JCIDS	Joint Capabilities Integration and Development System
JCS	Joint Chiefs of Staff
JITC	Joint Interoperability Test Command
JROC	Joint Requirements Oversight Council
NAVAIR	Naval Air Systems Command
OTRR	Operational Test Readiness Review

- PEO Program Executive Officer
- SECNAVINST Secretary of the Navy Instruction
  - TEMP Test and Evaluation Master Plan

FOR OFFICIAL USE ONLY



### **Whistleblower Protection** U.S. Department of Defense

The Whistleblower Protection Enhancement Act of 2012 requires the Inspector General to designate a Whistleblower Protection Ombudsman to educate agency employees about prohibitions on retaliation, and rights and remedies against retaliation for protected disclosures. The designated ombudsman is the DoD Hotline Director. For more information on your rights and remedies against retaliation, visit www.dodig.mil/programs/whistleblower.

# For more information about DoD IG reports or activities, please contact us:

Congressional Liaison congressional@dodig.mil; 703.604.8324

Media Contact public.affairs@dodig.mil; 703.604.8324

Monthly Update dodigconnect-request@listserve.com

> **Reports Mailing List** dodig\_report@listserve.com

> > Twitter twitter.com/DoD\_IG

#### **DoD Hotline**

dodig.mil/hotline

# FOR OFFICIAL USE ONLY



### DEPARTMENT OF DEFENSE | INSPECTOR GENERAL

4800 Mark Center Drive Alexandria, VA 22350-1500 www.dodig.mil Defense Hotline 1.800.424.9098

# FOR OFFICIAL USE ONLY