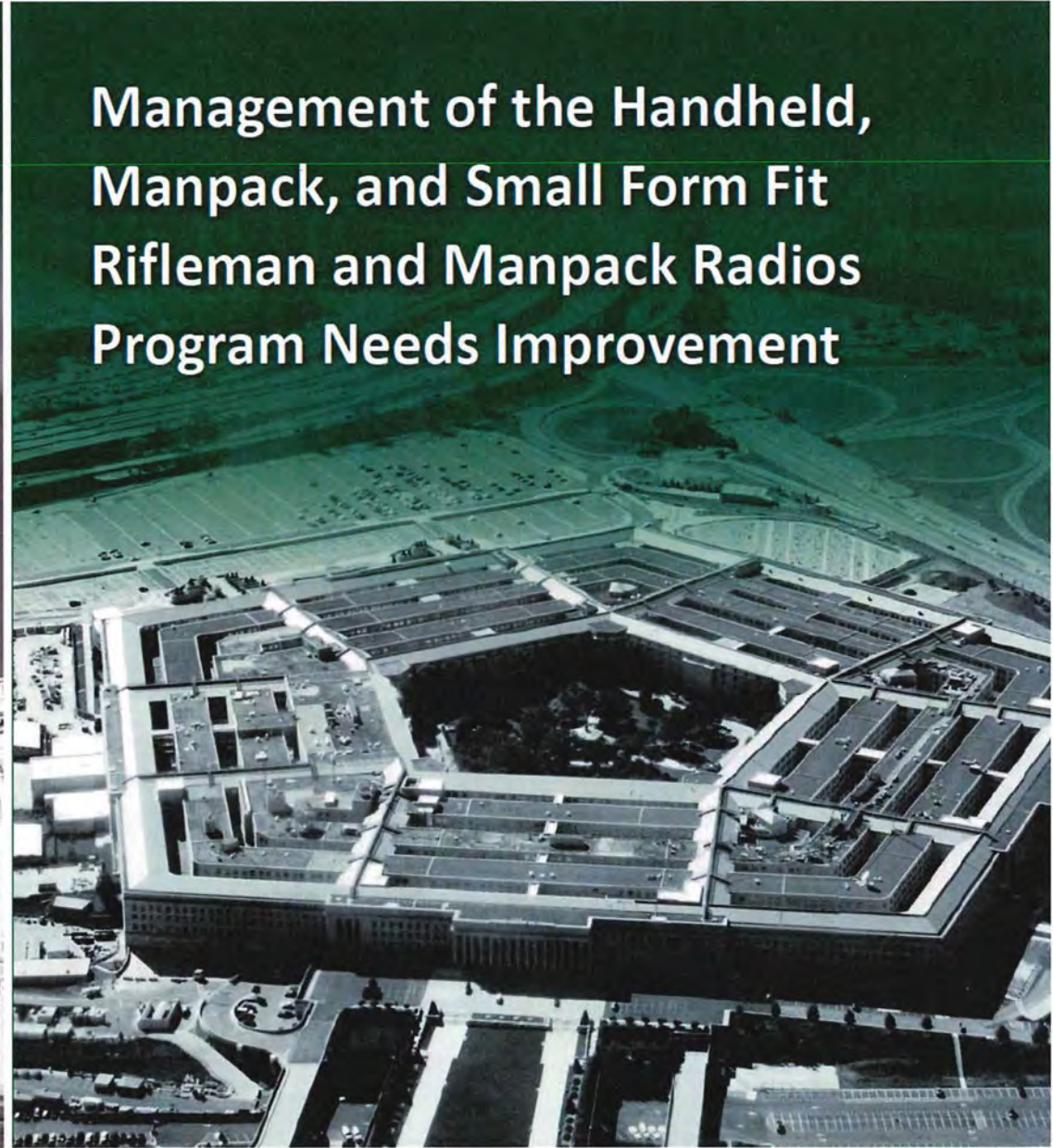


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# INSPECTOR GENERAL

*U.S. Department of Defense*

MAY 4, 2015



## Management of the Handheld, Manpack, and Small Form Fit Rifleman and Manpack Radios Program Needs Improvement

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# Results in Brief

## *Management of the Handheld, Manpack, and Small Form Fit Rifleman and Manpack Radios Program Needs Improvement*

May 4, 2015

### Objective

(U) The objective was to determine whether the Army has effectively managed the acquisition and testing program for the Joint Tactical Radio System Handheld, Manpack, and Small Form Fit (HMS) Rifleman and Manpack radios to make sure they meet warfighter needs.

### Finding

(FOUO) We determined management of this program needs improvement. Initially, the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)) managed the HMS program as a joint program, but it transitioned to the Army in July 2012. During the audit, program decisions from the USD(AT&L) caused the current HMS problems.

(FOUO) The HMS program is estimated to cost about (b) (4) over budget, is behind schedule 4 years, and does not meet all system performance requirements. These conditions occurred because in June 2011, the USD(AT&L) directed the HMS program office to initiate a new full and open competition for production radios. In addition, the USD(AT&L) prematurely approved the HMS program to enter Milestone C (the production and deployment phase) and procure and test initial production radios from the development contractor, even though the radios did not meet system performance requirements and the program manager did not have approved test and evaluation master plans. During

### Finding (cont'd)

(FOUO) the audit, in May 2014, the USD(AT&L) approved the new acquisition strategy for the full and open competition. As a result, the HMS program:

- will incur (b) (4) in significant cost increases, of which (b) (4) results from the change in the acquisition strategy;
- has spent (b) (4) to fund the development, procurement, and testing of radios on the development contract after being directed to change the acquisition strategy to a full and open competition for production radios and in addition will not award the production contract based on the development contract;
- will increase the overall lifecycle support costs for the Rifleman by (b) (4) and by (b) (4) for the Manpack for each additional design;
- has delayed the production decisions by 4 years which will consequently delay the planned fielding schedule to the warfighters; and
- has fielded to the warfighters radios that did not meet performance requirements.

### Recommendations

(U) We recommend the Under Secretary of Defense for Acquisition, Technology, and Logistics require approved test and evaluation master plans for the Rifleman and Manpack radios before the program office awards the delivery orders for radio qualification testing and does not approve the procurement of any additional initial production Manpack radios until the radio passes the required tests.

(FOUO) We recommend the Assistant Secretary of the Army (Financial Management and Comptroller) reallocate the (b) (4) in Procurement funding for the Rifleman and Manpack radio programs across the FY 2015 to FY 2019 Future Years Defense Program to support the funding requirements for the new acquisition strategy.





## Results in Brief

### *Management of the Handheld, Manpack, and Small Form Fit Rifleman and Manpack Radios Program Needs Improvement*

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

(U) The Under Secretary of Defense for Acquisition, Technology and Logistics, disagreed with Recommendation 1.a and 1.b; however, his comments did not address specifics of the recommendation. The Under Secretary stated that he exercised discretion in approving a limited production of radios to meet operational needs and testing requirements. He also stated that policy requiring test and evaluation master plans was tailorable. We agree that the policy is tailorable; however, the Under Secretary should have documented in writing in advance his intent to tailor specific acquisition guidance for the HMS program. He

(U) did not, therefore we recommend the Under Secretary should require the program manager to demonstrate that approved test and evaluation master plans are in place before awarding delivery orders for Rifleman and Manpack radio qualification. Additionally, the Under Secretary should have the program manager demonstrate successful completion of required testing before additional Manpack radios are purchased.

We request that the Under Secretary reconsider his response to Recommendations 1.a and 1.b. The Under Secretary, responding for the Assistant Secretary of the Army (Financial Management and Comptroller), agreed with Recommendation 2, and no further comments are required. Please see the Recommendations Table on the following page.

**Recommendations Table**

(U) Management	Recommendations Requiring Comment	No Additional Comments Required
Under Secretary of Defense for Acquisition, Technology, and Logistics	1.a. and 1.b.	
Assistant Secretary of the Army (Financial Management and Comptroller)		2

(U)

Please provide Management Comments by June 3, 2015.



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

May 4, 2015

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION, TECHNOLOGY,  
AND LOGISTICS  
AUDITOR GENERAL, DEPARTMENT OF THE ARMY

SUBJECT: Management of the Handheld, Manpack, and Small Form Fit Rifleman and Manpack  
Radios Program Needs Improvement (Report No. DODIG-2015-118)

~~(FOUO)~~ We are providing this report for your review and comment. We determined that the Handheld, Manpack, and Small Form Fit (HMS) program (formally the Joint Tactical Radio System Handheld, Manpack, and Small Form Fit program) is estimated to cost about (b) (4), (b) (5) over budget, is behind schedule 4 years, and does not meet all system performance requirements. The HMS program is estimated to incur significant cost increases, of which (b) (4) results from the change in the acquisition strategy and (b) (4) to fund the development, procurement, and testing of radios on the development contract. The change to the acquisition strategy increased the overall lifecycle support costs for the Rifleman and Manpack radios; delayed production decisions by 4 years, which will delay the planned fielding schedule to the warfighters; and provided warfighters radios that did not meet performance requirements. We conducted this audit in accordance with generally accepted government auditing standards.

(U) We considered management comments on a draft of this report when preparing the final report. DoD Directive 7650.3 requires that recommendations be resolved promptly. The Under Secretary of Defense for Acquisition, Technology and Logistics provided a response to the draft report. The Under Secretary disagreed with Recommendation 1a. and 1b. The Under Secretary, responding for the Assistant Secretary of the Army (Financial Management and Comptroller), agreed with Recommendation 2. Therefore, we request the Under Secretary provide additional comments on Recommendation 1a. and 1b. by June 3, 2015.

(U) Please send a PDF file containing your comments to [audapi@dodig.mil](mailto:audapi@dodig.mil). 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).

(U) We appreciate the courtesies extended to the staff. Please direct questions to me at (703) 604 (b) (6) (DSN 664 (b) (6)).

A handwritten signature in cursive script that reads "Jacqueline L. Wiccarver".

Jacqueline L. Wiccarver  
Assistant Inspector General  
Acquisition, Parts, and Inventory



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## Introduction

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### Objective

(U) The objective was to determine whether the Army has effectively managed the acquisition and testing programs for the Joint Tactical Radio System Handheld, Manpack, and Small Form Fit (HMS) Rifleman and Manpack radios to make sure they meet warfighter needs. See the Appendix A for scope and methodology.

### HMS Program History

~~(FOUO)~~ The HMS program is a major Defense acquisition program that comes under the management oversight of the Army Program Executive Officer for Command, Control, Communications-Tactical. The Under Secretary of Defense for Acquisition, Technology, and Logistics (USD[AT&L]) is the Milestone Decision Authority for the program. The HMS program includes both the Rifleman and Manpack radios. On June 17, 2011, the HMS program entered the production and deployment phase. The approved Full-Rate production (production) decision for the HMS program was scheduled for 2012; however, with program delays, the new estimated production decision dates for the Rifleman and Manpack radios are February 2017 and July 2017, respectively.

~~(FOUO)~~ Originally, the HMS was part of a joint program known as the Joint Tactical Radio System, which included the Army, Navy, Air Force, and Marine Corps; however, as of July 11, 2012, the program transitioned solely to the Army. Research, Development, Test and Evaluation (RDT&E) and Procurement funds for the HMS program total approximately ~~(b) (4), (b) (5)~~ to develop and acquire 193,279 Rifleman and 73,064 Manpack radios, in addition to other small form fit embedded radio sets. As of November 30, 2014, the Army has acquired 21,379 Rifleman and 5,326 Manpack radios through initial production.

~~(FOUO)~~ The Army on July 16, 2004 awarded a cost-plus-award-fee development contract, following a full and open competition to the General Dynamics C4 Systems Team, consisting of General Dynamics, BAE Systems, Rockwell Collins, and Thales. The contract required the prime contractor to qualify two manufacturers from the team for each radio, to make sure the Army achieved projected cost savings and to encourage competition between the two qualified vendors for production radios. As part of the development contract, the HMS program exercised options to acquire production-representative radios for operational testing, establish an initial manufacturing base, and support Army Capability Set requirements. The Low-Rate Initial Production (initial production) options facilitated quick procurement of production representative radios for operational testing.

### Rifleman Program

(FOUO) The Rifleman radio (Figure 1) is a standalone one-channel unit that includes a receiver/transmitter, antenna, battery, and hand microphone. The radio will support real-time squad communications at the secret and below levels. The Rifleman radio allows the warfighter to participate in existing voice networks and transmits position location information.

### Manpack Program

(FOUO) The Manpack radio (Figure 2) is a multi-channel, multi-waveform, software definable radio intended to support mounted and dismounted operations. Initial capability for the Manpack radio includes the Soldier Radio Waveform, Ultra High Frequency Satellite Communication, and Single Channel Ground and Airborne Radio System.



Figure 1. (FOUO) Rifleman radio  
Source: (FOUO) Program Executive Office for Command, Control, Communications–Tactical



Figure 2. (FOUO) Manpack radio  
Source: (FOUO) Program Executive Office for Command, Control, Communications–Tactical



## Review of Internal Controls

~~(FOUO)~~ 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 the program testing, acquisition strategy, and required program documentation. Specifically, we determined that the USD(AT&L) approved the HMS program to enter the production and deployment phase with major test deficiencies<sup>1</sup> and without required program documentation and continued to approve subsequent initial production Rifleman and Manpack radios, even though the radios did not pass all tests and all required program documentation was not completed by the HMS program office. DoD Instruction 5000.02, "Operation of the Defense Acquisition," December 8, 2008,<sup>2</sup> requires Military Services to complete program documentation at specific program milestones to ensure DoD decision makers will have the necessary information to make informed decisions. We will provide a copy of the report to the senior officials responsible for internal controls in the USD(AT&L) and the Department of the Army.

<sup>1</sup> ~~(FOUO)~~ Major test deficiencies are key performance parameters (primary requirements) and key system attributes (secondary requirements) from the production document not met during testing.

<sup>2</sup> ~~(FOUO)~~ On January 7, 2015, the DoD Instruction 5000.02 was updated.

## Finding

### HMS Program Over Budget, Behind Schedule, and Not Meeting Performance Requirements

~~(FOUO)~~ The HMS program is estimated to cost about <sup>(b) (4), (b) (5)</sup> over budget, is behind schedule 4 years, and does not meet all system performance requirements. These conditions occurred because in June 2011, the USD(AT&L) directed the HMS program office to initiate a new full and open competition for production radios. In addition, the USD(AT&L) prematurely approved the HMS program to enter Milestone C (the production and deployment phase) and procure and test initial production radios from the development contractor, even though the radios did not meet system performance requirements and the program manager did not have approved test and evaluation master plans. During the audit, in May 2014, the USD(AT&L) approved the new acquisition strategy for the full and open competition. As a result, the HMS program:

- will incur <sup>(b) (4)</sup> in significant cost increases, of which <sup>(b) (4)</sup> results from the change in the acquisition strategy;
- has spent <sup>(b) (4)</sup> to fund the development, procurement, and testing of radios on the development contract after being directed to change the acquisition strategy to a full and open competition for production radios and in addition will not award the production contract based on the development contract;
- will increase the overall lifecycle support costs for the Rifleman by <sup>(b) (4)</sup> and by <sup>(b) (4)</sup> for the Manpack for each additional design;
- has delayed the production decisions by 4 years which will consequently delay the planned fielding schedule to the warfighters; and
- has fielded to the warfighters radios that did not meet performance requirements.



## HMS Program Cost, Schedule, and Performance Parameters

(U) The Acquisition Program Baseline (APB) documents the approved desired and maximum guidelines for cost, schedule, and performance over a program's life cycle. The USD(AT&L) approved the HMS program APB on October 20, 2011.

### HMS Program Estimated to Cost (b) (4), (b) (5) Over Acquisition Program Baseline

(U) The HMS program total acquisition cost estimate is about (b) (4), (b) (5). Table 1 shows the October 20, 2011, APB approved costs and the estimated costs of the HMS program in the quarterly Defense Acquisition Executive Summary report as of November 25, 2014.

~~(FOUO)~~ Table 1. HMS Program Costs (in (b) (4), (b) (5))

<del>(FOUO)</del> Funding	October 2011	November 2014
RDT&E	(b) (4)	(b) (4)
Procurement	(b) (4)	(b) (4)
<b>Total Acquisition Cost</b>	(b) (4)	(b) (4)

~~(FOUO)~~

### HMS Program Schedule 4 Years Behind Acquisition Program Baseline

~~(FOUO)~~ The HMS Program did not meet the approved production decision schedule dates. The Army Program Executive Officer Command, Control, Communications-Tactical notified USD(AT&L) on December 20, 2012, and again on March 1, 2013, for the Rifleman and Manpack radios, respectively, that the HMS program would not meet the schedule dates for the production decisions in the approved APB. Table 2 provides the HMS program APB dates for the production decisions, compared with the estimated dates in the quarterly Defense Acquisition Executive Summary report as of November 25, 2014.

~~(FOUO)~~ Table 2. HMS Program Schedule Changes for Production Decisions

<del>(FOUO)</del> Production Decision	Acquisition Program Baseline October 20, 2011	Defense Acquisition Executive Summary Report November 25, 2014	Difference
Rifleman Radio	(b) (4)	(b) (4)	(b) (4)
Manpack Radio	(b) (4)	(b) (4)	(b) (4)

~~(FOUO)~~

### ***HMS System Performance Requirements Not Being Met***

~~(FOUO)~~ The HMS program does not meet all critical and essential system performance requirements for achieving usable Rifleman and Manpack radios as specified in the approved production document. As of November 2014, the HMS program has not met system performance requirements and does not have approved test and evaluation master plans for the Rifleman and Manpack radios.

#### *Rifleman Radio*

~~(FOUO)~~ As of November 30, 2014, the Rifleman radio did not meet two of its key performance parameters (b) (4), (b) (5) and two of its key system attributes (b) (4), (b) (5) from its production document. During developmental testing, the Rifleman radio did not meet (b) (4), (b) (5) to (b) (5), (b) (4)

(b) (5), (b) (4) The tests also were to (b) (5), (b) (4)

(b) (5), (b) (4) In addition, the Rifleman radio did not meet secondary requirements for (b) (5), (b) (4)

(b) (5), (b) (4) Moreover, (b) (4), (b) (5)

(b) (5), (b) (4) In April 2013, the Army changed the Rifleman radio capabilities to include both SECRET and unclassified communications and procured 9,800 Rifleman radios with this new capability. The Army has completed operational testing on November 25, 2014, for this capability, and the Army Test and Evaluation Command expects to complete the test report by the end of March 2015.

#### *Manpack Radio*

~~(FOUO)~~ As of November 30, 2014, the Army determined that the Manpack radio was overall effective. Although it is not suitable in (b) (5), (b) (4)

(b) (5), (b) (4) The Manpack radio overall was (b) (5),

(b) (5), (b) (4) During follow-on operational testing, the Manpack radio did not (b) (5), (b) (4)

(b) (5), (b) (4) even though the Army found the radio overall effective. (b) (5), (b) (4) the

Manpack radio did not fully meet (b) (5), (b) (4)

(b) (5), (b) (4) In addition, (b) (5), (b) (4) was not suitable (b) (5), (b) (4)

<sup>3</sup> ~~(FOUO)~~ (b) (5), (b) (4)



(FOUO) (b) (5), (b) (4) (b) (4), (b) (5) did not meet (b) (5), (b) (4) which means the radio did not achieve (b) (5), (b) (4) and operating the radio may require (b) (5), (b) (4)

### USD(AT&L) Directed Change to the Acquisition Strategy

(FOUO) The USD(AT&L) June 17, 2011, Acquisition Decision Memorandum tasked the Army to conduct a new full and open competition for the production contract. The HMS program office stated the original acquisition strategy consisted of a single development contract awarded in July 2004 through a full and open competition. For the original acquisition strategy, the Army required the prime contractor to qualify two manufacturers each for the Rifleman and the Manpack radios. The Army anticipated future cost savings because two developmental contract manufacturers would compete for the production contract on each radio. The May 2014 HMS Acquisition Strategy implemented a new full and open competition based on a multi-vendor approach for the production decision. The Army plans to award multiple contracts over the life of the program to achieve greater competition and better pricing. The radios procured under this new strategy will be nondevelopmental radios. The original acquisition strategy did not include this competition. Adding additional vendors to the competition requires additional testing and will delay production decisions.

(FOUO) In addition to the USD(AT&L) direction, the National Defense Authorization Act for FY 2012<sup>4</sup> restricted funding until the Secretary of the Army submits to the congressional defense committees' written certification that the acquisition strategy for the production includes full and open competition that includes commercially developed systems that the Secretary determines are qualified. The congressional funding limitations allowed the HMS program to expend funds on the development contract and buy initial production radios. However, the Authorization Act does not allow the HMS program to award a procurement contract to buy production radios until the acquisition strategy is changed to include another full and open competition and commercially developed systems. On December 12, 2013, the USD(AT&L) signed an Acquisition Decision Memorandum approving an additional change to the acquisition strategy. The change allows (b) (4), (b) (5)

<sup>4</sup> (FOUO) The National Defense Authorization Act for FY 2012, Public Law 112-81, Section 141, December 31, 2011.

## Premature Entry to the Production and Deployment Phase

~~(FOUO)~~ The USD(AT&L) prematurely approved the HMS program entering Milestone C (the production and deployment phase) on June 17, 2011, to procure and test initial production radios from the development contractor. The Rifleman and Manpack radios had major test deficiencies and did not have approved test and evaluation master plans.

### *System Test Deficiencies*

~~(FOUO)~~ The USD(AT&L) approved the HMS program entering the production and deployment phase with major deficiencies for the Rifleman and Manpack radios. The USD(AT&L) used developmental test results for the Rifleman and Manpack radios to support the Milestone C decision and the Director, Operational Test and Evaluation provided the following assessment:

#### *Rifleman Radio*

~~(FOUO)~~ The Rifleman radio did not meet all ~~(b) (4)~~ requirements. Specifically, the Rifleman radio could not ~~(b) (4)~~

#### *Manpack Radio*

~~(FOUO)~~ The Manpack radio did not meet all ~~(b) (4)~~ requirements. Specifically, the Manpack radio did not ~~(b) (4)~~

### *HMS Test and Evaluation Master Plans Not Approved*

(U) The Rifleman and the Manpack radios did not have approved test and evaluation master plans before the HMS program office performed testing, as required by DoD Instruction 5000.02.<sup>5</sup> A test and evaluation master plan describes required testing, who will perform the testing, necessary resources to perform the tests, and the requirements for evaluation. The regulations require test and evaluation master plans at every milestone or major program modification. The

<sup>5</sup> (U) DoD Instruction 5000.02, "Operations of the Defense Acquisition System," December 8, 2008, and Army Regulation 73-1, "Test and Evaluation Policy," August 1, 2006.



(U) test and evaluation master plan is key to developing testing that verifies that system requirements meet the effectiveness, suitability, and survivability criteria established for the system.

(U) USD(AT&L) should make sure test and evaluation master plans for the Rifleman and Manpack radios are approved before the HMS program office awards the delivery orders for radio qualification testing.

### Increased HMS Program Costs, Delayed Production Decisions, and Impacts on Warfighters

(FOUO) The USD(AT&L) decision to change the acquisition strategy and prematurely approve the HMS program entering the production and deployment phase significantly increased HMS program costs. Also, it delayed the production decision by 4 years and delayed fielding quality radios to the warfighters. Furthermore, the initial production Rifleman and Manpack radios supplied to the warfighters did not meet all performance requirements.

(FOUO)  
... delayed  
the production  
decision by  
4 years ...

### Radio Unit Costs Exceeded Acquisition Baseline

(FOUO) (b) (4), (b) (5) the HMS program office had exceeded the estimated procurement costs by (b) (4), (b) (5). The HMS program office calculated the average (b) (4), (b) (5) percent higher, respectively, than the APB unit costs. The United States Code<sup>6</sup> states that if the unit cost has increased more than 15 percent between the APB and the estimate, the program office must notify Congress. In April 2014, the HMS program office reported to Congress the program had exceeded costs identified in the October 20, 2011, APB. The unit cost increases are listed in Table 3 based on the quarterly Defense Acquisition Executive Summary report as of November 25, 2014.

(FOUO) Table 3. Unit Cost Increases

(FOUO) Cost Thresholds	APB (b) (4) October 20, 2011	Costs (b) (4) as of November 25, 2014	Percent Change
Average Procurement Unit Cost	(b) (4)	(b) (4)	(b) (4)
Program Acquisition Unit Cost	(b) (4)	(b) (4)	(b) (4)

(FOUO)

<sup>6</sup> (FOUO) Section 2433, Title 10, United States Code (January 7, 2011).

## Increase in HMS Program Costs Related to the Acquisition Strategy Change

(FOUO) The Army estimates funding for RDT&E will increase by approximately (b) (4), (b) (5) Procurement will increase by approximately (b) (4), (b) (5) and total program acquisition cost will increase by approximately (b) (4), (b) (5). Out of the (b) (4), (b) (5) the change in the HMS program Acquisition Strategy represents over (b) (4) percent of the total program acquisition cost increase; it will cost an estimated (b) (4), (b) (5) which includes (b) (4), (b) (5) for RDT&E and (b) (4), (b) (5) for Procurement. Program costs explained in Table 4 show the increases due to the change in the acquisition strategy.

(FOUO) Total program acquisition cost will increase by approximately (b) (4), (b) (5)

(FOUO) Table 4. Total Increase in Radio Costs

(FOUO) Cost Driver (b) (4)	Estimated Cost	Funding Type	Acquisition Strategy Related?	If Yes, Increase
Acquisition Strategy	(b) (4)	(b) (4)	(b) (4)	(b) (4)
Vehicle Integration	(b) (4)	(b) (4)	(b) (4)	(b) (4)
Competition Test Events	(b) (4)	(b) (4)	(b) (4)	(b) (4)
Production and Deployment Methodologies	(b) (4)	(b) (4)	(b) (4)	(b) (4)
Rifleman Radio SECRET and Below Requirement Change	(b) (4)	(b) (4)	(b) (4)	(b) (4)
Program Management Office	(b) (4)	(b) (4)	(b) (4)	(b) (4)
<b>Total Cost</b>	(b) (4)			(b) (4)
Less RDT&E	(b) (4)			(b) (4)
<b>Total Procurement (FOUO)</b>	(b) (4)			(b) (4)

- Acquisition Strategy (Procurement):** Estimated at (b) (4), (b) (5) this cost results from the change the Milestone Decision Authority directed from a single vendor award to a multi-vendor full and open competition.
- Vehicle Integration (Procurement):** Estimated at (b) (4), (b) (5), the HMS program will integrate the Manpack radios into military vehicles, and (b) (4), (b) (5) will apply to subsequent vendors of the upcoming full and open competition.
- Competition Test Events (RDT&E):** Estimated at (b) (4), (b) (5), additional testing and certification of new vendor radio capabilities will increase RDT&E costs.
- Production and Deployment Phase Methodologies (Procurement):** Estimated at (b) (4), (b) (5), major production and deployment phase assumptions changed significantly, including the procurement schedule.
- Rifleman Radio SECRET and Below Requirement Change (Procurement):** Estimated at (b) (4), (b) (5), Procurement cost increased as a result of a new requirement to enable SECRET and below communications on all Rifleman radios.
- Program Management Office (Procurement):** Estimated at (b) (4), (b) (5), this increase was attributed to HMS program office additional overhead cost.

(FOUO)



### Continued Development Contract Cost

(U) The HMS program office has spent (b) (4) to fund the development, procurement, and testing of radios on the development contract after being directed to change the acquisition strategy to a full and open competition for production radios and thus will not award the production contract based on the development contract. Specifically, the HMS program spent (b) (4) to procure initial production Rifleman and Manpack radios and another (b) (4) to continue testing, correct deficiencies, and sustain those radios. The HMS program office procured 21,379 Rifleman and 5,326 Manpack radios under the HMS development contract.

(U) (b) (4), (b) (5) to fund the development, procurement, and testing of radios on the development contract after being directed to change the acquisition strategy.

### Increase in Lifecycle Costs

(U) The change in the HMS Acquisition Strategy (b) (4), (b) (5) [redacted]  
 [redacted] The Army Communications–Electronics Command Life Cycle Management Command performed two life cycle support business case analyses: (b) (4), (b) (5) [redacted]  
 [redacted]  
 [redacted]  
 [redacted]  
 [redacted]  
 [redacted]  
 [redacted]

### Delayed Production and Fielding Decisions

(FOUO) The (b) (4), (b) (5) HMS Acquisition Strategy also delayed production decisions for the Rifleman and Manpack radios. (b) (4), (b) (5) [redacted]  
 [redacted]  
 [redacted]  
 [redacted] after the radios complete qualification testing, the radios must complete operational

7 (U) "Performance Based Lifecycle Product Support Business Case Analysis (PBL BCA) Type II (Formal) For PM Joint Tactical Radio Systems Handheld, Manpack, Small Form Fit (JTRS HMS) On JTRS HMS Rifleman Radio, AN/PRC-154(V)1."  
 8 (U) "Performance Based Lifecycle Product Support Business Case Analysis (PBL BCA) Type II (Formal) For PD Handheld, Manpack, Small Form Fit (HMS) On HMS Manpack Radio, AN/PRC-155."

~~(FOUO)~~ testing. The operational testing will assess the effectiveness, suitability, survivability, reliability, and operational availability of the radio. As a result of the additional qualification and operational testing, the HMS program production decisions will be delayed, which will delay the procurement and fielding of production radios.

#### *Rifleman Radio*

(U) The Army Program Executive Officer Command, Control, Communications–Tactical notified USD(AT&L) on December 20, 2012, in a program deviation report that the production decision for the Rifleman radio would be delayed because USD(AT&L) directed HMS program officials to conduct another full and open competition for the production decision. The October 20, 2011, APB showed the production decision for the Rifleman radio would occur in November 2012. In the quarterly Defense Acquisition Executive Summary report as of November 25, 2014, the Army estimated the Rifleman radio production decision would take place in February 2017. The HMS program office stated the request for proposals release date was delayed to incorporate multiple comments from industry. The Army released the Rifleman radio request for proposals on January 5, 2015. The HMS ~~(b) (4), (b) (5)~~ Acquisition Strategy estimated it will take ~~(b) (4), (b) (5)~~. This will further delay the procurement and fielding of the Rifleman radios to the warfighters.

#### *Manpack Radio*

(U) The Army Program Executive Officer Command, Control, Communications–Tactical notified USD(AT&L) in a March 1, 2013, program deviation report that the production decisions for the Manpack radio would be delayed because USD(AT&L) directed HMS program officials to conduct another full and open competition for the production decision. The October 20, 2011, APB showed the production decision for the Manpack radio would occur June 2013. In the quarterly Defense Acquisition Executive Summary report as of November 25, 2014, the Army estimated the Manpack radio production decision would take place in July 2017. However, as of January 5, 2015, the Army had not released a request for proposals for the Manpack radio. The HMS program office stated the request for proposals release date was delayed to incorporate multiple comments from industry. The HMS program office could not provide an estimate of when the request for proposals for the Manpack radios will be released. The HMS May 2014 Acquisition Strategy stated it will take 35 months from the release date to a production decision, thus pushing the production decision to FY 2018. This will further delay the procurement and fielding of the Manpack radios to the warfighters.



(FOUO) Even though the HMS program office timelines show that it will not procure the Rifleman radios until FY 2017 and Manpack radios until FY 2018, the Army has Procurement funds budgeted for the HMS program from FY 2015 through FY 2019. The Army plans to procure Rifleman and Manpack radios until FY 2032. Furthermore, since the HMS program office released the rifleman radio request for proposals on January 5, 2015, and the manpack radio request for proposals has not been issued, the Army will procure and field the radios even later than anticipated. Table 5 shows the Procurement funds for the HMS program from FY 2015 through FY 2019 in the quarterly Defense Acquisition Executive Summary report as of November 25, 2014.

(FOUO) Table 5. HMS Procurement Funds from FY 2015 through FY 2019

(FOUO)	FY 15	FY 16	FY 17	FY 18	FY 19	Total
Procurement Funding (b) (4), (b) (5)	(b) (4), (b) (5)	(b) (4), (b) (5)	(b) (4), (b) (5)	(b) (4), (b) (5)	(b) (4), (b) (5)	(b) (4), (b) (5)

(FOUO)

(FOUO) From FY 2015 through FY 2019, the Army budgeted approximately (b) (4), (b) (5) for the Procurement of the Rifleman and Manpack radios. However, the HMS program office will not use these funds as anticipated because of the extended delay of the procurement schedule.

(FOUO) The Assistant Secretary of the Army (Financial Management and Comptroller) should reallocate the (b) (4), (b) (5) in Procurement funding to the HMS programs across the FY 2015 to FY 2019 Future Years Defense Program to support the funding requirements for the new acquisition strategy as the HMS program office will not use these funds as anticipated due to delays in the procurement schedule.

### Fielding Impacts to the Warfighter

(U) The Army has fielded the Rifleman and Manpack radios to the warfighters; however, those radios do not meet all performance requirements. When a product, such as the Rifleman and Manpack radios, has known deficiencies and will not meet all the requirements, the Military Service must provide a conditional release with deficiencies. Army Regulation 700-142 states that a conditional materiel release results when a program is unable to meet all criteria of a full materiel release for being safe, suitable (meeting all its performance requirements), and supportable when used within its operational requirements. Also, a conditional release with deficiency may occur when initial production items are

(U) Radios do not meet all performance requirements.

(U) fielded. In addition, the program manager is required to develop a get-well plan that addresses each condition of release and plans for achieving a full materiel release. The U.S. Army Communications–Electronics Command, Commanding General approved a conditional release with deficiencies for the Rifleman unclassified and SECRET and below and Manpack radios on September 4, 2013, August 27, 2014, and August 11, 2014, respectively. The program manager identified the deficiencies for the Rifleman and Manpack radios and included recommendations to remedy the problems.

*Rifleman Radio*

(FOUO) The Army began fielding the Rifleman radios in 2012 and plans to field 11,633 of the initial production Rifleman radios by the end of (b) (4), (b) (5). The Army recommended (b) (4), (b) (5)

[Redacted]

- | [Redacted]

- | [Redacted]

- | [Redacted]

(FOUO) The Army recommended (b) (4), (b) (5)

[Redacted]

[Redacted]

- | [Redacted]

- | [Redacted]

- | [Redacted]

- | [Redacted]

- | [Redacted]

(U) Interoperability, information assurance, reliability, and availability are related to (b) (4), (b) (5) from the Rifleman radio production document.



*Manpack Radio*

(FOUO) The Army began fielding the Manpack radios in 2012 and plans to field 5,285 of the initial production Manpack radios by the end of (b) (4), (b) (5). The Army recommended (b) (4), (b) (5)

(b) (4), (b) (5)

- (b) (4), (b) (5)
- (b) (4), (b) (5)
- (b) (4), (b) (5)

(FOUO) The Army has not conducted tests for dense vegetation and extreme hot and cold weather on the Manpack radio. Information assurance, waveform, reliability and availability are related to primary and secondary requirements from the Manpack radio production document.

(FOUO) The fielding of Rifleman and Manpack radios that do not fully meet mission requirements and the delays to the procurement and fielding of full-mission-capable radios negatively affects the warfighters' operational mission.

(U) The USD(AT&L) should not approve the procurement of any additional initial production Manpack radios until the radio passes all required tests.

**Conclusion**

(FOUO) The USD(AT&L) issued an Acquisition Decision Memorandum on June 17, 2011, directing the HMS program office to conduct a new full and open competition for the production contract. The National Defense Authorization Act for FY 2012 imposed funding limitations on the HMS program. As a result, the HMS program office could not award the production contract until they change the acquisition strategy to seek another full and open competition, which would include commercially developed systems. The Assistant Secretary of the Army for Acquisition, Logistics and Technology approved the revised HMS Acquisition Strategy on March 21, 2014, and the USD(AT&L) approved the new acquisition strategy May 1, 2014.

(FOUO) As a result of the directed change in acquisition strategy, the HMS program will incur significant cost increases for RDT&E and Procurement. Out of the (b) (4), (b) (5) the change in the HMS program Acquisition Strategy will cost an estimated (b) (4), (b) (5) which represents over (b) (4), (b) (5) percent of the total acquisition cost increase. In addition, the overall lifecycle support costs will significantly increase based on the number of accepted designs. Furthermore, after entering the production and deployment phase, the HMS program office has spent (b) (4), (b) (5)

~~(FOUO)~~ to fund the development, procurement, and testing of radios on the development contract after being directed to change the acquisition strategy to a full and open competition for production radios and thus will not award the production contract based on the development contract. Finally, as a result of the delays resulting from the change in acquisition strategy, the HMS program office will not make production decisions on the Rifleman and Manpack radios until at least (b) (4), (b) (5)

~~(FOUO)~~ The USD(AT&L) also prematurely approved the HMS program entering the production and deployment phase. This allowed the HMS program office to procure and test initial production radios from the development contractor even though the Rifleman and Manpack radios did not meet system performance requirements and did not have approved test and evaluation master plans. As a result of the premature entrance into the production and deployment phase, the HMS program office has fielded radios to the warfighters that do not meet performance requirements.

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

(U) In addition, to the responses to our recommendations, the USD(AT&L) provided 37 comments to the audit report as part of the official USD(AT&L) and U.S. Army response. See Appendix B for our response. The official USD(AT&L) and U.S. Army comments are in Management Comments.

### ***Recommendation 1***

**(U) We recommend the Under Secretary of Defense for Acquisition, Technology and Logistics:**

- a. require approved Test and Evaluation Master Plans for the Rifleman and Manpack radios before the program office awards the delivery orders for radio qualification testing, and**
- b. not approve the procurement of any additional initial production Manpack radios until the radio successfully completes required tests.**



*Under Secretary of Defense for Acquisition, Technology and Logistics Comments*

(U) The Under Secretary of Defense for Acquisition, Technology and Logistics, disagreed, stating that as the Milestone Decision Authority, he does not have control over test and evaluation master plan approvals. By statute, the Director, Operational Test and Evaluation and the Deputy Assistant Secretary of Defense for Developmental Test and Evaluation approve test and evaluation master plans. The Under Secretary also stated he always takes the recommendations of these officials into account in making any milestone decisions and considers the test and evaluation master plan status and these officials concerns. Depending on circumstances for each program, these officials sometimes recommend approval of additional limited production while further improvements are made to the draft test and evaluation master plan documentation. The draft test and evaluation master plan needed to be updated to include required additional testing for the Manpack radio. Approving initial production for the Rifleman radio and a small pilot lot of test assets for the Manpack radio was not dependent on approval of the final test and evaluation master plan.

*Our Response*

(U) The Under Secretary did not address the specifics of the recommendation. The Under Secretary stated that he exercised discretion in approving a limited production of radios to meet operational needs and testing requirements. He also stated that policy requiring test and evaluation master plans was tailorable. We agree that the policy is tailorable; however, the Under Secretary should have documented in writing in advance his intent to tailor specific acquisition guidance for the HMS program. He did not, therefore we recommend the Under Secretary should require the program manager to demonstrate that approved test and evaluation master plans are in place before awarding delivery orders for Rifleman and Manpack radio qualification. Additionally, the Under Secretary should have the program manager demonstrate successful completion of required testing before additional Manpack radios are purchased. While we agree that the Under Secretary as the Milestone Decision Authority is not required to approve test and evaluation master plans, the Milestone Decision Authority has overall program responsibility. We ask the Under Secretary to provide additional comments on requiring approved test and evaluation master plans for the radios before the program office awards delivery orders for qualification testing. Also, not to approve any additional initial production Manpack radios until the radio successfully completes required testing.

## ***Recommendation 2***

~~(FOUO)~~ We recommend the Assistant Secretary of the Army (Financial Management and Comptroller) reallocate the ~~(b) (4), (b) (5)~~ in Procurement funding for the Rifleman and Manpack radio programs across the FY 2015 to FY 2019 Future Years Defense Program to support the funding requirements for the new acquisition strategy.

### *Under Secretary of Defense for Acquisition, Technology and Logistics Comments*

(U) The Under Secretary of Defense for Acquisition, Technology and Logistics, responding for the Assistant Secretary of the Army (Financial Management and Comptroller), agreed, stating that the Army's 2016 President's Budget submission shows the necessary funding to support the current program schedule.

### *Our Response*

(U) Comments from the Under Secretary addressed all specifics of the recommendation, and no further comments are required.

### *Army Comments*

(U) Although not required to comment, the Product Manager HMS stated<sup>9</sup> that procurement funding is still required to field and sustain the previously approved low-rate initial production assets, and to buy new assets from the qualifying vendors.

### *Our Response*

(U) We agree that procurement funding is needed to field initial production and buy new assets.

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<sup>9</sup> (U) USD(AT&L) comments page 45 (SD-Form 818, page 10, Comment IG-32).



## Appendix A

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### Scope and Methodology

(U) We conducted this performance audit from January 2014 through December 2014 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.

(U) Our review focused on whether the Army effectively managed the acquisition and testing of the Handheld, Manpack, and Small Form Fit Rifleman and Manpack radios to make sure they meet warfighters needs.

(U) We interviewed staff from the following organizations:

- Office of the USD(AT&L) Acquisition Resources and Analysis Directorate (The Pentagon, Washington, D.C.);
- DoD Cost Assessment and Program Evaluation (The Pentagon, Washington, D.C.);
- Director, Operational Test and Evaluation (The Pentagon, Washington, D.C.);
- Office of Assistant Secretary of Army for Acquisition, Logistics and Technology (The Pentagon, Washington, D.C.);
- Army Training and Doctrine Command (Fort Gordon, Georgia);
- Program Executive Office, Command, Control, Communications-Tactical (Aberdeen Proving Ground, Maryland); and
- Handheld, Manpack, and Small Form Fit (HMS) Program Office (Aberdeen Proving Ground, Maryland).

(U) We reviewed Army HMS acquisition strategy, requirements, test and evaluation, development contract, system design and engineering, and funding documentation against the policies and guidance in the following Federal, DoD and Army issuances:

- Section 2433, Title 10, United States Code, January 7, 2011;
- Federal Acquisition Regulation, March 2005;
- DoD Instruction 5000.02, "Operation of the Defense Acquisition System," December 8, 2008;
- DoD Instruction 5000.02, "Operation of the Defense Acquisition System," January 7, 2015;
- Chairman of the Joint Chiefs of Staff Instruction 3170.01H, "Joint Capabilities Integration and Development System," January 10, 2012;
- Army Regulation 70-1, "Army Acquisition Policy," July 22, 2011;
- Army Regulation 73-1, "Test and Evaluation Policy," August 1, 2006; and
- the "Defense Acquisition Guidebook," September 16, 2013.

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

(U) We relied on computer-processed data from the Federal Procurement Data System to obtain the value of the HMS contract. To determine the data reliability, we compared the data we obtained from the Federal Procurement Data System with hard-copy documentation we obtained from the HMS program office. As a result of our analysis, we determined that the data were sufficiently reliable for the purposes of our audit.

## **Prior Coverage on the Joint Tactical Radio System Handheld, Manpack, and Small Form Fit Program**

(U) During the last 5 years, the Government Accountability Office (GAO) and the Army Audit Agency issued four reports discussing Joint Tactical Radio System Handheld, Manpack, and Small Form Fit Program. Unrestricted GAO reports can be accessed at <http://www.gao.gov>. Unrestricted Army Audit Agency reports can be accessed from .mil and gao.gov domains at <https://www.aaa.army.mil/>.



**GAO**

Report No. GAO 14-460, "Army Networks: Select Programs Are Utilizing Competition to Varying Degrees," May 29, 2014

Report No. GAO 14-340SP, "Defense Acquisitions: Assessments of Selected Weapon Programs," March 31, 2014

Report No. GAO 13-711, "Army Networks: Opportunities Exist to Better Utilize Results from Network Integration Evaluations," August 22, 2013

**Army**

Report No. A-2013-0160-ALA, "Army Tactical Radio Strategy, Program Executive Office, Command, Control and Communications-Tactical" September 25, 2013

## Appendix B

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### Additional Technical Comments on the Finding and Our Response

(U) The Under Secretary provided separate line-by-line comments on SD Form 818, to be considered as part of the official USD(AT&L) and U.S. Army response to make sure that there was an accurate understanding of the program. We added reference numbers IG-1 through IG-37 for reference purposes to the left side of each comment included on the SD Form 818.

#### ***Management Comments on the Audit Objective***

(U) Comments IG-3 and 37: The USD(AT&L) stated that the audit report did not address the audit objective to determine whether the Army effectively managed the acquisition and testing programs for the Joint Tactical Radio System Handheld, Manpack, and Small Form Fit (HMS) Rifleman and Manpack radios to make sure they meet warfighter needs.

#### ***Our Response***

~~(FOUO)~~ This report evaluated overall management of the HMS program from the Milestone C decision in May 2011 through December 2014. We determined management of this program needs improvement. Originally, the USD(AT&L) managed the HMS program as a joint program known as the Joint Tactical Radio System, which included the Army, Navy, Air Force, and Marine Corps. On July 11, 2012, the program transitioned to the Army. During the audit, we determined that USD(AT&L) program decisions and the contractors' inability to provide radios that meet all system performance requirements caused the HMS program to be over budget, and behind schedule.

#### ***Management Comments on the Finding***

(U) Comment IG-7: The USD(AT&L) stated it is inaccurate to state that requiring full and open competition was the cause of a performance requirement not being met. The performance of the radio is a direct result of the developer's ability to design and build a radio that meets requirements. The test failures or unmet performance requirements that occurred under the development effort cannot accurately be attributed to a decision to conduct a full and open competition for full rate production.



### ***Our Response***

~~(FOUO)~~ We did not attribute the unmet requirements with the initiation of a full and open competition for production radios. The unmet requirements are attributed to the USD(AT&L) premature approval of the HMS program to enter Milestone C (production and deployment phase) even though the radios did not meet system performance requirements or have approved test and evaluation master plans. We agree that the contractors' designed and developed radios could not adequately perform, failed tests, and did not meet requirements. The test failures and unmet performance requirements that occurred during development are the reason the HMS program was not ready to enter Milestone C (production and deployment phase).

### ***Management Comments on the HMS Program Significant Cost Overruns***

(U) Comments IG-1, 4, 6, and 23: USD(AT&L) stated the cost values referenced in the draft report are outdated because a program change was reported in the December 2014 Selected Acquisition Report issued in February 2015. The program underwent extensive cost model analysis and subsequently the Army changed the cost models to better show characteristics of the new acquisition approach. The results of the updated cost model no longer project a potential cost breach and show a significant decrease in HMS program costs as compared to the November 2014 Defense Acquisition Executive Summary. Specifically, ~~(b) (4), (b) (5)~~

### ***Our Response***

~~(FOUO)~~ The Army reconsidered prior assumptions and revised its cost model after the audit was initiated. In October 2014, we provided USD(AT&L) and the Army with a working draft report and then met with them to discuss the report, they did not provide any updated cost data. In November 2014, we provided USD(AT&L) and the Army with a discussion draft report. In December 2014 they provided comments to the discussion draft report but again did not provide updated cost data. The funding and cost numbers used in the report were the most accurate estimates at the time the report was issued. After our January 22, 2015, draft report and the Under Secretary's comments dated February 24, 2015, to that draft report, the Army released its February 2015 Defense Acquisition Executive Summary<sup>10</sup> updating the cost data.

<sup>10</sup> ~~(FOUO)~~ We used the February 2015 Defense Acquisition Executive Summary in our response, the information is the same as the December 2014 Selected Acquisition Report issued in February 2015.

## **Management Comments on HMS Program Cost Increases Related to the Acquisition Strategy**

### *USD(AT&L) Comments*

(U) Comments IG-6 and 24: USD(AT&L) stated the Finding on Page 12 should state costs not related to the acquisition strategy, including:

- the Army decision to realign vehicle integration costs from vehicle platforms to the HMS program, and
- a new requirement to upgrade the AN/PRC 154 radio from an unclassified to a Secret and below configuration.

~~(FOUO)~~ USD(AT&L) also stated the vehicle integration costs referenced in Table 4 were not related to the acquisition strategy.

### *Army Comments*

(U) Comment IG-25: The Army stated that the estimated ~~(b) (4), (b) (5)~~ attributed to HMS program office additional overhead (Table 4, Footnote 6) was not exclusively associated with contract administration.

## **Our Response**

~~(FOUO)~~ Table 4 of the report identifies the cost increase to the entire HMS program. The August 1, 2012, Army Acquisition Executive Memorandum, states the HMS program will absorb the cost to integrate Manpack radios into vehicles. We agree the Army decision to absorb the cost resulting from integrating Manpack radios was not related to the change in the acquisition strategy. However, ~~(b) (4), (b) (5)~~ of the vehicle integration costs were acquisition strategy related because those costs apply to subsequent vendors of the upcoming full and open competition. We revised Table 4, Footnote 6, to state the ~~(b) (4), (b) (5)~~ increase was attributed to HMS program office additional overhead.

## **Management Comments on HMS Program Funding Tables**

(U) Comments IG-6 and 31: USD(AT&L) requested Table 1 and Table 5 identify their data source. He also recommended the President's Budget 2016 data should be used for Table 5.

## **Our Response**

~~(FOUO)~~ The paragraph preceding Table 1 and Table 5 states the source of the data as the November 2014 Defense Acquisition Summary. The 2016 President's Budget data was issued in February 2015, and reflected in the February 2015 Defense Acquisition Executive Summary; however, the February 2015 Defense Acquisition Executive Summary was not official until after the USD(AT&L) provided his comments to the January 22, 2015, draft report on February 24, 2015.



## Management Comments on Fielding HMS Radios That Did Not Meet Performance Requirements

### USD(AT&L) Comments

(U) Comment IG-12: The USD(AT&L) stated that the Rifleman radio met the (b) (4), (b) (5) requirement and the (b) (4), (b) (5) requirement according to the Army Test and Evaluation Command Operational Evaluation Report. Also, the Manpack radio met the (b) (4), (b) (5) requirement according to the signed Operational Test Agency Report.

### Our Response

~~(FOUO)~~ According to Army Test and Evaluation Command Rifleman Radio (b) (4), (b) (5) the Rifleman radio did not meet the technical requirement for (b) (4), (b) (5)

[Redacted]

~~(FOUO)~~ In addition, the Army did not use the required Soldier Radio Waveform Network Manager. Instead, the Army used an alternative method to test the Rifleman radio. (b) (4), (b) (5)

[Redacted]

~~(FOUO)~~ We concluded that the (b) (4), (b) (5) requirement and the (b) (4), (b) (5) requirement were not met during developmental test. We based our conclusions on the Army Test and Evaluation Command "Final Test Report for the Joint Tactical Radio System Handheld, Manpack, and Small Form Fit, AN/PRC -154 Rifleman Radio (b) (4), (b) (5) August 16, 2012. The USD(AT&L) did not provide a copy of the Army Test and Evaluation Command Operational Evaluation report he referred to in his comments.

~~(FOUO)~~ The Manpack radio did not meet all the required (b) (4), (b) (5) [Redacted] stated in the production document. (b) (4), (b) (5)

[Redacted] However, because the Manpack radio did not meet all of the required (b) (4), (b) (5) requirements, we concluded that it did not fully meet the (b) (4), (b) (5) requirement.

### *Army Comments*

(U) Comments IG-5 and 11: The Product Manager HMS stated the radios fielded to the warfighters meet all performance requirements with the exception of (b) (4), (b) (5). The operational test report stated that the Manpack radio exceeded the program requirement of (b) (4), (b) (5). The Army plans to field the Manpack radio only in the (b) (4), (b) (5) configuration. The Army stated the HMS Rifleman and Manpack radios received conditional releases with criteria to achieve full material release.

### ***Our Response***

(FOUO) The fielded Rifleman and Manpack radios did not meet all critical and essential system performance requirements as specified in the approved production documents. Specifically, the Rifleman radio did not meet the (b) (4), (b) (5) requirements and the (b) (4), (b) (5) requirements. In addition, the Manpack radio did not meet the (b) (4), (b) (5) requirement (b) (4), (b) (5) and did not fully meet the (b) (4), (b) (5) requirement.

(FOUO) Our determination was based on our review of the Army approved test reports mentioned above that were provided during the audit. The product manager did not provide additional test documentation to support that the radios fielded meet all performance requirements with the exception of the Manpack radio (b) (4), (b) (5).

(U) We stated in the report, "Fielding Impacts to the Warfighter," that the U.S. Army Communications-Electronics Command, Commanding General, approved three conditional releases with deficiencies for the Rifleman and Manpack radios between September 4, 2013, and August 27, 2014. The project manager identified the deficiencies for the Rifleman and Manpack radios and included recommendations to remedy the problems.

### ***Management Comments on Manpack Test Reporting***

(U) Comment IG-14: The Army stated that the Manpack radio was not suitable (b) (4), (b) (5) because (b) (4), (b) (5).

<sup>11</sup> (U) The Product Manager HMS comments did not specify an operational test report date; however, we assume they are referring to the Manpack radio operational test report dated September 2014.



## ***Our Response***

~~(FOUO)~~ We clarified in the report that (b) (4), (b) (5) was not suitable.

## ***Management Comments on HMS Program Test Plans***

(U) Comments IG-9, 21, and 36: The USD(AT&L) stated the Milestone C decision was made with full awareness of the test results, documentation status and had the support of the Director, Operational Test and Evaluation community. The USD(AT&L) exercised discretion in approving a limited production of radios to meet Army operational needs and provide for additional operational testing. The limited quantity of radios was approved with the Army's full understanding of radio performance.

(U) USD(AT&L) stated radios are not required to be 100-percent defect free during the production and deployment phase. The USD(AT&L) also stated that while test and evaluation master plans are generally required, this policy is tailorable and qualification testing may occur with the Director, Operational Test and Evaluation's approved test plans. Draft test and evaluation master plans for the Rifleman and Manpack radios required revisions to align them with the changing acquisition strategy. The Director, Operational Test and Evaluation approved the HMS test plans.

## ***Our Response***

~~(FOUO)~~ The USD(AT&L) approved the HMS program to enter Milestone C in June 2011; however, neither the Rifleman nor Manpack radios have successfully passed all operational testing. We requested the Director, Operational, Test and Evaluation's approved test plans for tests performed to support the Milestone C decision. We also requested the test results for the Manpack radio operational test, September 8, 2014, and the Rifleman radio operational test, November 25, 2014. Although we received approved test plans for the "Manpack Radio Follow-On Operational Test and Evaluation" and the "Combined AN/PRC-154A and Nett Warrior Initial Operational Test and Evaluation Phase 2," we did not receive approved test plans for the "AN/PRC-154 Rifleman radio, Verification of Corrected Deficiencies." The HMS program had most of the approved test plans; however, the program office did not have an approved test and evaluation master plan as required by DoD Instruction 5000.02. The Rifleman and Manpack radios are both listed on the Director, Operational Test and Evaluation oversight list and are in the Production and Deployment Phase (past Milestone C). The Instruction further states that programs on the Director, Operational Test and Evaluation oversight list, operational testing will be conducted in accordance with the approved test and evaluation master plans. The January 7, 2015, revision to DoD Instruction 5000.02

~~(FOUO)~~ states “programs on the Director, Operational Test and Evaluation oversight list, operational testing will be conducted in accordance with the approved test and evaluation master plans and operational test plan.” The revised guidance applies to the new acquisition strategy. During the audit, we were provided with three “draft” test and evaluation master plans for each radio, but none of these drafts were elevated beyond the Assistant Deputy Under Secretary of the Army for Test and Evaluation for approval.

### ***Management Comments on Initial Production Decision***

(U) Comment IG-13: The USD(AT&L) stated the Army’s operational needs statement dated December 3, 2013, supported the initial production decision and documented the Army’s desire to take delivery of radios to meet warfighter needs despite known test results. The Army requested approval of a limited production with full knowledge and acceptance of the radios performance. The USD(AT&L) approved limited production of the radios in response to Army operational needs. In addition, the Defense Acquisition Board, which includes representatives from the Developmental and Operational test communities, participated in the Milestone C review and agreed with the Milestone C decision. The USD(AT&L) stated that the Rifleman Radio performance was sufficient enough that the Army preferred to procure radios to meet operational needs even though test results showed that not all primary and secondary requirements had been met. The USD(AT&L) did not consider the test deficiencies significant enough to deny the Army’s request to field radios for immediate operational use.

(U) The USD(AT&L) stated the Manpack radio test results were not considered sufficient and only 100 radios were initially approved for further developmental testing. The Army planned to field those radios only after testing found them to be production representative. However, more testing was needed to justify additional Manpack production and deployment.

### ***Our Response***

(U) The December 2011 Director, Operational Test and Evaluation report stated the “JTRS HMS program was schedule-driven and had reduced developmental testing to support an aggressive operational test schedule.” The December 3, 2013, memorandum was in part to obtain additional initial production Manpack radios to fill a production or delivery gap. Also, the January 2014 Director, Operational Test and Evaluation annual report recommended that the Rifleman and Manpack radios perform adequate developmental testing before future operational testing. The radios did not meet performance requirements, and the Army accepted the risk and decided to field radios to the warfighters that did not meet primary and secondary requirements.



## **Management Comments on HMS Program Test Reports and Events**

(U) Comment IG-20: The USD(AT&L) recommended adding a list of test events and resulting test reports to clear up inaccuracies in the report. For example, the secondary requirement for network management capability was met according to an Army Test and Evaluation Command operational evaluation report. The USD(AT&L) also stated that the current content of the “System Test Deficiencies” section was insufficient to accurately describe “major test deficiencies.”

(U) Since Milestone C, the Rifleman radio completed these tests:

- four Government Development Tests;
- an Initial Operational Test and Evaluation;
- an Operational Assessment with the 75<sup>th</sup> Ranger Regiment; and
- two Customer Tests.

(U) The Manpack radio completed these tests:

- four Government Development Tests;
- a Multi-service Operational Test and Evaluation;
- four Customer Tests; and
- a Follow-On Operational Test and Evaluation.

(U) The USD(AT&L) stated that both radios demonstrated performance improvements throughout their testing, with additional testing, and product corrections planned before the production decisions.

## **Our Response**

~~(FOUO)~~ We clarified in the report that we considered deficiencies from testing performed in support of the Milestone C decision. Specifically, we used results from the Director, Operational Test and Evaluation assessment, dated May 9, 2011, on the Rifleman radio development test and verification of correction of deficiencies and the Manpack radio’s customer and development tests. The Army Test and Evaluation Command <sup>(b) (4), (b) (5)</sup> report stated that an alternative method was used to test the Rifleman radio.

~~(FOUO)~~ The Director, Operational Test and Evaluation stated in its assessment that testing of the Soldier Radio Waveform Network Management was deficient and the test was not conducted in accordance with the approved test plan.” Based on our analysis of the Director, Operational Test and Evaluation assessment, we concluded that the secondary requirement for <sup>(b) (4), (b) (5)</sup> was not met.

## **Management Comments on HMS Program Conditional Materiel Release**

### *USD(AT&L) Comments*

(U) Comment IG-33: The USD(AT&L) stated tests for dense vegetation and extreme hot and cold weather are planned (and funded) for both the initial production and production radios in March and July 2017, respectively.

### **Our Response**

~~(FOUO)~~ We agree that tests for the Manpack radio dense vegetation and extreme hot and cold weather are planned and funded.

### *Army Comments*

(U) Comment IG-34: The Army stated that HMS operational testing was performed as part of the Nett Warrior operational test in November 2014. Additionally a logistics demonstration is planned within the next year.

### **Our Response**

~~(FOUO)~~ We agree that HMS operational testing for the "SECRET and below" Rifleman radio was performed during the November 2014 operational test of the Nett Warrior. However, the Army had not released the Nett Warrior test report before the draft report was issued or the management comments were received.

## **Management Comments on Manpack Test Results**

(U) Comment IG-22: The Army stated that the September 2014 Operational Test Agency Report concluded that the Manpack radio was effective in extending the tactical level network and met the Army's performance requirements for networked voice and data exchange using five waveforms over multi-purpose and multi-channel operations.

### **Our Response**

~~(FOUO)~~ The findings detailed in the report are accurate. The Army refers to the "System Test Deficiencies" section of the report, which identified the HMS program test deficiencies in June 2011 when the program received approval to enter the production and deployment phase. Before the approval in May 2011, the Director, Operational Test and Evaluation assessed that the Manpack radio could not meet the minimum standard for this primary requirement. Subsequently, the "Operational Test Agency Assessment Report for the AN/PRC-155V (2) Manpack Radio System," September 8, 2014, concluded the Manpack radio meets the minimum standard.



## **Management Comments on HMS Program Competition**

### *USD(AT&L) Comments*

(U) Comments IG-1, 2, 15, 17, and 26: The USD(AT&L) stated HMS program officials always planned to conduct a competitive procurement for HMS production. The updated acquisition strategy provides an opportunity for other nondevelopmental radios to be considered. The decision to change the acquisition strategy was aligned with the intent and interests of Congress as communicated to the Department in numerous formal and informal communications. The Army plans to award multiple contracts over the life of the program to achieve greater competition, better pricing, and increased functionality. Adding more vendors to the competition does require additional testing and may delay production decisions. The two vendors awarded development contracts under the previous acquisition strategy can compete for a production contract.

(U) USD(AT&L) also stated that although the business case analyses from the Army Communications–Electronics Command Life Cycle Management Command showed an increase in lifecycle support related to the multi-vendor approach, the increase is not included in the program office estimate. Rather, the HMS program office estimate shows program lifecycle support costs will decrease. A multi-vendor approach for production radios doesn't necessarily result in greater sustainment costs. This will not be known until the Army evaluates offerors and selects radios for contract award.

### *Army Comments*

(U) Comment IG-16: The Product Manager HMS stated the acquisition strategy provides for a competitive environment that will also drive innovation and more frequent access to increased functionality.

## **Our Response**

~~(FOUO)~~ The original acquisition strategy for the HMS included a competition for the production contracts between the two development vendors for each radio. The revised acquisition strategy will use a full and open competition to award the production contracts to vendors of nondevelopmental radios. A full and open competition is open to everyone. Neither USD(AT&L) nor the Army provided any documentation to support how or what increased functionality would be achieved based on the changed acquisition strategy.

~~(FOUO)~~ After we issued our January 22, 2015, draft report, the Army submitted its February 2015 Defense Acquisition Executive Summary for the HMS program. The summary showed a significant decrease in program lifecycle support costs over the Defense Acquisition Executive Summary dated November 2014.

### ***Management Comments on Number of Radios Procured***

(U) Comment IG-27: The Army stated the HMS program office procured 19,327 Rifleman and 5,326 Manpack radios under the HMS development contract. The Nett Warrior program purchased an additional 2,052 Rifleman radios (for a total of 21,379).

### ***Our Response***

~~(FOUO)~~ We agree that the Nett Warrior program funded 2,052 of the 21,379 Rifleman radios purchased. However, we chose not to introduce a new program into the report because all the radios were procured under the HMS development contract.

### ***Management Comments on Rifleman Radio Timeline***

(U) Comment IG-29: The Product Manager HMS stated the approved Acquisition Strategy and current program schedule depicts a timeline of 26 months from the request for proposal release to the production decision. There are no delays projected at this time.

### ***Our Response***

~~(FOUO)~~ We disagree that the time from the proposal release to the production decision was 26 months from the May 2014 acquisition strategy. We used the estimated draft request for proposal release date to calculate 35 months in the draft report. We revised that calculation to use the estimated request for proposal date in the May 2014 acquisition strategy. The May 2014 acquisition strategy shows an estimated request for proposal date of June 2014 and an estimated production decision date of February 2017, this calculates to 32 months. We revised the report from 35 months to 32 months. Although, the Army's February 2015 Defense Acquisition Executive Summary<sup>12</sup> shows the request for proposals was issued in January 2015 with an estimated production decision date of March 2017 (26 months), the February 2015 Defense Acquisition Executive Summary was issued after our January 22, 2015, draft report.

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<sup>12</sup> ~~(FOUO)~~ We used the February 2015 Defense Acquisition Executive Summary in our response, the information is the same as the December 2014 Selected Acquisition Report issued in February 2015.



### ***Management Comments on Manpack Radio Timeline***

(U) Comment IG-30: The Product Manager HMS stated the approved Acquisition Strategy depicted a timeline of 32 months from request for proposal release to the production decision. However, the current program schedule projects 26 months from request for proposal release to the production decision.

### ***Our Response***

~~(FOUO)~~ We disagree that the time from the proposal release to the production decision was 32 months from the May 2014 acquisition strategy. We used the estimated draft request for proposal release date to calculate 37 months in the draft report. We revised that calculation to use the estimated request for proposal date in the May 2014 acquisition strategy. The May 2014 acquisition strategy shows an estimated request for proposal date of August 2014 and an estimated production decision date of July 2017, this calculates to 35 months. We revised the report from 37 months to 35 months. Although, the Army's February 2015 Defense Acquisition Executive Summary<sup>13</sup> shows the request for proposals in the 3<sup>rd</sup> quarter 2015 and an estimated production decision date of September 2017 (26 months) the February 2015 Defense Acquisition Executive Summary was issued after our January 22, 2015, draft report.

### ***Management Comments on Delayed Procurement of Radios***

(U) Comment IG-28: The USD(AT&L) stated that HMS Program Office timelines that show no radio procurements until FY 2018 are inaccurate. The Army will procure competition test assets for Manpack and Rifleman in FY 2016 and production assets in FY 2017.

### ***Our Response***

~~(FOUO)~~ The discussion in the report is for procurements after the production decision. Based on our recalculation of the estimated production decision timeline for both the Rifleman and Manpack radios, we revised the production decision dates presented in the report. The recalculated estimated production decision date for the Rifleman radio is September 2017 (32 months from the January 2015 request for proposal release date). We revised the report to show FY 2017 for the Rifleman radio. However, since the Manpack request for proposal had not been released, our recalculated estimated production decision date for the Manpack radio remains FY 2018 (35 months from the January 2015 request for proposal release date).

<sup>13</sup> ~~(FOUO)~~ We used the February 2015 Defense Acquisition Executive Summary in our response, the information is the same as the December 2014 Selected Acquisition Report issued in February 2015.

### ***Management Comments on HMS Program Schedule Delays***

(U) Comment IG-10: The USD(AT&L) stated that the 4-year delay to the production decisions and planned fielding schedules are not solely attributable to the change in the acquisition strategy but also to poor test results. Had the acquisition strategy remained unchanged, current radio performance would not justify an immediate or on-time production decision. Product improvements and further testing were needed to correct remaining radio deficiencies.

#### ***Our Response***

~~(FOUO)~~ Program deviation reports attribute the change in the acquisition strategy as the cause for schedule delays. The HMS program office will not use the test results from the development contract radios to award the production contracts.

### ***Management Comments on Congressional Interest***

(U) Comment IG-19: The USD(AT&L) wanted the report to identify the full extent of Congressional interest in and guidance for the program. The USD(AT&L) stated there were numerous letters of congressional inquiry that communicated the desire and guidance to follow a competitive and multi-vendor acquisition approach. While this may increase testing costs, competitive forces may also drive down unit costs.

#### ***Our Response***

(U) We were provided documents showing congressional interest and guidance on a full and open competition for the HMS program production contracts. However, the 2012 National Defense Authorization Act was the only official mandatory requirement from Congress. We discussed the 2012 National Defense Authorization Act in the report.

### ***Management Comments on When the Army Submitted the Acquisition Strategy for Approval***

(U) Comment IG-35: USD(AT&L) stated that the Army submitted the Acquisition Strategy for approval on March 21, 2014, and USD(AT&L) approved the new acquisition strategy in May 2014.

#### ***Our Response***

~~(FOUO)~~ We revised the conclusion to state that the Assistant Secretary of the Army for Acquisition, Logistics and Technology approved the HMS Acquisition Strategy on March 21, 2014, and the USD(AT&L) provided final approval on May 1, 2014.

## ***Management Comments on HMS Program Milestone C Decision***

(U) Comments IG-8 and 9: The USD(AT&L) took exception to the audit report referring to the Milestone C decision as premature and stated that the Milestone C decision was made with full awareness of the test results and document status. Radios were needed to meet Army operational needs and provide for additional operational testing. The USD(AT&L) stated the requirement of an approved test and evaluation master plan was tailorable and qualification testing may occur with a Director, Operational Test and Evaluation approved Operational Test Agency Test Plan.

### ***Our Response***

~~(FOUO)~~ The Milestone C decision was schedule driven. In May 2011, the HMS program had developmental test deficiencies, reduced the number of developmental tests, and had not completed program documentation as required in the DoD Instruction 5000.02. In addition, the HMS program had an aggressive operational testing schedule.

(U) The Rifleman and Manpack radios are both listed on the Director, Operational Test and Evaluation Oversight List and are in the production and deployment phase (past milestone C). DoD Instruction 5000.02 states that for programs on the Director, Operational Test and Evaluation Oversight List, operational testing will be conducted in accordance with the approved test and evaluation master plan and operational test plan. USD(AT&L) did not provide us with any waivers or tailoring of this requirement.

~~(FOUO)~~ The USD(AT&L) approved the HMS program to enter Milestone C in June 2011. However, as of April 2015, the HMS program office had not provided operational test reports for the Rifleman and Manpack radios that showed the radios successfully passed operational testing.

## ***Management Comments on Use of Plain Language***

(U) Comment IG-18: USD(AT&L) commented that the report should add “full rate” before production radios in the report.

### ***Our Response***

(U) The audit report establishes the term full-rate production as production in the “HMS Program History” section of the report.



## Management Comments

### Under Secretary of Defense for Acquisition, Technology and Logistics and U.S. Army Comments



UNDER SECRETARY OF DEFENSE  
3010 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3010

FF2 24 2015

MEMORANDUM FOR PROGRAM DIRECTOR FOR ACQUISITION, PARTS, AND  
INVENTORY DIRECTORATE, OFFICE OF THE INSPECTOR  
GENERAL

THROUGH: DIRECTOR, ACQUISITION RESOURCES AND ANALYSIS

SUBJECT: Response to DoDIG Draft Report on Management of the Handheld, Manpack, and  
Small Form Fit Rifleman and Manpack Radios Program Needs Improvement  
(Project No. D2014-D000AE-0094.000)

As requested, I am providing responses to the general content and recommendations contained in the subject report. Thank you for the opportunity to review the proposed Department of Defense (DoD) Inspector General Report on the Army's management of the Handheld, Manpack, and Small Form Fit Rifleman and Manpack Radios Program. As written, significant facts and contextual details are omitted that would encourage an inaccurate understanding of the program. The report includes factual errors and does not include analysis to support the stated objective. We have separately provided line-by-line comments that should be incorporated or otherwise addressed to ensure the accuracy of the report. This memorandum represents a joint USD(AT&L)/U.S. Army response.

**Recommendation 1:** We recommend the Under Secretary of Defense for Acquisition, Technology and Logistics:

- a) Require approved Test and Evaluation Master Plans for the Rifleman and Manpack radios before the program office awards the delivery orders for radio qualification testing; and
- b) Not approve the procurement of any additional initial production Manpack radios until the radio successfully completes required tests.

**Response:** Non-concur. As the Milestone Decision Authority (MDA), I have no control over when Test & Evaluation Master Plans (TEMPs) are approved. By statute, TEMPs are approved by the Director, Operational Test & Evaluation (D,OT&E) and the Deputy Assistant Secretary of Defense for Developmental Test & Evaluation (DASD(DT&E)). I always take the recommendations of these officials into account in making any MDA decision, and consider the status of the TEMP and any issues or concerns either official may have. A requirement for TEMP approval would effectively cede my responsibility as Defense Acquisition Executive and MDA to these officials, giving them an effective veto over every program entering production. Very frequently there are no TEMP issues, however the staffing process has not been completed or the document has not been signed. Depending upon circumstances for each program, these officials sometimes recommend approval of additional limited production while further improvements or final revisions are made to draft TEMP documentation.

## Under Secretary of Defense for Acquisition, Technology and Logistics and U.S. Army Comments (cont'd)

In this decision to produce Manpack radios, the draft TEMP needed to be updated to reflect additional testing required. Approving low rate production for the Rifleman Radio and a small pilot lot of test assets for the Manpack radio was not dependent on approval of the final TEMP.

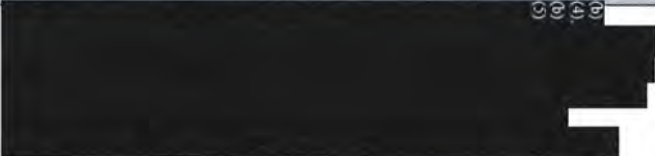
**Recommendation 2:** We recommend the Assistant Secretary of the Army (Financial Management and Comptroller) reallocate the (b) (4), (b) (6) in procurement funding for the Rifleman and Manpack radio programs across the FY 2015 to FY 2019 Future Years Defense Program to support the funding requirements for the new acquisition strategy.

**Response:** Concur. The recommendation has effectively been implemented. The Army's 2016 President's Budget submission reflects the necessary funding to support the current program schedule.

If additional information is required, my point of contact is (b) (6) ODASD(C3CB), at (b) (6) civ@mail.mil or 703-614-(b) (6)

  
Frank Kendall

**Under Secretary of Defense for Acquisition, Technology and Logistics and U.S. Army Comments (cont'd)**

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#	ORGANIZATION	PAGE	COMMENTS	RATIONALE
IG-1	OSD	i	 <p>Note: In the December 2013 Selected Acquisition Report, a potential Significant Nunn-McCurdy breach was identified for the HMS program. Following submission of the SAR, the program underwent extensive cost model analysis and subsequently made changes to the cost models to better reflect characteristics of the new Non-Developmental Item approach (to include impacts of lowest price technically acceptable contract awards). The results of the updated cost model no longer reflect a projected Nunn-McCurdy breach. Cost values referenced in the draft report are outdated.</p>	Accuracy
IG-2	OSD	i	Following the bullet statement that the program "will not award the production contract based on the development contract" add clarification that development vendors remain fully eligible to compete for the full rate production contract, and may in fact successfully bid and win one of the production contracts.	Completeness
IG-3	OSD	1	<p>Include new verbiage to "Findings" and throughout that addresses Army effectiveness at managing the HMS program, which is the stated objective of this report.</p> <p>Note that the stated objective of the report is to "determine whether the Army has effectively managed the acquisition and testing programs" for the HMS radios, yet there are no assessments of Army effectiveness or recommendations related to Army management of the program contained anywhere in this report.</p>	Completeness
IG-4	OSD	1	The total program increases referenced here are no longer valid (as reported in the Dec 2014 SAR).	Accuracy

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**Under Secretary of Defense for Acquisition, Technology and Logistics and U.S. Army Comments (cont'd)**

UNCLASSIFIED				
#	ORGANIZATION	PAGE	COMMENTS	RATIONALE
IG-5	PdM HMS	4	<p>[REDACTED]</p> <p>The radios fielded do meet all performance requirements with the exception of the Manpack radio MTBEFF only. During the last Operational Test, the Manpack was demonstrated to exceed the program requirement of 477 MTBEFF for the vehicular mounted configuration, which is the only configuration Army has elected to field.</p>	Clarity
IG-6	OSD	4, 5	<p>[REDACTED]</p> <p>Add verbiage to clarify that part of the program cost increase is attributable to factors unrelated to the change in Acquisition Strategy.</p> <p>[REDACTED]</p>	Accuracy and Completeness
IG-7	OSD	4	<p>[REDACTED]</p> <p>[REDACTED]</p>	Accuracy

**Under Secretary of Defense for Acquisition, Technology and Logistics and U.S. Army Comments (cont'd)**

UNCLASSIFIED				
#	ORGANIZATION	PAGE	COMMENTS	RATIONALE
IG-8	OSD	4	<p>Delete the word “prematurely” from the third Findings sentence to read “In addition, the USD (AT&amp;L) approved the HMS program to enter Milestone C...”</p> <p>As currently written, the report inaccurately portrays the purpose of the MS C decision. It is not intended that a program be 100% free of deficiencies at MS C, as implied in the IG report.</p> <p>At MS C, the USD (AT&amp;L) deemed that the Rifleman Radio had been through sufficient testing and shown requisite program maturity to enter the Production &amp; Deployment phase, which includes additional test events that facilitate improvements to system design and performance. Because it was at a different point in its development timeline, the Manpack Radio did not show the same level of maturity at MS C as the Rifleman, so the USD (AT&amp;L) approved fewer LRIP quantities with more caveats for additional testing. Army Warfighters recognized this and accepted the risk. Radio performance issues were understood when approval was given for buying production radios to meet critical warfighter requirements.</p>	Accuracy
IG-9	OSD	4	<p>Rewrite the paragraph to indicate that the MS C decision was with full awareness of the test results and documentation status, with support of the DOT&amp;E community, and that the USD(AT&amp;L) exercised discretion when approving limited production of radios to meet Army operational needs and provide for additional operational testing.</p> <p>While TEMP's are generally required, this policy is tailorable and qualification testing may occur with a DOT&amp;E-approved Operational Test Agency Test Plan (OTATP).</p>	Completeness
IG-10	OSD	4	<p>Delete the bullet that reads “has delayed the production decisions by four years which will consequently delay the planned fielding schedule to the warfighter...”</p> <p>This statement inaccurately attributes program delays to the revised acquisition strategy. As noted in the report, test results were not sufficient to support an unconstrained production decision. Product improvements and further testing are needed to correct remaining radio</p>	Accuracy

**Under Secretary of Defense for Acquisition, Technology and Logistics and U.S. Army Comments (cont'd)**

UNCLASSIFIED				
#	ORGANIZATION	PAGE	COMMENTS	RATIONALE
			deficiencies. This is entirely unrelated to the change in acquisition strategy. Had the acquisition strategy remained unchanged, current radio performance would not justify an immediate or on time full rate production decision.	
IG-11	Army	4	(b) (4), (b) (5)	Completeness
IG-12	OSD	6	(b) (4), (b) (5)	Accuracy
IG-13	OSD	6	(b) (4), (b) (5)	Completeness and accuracy

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**Under Secretary of Defense for Acquisition, Technology and Logistics and U.S. Army Comments (cont'd)**

UNCLASSIFIED				
#	ORGANIZATION	PAGE	COMMENTS	RATIONALE
			(b) (4) (b) (5)	
IG-14	Army	6	(b) (4)	Consistency
IG-15	OSD	7	Include clarification that the HMS program had always planned to conduct a competitive procurement for full rate production. As currently written, the report implies that a "new" and unplanned competition was required of the program by virtue of the referenced June 17, 2011 ADM. This does not accurately reflect the original HMS acquisition. The acquisition strategy has always been to conduct competitions for both the development and production phases, and two vendors were awarded development contracts in preparation for a competitive full rate production environment. The impact of the updated Acquisition Strategy was to afford non-program of record NDI radios an opportunity to compete. This guidance was aligned with the intent and interests of congress, as communicated to the Department via numerous formal letters and informal communications with the SECDEF, OSD, and AT&L.	Accuracy

Under Secretary of Defense for Acquisition, Technology and Logistics and U.S. Army Comments (cont'd)

UNCLASSIFIED				
#	ORGANIZATION	PAGE	COMMENTS	RATIONALE
IG-16	PdM HMS	7	[REDACTED]	Completeness
IG-17	OSD	7	[REDACTED]	Completeness
IG-18	OSD	7	Insert the words "full rate" such that the existing sentence reads "however, the Authorization Act does not allow the HMS program to award a procurement contract to buy <i>full rate</i> production radios until the acquisition strategy is change . . . ."	Accuracy
IG-19	OSD	7	<p>Add further detail to the report section "USD (AT&amp;L) Directed Change to the Acquisition Strategy" to identify the full extent of congressional interest in and guidance for the program.</p> <p>While the HMS funding limitations imposed by the NDAA of 2012 are mentioned in the audit report, there is no discussion of other congressional interest in the program. Numerous letters of congressional inquiry (34 congressmen and at least 2 senators) have communicated the desire/guidance to follow a competitive and multi-vendor acquisition approach.</p> <p>HASC marks to the 2013 NDAA directed the Army to include non-program of record vendors in any subsequent FRP opportunities "in the interest of increased competition". While this may increase testing costs, competitive forces may also drive down unit costs.</p>	Completeness

**Under Secretary of Defense for Acquisition, Technology and Logistics and U.S. Army Comments (cont'd)**

UNCLASSIFIED				
#	ORGANIZATION	PAGE	COMMENTS	RATIONALE
IG-20	OSD	8	<p>Immediately following the sentence "the following tests were used" include a list of test events and resulting test reports that are described in this section. Ensure that the ATEC OER is included as a data source and as part of the analysis. This will help to clear up inaccuracies as currently written. <span style="float: right;">(S)</span></p> <p></p> <p>As currently written, statements are made only regarding performance and results, with no identification of the test event or report being referenced. The current content of the "System Test Deficiencies" section is insufficient to accurately describe what are asserted as "major test deficiencies." The report should more fully characterize what was known about each radio as a result of the numerous completed test events, which are currently summarized in the short span of two sentences per radio. Since MS C, the RR has undergone 4 Government Development Tests (GDT), an Initial Operational Test &amp; Evaluation, an Operational Assessment with the 75th Ranger Regiment, and 2 Customer Tests (CT). The Manpack has undergone 4 GDTs, a Multi-service Operational Test &amp; Evaluation, 4 CTs, and a Follow-on Operational Test &amp; Evaluation. Both radios have shown performance improvements throughout their testing, with additional testing and product corrections planned prior to their FRP decisions.</p>	Completeness and accuracy
			<p>Revise the sentence that "The Rifleman and Manpack radios did not have approved TEMPS", to also state that the program did have a DOT&amp;E-approved Operational Test Agency Test Plan (OTATP). In addition, include the following context:</p> <p>While TEMPs are generally required, qualification testing can occur with a DOT&amp;E-approved Operational Test Agency Test Plan (OTATP). Both Rifleman and Manpack had draft TEMPs, coordinated with the user community, throughout their development cycles. Constant and ongoing discussions between the PM and the Army/DoD test communities have shaped the test programs and assisted the PM in staying current with changing test strategies and timelines. Army and</p>	



**Under Secretary of Defense for Acquisition, Technology and Logistics and U.S. Army Comments (cont'd)**

UNCLASSIFIED				
#	ORGANIZATION	PAGE	COMMENTS	RATIONALE
			DoD testers have observed and evaluated testing, and provided official test reports. TEMP's for both radio test programs required revisions to stay aligned with the changing acquisition strategy.	
IG-22	Army	8	<p>Correct the statement that the Manpack radio "did not provide mission command information to support tactical actions from across the battlefield, ..."</p> <p>The Sep 2014 AEC OTA Report states at paragraph 2.2 that "the MP Radio is effective in extending the tactical-level network. MP radio met the Army's threshold effectiveness technical performance requirements for networked voice and data exchange using five waveforms over multi-purpose and multi-channel operations."</p>	Accuracy
IG-23	OSD	9	<p>Move the sentence that reads "In April 2014, the HMS program office reported to Congress" to be the first sentence of the paragraph and delete the sentence that begins "Within 3 years of the APB".</p> <p>Note that in light of the PB 2016 submission Table 3 is unnecessary and should be deleted. In addition, the phrasing of the sentence to be deleted ("within 3 years...") inaccurately implies that the program office had expended funds that were 20% over procurement cost estimates. Although the program office's total lifecycle cost estimate for procurement funding rose by as much as 20%, funds had not been expended in that amount.</p>	Clarity and legibility
IG-24	OSD	10	Also correct the "Acquisition Strategy Related?" column of the table for the Vehicle Integration row to reflect "No" rather than "Yes". The Army decision to realign where Vehicle Integration costs are programmed (from vehicle platforms to the HMS) was an Army decision made entirely independently of the change in Acquisition Strategy.	Accuracy
IG-25	Army	10	Delete the last 4 words of footnote 6 for the table. The referenced funds provide for increased overhead, but not exclusively associated with contract administration.	Accuracy

**Under Secretary of Defense for Acquisition, Technology and Logistics and U.S. Army Comments (cont'd)**

UNCLASSIFIED				
#	ORGANIZATION	PAGE	COMMENTS	RATIONALE
IG-26	OSD	11	<p>Since the figures referenced in the statement “By accepting multiple designs per competition, the overall lifecycle support costs for the Rifleman would increase by (b) (4), (b) (5) . . . “ are not the program office’s, please revise per provided new data.</p> <p>The multi-vendor approach doesn't necessarily require that awards made for production radios will incur greater sustainment costs. This will not be known until the Army evaluates offerors and selects radios for contract award. There is no data to suggest that the overall lifecycle support costs will increase by the specific dollar values referenced.</p> <p>CO/DR: Per the current HMS POE, current Life Cycle Support Costs are (b) (4), (b) (5) compared to (b) (4), (b) (5) in the current (2011) APB. The current APB figure represents the entire HMS Program and is not broken down by radio type (Rifleman and Manpack).</p>	Accuracy
IG-27	Army	11	<p>Correct the last sentence of the first paragraph to read “The HMS program office procured 19,327 Rifleman and 5,326 Manpack Radios under the HMS development contract.”</p> <p>An additional 2,052 Rifleman Radios (for the total of 21,379 cited in the report) were procured by the Nett Warrior program.</p>	Accuracy
IG-28	OSD	12	<p>Delete the sentence that states the HMS Program Office timelines reflect that it will not procure radios until FY 2018. The Army will procure competition test assets for Manpack and Rifleman in FY16 and full rate production assets in FY17 (reference the Dec 2014 SAR &amp; OB16 P-Forms reported quantities and schedule).</p>	Accuracy
IG-29	PdM HMS	12	<p>Correct the statement that the HMS program office estimated Rifleman Radio “will take 35 months from the release date to a production decision”.</p> <p>The approved Acquisition Strategy and current program schedule depicts a timeline with 26 months from RFP release to the Full Rate Production decision. There are no delays projected at this time.</p>	Accuracy



**Under Secretary of Defense for Acquisition, Technology and Logistics and U.S. Army Comments (cont'd)**

UNCLASSIFIED				
#	ORGANIZATION	PAGE	COMMENTS	RATIONALE
IG-30	PdM HMS	12	<p>Correct the statement that the HMS program office estimated Manpack Radio "will take 37 months from the release date to a production decision".</p> <p>The approved Acquisition Strategy depicted a timeline with 32 months from RFP release to the Full Rate Production decision. The current program schedule projects only 26 months from RFP release to the FRP decision.</p>	Accuracy
IG-31	OSD	13	<p>Identify the data source for dollar values identified in Table 5. At this point, PB 2016 data should be used. Verify that dollar values in the italicized recommendation paragraph (i.e. "reallocate [redacted] in procurement funding) are valid, or correct them based on the PB16 submission.</p> <p>The correct values are as follows: (b) (4), (b) (5) [redacted]</p>	Accuracy
IG-32	PdM	13	<p>Revise recommendation 2 to reflect the fact that procurement funding is still required (and should not be reallocated) to field and sustain the previously approved LRIP assets, as well as to procure new LRIP assets from the qualifying NDI vendors.</p>	Clarity
IG-33	OSD	14	<p>Insert the words "To date" at the start of the sentence which currently reads "The Army has not conducted tests for dense vegetation and extreme hot and cold weather ...". Testing of the HMS Manpack is ongoing, and these types of tests are planned (and funded) for both the LRIP and FRP radios in March and July 2017, respectively. As written, the report appears to lack an objective understanding of the difference in purpose and intent between LRIP and FRP radios.</p>	Completeness
IG-34	Army	14	<p>Delete the bullet which states the HMS Program Manager did not conduct operational test of the radio, or clarify to indicate that OT was performed as part of the Nett Warrior OT in November 2014.</p> <p>Clarify the bullet which states the HMS program manager did not conduct a logistics demonstration to reflect that a logistics demonstration is planned and will be performed within the next year.</p>	Completeness
<p>SD FORM 818, AUG 12 <span style="float: right;">ALL PREVIOUS EDITIONS ARE OBSOLETE AND SHOULD NOT BE USED</span></p> <p style="text-align: center;">UNCLASSIFIED</p>				10



## Under Secretary of Defense for Acquisition, Technology and Logistics and U.S. Army Comments (cont'd)

UNCLASSIFIED				
#	ORGANIZATION	PAGE	COMMENTS	RATIONALE
IG-35	OSD	15	<p>Revise the last sentence of the first Conclusion paragraph to read as follows "The Army submitted a Service Acquisition Executive approved Acquisition Strategy for approval March 21, 2014, and following OSD staffing and coordination, the USD(AT&amp;L) approved the new acquisition strategy in May 2014."</p> <p>As currently written, the report leaves an erroneous impression that the USD(AT&amp;L) delayed approval of the new acquisition strategy from the date of the 2011 ADM to May 2014. This is inaccurate, and fails to reflect the submission date of the Army's proposed Acquisition Strategy.</p>	Accuracy
IG-36	OSD	15	<p>Revise the conclusion to carry forward revisions made in other parts of the document as described in the comments above.</p> <p>The first sentence states that the Milestone C decision "allowed the Army to procure and test initial production radios from the development contractor even though the program did not meet system performance requirements and did not have approved TEMPs".</p> <p>As previously noted in this CRM, production of limited quantities of radios was approved in response to Army Operational Needs, with the Army's full understanding of radio performance. Radios are not required to be 100% defect-free during the production and deployment. Some requirements cited in this report as being unmet were, in fact, met. The program did have approved OTATP documents.</p>	Consistency and Accuracy
IG-37	OSD	17	<p>Delete the statement that the review focused on "whether or not the Army effectively managed the acquisition", or add verbiage to the report to make this statement true. As currently written, the report contains no assessment or recommendation, positive or negative, regarding Army management or its effectiveness.</p>	Accuracy

## Acronyms and Abbreviations

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- APB** Acquisition Program Baseline
- HMS** Handheld, Manpack, and Small Form Fit
- RDT&E** Research, Development, Test and Evaluation
- USD(AT&L)** Under Secretary of Defense for Acquisition, Technology, and Logistics

# Acronyms and Abbreviations

ASB	Acquisition Program Baseline
AWM	Acquisition Management and Control System
ADTOR	Acquisition Development Test and Evaluation
ADTASD	Acquisition Development Test and Evaluation Support





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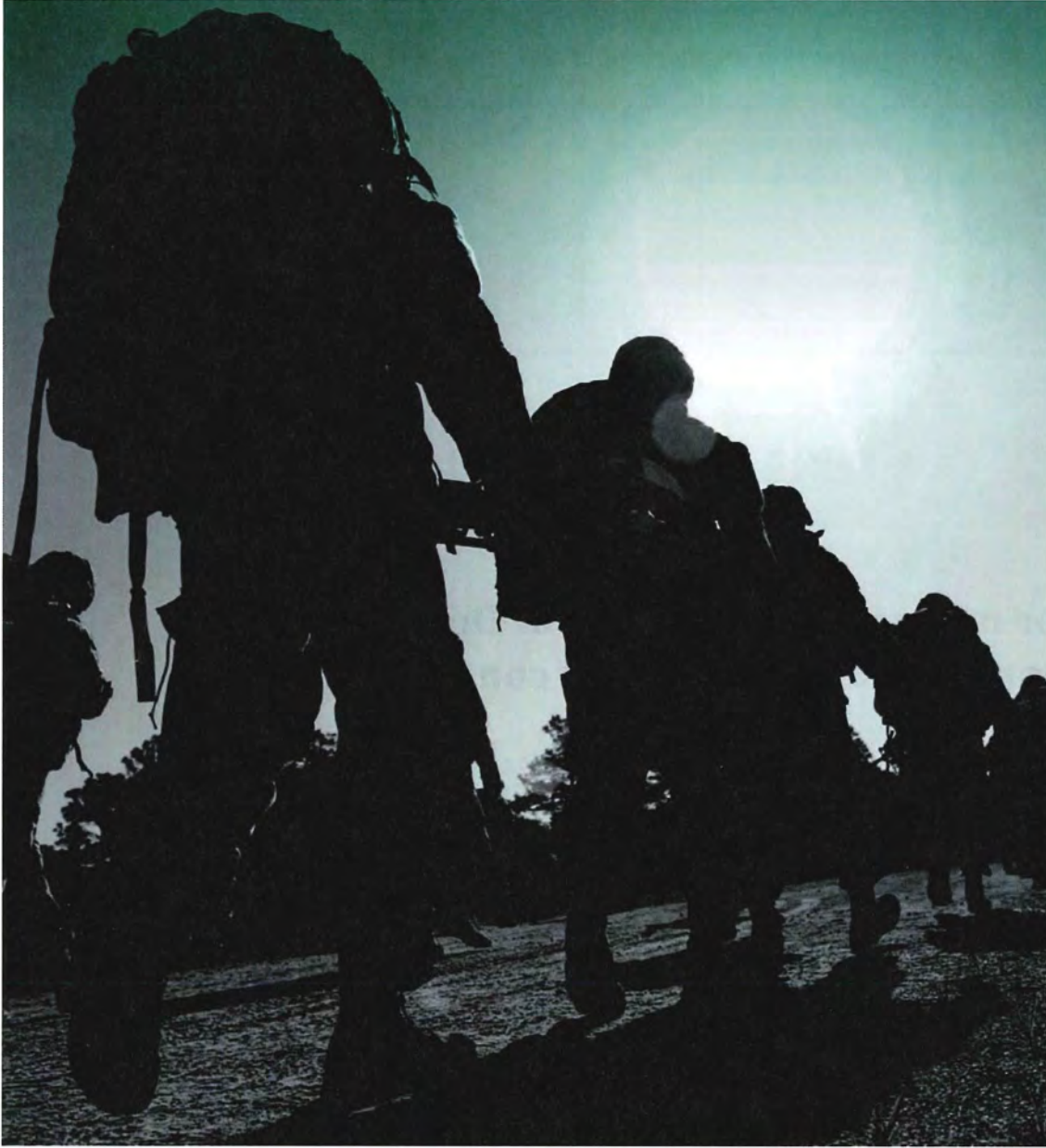
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