Inspector General

United States
Department *of* Defense

Using System Threat Assessments in the Acquisition of Tactical Wheeled Vehicles

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Acronyms and Abbreviations

ACAT	Acquisition Category
NGIC	National Ground Intelligence Center
STA	System Threat Assessment
TWV	Tactical Wheeled Vehicle

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-2884

November 23, 2009

MEMORANDUM FOR NAVAL INSPECTOR GENERAL
                     AUDITOR GENERAL, DEPARTMENT OF THE ARMY

SUBJECT: Using System Threat Assessments in the Acquisition of Tactical Wheeled Vehicles (Report No. D-2010-021)

We are providing this report for information and use. No written response to this report was required, and none was received. Therefore, we are publishing this report in final form.

We appreciate the courtesies extended to the staff. Please direct questions to me at (703) 604-9201.

Richard B. Jolliffe
Assistant Inspector General
Acquisition and Contract Management

Special Warning

This report contains information exempt from disclosure under the Freedom of Information Act, 5 U.S.C. § 552(b)(2).

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Results in Brief: Using System Threat Assessments in the Acquisition of Tactical Wheeled Vehicles

What We Did

We determined whether the Army and Marine Corps program offices obtained updated system threat assessments for acquisitions of selected tactical wheeled vehicles in support of operations in Southwest Asia. Specifically, we determined whether the Army and Marine Corps program offices updated program documentation for selected tactical wheeled vehicles, including contracts, test plans, and system capability documents, in response to threats identified in current system threat assessments.

What We Found

The Army and Marine Corps processes used to identify threats to tactical wheeled vehicles and communicate this information to program managers and the test communities were effective. As a result, program offices for seven Army and Marine Corps tactical wheeled vehicles that were deployed to Southwest Asia reacted to updated system threat assessments by incorporating armor into the vehicles' design. Specifically, the program offices obtained updated threat assessments, modified their contracts to incorporate armor requirements in the vehicle design, and had the test community determine the suitability and effectiveness of the design changes made in response to the changing threat. Further, requirements organizations within the Army and Marine Corps were in the process of updating tactical wheeled vehicle capability documents to reflect the updated threat information and required updated capabilities. The Army and Marine Corps internal controls were effective. We identified no internal control weakness in identifying and communicating the threat to tactical wheeled vehicles.

What We Recommend

The report contains no recommendations, and no agency or organization is required to comment.

Client Comments and Our Response

We provided a draft report on September 30, 2009 to the Naval Inspector General and to the Auditor General, Department of the Army. No written response to this report was required, and none was received. Therefore, we are publishing this report in final form.

Heavy Equipment Transporter System (Example of a tactical wheeled vehicle)

Source: Product Manager Heavy Tactical Vehicles

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Introduction

Objective

The audit objective was to determine whether the Army and Marine Corps program offices obtained updated system threat assessments (STAs) for acquisitions of selected tactical wheeled vehicles (TWVs) in support of the operations in Southwest Asia.[1] Specifically, we determined whether the Army and the Marine Corps updated program documentation for selected TWVs, including contracts, test plans, and system capability documents, in response to the threats identified in current STAs. See Appendix A for a discussion of the scope and methodology and prior coverage related to the audit objective.

Background

Intelligence agencies prepare and update assessments of enemy capabilities to neutralize or degrade a specific U.S. system and describe the threat to be countered and the projected threat environment.

Operational Threat Environment

In November 2008, the Army Training and Doctrine Command for Intelligence, G-2, prepared an informal threat assessment for the Army's TWVs.[2] The threat assessment states that, for the past 20 years, adversaries have adopted tactics and technologies to hide from U.S. reconnaissance, surveillance, and target acquisition sensors. The enemies choose to fight in complex terrain because it mitigates American technological advantages in intelligence, surveillance, and reconnaissance. As a result, U.S. ground forces operate in all terrain sets and in all weather conditions in increasingly complex environments. In these environments, U.S. ground forces conducting patrol or reconnaissance missions in TWVs could become prime targets. The threat assessment predicts that the future enemy will continue to rely less on conventional force-on-force battles to thwart U.S. actions and more on tactics that frustrate U.S. intentions without confrontation.

The tailored STA[3] prepared for the Marine Corps Medium Tactical Vehicle Replacement and the Logistics Vehicle System Replacement in January 2004[4] states that in the next 20 years no single opponent will constitute a threat to the United States. Instead, regional powers and alliances will pose the most viable threat. Advances in and proliferation of technology will present an array of new, more sophisticated threats. Increasingly, other

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[1] Previously referred to as the Global War on Terror.
[2] In August 2009, the Army completed, "System Threat Assessment Report for the Tactical Wheeled Vehicles," a combined STA for the Army's light, medium, and heavy TWVs.
[3] The tailored STA is the Marine Corps equivalent to an STA; however, the threat content is more focused on the specific system.
[4] The Marine Corps Intelligence Activity modified the tailored STA in August 2009, but it is still dated January 2004.

nations will be equipped with new or modernized sophisticated weapons, sensors, and information operations capabilities obtained from suppliers worldwide. Moreover, the Marine Corps can expect to encounter both nation-state-based, nontraditional combatants and a variety of nonstate actors engaging in unconventional warfare. Each operational environment will provide a unique set of challenges to deployed forces and TWVs. See the glossary for definitions of technical terms used in this report.

Specific Threats to Tactical Wheeled Vehicles

The November 2008 threat assessment identified the most likely threats to TWVs as mines, roadside improvised explosive devices, and small arms fire. However, the most stressing threats continue to be explosively formed projectiles because of their armor penetration capabilities and large underbody improvised explosive devices. Physical damage can also be expected from traditional and irregular threats, ranging from conventional ground forces using small arms and mines to terrorist and insurgent forces using available weapons in both their intended and unintended capacities. The threat assessment further indicated that adversaries can be expected to possess knowledge regarding vulnerable areas when targeting TWVs.

The January 2004 tailored STA for the Marine Corps Medium Tactical Vehicle Replacement and the Logistics Vehicle System Replacement states that there is no single threat to operations of the TWVs. TWVs will face many threats, including landmines, small arms fire, improvised explosive devices, rockets, precision guided bombs, and munitions. Reconnaissance, surveillance, and target acquisition obstacles and barriers also threaten the survivability of TWVs in future operations.

Selected Tactical Wheeled Vehicles

We judgmentally selected TWVs developed and acquired by the Army and the Marine Corps[5] to determine whether controls were in place to react with appropriate vehicle design changes as changes in threats occurred for those vehicles.

In the Army, TWVs are managed under the TACOM Life Cycle Management Command. From a list of all Army-managed TWVs, we identified those that were operating in theater (Iraq or Afghanistan) and then selected vehicles from each TWV category: light, medium, and heavy. Based on their wide use in theater, we selected the following five Army TWVs for review:

- Armored Security Vehicle,
- High Mobility Multipurpose Wheeled Vehicle,
- Family of Medium Tactical Vehicles,
- Heavy Equipment Transporter System, and
- Heavy Expanded Mobility Tactical Truck.

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[5] The Navy and the Air Force do not develop or produce TWVs.

In the Marine Corps, TWVs are managed under the Marine Corps Systems Command. From the list provided by the Marine Corps, we selected all the light, medium, and heavy TWVs for which the Marine Corps was the lead acquisition agency:

- Internally Transportable Vehicle,
- Medium Tactical Vehicle Replacement, and
- Logistics Vehicle System Replacement.

Each of the TWVs selected for review was in the production phase of the acquisition process, with the exception of the Heavy Equipment Transporter System, which is in the operations and support phase of the acquisition process. See Appendix B for a description of the selected Army and Marine Corps TWVs.

Review of Internal Controls

We reviewed the internal controls in the Army and Marine Corps to identify and communicate threat updates to TWVs to program offices, contracting officers, test organizations, and milestone decision authorities. We determined that the Army and Marine Corps processes used for identifying and communicating threat information on TWVs to program managers, contracting officers, test organizations, and requirements generators were effective.

Sources of Threat Assessment Information

The key organizations for preparing the Land Warfare Capstone Threat Assessment and for collecting and relaying threat information to program offices and requirements generators are the Army Intelligence and Security Command's National Ground Intelligence Center (NGIC); the Army Office of the Deputy Chief of Staff for Intelligence, G-2; the Army Training and Doctrine Command Deputy Chief of Staff for Intelligence, G-2; the Army Materiel Command Office of Deputy Chief of Staff for Intelligence, G-2, including Army foreign intelligence officers; and the Marine Corps Intelligence Activity. Appendix C provides the DOD guidance on STAs, and Appendix D describes the roles and responsibilities of the key agencies.

Finding. Identifying and Updating the Threats to Tactical Wheeled Vehicles

The Army and Marine Corps processes used to identify threats to tactical wheeled vehicles (TWVs) and communicate this information to program managers and the test communities were effective. As a result, program offices for the Army and Marine Corps TWVs from our selection that were deployed to Southwest Asia[6] had reacted to updated STAs by incorporating armor in the vehicles' design (see the seven TWVs in the table below). Specifically, the program offices had obtained updated threat assessments, modified their contracts to incorporate armor requirements in the vehicles' design, and had their test community determine the suitability and effectiveness of the design changes made in response to the changing threats. Further, requirements organizations within the Army and the Marine Corps were in the process of updating TWV capability documents to reflect updated threat information identified in STAs and updating TWV required capabilities as needed.

Vehicles Selected for Review That Were Deployed to Southwest Asia

TWV	Type[1]	Acquisition[2] Category	Oversight	Current Phase
Army				
Armored Security Vehicle	L	III	Program Executive Office for Combat Support and Combat Service Support	Production
High Mobility Multipurpose Wheeled Vehicle	L	III	Program Executive Office for Combat Support and Combat Service Support	Production
Family of Medium Tactical Vehicles	M	IC	Program Executive Office for Combat Support and Combat Service Support	Production
Heavy Equipment Transporter System	H	III	Program Executive Office for Combat Support and Combat Service Support	Operations & Support
Heavy Expanded Mobility Tactical Truck	H	III	Program Executive Office for Combat Support and Combat Service Support	Production
Marine Corps				
Medium Tactical Vehicle Replacement	M	IC	Program Executive Office for Land Systems	Production
Logistics Vehicle System Replacement	H	II	Program Executive Office for Land Systems	Production

[1]L=light; M=medium; and H=heavy.
[2]See the glossary for definitions of the acquisition categories.

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[6] The Internally Transportable Vehicle was not deployed to Southwest Asia.

Preparation of System Threat Assessments

In accordance with Army Regulation 381-11, "Intelligence Support to Capability Development," January 26, 2007, the Army program office for the four selected light and heavy TWVs was not required to have an STA because they were acquisition category (ACAT) III programs. As required, the Army Training and Doctrine Command for Intelligence, G-2, prepared informal threat assessments in response to the updated threats to TWVs. In March 2005, the Army Training and Doctrine Command prepared an informal threat assessment that focused on the current threat and the armoring of TWVs. In November 2008, the Army Training and Doctrine Command updated the informal March 2005 threat assessment to cover a broad range of threats that TWVs may face in the next 10 to 15 years. The informal threat assessments identified the most likely threats to TWVs as side-attack improvised explosive devices and small arms fire, and the most stressing threats to TWVs as explosively formed projectiles and large underbody improvised explosive devices. Other threats to TWVs include landmines; rocket-propelled grenades; antitank guided missiles; mortars; artillery; and armed, unmanned aerial vehicles. The Army Deputy Chief of Staff for Intelligence, G-2, and NGIC coordinated on the informal threat assessments. The TACOM Life Cycle Management Command Intelligence and Security Division prepared an STA, "System Threat Assessment Report for the Tactical Wheeled Vehicles," for the Army's light, medium, and heavy TWVs[7] that was validated by the Army Deputy Chief of Staff for Intelligence, G-2, in August 2009.

Because the Family of Medium Tactical Vehicles program was an ACAT IC program, the program office obtained an STA as required by Army Regulation 381-11. The Army Deputy Chief of Staff for Intelligence, G-2, validated the STA for the Family of Medium Tactical Vehicles program in accordance with Army Regulation 381-11.

The Marine Corps prepared and validated tailored STAs for the three TWV programs selected, as required by the Office of the Chief of Naval Operations Instruction 3811.1D, "Threat Support to Weapon and Information Technology Systems Planning and Acquisition," June 5, 2008. For the two TWV programs with missions in Southwest Asia (Medium Tactical Vehicle Replacement and Logistics Vehicle System Replacement), the tailored STA stated that the primary and most prolific threats were small arms projectiles, mortar and artillery fragments, and antipersonnel and antivehicle mine blasts.

Contract Modifications Issued in Response to Changing Threats

To procure armor upgrades to TWVs in response to the increased threats identified in the STAs, Army and Marine Corps contracting officers issued separate armor contracts or awarded contract modifications to the production contracts, with the exception of the Internally Transportable Vehicle, which did not have increased armor requirements. Army contracting officers amended the contracts to incorporate add-on-armor requirements and procure initial quantities of armor kits as follows:

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[7] The TWV STA does not include the Armored Security Vehicle because it is an ACAT III and is not required by Army Regulation 381-11.

- In July 2007, the contracting officer for the Armored Security Vehicle modified the contract to procure 506 add-on-armor kits. In February 2008 the contract was amended to include an additional 1,676 add-on-armor kits. Also, in March 2008 and January 2009, the contracting officer continued to amend the contract to procure a total of 4,019 improved add-on-armor kits.

- In April and June 2005, the contracting officer for the High Mobility Multipurpose Wheeled Vehicle amended the contract to procure 1,233 add-on-armor kits. Additionally, in July 2006, the contracting officer amended the contract to procure an additional 3,800 enhanced add-on-armor kits.

- In March 2004 and September 2005, the contracting officer for the Family of Medium Tactical Vehicles awarded contracts to Radian Inc. to provide 1,822 bolt-on armor crew protection kits. Also, in July 2004, the contracting officer awarded a contract to Stewart and Stevenson Tactical Vehicle Systems LP to provide 2,060 low signature armored cabs. Additionally, in 2008, the contracting officer amended the production contract to procure 1,594 long-term armor strategy kits and cabs.

- In April 2004, the contracting officer for the Heavy Equipment Transporter System contracted with Simula Inc. to procure 796 add-on-armor kits. In March 2008, the contracting officer amended the production contract with Oshkosh Truck Corporation to procure six prototype Heavy Equipment Transporter System vehicles with product improvements that, when complete, will accept the current and future add-on-armor kits.

- In October 2008, the contracting officer for the Heavy Expanded Mobility Tactical Truck amended the contract to procure 661 add-on-armor kits. Also, in January 2009, the contracting officer amended the contract to procure another 1,769 add-on-armor kits.

Marine Corps contracting officers amended contracts to incorporate add-on-armor requirements and procured initial quantities of armor kits by performing the following contractual actions.

- In September 2004, the contracting officer incorporated engineering change proposals developed by the prime contractor, Oshkosh Corporation, in the Medium Tactical Vehicle Replacement contract to procure 398 add-on-armor kits to provide increased armor protection for greater crew survivability. Also, from February 2005 through November 2008, the contracting officer amended the contract to procure an additional 3,423 add-on-armor kits.

- In May, 2006, the contracting officer for the Logistics Vehicle Replacement System began to exercise contract options and procured 351 add-on-armor kits.

Tests of the Effectiveness of Armor Design Modifications

The Army Test and Evaluation Command was aware of current threats to TWVs based on weekly threat updates received from the NGIC. Accordingly, the Army Test and Evaluation Command incorporated the updated threat information in the test plans. Using the weekly threat updates, the Army Test and Evaluation Command, in coordination with the program offices, developed test plans and performed testing on the suitability and effectiveness of the armor modifications made to the Army TWVs. Below is a summary of the test results from the Army Test and Evaluation Command's capabilities and limitations reports, safety confirmation reports, and live fire test reports.

- The September 2007 capabilities and limitations report for the Armored Security Vehicle stated that the add-on armor fragmentation kit enhanced the ballistic protection of the Armored Security Vehicle and provided some protection against improvised explosive devices. The earlier design of the Armored Security Vehicle protected against small arms fire and provided limited mine protection.

- (FOUO) The early add-on armor fragmentation kits on armored variants of the High Mobility Multipurpose Wheeled Vehicle included protection against ███████ ████████████████████████████████████ The October 2006 safety confirmation for the High Mobility Multipurpose Wheeled Vehicle armored variants stated that the add-on armor fragmentation kit enhanced protection against ████████████████████████████████ A safety confirmation was released in June 2007 for an interim armor kit that provided protection against █████████████████████████████████ ████████ *

- The December 2003 and October 2004 safety confirmations for the Family of Medium Tactical Vehicles stated that the Radian armor kit and the low signature armor cab kit, respectively, protected crew against small arms fire and blast fragmentation. Before December 2003, the design of the Family of Medium Tactical Vehicles did not provide armor for protection against small arms fire or blast fragmentation.

- (FOUO) The June 2005 capabilities and limitations report for the Heavy Equipment Transporter System stated that the bolt-on armor improved protection against ██████████████████████████████████ *

- (FOUO) In the January 2008 live fire test and evaluation report, the Army Test and Evaluation Command discussed the extent to which crew can survive and function after the Heavy Expanded Mobility Tactical Truck, with improved armor, is attacked by a variety of ballistic threats. The upgraded armor improved protection against ████████████████████████████ *

The Marine Corps Operational Test and Evaluation Activity representatives attended product team meetings with Marine Corps intelligence analysts to discuss threats to

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* This paragraph omitted information exempt from disclosure under the Freedom of Information Act, 5 U.S.C. § 552(b)(2).

TWVs before developing plans to test the suitability and effectiveness of armor modifications to the Marine Corps TWVs.   Further, Marine Corps intelligence analysts reviewed and provided input to the test plans to ensure planned tests were reasonable.

- The March 2008 draft Acquisition Strategy/Acquisition Plan for the Medium Tactical Vehicle Replacement program stated that, as armoring vehicle requirements became a critical issue during Operation Iraqi Freedom, the Marine Corps System Command pursued the development, testing, and production of armor kits geared toward crew protection. The testing results showed that the integrated armoring system developed for the Medium Tactical Vehicle Replacement program withstands small arms fire, improvised explosive devices, and mine blasts. The program office is currently fielding a blast protection upgrade kit to theater with plans to retrofit the upgrade to existing Medium Tactical Vehicle Replacement armor.

- (FOUO)   The September 2008 live fire test and evaluation report for the Logistics Vehicle Replacement System stated that the add-on armor provides protection against ███████████████████████████████████ ███████████ *

Update of Vehicle Capability Documents

The Army Training and Doctrine Command stated that it plans to update the capabilities documents for the Family of Medium Tactical Vehicles, the Heavy Equipment Transporter System, and the Heavy Expanded Mobility Tactical Truck in response to the updated STAs. TACOM Life Cycle Management Command foreign intelligence officers completed the Light, Medium, and Heavy TWV STA, which the Army Training and Doctrine Command will use as the baseline threat level in capability documents for all Army TWVs selected except the High Mobility Multipurpose Wheeled Vehicle.   The High Mobility Multipurpose Wheeled Vehicle capability document will not be updated because the program is being replaced with the Joint Light Tactical Vehicle.   The Armored Security Vehicle capability document was updated in February 2007 with updated threat information from the Army Training and Doctrine Command and the Defense Intelligence Agency.

The Marine Corps Combat Development Command has updated its capabilities document by adding an annex for armoring the Medium Tactical Vehicle Replacement program. The Command plans to update the Logistics Vehicle System Replacement capability documents using the program's tailored STA.

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* This paragraph omitted information exempt from disclosure under the Freedom of Information Act, 5 U.S.C. § 552(b)(2).

Summary

(FOUO)   The Army and Marine Corps processes for identifying and communicating updated threat information on TWVs to program managers, contracting officers, test organizations, and requirements generators were effective. The Army and Marine Corps prepared STAs for TWVs, identifying the most likely and stressing threats to TWVs. As discussed, program managers, in response to updated threat information, had contracting officers amend TWV contracts to incorporate armor design changes needed to provide the TWVs additional protection from ███████████████████████████ █████████████   Also Army and Marine Corps test organizations tested the effectiveness of the armor design changes made to the TWVs as the threats continued to evolve.   Although not accomplished yet, the requirements communities within the Army and the Marine Corps planned to update their TWV capabilities documents with updated threat assessment information and revised armor protection requirements in response to the updated threats. [*]

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[*] This paragraph omitted information exempt from disclosure under the Freedom of Information Act, 5 U.S.C. § 552(b)(2).

Appendix A. Scope and Methodology

We conducted this performance audit from October 2008 through September 2009 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our finding and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our finding and conclusions based on our audit objectives. We judgmentally selected for review Army and Marine Corps TWVs that were in production and fielded for use in Southwest Asia. We selected eight TWVs for review:

- Armored Security Vehicle,
- High Mobility Multipurpose Wheeled Vehicle,
- Family of Medium Tactical Vehicles,
- Heavy Equipment Transporter System,
- Heavy Expanded Mobility Tactical Truck,
- Internally Transportable Vehicle,
- Medium Tactical Vehicle Replacement, and
- Logistics Vehicle System Replacement.

We excluded TWVs in the development phase of the acquisition process from our review because system program offices must obtain an updated system threat assessment before low-rate initial production decisions and full-rate production reviews to ensure that systems produced and fielded satisfy warfighter capability requirements.

For selected TWVs, we determined whether the Army and Marine Corps updated system capability documents, contract statements of work, and test plans in response to the threats identified in current STAs. We reviewed STAs, and contracting, testing, and capabilities documents dated from August 1982 through August 2009. We interviewed staff from the Army Intelligence and Security Command's NGIC; the Army Office of the Deputy Chief of Staff for Intelligence, G-2; the Army Training and Doctrine Command Deputy Chief of Staff for Intelligence, G-2; the Army Materiel Command Office of the Deputy Chief of Staff for Intelligence, G-2, including the Army foreign intelligence officers; the Army Test and Evaluation Command; the Marine Corps Combat Development Command; the Marine Corps System Command; and the Marine Corps Intelligence Activity.

Use of Computer-Processed Data

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

Prior Coverage

During the last 5 years, the Government Accountability Office (GAO), the Department of Defense Inspector General (DOD IG), and the Army Audit Agency have issued three reports discussing the installation of Army truck armor, planning armor requirements,

and foreign intelligence support to acquisition. Unrestricted GAO reports can be accessed over the Internet at http://www.gao.gov. Unrestricted DOD IG reports can be accessed over the Internet at http://www.dodig.mil/audit/reports. Army Audit Agency reports are not publicly available on the Internet.

GAO

GAO Report No. GAO-06-160, "Defense Logistics: Several Factors Limited the Production and Installation of Army Truck Armor during Current Wartime Operations," March 2006

DOD IG

DOD IG Report No. D-2008-089, "Planning Armor Requirements for the Family of Medium Tactical Vehicles," May 9, 2008

Army

Army Audit Agency Report No. A-2006-0232-ALA, "Followup Audit of G-2 Foreign Intelligence Support to Acquisition," September 22, 2006

Appendix B. Description of the Selected Army and Marine Corps Tactical Wheeled Vehicles

Armored Security Vehicle (Army)

The Armored Security Vehicle is a light TWV, ACAT III program under the oversight of the Program Executive Office for Combat Support and Combat Service Support. The Army Acquisition Executive is the milestone decision authority.   The Armored Security Vehicle program is in the production phase of the acquisition process. The Armored Security Vehicle supports forces operating in complex and uncertain security environments that have both conventional and asymmetric threats. It allows teams to detect and engage targets more effectively while operating under armor. The Armored Security Vehicle is in use in Southwest Asia.

High Mobility Multipurpose Wheeled Vehicle (Army)

The High Mobility Multipurpose Wheeled Vehicle is a light TWV, ACAT III program under the oversight of the Program Executive Office for Combat Support and Combat Service Support. The Program Executive Officer is the milestone decision authority. The High Mobility Multipurpose Wheeled Vehicle program has been in the production phase of the acquisition process since its full-rate production review in September 1985. The High Mobility Multipurpose Wheeled Vehicle is used for many missions that include command and control, troop transport, light cargo transport, shelter carrier, ambulance, weapons transport, and weapons platform throughout all areas of the battlefield or mission area. The High Mobility Multipurpose Wheeled Vehicle is in use in Southwest Asia.

Family of Medium Tactical Vehicles (Army)

The Family of Medium Tactical Vehicles is a medium TWV, ACAT IC program under the oversight of the Program Executive Office for Combat Support and Combat Service Support.   The Army Acquisition Executive is the milestone decision authority.   The Family of Medium Tactical Vehicles program has been in the production phase of the acquisition process since its full-rate production review in August 1995.   The Family of Medium Tactical Vehicles provides unit mobility and resupply, as well as equipment and personnel transportation. Further, it serves as a weapon systems platform for combat, combat support, and combat service support units in a tactical environment.   The Family of Medium Tactical Vehicles program is currently in use in Southwest Asia.

Heavy Equipment Transporter System (Army)

The Heavy Equipment Transporter System is a heavy TWV, ACAT III program under the oversight of the Program Executive Office for Combat Support and Combat Service Support. The Program Executive Officer is the milestone decision authority. The Heavy Equipment Transporter System is in the operations and support phase of the acquisition process.   The Heavy Equipment Transporter System is used to provide line haul, local

haul, and maintenance evacuation of the M1 series tank and heavy tracked and wheeled equipment during tactical operations on and off road. The Heavy Equipment Transporter System program is currently in use in Southwest Asia.

Heavy Expanded Mobility Tactical Truck (Army)

The Heavy Expanded Mobility Tactical Truck is a heavy TWV, ACAT III program under the oversight of the Program Executive Office for Combat Support and Combat Service Support. The Program Executive Officer is the milestone decision authority. The Heavy Expanded Mobility Tactical Truck is in the production phase of the acquisition process. The Heavy Expanded Mobility Tactical Truck supports combat units by performing line and local haul, unit resupply, helicopter and tactical refueling, and related missions in the tactical environment. The Heavy Expanded Mobility Tactical Truck is currently in use in Southwest Asia.

Internally Transportable Vehicle (Marine Corps)

The Internally Transportable Vehicle is a light TWV, ACAT III program under the oversight of the Product Group Director for Armor and Fire Support Systems. The Commanding General, Marine Corps Systems Command, is the milestone decision authority. The Internally Transportable Vehicle is in the production phase of the acquisition process. The Internally Transportable Vehicle provides ground mobility in support of an operational maneuver from the sea and can be transported on the MV-22 Osprey. The Internally Transportable Vehicle is currently not being used in Southwest Asia.

Medium Tactical Vehicle Replacement (Marine Corps)

The Medium Tactical Vehicle Replacement is a medium TWV, ACAT IC program under the oversight of the Program Executive Office for Land Systems. It is in the production phase of the acquisition process. In February 2008, the Navy Acquisition Executive was designated the milestone decision authority for the Medium Tactical Vehicle Replacement program after the ACAT level was reclassified from an ACAT II to an ACAT IC program based on an increase in procurement funding driven by new wartime requirements. The Medium Tactical Vehicle Replacement delivers supplies to forward deployed units; transports personnel, ammunition, break-bulk cargo, bulk liquids, engineering equipment; and tows weapons systems. Further, it must be able to accept and move air defense, communication, command and control shelters, and commercial cargo containers. The Medium Tactical Vehicle Replacement is in use in Southwest Asia.

Logistics Vehicle System Replacement (Marine Corps)

The Logistics Vehicle System Replacement is a heavy TWV, ACAT II program under the oversight of the Program Executive Office for Land Systems and is in the production phase of the acquisition process. The Assistant Secretary of the Navy (Research, Development, and Acquisition) is the milestone decision authority. The Logistics Vehicle System Replacement replaces the Logistics Vehicle System, and its primary mission is to provide bulk transport within all elements of the Marine Air-Ground Task Force. The bulk transport includes bulk fuel and water, ammunition, break-bulk cargo,

tactical bridging standardized containers to 20 feet, heavy equipment transport, and heavy wrecker recovery.   The Logistics Vehicle System Replacement is in use in Afghanistan.

Appendix C. Guidance on Developing and Communicating Threat Information

Defense Intelligence Agency Instruction 5000.002, "Intelligence Threat Support for Major Defense Acquisition Programs," June 2006; Army Regulation 381-11, "Intelligence Support to Capability Development," January 26, 2007; and the Office of the Chief of Naval Operations Instruction 3811.1D, "Threat Support to Weapon and Information Technology Systems Planning and Acquisition," June 5, 2008, provide criteria for developing threat assessments and communicating updated threat information for use throughout the acquisition process for TWVs.

Defense Intelligence Agency Instruction

Defense Intelligence Agency Instruction 5000.002 states that the Agency is responsible for validating STAs[1] for ACAT ID, major defense acquisition programs (definitions of all ACAT levels are in the glossary). In addition, the Instruction tasks NGIC with preparing and updating the Land Warfare Capstone Threat Assessment, which provides intelligence information for systems that operate on land, including TWVs. Capstone threat assessments are comprehensive, authoritative, and validated assessments of foreign threats in major warfare areas. Capstone threat assessments are the primary source of threat intelligence information for preparing and updating STAs and threat portions of documents that the Joint Chiefs of Staff review as part of the Joint Capabilities Integration and Development System process.[2] Upon publication, capstone threat assessments are considered validated threat assessments for use in the Defense acquisition system process.

Army Regulation

Army Regulation 381–11 provides policies, responsibilities, and procedures for requesting threat assessments and to ensure that threat considerations are incorporated in the Defense system acquisition process and the Joint Capabilities Integration and Development System for efforts on which the Army is the lead or supporting agency. The Army's Office of the Deputy Chief of Staff for Intelligence, G-2, validates STAs for ACAT IC and II programs and programs on the Office of the Secretary of Defense Test and Evaluation Oversight list.[3] If an STA is required for an ACAT III program, the Army relies on the appropriate capstone threat assessment, which for TWVs is the Land

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[1]Defense Intelligence Agency Instruction 5000.002 states that many agencies use the terms system threat assessment and system threat assessment report; however, the terms are equivalent. For consistency, this report uses the term system threat assessment.

[2]The documents included in the Joint Capabilities Integration and Development System process include Joint Capabilities Document, Initial Capabilities Document, Capability Development Document, and Capability Production Document.

[3]The Office of the Secretary of Defense Test and Evaluation Oversight list specifies developmental, operational, and live fire test and evaluation oversight requirements for each program.

Warfare Capstone Threat Assessment.   The threat validation authority for ACAT III programs is the U.S. Army Training and Doctrine Command at program initiation and the U.S. Army Materiel Command at subsequent acquisition milestone decisions.

Chief of Naval Operations Instruction

Chief of Naval Operations Instruction 3811.1D requires that the Marine Corps Intelligence Activity prepare tailored STAs for ACAT I, II, III, and IV programs. It also requires the Marine Corps Intelligence Activity to review threat information in Joint Capability and Integration Development System documents for compliance with DOD and the Chairman of the Joint Chiefs of Staff requirements and to review and approve threat-related sections of the system test and evaluation master plans.

Appendix D. Agency Roles and Responsibilities

The Army Intelligence and Security Command's NGIC; the Army Office of the Deputy Chief of Staff for Intelligence, G-2; the Army Training and Doctrine Command Deputy Chief of Staff for Intelligence, G-2; the Army Materiel Command Office of Deputy Chief of Staff for Intelligence, G-2; Army foreign intelligence officers; and the Marine Corps Intelligence Activity are the key organizations for preparing the Land Warfare Capstone Threat Assessment and for collecting and relaying threat information to program offices and requirements generators.

National Ground Intelligence Center

The Army Intelligence and Security Command's NGIC is responsible for managing collections, analysis, and production of threat documentation. NGIC provides support to intelligence activities in developing and updating STAs by participating in threat steering group meetings[†] and providing comments on programs' STAs. NGIC is responsible for threat analysis and threat assessment production for all land systems, as delegated by the Defense Intelligence Agency. NGIC ground intelligence data can be accessed on its secure Web site by members of the DOD intelligence, acquisition, and test communities with access.

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[†] The threat steering group coordinates the production, review, and validation of threat assessments.

[*] This paragraph omitted information exempt from disclosure under the Freedom of Information Act, 5 U.S.C. § 552(b)(2).

Army Deputy Chief of Staff for Intelligence, G-2

The Army Deputy Chief of Staff for Intelligence, G-2, manages the Army's intelligence support through the capability development process and ensures intelligence data are logical and consistent by assigning threat integration staff officers and threat analysts to support the capabilities development process. The threat integration staff officers and threat analysts schedule threat steering group meetings for each program and coordinate reviews of threat assessments in Joint Capability Integration and Development System documents supporting Army programs and analysis.

Army Training and Doctrine Command Deputy Chief of Staff for Intelligence, G-2

The Army Training and Doctrine Command Deputy Chief of Staff for Intelligence, G-2, develops the initial STAs for all ACAT I and II programs before the engineering and manufacturing development milestone decision. The Deputy Chief of Staff also prepares and validates the initial STA for ACAT III programs, if required by the threat steering group, before the engineering and manufacturing development decision.

Army Materiel Command

The Army Materiel Command Deputy Chief of Staff for Intelligence, G-2, researches, analyzes, and provides information on current and future threat capabilities by providing threat statements and guidance in acquisition documents. Further, the Deputy Chief of Staff for Intelligence, G-2:

- updates STAs for all ACAT I and II programs after the engineering and manufacturing development phase of the acquisition process,
- prepares and validates STAs required for ACAT III programs by direction of the threat steering group, and
- assigns foreign intelligence officers at appropriate Army command locations.

Army Foreign Intelligence Officers

Army foreign intelligence officers are the primary source of threat assessment support to Army program offices. Foreign intelligence officers research, analyze, and provide intelligence information to program managers. Additionally, with direction from the threat steering group, foreign intelligence officers prepare and update STAs for all acquisition programs that have passed the engineering and manufacturing development milestone decision of the acquisition phase. The Army Materiel Command Deputy Chief of Staff for Intelligence, G-2, validates the STAs.

TACOM Life Cycle Management Command Foreign Intelligence Officers

TACOM Life Cycle Management Command foreign intelligence officers prepare sections of the STAs and provide acquisition decisionmakers with information from NGIC and other intelligence sources on threats about their vehicles. The TACOM Life Cycle Management Command foreign intelligence officers meet weekly with program

and product managers to address threats to vehicles and address specific concerns about threats to vehicles which may make the vehicles fail warfighter requirements. Specifically, the foreign intelligence officers stated that they provide trends and related information on platforms and casualties, based on NGIC weekly threat briefings ███ ████████████████████████████ Although formal meeting minutes are not written by the foreign intelligence officers or the program office representatives, the program and product managers confirmed that they are kept informed about the threats to their TWVs through meetings and communications with TACOM Life Cycle Management Command foreign intelligence officers. *

Marine Corps Intelligence Activity

Analysts at the Marine Corps Intelligence Activity produce tailored STAs for all Marine Corps programs. The Marine Corps Intelligence Activity has working groups that are responsible for collecting information on current threats. The analysts obtain threat information by accessing databases available to members of the intelligence community, such as NGIC personnel, to ensure the latest threat information is captured and also by analyzing future threats.

Marine Corps Intelligence Activity analysts prepare and validate tailored STAs for every Marine Corps program on which the Marine Corps is the lead agency and the Commanding General, Marine Corps System Command, is the milestone decision authority. In addition, Marine Corps Intelligence Activity analysts provide briefings and presentations on the current threats to TWVs at integrated product team meetings with the Program Manager, personnel from the Marine Corps Combat Development Command, and representatives of the Marine Corps Operational Test and Evaluation Activity. Further, the Marine Corps Intelligence Activity operates a database, the Operation Task Management System. Marine Corps Intelligence Activity analysts stated that they use the database to track formal requests from Program Managers for additional threat briefs on their TWV programs.

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* This paragraph omitted information exempt from disclosure under the Freedom of Information Act, 5 U.S.C. § 552(b)(2).

Glossary

Acquisition Category. An ACAT facilitates decentralized decisionmaking, decision execution, and compliance with statutory requirements for milestone decisions in the Defense acquisition system process. The categories determine the level of review, decision authority, and applicable procedures. The following are definitions for ACAT I, II and III.

Acquisition Category I. An ACAT I program is defined as a major Defense acquisition program estimated by the Under Secretary of Defense for Acquisition, Technology, and Logistics to require an eventual expenditure of research, development, test, and evaluation funds of more than $365 million in FY 2000 constant dollars, or of procurement funds of more than $2.19 billion in FY 2000 constant dollars, or designated by the Under Secretary of Defense for Acquisition, Technology, and Logistics to be an ACAT I program. ACAT I programs have two subcategories: ACAT ID and ACAT IC. The Under Secretary of Defense for Acquisition, Technology, and Logistics designates programs as ACAT ID or IC.

Acquisition Category ID. For this category, the Under Secretary of Defense for Acquisition, Technology, and Logistics is the milestone decision authority. The "D" refers to the Defense Acquisition Board, which advises the Under Secretary of Defense for Acquisition, Technology, and Logistics at major decision points.

Acquisition Category IC. For this category, the DOD Component Head or, if delegated, the DOD Component Acquisition Executive is the milestone decision authority. The "C" refers to Component.

Acquisition Category II. An ACAT II program is an acquisition program that does not meet the criteria for an ACAT I program, but does meet the criteria for a major system. A major system is defined as a program estimated by the DOD Component Head to require an eventual expenditure of research, development, test, and evaluation funds of more than $140 million in FY 2000 constant dollars or of procurement funds of more than $660 million in FY 2000 constant dollars, or designated by the DOD Component Head to be an ACAT II program.

Acquisition Category III. An ACAT III program is an acquisition program that does not meet the criteria for ACAT I and II programs. The milestone decision authority is designated by the DOD Component Acquisition Executive to an official at the lowest appropriate level.

Capabilities and Limitations Report. The Capabilities and Limitations report issued by the Army Test and Evaluation Command provides critical information to the decisionmakers and commanders receiving a TWV system. Each report addresses the capabilities, limitations, safety, training, supportability, survivability, and unknowns or

risk areas. Further, the Capabilities and Limitations report is written in terms warfighters can easily understand.

Safety Confirmation. A safety confirmation is a document issued by the Developmental Test Command, which is a subordinate command under the Army Test and Evaluation Command. It provides the materiel developer and the decisionmaker with the test agency's safety findings and conclusions, and states whether the specified safety requirements have been met.

Inspector General
Department of Defense