

Audit



Report

OFFICE OF THE INSPECTOR GENERAL

INTELLIGENCE SUPPORT TO SYSTEMS ACQUISITION

Report No. 93-112

June 15, 1993

Department of Defense



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



REPORT NO. 93-112

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MEMORANDUM FOR UNDER SECRETARY OF DEFENSE (ACQUISITION
AND TECHNOLOGY)
ASSISTANT SECRETARY OF DEFENSE (COMMAND,
CONTROL, COMMUNICATIONS AND
INTELLIGENCE)
ASSISTANT SECRETARY OF THE NAVY (FINANCIAL
MANAGEMENT)
ASSISTANT SECRETARY OF THE AIR FORCE
(FINANCIAL MANAGEMENT AND COMPTROLLER)
INSPECTOR GENERAL, DEPARTMENT OF THE ARMY
DIRECTOR, DEFENSE INTELLIGENCE AGENCY

SUBJECT: Audit Report on Intelligence Support to Systems Acquisition
(Project No. 2RF-0061)

Introduction

This final report is provided for your information and use. The audit was made in response to a request from the Inspector General, Department of the Air Force, who conducted an inspection of the intelligence support to major weapon systems acquisition. The Air Force found problems in the intelligence support process that were outside its purview and requested that the Office of the Inspector General, DoD, look at the process on a DoD-wide basis.

Audit Results

The audit found that the quality of intelligence support was generally satisfactory; however, validated System Threat Assessment Reports (STARs) had not been disseminated to program offices in a timely manner. Although the STARs were not timely, the major defense acquisition process had not been adversely affected.

Objective

The objective of the audit was to determine the effectiveness of intelligence support for major weapon system acquisitions. Specifically, the audit determined whether procedures for developing and disseminating the STARs effectively and efficiently met the needs of acquisition managers.

Scope of Audit

The audit was limited to a review of Acquisition Category (ACAT) I programs. Those programs have been designated by the Under Secretary of Defense (Acquisition and Technology) (USD[A&T]) as major defense programs. ACAT I programs will have a total expenditure of more than \$300 million (FY 1990 constant dollars) in research, development, test, and evaluation funds or more than \$1.8 billion (FY 1990 constant dollars) in procurement funds. The USD(A&T) has milestone decision authority for ACAT I-D programs, while DoD Component heads have decision authority for ACAT I-C programs.

We identified a universe of 127 ACAT I programs based on an inventory the USD(A&T) maintained as of July 1992. We eliminated 45 programs because the Inspector General, DoD, either had recently reviewed or was in the process of reviewing 36 programs; 5 systems had been deployed; 3 systems were not threat driven; and, 1 program had been canceled. From the remaining 82 programs, we selected a judgmental sample of 13 programs (see Table 1.).

Table 1. Sampled Programs

	<u>ACAT I-D</u>	<u>ACAT I-C</u>	<u>Total</u>
OSD*	2	0	2
Army	3	1	4
Navy	2	2	4
Air Force	<u>0</u>	<u>3</u>	<u>3</u>
Total	<u>7</u>	<u>6</u>	<u>13</u>

*Office of the Secretary of Defense

The audit was made from September through November 1992. Activities visited or contacted are shown in Enclosure 1. This program audit was made in accordance with auditing standards issued by the Comptroller General of the United States as implemented by the Inspector General, DoD, and accordingly included such tests of internal controls as were considered necessary.

Internal Controls

We obtained a basic understanding of intelligence production requirements, which are generated as a result of intelligence support requests. However, detailed tests of controls relative to the intelligence production requirement process were not completed because of the decision to discontinue the audit at the completion of the survey phase.

Prior Audits and Other Reviews

The Inspector General, DoD, issued Report No. 91-032, "Summary Report on the Audit of the Effectiveness of the Defense Acquisition Board Process--FY 1988," January 25, 1991, which summarized results of five reports covering five major acquisition programs scheduled for Defense Acquisition Board (DAB) decisions. The audit found that key documents, including threat assessments, which are required for the DAB review, were either missing or deficient. However, the summary report contained no recommendations because the instances of missing or deficient documentation were isolated. The Inspector General, DoD, has issued numerous other reports on major acquisition programs. Enclosure 2 identifies the programs that have had audit coverage and the applicable audit report reference.

On June 11, 1991, the Air Force Inspector General issued Report No. PN 90-603, "Functional Management Inspection and System Acquisition Management Inspection of Intelligence Support to Systems Acquisition." The Air Force found problems with the critical intelligence parameter process, which was not working as designed, and managers were not routinely notified of changes that affected their systems. Also, the formal threat documentation process was rigid, layered, inefficient, and often exceeded time lines. In addition, because there was no well-defined focal point for intelligence, customers had to work with a variety of offices to get needed threat information. Finally, the Air Force also found problems with the dissemination of intelligence data to decision makers during the acquisition process. The report made several recommendations to correct these problems. The Air Force concurred with the report and agreed to revise policy and train personnel in the acquisition and threat processes.

Background

DoD Instruction 5000.2, "Defense Acquisition Management Policy and Procedures," February 23, 1991, requires that the operational effectiveness of a weapon system within the intended threat environment be a fundamental concern of the acquisition effort. Threat is to be considered from the determination of mission need throughout all phases of the acquisition, including both the decision process and the system development process.

The STAR is the primary threat document used in support of the milestone decision review and management of ACAT I programs. DoD Instruction 5000.2 requires that the STAR be maintained in a current and validated status throughout the acquisition process and that it be updated before critical program events during each phase as determined by the milestone authority. Further, when a significant change in threat occurs, especially threat affecting critical system characteristics, DoD Components are required to revise the STAR and submit revisions to the Defense Intelligence Agency for validation.

Discussion

Regulatory Guidance. DoD Directive 5000.1, "Defense Acquisition," February 23, 1991, requires intelligence threat assessments to be produced, approved, and validated for use by acquisition authorities to ensure that each major weapon system developed is mission-capable in its intended operational environment. In addition, intelligence assessment documents are to be standardized and relatable to the acquisition process.

DoD Instruction 5000.2 mandates that threat information, including the target data base, be validated by the DIA for acquisition programs subject to review by the DAB or be approved by the appropriate DoD Component intelligence agency. The Instruction also mandates early and continued collaboration among the intelligence, requirements generation, and acquisition management communities to ensure timely availability of validated threat information. The STAR should be tailored for and focused on a particular defense acquisition program and should identify critical intelligence parameters and associated intelligence production requirement control numbers. In addition, the Director, DIA, is required to validate all STARs and other threat information developed by DoD Components for DAB review and any changes thereto during each acquisition phase.

DIA Regulation 55-3, "Intelligence Support for Defense Acquisition Programs," March 30, 1992, implements DoD policy for intelligence support of defense acquisition programs and defines the responsibilities of the DIA and the DoD Components in the production, review, and validation of threat information. The Regulation provides general guidelines on the purpose, content, and focus of threat assessments used in support of acquisition programs.

Quality and Timeliness of Information. The audit found that program offices were generally satisfied with the quality of intelligence support for their weapon system programs, but were not satisfied with the timeliness of the information. The production and validation process associated with the STAR is time intensive. For example, the Army spent 420 days processing a STAR for the Army Tactical Missile. For 210 of the 420 days, the STAR was being revised. The length of time needed to revise the STAR can be attributed to an informal review process the Army had arranged with DIA.

Both the DIA and Army benefited from the informal process. The DIA had established an internal goal of 45 days to validate a STAR once the STAR was formally submitted. With the informal review process, DIA had the opportunity to review and comment on the STAR before formal submission. Also, the Army had the opportunity to correct substantive changes before formal submission. When the STAR was formally submitted, the DIA would already be familiar with the STAR contents, thereby increasing the DIA's probability of conducting the formal review within the 45-day goal.

The Army routinely used the informal review process before formally submitting STARs to DIA for validation. This process might be beneficial to

both DIA and the Army if done on a limited basis; however, extended revision periods prevented timely distribution of the STAR to acquisition managers.

Of the 13 sampled items, 5 had STARS that required DIA validation. Although DIA had established an internal goal of 45 days to validate a STAR once it is formally submitted, only one of the five STARS reviewed was completed within the 45-day goal. The DIA attributed the change in the threat environment as the reason for the increased validation time. Results for the five STARS are shown below.

Table 2. DIA STAR Validation Process

<u>Program</u>	<u>Component</u>	<u>Days For DIA Validation</u>		
		<u>Actual</u>	<u>Goal</u>	<u>Difference</u>
GPALS/BMC3 ¹	OSD	101	45	56
UTTMDS ²	OSD	48	45	3
JAVELIN	Army	143	45	98
ATACMS ³	Army	60	45	15
Longbow/ Hellfire	Army	38	45	-7

¹ Global Protection Against Limited Strikes/Battle Management Command, Control and Communications.

² Upper Tier Theater Missile Defense System.

³ Army Tactical Missile.

Nonvalidated Data. Intelligence organizations routinely provided program offices nonvalidated data to keep them informed of changes in the intelligence community. Although program offices are required to use DIA-validated data for ACAT I programs, the program offices used intelligence information from all sources regardless of whether it had been validated by DIA.

Effects on Programs. Resources used for intelligence support were not tracked, and validated intelligence data were not timely. However, we found no instance of a delayed DAB review as a result of an incomplete STAR. Also, none of the acquisitions for the sampled programs changed based on changes in threat or intelligence data. Further, the Inspector General, DoD, is reviewing intelligence support on a limited basis on other audit projects (see Enclosure 2 for a list of ACAT I programs and audit coverage). Since there is adequate coverage of the subject area and since we found no adverse effects from the process, we terminated the audit.

Management Comments

We provided a draft of this report to the addressees on March 26, 1993. Because there were no recommendations, no written comments were required of

management, and none were received. Comments on the final report are not required.

The courtesies extended to our staff are appreciated. If you have any questions on this audit, please contact Mr. Harrell D. Spoons at (703) 692-2846 (DSN 222-2846) or Ms. Dianna J. Pearson at (703) 692-2851 (DSN 222-2851). Telefax connection is (703) 692-2905. Copies of the report will be distributed to the organizations listed in Enclosure 3.



Robert J. Lieberman
Assistant Inspector General
for Auditing

Enclosures

Organizations Visited or Contacted

Office of the Secretary of Defense

Under Secretary of Defense (Acquisition and Technology), Washington, DC
Assistant Secretary of Defense (Command, Control, Communications and Intelligence),
Washington, DC

Department of the Army

Office of the Assistant Secretary of the Army (Research, Development and
Acquisition), Washington, DC
Office of the Deputy Chief of Staff for Intelligence, Washington, DC
U.S. Army Intelligence and Security Command, Fort Belvoir, VA
U.S. Army Materiel Command, Alexandria, VA
U.S. Army Missile Command, Redstone Arsenal, AL
U.S. Army Space and Strategic Defense Command, Huntsville, AL

Department of the Navy

Office of the Assistant Secretary of the Navy (Research, Development, and
Acquisition), Washington, DC
Office of the Chief of Naval Operations, Washington, DC
Strategic Systems Programs, Washington, DC
Naval Air Systems Command, Washington, DC
Naval Sea Systems Command, Washington, DC
Navy Intelligence Command, Washington, DC
Space and Naval Warfare Systems Command, Washington, DC
Naval Maritime Intelligence Center, Washington, DC

Department of the Air Force

Assistant Secretary of the Air Force (Acquisition), Washington, DC
Office of the Assistant Chief of Staff, Intelligence, Washington, DC
Deputy Chief of Staff (Logistics), Washington, DC
Air Force Materiel Command, Wright-Patterson Air Force Base, OH
Air Force Intelligence Support Agency, Washington, DC

Enclosure 1. Organizations Visited or Contacted

Defense Agencies

Defense Intelligence Agency, Washington, DC
Missile and Space Intelligence Center, Redstone Arsenal, AL
Strategic Defense Initiative Organization, Washington, DC

ACAT I Programs as of July 1992, and IG, DoD, Audit Coverage

<u>Program</u>	<u>Nomenclature</u>	<u>Report No.</u>	<u>Remarks*</u>
<u>OSD</u>			
1 WAM	World Wide Military Command and Control System Automated DP Module		A
2 NLS	National Launch System		B
3 MRAUV	Medium Range Unmanned Aerial Vehicles		C
4 SRUAV	Short-Range Unmanned Aerial Vehicles		C
5 GPALS/BMC3	Global Protection Against Limited Strikes System/BMC3		
6 GMDS	Global Missile Defense System (previously Brilliant Pebbles)		C,E
7 NMDS	National Missile Defense System		
8 UTTMDS	Upper Tier Theater Missile Defense System	91-012	
9 PATRIOT Upgrades	Surface-to-Air Missile Upgrades		
10 CORPS SAM	Corps Surface-to-Air Missile		
11 Close Range UAV	Close-Range Unmanned Aerial Vehicle		C
12 JPATS	Joint Primary Aircraft Training System		B
13 Strategic Sealift	Pilot Program (previously Fast Sealift)		C
<u>Army</u>			
14 JAVELIN (AAWS-M)	Advanced Anti-Armor Weapons Systems - Medium	92-023	F
15 ADDS	Army Data Distribution System		
16 ASAS (ATCCS)	All Source Analysis System (Army Tactical Command and Control Systems)		C
17 ATACMS	Army Tactical Missile	89-055	
18 FAAD C2I (ATCCS)	Forward Area Air Defense, Command, Control, and Intelligence		G
19 SADARM	Sense and Destroy Armor		C,G
20 SINCGARS	Single-Channel Ground and Airborne Radio System-VHF	90-097	C,F
21 COMANCHE (RAH-66)			C,E
22 LONGBOW APACHE	Radar-Based Acquisition and Fire Control System on Apache Helicopter		C
23 LONGBOW HELLFIRE	Modular Missile System for the LONGBOW		G
24 AFAS	Advanced Field Artillery System		C
25 FARV-A	Future Armored Resupply Vehicle - Ammunition		
26 JSTARS GSM	Joint Surveillance and Target Attack Radar System Ground Station Module		C
27 BAT	Brilliant Anti-Armor Submunition		
28 MCS (ATCCS)	Maneuver Control System		

*See remarks legend at the end of chart.

Enclosure 2. ACAT I Programs as of July 1992, and IG, DoD, Audit Coverage

<u>Program</u>	<u>Nonenclature</u>	<u>Report No.</u>	<u>Remarks*</u>
<u>Army (Cont'd)</u>			
29 ABRAMS Tank	92-104		E,F,H
30 AFATDS (ATCCS)	Advanced Field Artillery Tactical Data Systems		
31 APACHE (AH-64)	APACHE Advanced Attack Helicopter	91-104	F
32 ASAT	Anti-Satellite Mounted Stinger		
33 AVENGER	Forward Area Defense System Line-of-Sight, Rear Pedal		
34 BLACKHAWK (UH-60A/L)	Utility Helicopter	92-072	C,F
35 Bradley FVS	Bradley Fighting Vehicle System	88-095	
36 CHINOOK (CH-47D)	Helicopter Modification Program	89-102	
37 CSSCS (ATCCS)	Combat Service Support Control System		
38 FMTV	Family of Medium Tactical Vehicles	91-063	C
39 KIOWA Warrior (OH-58D)	Armed OH-58		D
40 LASER HELLFIRE	Air-to-Ground Missile	91-063	F
41 MLRS	Multiple Launch Rocket System	91-032	H
42 MSE	Mobile Subscriber Equipment	91-063	
43 PATRIOT	Surface-to-Air Missile	89-103	
44 PLS	Palletized Loading System		
45 SCAMP	Single Channel Anti-Jam Manportable		
46 SMART-T	Secure Mobile Anti-Jam Reliable Tactical - Terminal		
47 STINGER RMP	Man-Portable Surface-to-Air Missile	91-093	C,F
48 TOW 2	Tube-Launched, Optical-Tracked, Wire-Guided Anti-Armor Missile	91-092	F
<u>Navy</u>			
49 AAA	Advanced Amphibious Assault		C,G
50 AIWS (JSOW)	Advanced Interdiction Weapon System (Joint Stand-off Weapons)		C
51 ASPJ	Airborne Self Protection Jammer	91-125	C,F
52 MK-50 TORPEDO	Advanced Lightweight Torpedo	89-104	C,F,G
53 T-45TS	Undergraduate Jet Pilot Training Systems	89-096	B,F
54 SSN 21/BSY-2	SEAWOLF Class Nuclear Attack Submarine/Combat System	92-122	C,F
55 A-X	Navy Air Attack		
56 AR(X)	Fast Forward Repair Capability		
57 F/A-18 E/F	Naval Strike Fighter	92-097	C,H
58 LX	Amphibious Assault Ship		
59 MIDS-LVT Terminal	Multi-Functional Information Distribution System-Low Volume		
60 MLR	Medium Lift Replacement		
61 V-22 OSPREY	Joint Advanced Vertical Aircraft	89-077	C,F
62 New Sub	New Submarine		
63 DDV	DDG 51 Variant	92-065	F
64 Ship Defense			
65 SM-2 (Block IV)	Standard Surface-to-Air Missile		

*See remarks legend at the end of chart.

Enclosure 2. ACAT I Programs as of July 1992, and IG, DoD, Audit Coverage

<u>Program</u>	<u>Nonenclature</u>	<u>Report No.</u>	<u>Remarks*</u>
<u>Navy (Cont'd)</u>			
66 AN/BSY-1	Submarine Advanced Combat		
67 AN/SQQ-89	Surface Ship Antisubmarine Warfare System	91-088	
68 AN/SQQ-89	Upgrade		
	Improvements to Surface Ship Antisubmarine Warfare System		
69 AOE 6	Fast Support Ship	92-073	C,F,G
70 CG 47	TICONDEROGA Class AEGIS Guided Missile Cruiser	88-163	D
71 C/MH-53E	Super Stallion Helicopter	88-163	
72 SEAHAWK	Carrier Antisubmarine Warfare Helicopter		
73 CVN 68 Class	NIMITZ Class Nuclear Powered Aircraft Carriers	88-095	D
74 EA-6B PROWLER	Tactical Jamming System		C
75 EMSP	Enhanced Modular Signal Processor		
76 F-14D TOMCAT	All-Weather Carrier-Based Air Superiority Fighter		
77 F/A-18	C/D HORNET		
	Naval Attack Fighter	92-097	D,F
78 FDS	Fixed Distributed System Anti-Sub Warfare Surveillance System		
79 HARM	High Speed Anti-Radiation Missile	88-109	
80 HARPOON	Anti-Ship Weapon	89-108	F
81 LAMPS MK III	(SH-60B)		
	Light Airborne Multi-Purpose Helicopter		
82 LCAC	Landing Craft Air Cushion		
83 LHD Class	Amphibious Assault Ship		D,F
84 MK-48 ADCAP	Advance Capability Torpedo		
85 MCM-1	Mine Countermeasure Ship	92-102	F
86 MHC	Coastal Mine Hunter		
87 NESP	Navy EHF SATCOM Program		
88 PHALANX CIWS	(MK-15)		
	Close-In Weapon System	88-163	
89 SM-2	Standard Surface-to-Air Missile (Block III)		
90 SSN-688	LOS ANGELES Class Nuclear Attack Submarine	88-163	
91 T-AGOS	Surveillance Ship	90-042	
92 TAO OILER	Fleet Oiler		D
93 TOMAHAWK	Sea Launched Cruise Missile		
94 TRIDENT II	MISSILE		
	Sea Launched Ballistic Missile	89-055	F
95 TRIDENT	OHIO Class Submarine	92-008	F
96 UHF SAT	FOLLOW-ON		
	Ultra High Frequency Follow-on Satellite Communication System	91-063	F
<u>Air Force</u>			
97 AMRAAM	Advanced Medium Range Air-to-Air Missile	92-056	C,F
98 F-22 (ATF)	Advance Tactical Fighter		C,E
99 B-1B Lancer	Penetrating Bomber	88-163	
100 B-2	Stealth Bomber		C,G
101 C-17A	Advanced Cargo Aircraft	92-089	F

*See remarks legend at the end of chart.

Enclosure 2. ACAT I Programs as of July 1992, and IG, DoD, Audit Coverage

<u>Program</u>	<u>Nonenclature</u>	<u>Report No.</u>	<u>Remarks*</u>
<u>Air Force (Cont'd)</u>			
102 CMU	Cheyenne Mountain Upgrades		
103 JOINT STARS	Joint Surveillance and Target Attack Radar System	91-063	C,G
104 JTIDS	Joint Tactical Information Distribution System	88-163	C,F
105 MILSTAR	Satellite and User Equipment		C,G
106 NAVSTAR GPS UE	NAVSTAR Global Positioning System User Equipment	92-024	C,F
107 SFW	Sensor Fused Weapon	92-050	C,F
108 TW/AA	Tactical Warning/Attack Assesment Follow-on Early Warning System (FEWS)		
109 TITAN IV	Space Booster	92-064	C,F,G
110 JDAM	Joint Direct Attack Munitions		
111 MINUTEMAN III GRP	Guidance Replacement Program		
112 TSSAM	Tri-Service Standoff Attack Missile		C,E
113 ACM	Advanced Cruise Missile		C
114 ATARS	Advance Tactical Air Reconnaissance System	88-108	C
115 C-130H	Cargo Plane	90-075	F
116 DMSP	Defense Meteorological Satellite Program	91-063	F
117 DSP	Defense Support Program Satellite System	92-040	F
118 E-3A (RSIP)	AWACS Radar System Improvement Program		
119 F-16/IWSM	FIGHTING FALCON (Integrated Weapon System Modernization)	92-142	F
120 IR MAVERICK (AGM-65)	Close Air Support Weapon System	88-163	
121 IUS (SPACE SHUTTLE)			
122 JSIPS	Joint Services Imagery Processing Systems		
123 KC-135R	Tanker Aircraft		
124 LANTIRN	Low-Altitude Navigation and Targeting System Infra-Red for Night	89-119	F
125 MLV III	Medium Launch Vehicle III		
126 NAS	National Airspace System		
127 NAVSTAR GPS S&C	Global Positioning System Space and Control		

*** Remarks**

- A DoD Program Terminated (1 Program)
- B Program Eliminated From Audit Sample - Not Threat Driven (3 Programs in Total)
- C Program Eliminated From Audit Sample - Recent or Ongoing Inspector General, DoD, Coverage
- D Program Eliminated From Audit Sample - System was Deployed (6 Programs in Total)
- E Audit Planned for Fiscal Year 1993
- F Latest Report, Other Reports Information Available Upon Request
- G Audit in Process, Report not issued
- H Report Addressed Intelligence Support (3 Reports in Total)

Report Distribution

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House Committee on Armed Services
House Committee on Government Operations
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