U.S. Department of Homeland Security
Washington, DC 20528

Homeland Security

October 17, 2007

Mr. Matt Schroeder
Manager, Arms Sales Monitoring Project
Federation of American Scientists
1717 K Street, N.W., #209
Washington, D.C. 20036

Dear Mr. Schroeder:

This letter serves as the final response to your Freedom of Information Act (FOIA) request to the Department of Homeland Security (DHS) Science and Technology Directorate (S&T) on June 27, 2007. Such requests are governed by the Freedom of Information Act, codified at 5 U.S.C. §552 ("FOIA" or "the Act") and by supplemental regulations specific to DHS at 6 C.F.R. Part 5 ("the Regulations"). You requested the following:

- A copy of the MANPADS Vulnerability Assessments Report required by P.L. 108-458;
- Any segregable unclassified information not already available in the public domain be released.
- The public interest fee waiver on search and copying cost.
- Also, you have stated in your letter that if a fee waiver is not possible your company is prepared to pay reasonable costs up to $50.00.

Enclosed are the documents you requested consisting of 16 pages. For your convenience, we are providing the complete report although we previously provided 5 pages extracted from the report. There is no charge for these documents since it would be less than $14.00, per 6 C.F.R §5.11(D)(4).

For your information, your FOIA request – including your identity and the information made available in response to the request – is itself releasable to the public under subsequent FOIA requests. In response to these requests, the Science and Technology Directorate does not release personal privacy information to include home address, telephone number, or Social Security number; such information is exempted from release under 5 U.S.C §552(b)(6).

Any questions concerning this letter, your request, or DHS FOIA policies in general may be directed to me by fax to (202) 254-6172 or via electronic mail at S&TFOIA@dhs.gov. If writing in regards to this FOIA request, please refer to the following reference number: DHS/OS/PRIV 07-0945/Schroeder.

Sincerely,

Miles C. Wiley III
Executive Secretary

SECURING THE NATION AGAINST MAN-PORTABLE AIR DEFENSE SYSTEMS

REPORT TO CONGRESS IN RESPONSE TO THE
INTELLIGENCE REFORM AND TERRORISM PREVENTION ACT OF 2004
(PUBLIC LAW 108-458)

December 2005

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Purpose of this Report

This report from the Department of Homeland Security provides a status update on key elements of the Department's plans to counter the threat of shoulder-fired missiles to civilian commercial aviation. It is presented in accordance with the *Intelligence Reform and Terrorism Prevention Act of 2004* (Public Law 108-458, December 17, 2004), which contains the following language in Section 4026:

> "Not later than one year after the date of enactment of this Act, the Secretary of Homeland Security shall transmit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report describing the Department of Homeland Security's plans to secure airports and the aircraft arriving and departing from airports against MANPADS[1] attacks. The Secretary's report shall address, at a minimum, the following:
>
> (A) The status of the Department's efforts to conduct MANPADS vulnerability assessments at United States airports at which the Department is conducting assessments.
>
> (B) How intelligence is shared between the United States intelligence agencies and Federal, State, and local law enforcement to address the MANPADS threat and potential ways to improve such intelligence sharing.
>
> (C) Contingency plans that the Department has developed in the event that it receives intelligence indicating a high threat of MANPADS attack on aircraft at or near United States airports.
>
> (D) The feasibility and effectiveness of implementing public education and neighborhood watch programs in areas surrounding United States airports in cases in which intelligence reports indicate there is a high risk of MANPADS attacks on aircraft.
>
> (E) Any other issues that the Secretary deems relevant."

[1] Man-Portable Air Defense Systems are shoulder-fired missiles and are referred to in short as MANPADS throughout this document.

Executive Summary

The Department of Homeland Security welcomes the opportunity to share with members of Congress and other stakeholders its efforts to secure airports and civilian aircraft against shoulder-fired missiles known as Man-Portable Air Defense Systems (MANPADS), as requested in the *Intelligence Reform and Terrorism Prevention Act of 2004.*

The Act recognizes the threat that terrorists could use MANPADS against commercial aircraft, and it directs the Department to continue taking measures to secure aviation against that threat. Key counter-MANPADS measures called out in the act include:

- Conducting MANPADS vulnerability assessments at airports in the United States and throughout the world;
- Improving intelligence sharing capabilities among the law enforcement community and Federal agencies, States and local governments to better identify threats and avert potential attacks;
- Developing mitigation plans to bolster a more rapid and effective response once a MANPADS threat is detected; and
- Adapting existing military missile defense systems for protection of commercial aircraft.

In the past year, the Department has made significant progress in each of these areas. Major accomplishments include:

- Conducting MANPADS vulnerability assessments for every major U.S. airport, as well as several airports abroad that serve U.S. air carriers.
- Providing a MANPADS vulnerability self-assessment tool to smaller airports.
- Completing MANPADS mitigation plans for 400 commercial airports in the United States.
- Developing user-friendly resources for Federal, State, and local law enforcement personnel to easily access current intelligence training information on shoulder-fired missile threats.
- Completing the development of a design and prototypes for a missile defense system for commercial aircraft.

The Department also assessed how feasible and effective it would be to work through public education and neighborhood watch programs to help prevent the use of shoulder-fired missiles in areas surrounding United States airports. At this time, after careful consideration the Department feels that programs specifically highlighting the MANPADS threat, while of some potential value, would offer little extra safety beyond U.S. Government programs currently underway.

As the Department continues moving forward with counter-MANPADS initiatives, it is working closely with the civil aviation industry, intelligence agencies, law enforcement and private industry to further develop resilient approaches to securing our Nation's civil aviation against shoulder-fired missile threats.

Introduction

A November 2002 attempt by terrorists to shoot down an Israeli Arkia charter jet in Mombassa, Kenya drew much focus to the threat of shoulder-fired missiles, also known as Man-Portable Air Defense Systems (MANPADS).

In the attack, two SA-7 missiles were fired at the airplane as it took off, but they missed. MANPADs are portable and designed to be carried and fired by single individuals or crews. As an anti-aircraft weapon, they are considered highly effective in military combat situations. But the Mombassa attempt, which stood out because it did not take place in a zone of conflict, raised international sensitivities to the widespread use of MANPADS around the world and consequent availability to terrorist organizations.

In the aftermath of September 11, 2001, the U.S. government and its international partners were galvanized to bolster their combined efforts to limit the potential for terrorists to use these weapons against civilian aircraft. The White House officially launched a global initiative in late 2002 to prevent the acquisition of MANPADS by terrorists and other non-state actors.

As part of this initiative, the Homeland Security Council and the National Security Council convened an ad hoc interagency task force in December 2002 representing 21 agencies and offices. Included were the Departments of Defense, Homeland Security and Treasury as well as the Federal Aviation Administration (FAA) and Federal Bureau of Investigation (FBI) to examine the development of a plan to assess and counter the MANPADS threat. The group focused on a systematic, end-to-end countermeasures strategy, to be implemented through several Administration initiatives focusing on three main areas:

- Proliferation control and threat reduction;
- Tactical measures and recovery; and
- Technical countermeasures.

In support of this proposed strategy, the Department of Homeland Security (DHS), in partnership with other Federal agencies, is taking a multifaceted approach to counter the threat of shoulder-fired missiles to civilian commercial aviation. This report focuses on two main areas of program support: (1) tactical measures and recovery led by DHS's Transportation Security Administration (TSA); and (2) technical countermeasures led by the Science and Technology (S&T) Directorate.

TSA is leading the Department's efforts to bolster MANPADS protection and response capabilities at civilian airports throughout the nation and abroad. TSA is working closely with the civil aviation industry and airport authorities to identify and address vulnerabilities to shoulder-fired missile attacks in areas surrounding civilian airports. It is also helping to leverage MANPADS intelligence and operational knowledge from across the Federal government, including the military, to better prepare State and local governments to prevent and respond to MANPADS threats.

The S&T Directorate is leading the technology aspects of the effort to determine the viability, economic costs and effectiveness of adapting existing missile defense system technology from

military to commercial aviation use. Following a 24-month analysis, prototype demonstration and testing phase, DHS will provide the Administration and Congress with a recommendation for the most viable solution to defend commercial aircraft against shoulder-fired missiles. This report provides an overview of the Department's progress on these two initiatives, specifically in the areas called out in the *Intelligence Reform and Terrorism Prevention Act of 2004*. These include:

- The status of the Department's efforts to conduct MANPADS Vulnerability Assessments;
- Contingency plans developed for the event of a high-threat MANPADS attack;
- How intelligence is shared between U.S. intelligence agencies and Federal, State and local law enforcement;
- The feasibility and effectiveness of implementing public education and Neighborhood Watch programs; and the
- The status of counter-MANPADS technology.

Status of the Department's Efforts to Conduct MANPADS Vulnerability Assessments

As part of the Administration's strategy to address the threat of MANPADS to civil aviation within the United States, the MANPADS Tactical Working Group (MTWG)[2] was established. The MTWG recommended that MANPADS Vulnerability Assessments (MVA) be completed at the largest airports in the United States. DHS then directed TSA to lead this effort.

Since receiving this directive, TSA and other Federal departments charged with aviation security have worked together to develop a program to address the MANPADS threat against airports, including an MVA methodology and implementation plan. For the Nation's largest airports, the program provides assessment teams that conduct routine and special onsite MVAs. For smaller airports, the program provides tools and resources to support self assessments.

In all, there are approximately 443 commercial airports in the United States that TSA classifies into one of five airport security categories (X, I, II, III, IV). Category X airports are the largest and have the greatest number of passenger boardings. Category IV airports are the smallest and have the fewest number of passenger boardings. Of those commercial airports assigned security categories, approximately 6 percent fall into category X and 12 percent into category I, with 82 percent falling into categories II to IV.[3]

TSA worked closely with the FBI, U.S. Secret Service (USSS) and Department of Defense (DoD) to carry out the first MVAs in March 2003 at all category X airports. From March 2003 through October 2005, assessment teams conducted 144 MVAs at all category X and category I airports. Since the program's inception, TSA completed an initial MVA for each category X and category I airport, and all category X airports have received annual reassessments. A cooperative effort by TSA, FBI, USSS, and DoD to conduct MVAs continues.

Other major accomplishments include the following:

- TSA conducted MVAs to support several National Special Security Events (NSSEs), such as the 2004 Democratic National Convention, 2004 Republican National Convention, 2005 Presidential Inauguration, 2004 G8 Summit, and 2005 United Nations General Assembly.

- To address the need for vulnerability assessments at smaller airports (category II to category IV), TSA developed and disseminated a MANPADS Vulnerability Self-Assessment Tool to TSA Federal Security Directors at those airports. TSA

[2] The Homeland Security Council (HSC) established the MANPADS Tactical Working Group (MTWG) in December 2002. The HSC intends to charter a new group to replace the MTWG, but as of this writing the new group has not been established.

[3] All figures and information on airport security categories in this paragraph are based on *GAO-05-935 Aviation Security*, September 2005. The report also states that: "Categories are based on various factors such as the total number of takeoffs and landings annually, the extent to which passengers are screened at the airport, and other special security considerations. These airports can vary dramatically, not just in passenger and flight volume, but in other characteristics, including physical size and layout." and that "According to TSA, the total number of commercial airports regulated for security in the United States varies depending on various factors such as the type and level of commercial operations that an aircraft operator conducts at that particular airport, the time of year or season where a particular airport is located, and the economic stability of that airport's region."

personnel at the airports work with local law enforcement to conduct these self-assessments. The Office of Law Enforcement at TSA Headquarters reviews all self-assessments. To date, all category II, III and IV airports have conducted a MANPADS Vulnerability Self-Assessment.

In addition, TSA actively participates in aviation security activities in support of the Administration's international efforts to limit the proliferation and potential illicit use of MANPADS. For example:

- TSA conducts MVAs for and provides MVA training and materials to airports abroad. Since the program's inception, TSA-coordinated assessment teams have conducted 18 MVAs abroad. As part of the assessment process, specific MANPADS-related training is provided for host government officials. For example, TSA developed and hosted a one-week training course (that included senior government and military officials) designed to assist foreign nations in developing their own vulnerability assessments. All international airport assessments are coordinated through appropriate United States embassies and host nations.

- TSA provided an MVA methodology to the International Civil Aviation Organization (ICAO), a specialized agency of the United Nations created to promote the safe and orderly development of international civil aviation throughout the world. The MVA methodology outlines a process for identifying, evaluating and mitigating potential launch sites; and it is available to ICAO members via a secure web link.

- TSA participates in activities sponsored by the Asia Pacific Economic Committee (APEC). The United States is spearheading APEC efforts to enhance the security of the Asia-Pacific region. At the 13th APEC Leaders Meeting in Busan, Korea in November 2005, APEC Leaders endorsed U.S. initiatives to lower the threat from MANPADS; and each APEC member committed to undertake an MVA at an international airport by the end of 2006.

- TSA developed a Concept of Operations for conducting MANPADS assessments against airports for the organizers of the G8 Summit, hosted by President George Bush at Sea Island, Georgia from June 8-10, 2004. The G8 Summit brings together the leaders of the world's major industrial democracies. At an earlier meeting in June 2003, G8 leaders agreed to pursue several measures to limit MANPADS proliferation, including the adoption of strict national controls over inventories and exports of MANPADS and key components.

Contingency Plans Developed for the Event of a High-Threat MANPADS Attack

In order to bolster a more rapid and effective response once a MANPADS threat is detected, TSA develops MANPADS Mitigation Plans for United States commercial airports. The mitigation plans are developed for airports once an MVA is completed. The mitigation plans outline the coordination between local TSA representatives and airport authorities, along with Federal, State and local law enforcement agencies with jurisdiction around the airport (including the FAA and the U.S. Coast Guard, where applicable).

MANPADS Mitigation Plans use a standardized template that contains the following sections:

- MANPADS Threat;
- MANPADS Launch Areas;
- MANPADS Mitigation Support Agencies and Notification Plan;
- MANPADS Mitigation Coordination; and
- Command & Control.

Upon completion of a MANPADS Mitigation Plan, airports are required to conduct tabletop exercises to test the plan and make appropriate revisions. The completed plan is then forwarded to TSA for review. The Office of Law Enforcement at TSA Headquarters currently maintains over 400 MANPADS Mitigation Plans.

The Federal Security Director (FSD) at the airport is responsible for disseminating the mitigation plan to all participants who have responsibilities within the plan. The FSD is required to update the plan and submit it to TSA Headquarters annually, or whenever there are airport changes.

How Intelligence is shared between U.S. Intelligence Agencies and Federal, State and local Law Enforcement

DHS has the responsibility for sharing and providing intelligence information to State, local, territorial, and tribal law enforcement as well as with private sector partners. In support of this role, TSA actively works through its Transportation Security Intelligence Service (TSIS) to foster avenues of information and intelligence sharing between Federal, state and local law enforcement and the U.S. Intelligence Community (IC).

Since TSIS is a consumer of intelligence information, not a collector, it relies heavily on national intelligence collection agencies for raw intelligence information. Once that information is obtained from those agencies, it is analyzed, assimilated and distributed to TSA customers. Some of those customers include TSA leadership, DHS, State and local law enforcement organizations.

To effectively communicate MANPADS intelligence with Federal, State, and local law enforcement, TSIS works closely with the IC, which is comprised of organizations such as Air Force Intelligence, Army Intelligence, Central Intelligence Agency (CIA), Defense Intelligence Agency (DIA), FBI, DIA's Missile and Space Intelligence Center (MSIC), Navy Intelligence, National Security Agency (NSA), U.S. Coast Guard (USCG) Intelligence and others.

TSIS also works with components of the Department of Defense such as the Air Force Intelligence Analysis Agency (AFIAA), National Air and Space Intelligence Center (NASIC), and the National Ground Intelligence Center (NGIC). For example, TSIS analysts are in weekly contact with military personnel who are experiencing encounters with MANPADS and other stand-off weapons on a near daily basis.

TSIS communicates MANPADS intelligence with the IC and Federal, State, and local law enforcement through many different channels, including:

- Sending representatives to numerous intelligence conferences each year pertaining to topics such as: MANPADS threats, aircraft vulnerabilities, combat lessons-learned, weapons effectiveness, dynamic tactics, techniques and procedures (TTPs), and proliferation.

- Producing user-friendly resources such as the CD-ROM, "Stand-off Threats to Civil Aviation," to provide Federal, State and local law enforcement personnel with current intelligence training information on threats that MANPADS and other weapons pose against civil aviation, domestically and internationally. The CD-ROM was sent to all TSA Federal Security Directors to be consolidated into their training programs for local law enforcement. TSIS recognizes that intelligence classifications can hinder the process of providing local law enforcement forces with credible intelligence training and information, therefore the CD-ROM was produced at a classification level that allowed the widest dissemination possible in the law enforcement community.

- Interacting with TSA law enforcement personnel on a near daily basis, enabling TSIS analysts, law enforcement officers and intelligence personnel to exchange open-source and classified information freely. This close relationship has allowed TSA to conduct very short notice MVAs abroad in certain high-threat countries in which U.S. air carriers fly on a daily basis. It has also enabled the sharing of intelligence information directly with airlines flying into threatened areas. This type of exchange takes place routinely when TSA receives information that a serious threat exists in areas where U.S. air carriers fly.

On the Federal level, the National Counterterrorism Center (NCTC), Homeland Security Operations Center (HSOC), and the Transportation Security Operations Center (TSOC) share and coordinate intelligence and potential threat information daily through HSC intergovernmental working groups, as well as through existing networks and contacts within the intelligence and law enforcement communities.

The Feasibility and Effectiveness of Implementing Public Education and Neighborhood Watch Programs

As requested in the *Intelligence Reform and Terrorism Prevention Act of 2004*, the Department has considered "the feasibility and effectiveness of implementing public education and neighborhood watch programs in areas surrounding United States airports in cases in which intelligence reports indicate there is a high risk of MANPADS attacks on aircraft."

Members of HSC's MANPADS Tactical Working Group and the DHS Office of Public Affairs carefully assessed the potential benefits, costs and public impacts of such a program. An analysis of these findings produced the following conclusions:

- Threat information, while volatile, does not suggest that shoulder-fired missiles are currently a high-risk threat to aircraft within the United States. The planning and potential expense involved in such a campaign must be weighed against the uncertain benefits of greater public concern about a threat that is not deemed to be high-risk at this time.

- DHS and its Federal partners maintain a layered system of defenses to prevent these weapons from entering our borders. We must prioritize limited resources based on the risk, vulnerability and consequences of different threats. Public education or neighborhood watch programs could provide a useful purpose, but again we must prioritize the prevention and protection against the threat itself.

- Response to shoulder-fired missile threats requires law enforcement capability, and existing programs are addressing their training. The DHS Federal Law Enforcement Center (FLETC) has required MANPADS awareness training for law enforcement officers to recognize and address shoulder-fired missile threats. More than 10,000 new Federal law enforcement officers and many others returning for advanced courses have received this training since January 2004. The training was first required for DHS employees, but has since been extended to almost all FLETC students, including U.S. Capitol Police and U.S. Park Police. Furthermore, FLETC has recently made their MANPADS awareness training available on CD-ROM to their State, local, and tribal partners for distribution to thousands more law enforcement officers across the country.

- DHS requests that citizens be aware of their surroundings and report suspicious activity to local law enforcement officials as a matter of course. DHS attempts to educate citizens about all threats and appropriate responses through many avenues, including: the *Ready* campaign and its web site www.ready.gov; the DHS web site, www.dhs.gov; speeches and events with DHS officials; communication through the media; and other venues. A campaign to educate the public about a single threat could potentially confuse the public about the risk of that threat versus the others we face and shift public focus from preparedness for all hazards to a single risk.

DHS and its partners constantly strive to improve each layer of our system of defenses against this threat and to communicate to the public about what role individual citizens can play. A campaign to highlight this issue out of many, while of some potential value, appears to provide little additional safety above programs currently underway.

Status of Counter-MANPADs Technology

The technology development portion of DHS's counter-MANPADS program remains on schedule and within budget. Led by the S&T Directorate through its Counter-MANPADS System Program Office (SPO), this three-phase program is designed to help determine the viability, economic costs and effectiveness of adapting existing missile defense systems from military to commercial aviation use.

Now well into in Phase II of the program, the design and fabrication of prototype systems has been completed. These prototypes have been installed on aircraft, undergone ground testing, and are now being flight tested. At the end of Phase II, scheduled for completion on January 31, 2006, DHS will provide the Administration and Congress with a results report recommending the most viable technology solutions to defend against shoulder-fired missiles. The Report will be submitted to Congress in March.

Background

The Department of Homeland Security Counter-MANPADS Program, started in fall 2003, uses a robust and disciplined systems engineering approach to identify, test, evaluate, integrate and support countermeasures for commercial aircraft. The objectives of the program are to collect information from industry, select the best contractors to perform systems analysis and flight tests, and to devise a plan that will permit modifications of commercial aircraft with the least disruption and out-of-service costs to the airline industry. The purpose of the program is to deliver to policy makers in the executive and legislative branches the data necessary to make an informed decision regarding countermeasures technologies.

Three-Phase Approach

To accomplish the objectives of the Counter-MANPADS Program, the SPO is using a three-phase approach.

Phase I focused on designing a system that is effective against a broad range of threats and can be installed on commercial aircraft in an economically viable way. The six-month Phase I effort, launched in January 2004, provided an analysis of economic, manufacturing, and maintenance issues, as well as a preliminary design for countermeasures equipment that would be effective in the commercial aviation environment. During Phase I, selected contractors – BAE Systems, Northrop Grumman Corporation, and United Airlines – developed plans to adapt military-use missile detection and countermeasure technologies for commercial aircraft use. Following an examination of each team's Phase I work and their proposals for Phase II, BAE Systems and Northrop Grumman were selected in August 2004 for Phase II by a panel of government representatives. Both had developed laser-based systems that jam the guidance systems of incoming missiles.

Phase II, which is almost complete, focuses on finishing design solutions for these systems and developing prototypes for installation on commercial aircraft. Throughout Phase II, the program considers the total life-cycle costs and airline implementation, in addition to working with anti-tamper and export control issues.

During Phase II:

- The contractors will deliver two complete units for demonstrating countermeasures performance;
- Studies will emphasize the operational suitability and cost for each of the systems;
- Systems will be integrated onto aircraft and the FAA will certify the safety and the airworthiness of the integrated countermeasure; and
- Contractors and the Federal government (through third parties) will conduct extensive testing, including engineering and operational effectiveness, reliability, missile detection and track accuracy testing. Operational suitability testing will include operating environment testing and maintainability demonstrations such as built-in-test, equipment handling and special ground support equipment.

As of December 2005, both contractors had completed design and fabrication of their systems, installed them on aircraft, completed ground testing, and are now conducting flight tests.

Based on the findings of Phase II, DHS will provide the Administration and Congress with a report assessing the operational effectiveness and suitability of the developed counter-MANPADS systems, including:

- Residual system risks and alternatives;
- Recommendations for production and deployment;
- Testing and maintenance data; and
- Options for acquiring and installing the systems on the commercial fleet.

During FY2006, DHS will initiate Phase III of the Counter-MANPADS Program to integrate critical technology protection, new emergency ground notification requirements, and reliability enhancements into the designs. During Phase III, advanced operation tests and evaluation will be conducted, including data collection in an operational environment to validate system performance and design. Phase III will also include the evaluation of operations and support concepts by building prototypes and integrating them into a number of commercial all-cargo aircraft.

Counter-MANPADS Schedule and Activities

Phase I – January 2004 to July 2004
Establish a preliminary design, six months (Completed on time)

- Adapt existing technologies for commercial aviation use
- Fully refine system requirements for commercial aviation use
- Conduct extensive aircraft installation tradeoff studies
- Analyze and trade design options that meet requirements
- Complete comprehensive preliminary design review

Phase II – August 2004 to January 2006
Develop prototypes for test and qualification, 18 months

- Conduct critical design reviews and complete final design
- Build two prototypes for test and flight qualifications
- Develop three FAA Supplemental Type Certificates (STC)
- Perform thorough total ownership and life-cycle cost analysis
- Develop two different maintenance and operation concepts
- Plan for reliability growth and spiral upgrades for cost reduction
- Perform comprehensive manufacturing rate assessment (MRA)/installation assessment

Phase II is on schedule, within budget and the final report will be delivered to Congress by March 2006.

Phase III – February 2006 to December 2007
To Incorporate new requirements and conduct operational test and evaluation in a commercial aviation environment, 23 months

- Ensure reliability/security/emergency ground notification
- Perform operational test and evaluation
  - On-aircraft testing and data collection in operational environment
    - Manufacture and install prototypes on aircraft operated by airlines (cargo)
    - Gather data
      - Reliability/maintainability/emergency ground notification
      - Cost
      - System effectiveness
- Obtain additional FAA STC(s) for Phase III aircraft type(s)

Operational Partnerships

The Counter-MANPADS SPO works closely with a large number of industry and government stakeholders, annotated in Figure 1. TSA, Department of State (DoS), DoD, FAA, and the FBI have been instrumental in the Program's success to date, with almost 90 non-governmental organizations, including airlines, aviation associations, and aircraft manufacturers participating in the annual stakeholder meetings.

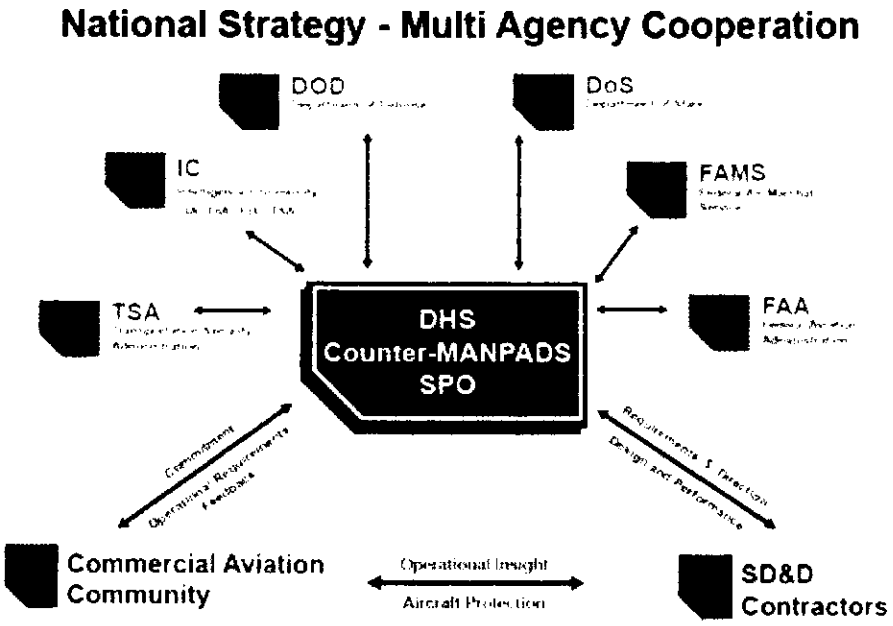

Figure 1. DHS Counter-MANPADS SPO Working Relationships

Conclusion

The Department has made significant progress in its initiatives to counter the threat of shoulder-fired missiles to civilian commercial aviation. DHS's Transportation Security Administration has advanced tactical measures and recovery efforts through MANPADS vulnerability assessments and self-assessments, MANPADS mitigation plans and the development of resources to share intelligence with Federal, State and local law enforcement. At the same time, the Department's S&T Directorate has advanced technical countermeasures through its Counter-MANPADS SPO's three-phase program to help determine the viability, economic costs and effectiveness of adapting existing missile defense systems from military to commercial aviation use. Near the end of its second phase, this program has successfully produced prototype missile defense systems for testing on commercial aircraft. In the spring, DHS will deliver to the Administration and Congress a report recommending the most viable technology solutions to defend against shoulder-fired missiles. As the Department moves forward with these and other counter-MANPADS initiatives, it will further identify, develop, and implement increasingly effective approaches to securing our Nation's commercial civilian aircraft against shoulder-fired missile threats.

Appendix 1: Acronyms

AFIAA	Air Force Intelligence Analysis Agency
APEC	Asia Pacific Economic Committee
CIA	Central Intelligence Agency
DHS	Department of Homeland Security
DIA	Defense Intelligence Agency
DoD	Department of Defense
DoS	Department of State
FAA	Federal Aviation Administration
FBI	Federal Bureau of Investigation
FLETC	Federal Law Enforcement Training Center
FSD	Federal Security Director
HSC	Homeland Security Council
HSOC	Homeland Security Operations Center
IC	Intelligence Community
ICAO	International Civil Aviation Organization
MANPADS	Man-Portable Air Defense Systems
MSIC	Missile and Space Intelligence Center
MMP	MANPADS Mitigation Plans
MRA	Manufacturing Rate Assessment
MTWG	MANPADS Tactical Working Group
MVA	MANPADS Vulnerability Assessment
NASIC	National Air and Space Intelligence Center
NCTC	National Counterterrorism Center
NGIC	National Ground Intelligence Center
NSSE	National Special Security Event
OPA	Office of Public Affairs
OT	Other Transaction
OTA	Other Transactional Agreement
OT&E	Operational Test and Evaluation
S&T	Science and Technology
SD&D	System Development and Demonstration
SPO	System Program Office
STC	Supplemental Type Certificates
TSA	Transportation Security Administration
TSIS	Transportation Security Intelligence Service
TSOC	Transportation Security Operations Center