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HOMELAND DEFENSE

Actions Needed to Address Management of Air Sovereignty Alert Operations to Protect U.S. Airspace

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Defense Capabilities and Management

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GAO-09-612T

Mr. Chairman and Members of the Subcommittee:

I am pleased to be here before you this morning to discuss GAO's recently issued report[1] on the North American Aerospace Defense Command's (NORAD)[2] and the Department of Defense's (DOD) air sovereignty alert (ASA) operations. According to the *National Strategy for Aviation Security*, issued in March 2007, and officials from U.S. intelligence agencies with whom we met, air attacks are still a threat to the United States and its people. To address this threat, NORAD and DOD have fully fueled, fully armed aircraft and trained personnel on alert 24 hours a day, 365 days a year, at 18 ASA sites across the United States, as shown in appendix I. Of the 18 sites, 16 are maintained by Air National Guard (ANG) units and 2 are maintained by active duty Air Force units. If warranted, NORAD can increase personnel, aircraft, and the number of ASA sites based on changes in threat conditions. The Air Force provides NORAD with personnel and equipment, including F-15 and F-16 aircraft, for these operations. ASA units are tasked to conduct and train for both expeditionary missions (e.g., military operations in Iraq) and ASA operations.

ASA operations consist of ground operations that take place before fighter aircraft take off, such as maintaining the fighter aircraft. They also include those activities that take place after a unit receives an alert from NORAD but before the aircraft are airborne. Once aircraft take off, "alert" operations end and the operation becomes a homeland defense air mission under Operation NOBLE EAGLE.[3] For example, aircraft and personnel from three ASA units—Duluth, Minnesota; Madison, Wisconsin; and New Orleans, Louisiana—responded to the April 6, 2009, cross-border incident in which a stolen Cessna aircraft entered into U.S. airspace from Canada without approval. When the transition occurs from ground operations to airborne operations, an ANG pilot converts from Title 32 status under the command and control of the state governor to federal Title 10 status,[4]

[1]GAO, *Homeland Defense: Actions Needed to Improve Management of Air Sovereignty Alert Operations to Protect U.S. Airspace*, GAO-09-184 (Washington, D.C.: Jan. 27, 2009).

[2]NORAD is a binational United States and Canadian organization charged with the missions of aerospace warning and aerospace control for North America. DOD is responsible for providing forces to support NORAD's responsibilities in the United States.

[3]DOD's Operation NOBLE EAGLE was initiated after the terrorist attacks of September 11, 2001, to address asymmetric threats.

[4]Title 32 and Title 10 refer to sections of the United States Code.

because they are performing a federal mission under the command and control of NORAD. Active duty units are always in a Title 10 status, but command and control of pilots and aircraft conducting ASA operations passes from the local commander to NORAD when performing air defense operations.

My testimony today, which is based on our January 2009 report on ASA operations,[5] will discuss whether (1) NORAD routinely conducts risk assessments to determine the appropriate operational requirements; (2) the Air Force has implemented ASA operations as a steady-state mission, which would require programming funding and measuring readiness, in accordance with NORAD, DOD, and Air Force guidance; and (3) the Air Force has developed a plan to address the recapitalization challenges to sustaining ASA operations for the future. I will conclude with some observations regarding our recommendations and DOD's response to our recommendations.

Our work on that report was conducted in accordance with generally accepted government auditing standards from April 2008 to January 2009. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. Our work included reviews of pertinent documents and structured interviews of the commanders of the 20 alert units at all 18 sites performing ASA operations. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. For this testimony, we also followed up with DOD offices on the status of our recommendations.

[5]GAO-09-184.

NORAD Had Assessed ASA Operational Requirements but Not on a Routine Basis as Part of a Risk-Based Management Approach

Although NORAD had performed some risk assessments in response to individual DOD leadership inquiries about ASA operations, it had not done routine risk assessments as part of a risk-based management approach to determine ASA operational requirements. Moreover, NORAD has not conducted similar assessments since 2006. For example, NORAD had completed three assessments that we determined could be part of a risk-based management approach. NORAD completed the first of these assessments after the September 11, 2001, terrorist attacks, when it worked with other federal agencies and determined, based on vulnerabilities and criticality, which sites should be protected by ASA operations. NORAD conducted two other assessments, in 2005 and 2006, primarily in response to the 2005 Base Closure and Realignment Commission process and efforts to cut costs for Operation NOBLE EAGLE. On both of these occasions, NORAD conducted a cost evaluation, considering aviation security improvements—such as secured cockpits and enhanced passenger screening—that were made by the Transportation Security Administration since 2001. At the time of our review, DOD had not required NORAD to manage ASA operations using a risk management approach, which includes routine risk assessments. By performing routine risk assessments, NORAD could better evaluate the extent to which previous threats have been mitigated by DOD or other government agencies, better evaluate current and emerging threats to determine which ones require the most urgent attention, and determine operational requirements to address changing conditions. Routine risk assessments could also help NORAD determine the appropriate level and type of resources, including units, personnel, and aircraft for ASA operations, especially in a resource-restricted environment. Furthermore, during the course of our review, Air Force and ANG officials acknowledged the benefits of performing risk assessments on a routine basis for determining operational requirements for ASA operations.

The Air Force Had Not Implemented ASA Operations as a Steady-State Mission in Accordance with NORAD, DOD, and Air Force Directives and Guidance

Although its units are conducting ASA operations, the Air Force had not implemented these operations as a steady-state mission in accordance with NORAD, DOD, and Air Force directives and guidance. For example, in response to a December 2002 NORAD declaration of a steady-state air defense mission, the Air Force issued a directive assigning specific functions and responsibilities to support the mission. According to the directive, the Air Force was to take 140 actions to implement ASA as a steady-state mission.[6] For example, the directive required the Air Force Deputy Chief of Staff for Personnel to ensure that ASA active personnel requirements were included in the Air Force submission to the Future Years Defense Program.[7] The directive also required Air Force major commands to develop the capability to report on the readiness of ASA activities in DOD's readiness system, and the Deputy Chief of Staff for Personnel to work with the appropriate officials to limit adverse effects on the careers of personnel affected by the steady-state mission. However, the Air Force had not implemented ASA operations as a steady-state mission. For example, although the Office of the Secretary of Defense directed the Air Force to program ASA operations across the 6 years of its Future Years Defense Program submission, the Air Force decided to program ASA operations in 2-year increments.

According to headquarters Air Force officials, the Air Force did not implement ASA operations as a steady-state mission because (1) it has focused on other priorities, such as overseas military operations, and (2) it believed that ASA operational requirements, such as number of sites, might be decreased to pre-September 11, 2001, levels at some point in the future. As a result, the readiness of the units conducting ASA operations was not being fully assessed, and commanders of ASA units reported they were experiencing difficulties pertaining to a variety of factors, such as personnel and funding, which challenged their ability to perform both their expeditionary missions and ASA operations.

[6]Headquarters U.S. Air Force Program Action Directive (PAD) 2003-01-XOH, *Homeland Air Defense for Steady State Alert Posture for Air National Guard*, *Air Force Reserve Command*, *Air Mobility Command*, *Air Education and Training Command*, *Air Force Materiel Command*, *Air Force Space Command*, *Pacific Air Forces*, *Air Force Special Operations Command*, *and Air Combat Command* (Washington, D.C., Feb. 28, 2003).

[7]The Future Years Defense Program is the program and financial plan for the Department of Defense, and includes a projection of cost data, manpower, and force structure at least 4 years beyond the budget year, as approved by the Secretary of Defense. It is provided to Congress in conjunction with the President's budget.

Readiness of ASA Units Was Not Fully Assessed by the Air Force

NORAD partially assessed readiness through inspections; however, the Air Force, which as the force provider is responsible for measuring readiness for its missions by evaluating personnel, training, and the quantity and quality of equipment needed, has not done so for ASA operations.[8] Air Force officials said they do not perform such assessments because the service has not formally assigned the mission to the units.[9] Specifically, the Air Force issues mission Designed Operational Capability statements that identify the unit's mission(s) and related requirements (e.g., type and number of personnel).[10] However, the Air Force has not identified ASA operations as a mission in the operational capability statements of those units that conduct ASA operations on a daily basis. Unit commanders told us during our structured interviews that they did not evaluate and report the personnel, training, or quantity and quality of equipment to perform ASA operations because they had not been assigned the mission in their operational capability statements. As a result, the Air Force did not have complete information to assess readiness, and DOD and Congress lacked visibility of costs and other important information to inform decisions for these homeland defense operations.

Temporary Status of ASA Operations Creates Difficulties for Units and Hampers Cost Visibility

Because the Air Force did not implement ASA operations as a steady-state mission in accordance with NORAD, DOD, and Air Force guidance, at the time of our review ASA units were experiencing a number of difficulties that challenged their ability to perform both their expeditionary missions and ASA operations. The unit commanders we interviewed identified funding, personnel, and dual tasking of responsibilities as the top three factors affecting ASA operations. For example, during our structured interviews, officials from 17 of the 20 units stated that personnel issues were a moderate or great concern and that recruiting, retention, and

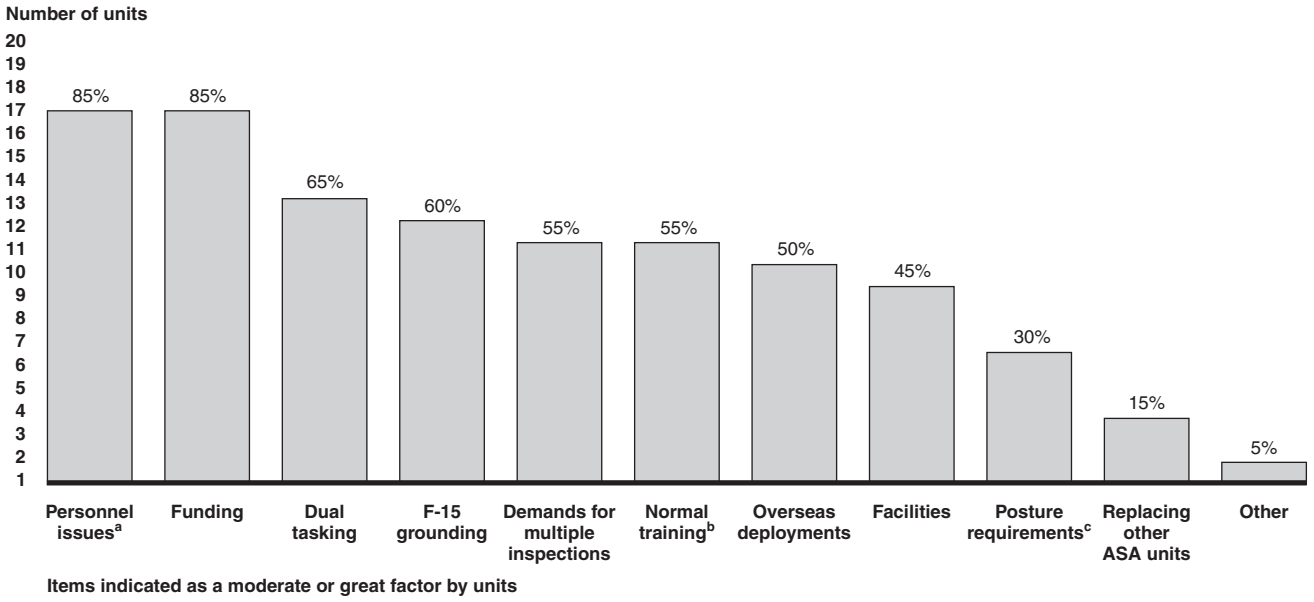
[8]Air Force Instruction 10-201, *Operations: Status of Resources and Training System* (Washington, D.C., Apr. 13, 2006); and Headquarters U.S. Air Force Program Action Directive (PAD) 2003-01-XOH.

[9]DOD currently uses a readiness system called the Status of Resource and Training System to identify the adequacy of personnel, training, and equipment assigned to a unit to conduct its assigned mission. DOD announced plans to implement the Defense Readiness Reporting System in 2002. In 2006, we reported on this system and stated that while it contained usable information and functionality, it was in the early phases of implementation and data validation. See GAO, *Force Structure: DOD Needs to Integrate Data into Its Force Identification Process and Examine Options to Meet Requirements for High-Demand Support Forces*, GAO-06-962 (Washington, D.C.: Sept. 5, 2006).

[10]Air Force Instruction 10-201.

promotion limitations were the primary issues arising from the current practice of programming for ASA operations in 2-year increments. Commanders at the ASA sites that we visited told us that they had lost some of their most experienced personnel due to job instability caused by the manner in which ASA operations are programmed. Similarly, commanders at 17 of the 20 units stated that the Air Force treats ASA operations as a temporary mission and has not provided sufficient resources. Thirteen of the 20 units reported that dual tasking—training and conducting for their expeditionary mission and for ASA operations—was a moderate or great concern and that the Air Force was not adequately equipping units to conduct both missions. Headquarters Air Force and National Guard Bureau/Air National Guard (NGB/ANG) officials acknowledged the units' difficulties in conducting ASA operations. Figure 1 depicts units' responses regarding difficulties they have experienced in conducting ASA operations.

Figure 1: Factors Identified by ASA Unit Commanders as Moderately or Greatly Impacting Units' Ability to Conduct ASA Operations



Source: GAO analysis of structured interviews with ASA units.

[a]Includes consideration of 2-year assignments, promotion opportunities, career progression, and other personnel issues as indicated by units.

[b]Normal training conducted for their warfighting mission.

[c]Can include the number and quality of aircraft and personnel that are on alert 24 hours a day, 365 days a year as well as other posture requirements.

Because the Air Force has not programmed for ASA operations in its Future Years Defense Program submissions, the Office of the Secretary of Defense, NORAD, and Congress lack visibility into the costs of these operations. [11] This program is one of the principal tools used to inform DOD senior leaders and Congress about resources planned to support various programs, and reflects DOD decisions regarding allocation of federal resources. Implementing ASA operations as a steady-state mission may help to mitigate the challenges associated with ASA operations, as well as provide Congress and DOD leaders cost visibility into ASA operations, which support DOD's high-priority homeland defense mission.

The Air Force Had Not Developed a Plan to Address Fighter Aircraft Challenges for Units Conducting Both ASA Operations and Expeditionary Missions

Of the 18 ASA sites, 13 sites are currently equipped with F-16s, which, according to ANG estimates, will reach the end of their useful service lives between fiscal years 2015 and 2020. Five sites have F-15s, which were grounded for 3 months in late 2007 and early 2008 after an F-15 broke apart during a normal flying operation in November 2007. According to Air Force and ANG officials, the F-15s' useful service lives could end earlier than the expected time frame of 2025 if the aircraft are used increasingly for overseas deployments or other missions. Depending on when the F-16s reach the end of their useful service lives and on the availability of next-generation F-22 and F-35 fighter aircraft, a gap in the number of available aircraft may affect units performing ASA operations. Figure 2 shows the projected number of current ASA sites with and without viable aircraft to conduct ASA operations through 2032.[12] As the figure reflects, unless the Air Force modifies its current fielding schedules or extends the service lives of its F-15s and F-16s to the extent that this option is possible,[13] it will lack viable aircraft to conduct ASA operations at some of the 18 current ASA sites after fiscal year 2015. The figure also shows that 2 of the current ASA sites will not be equipped with viable aircraft and thus will be unable to conduct ASA operations even after the Air Force fields all of its currently planned F-22s and F-35s in fiscal year 2031. This figure is based on our analysis of documentation on the expected service lives of the F-

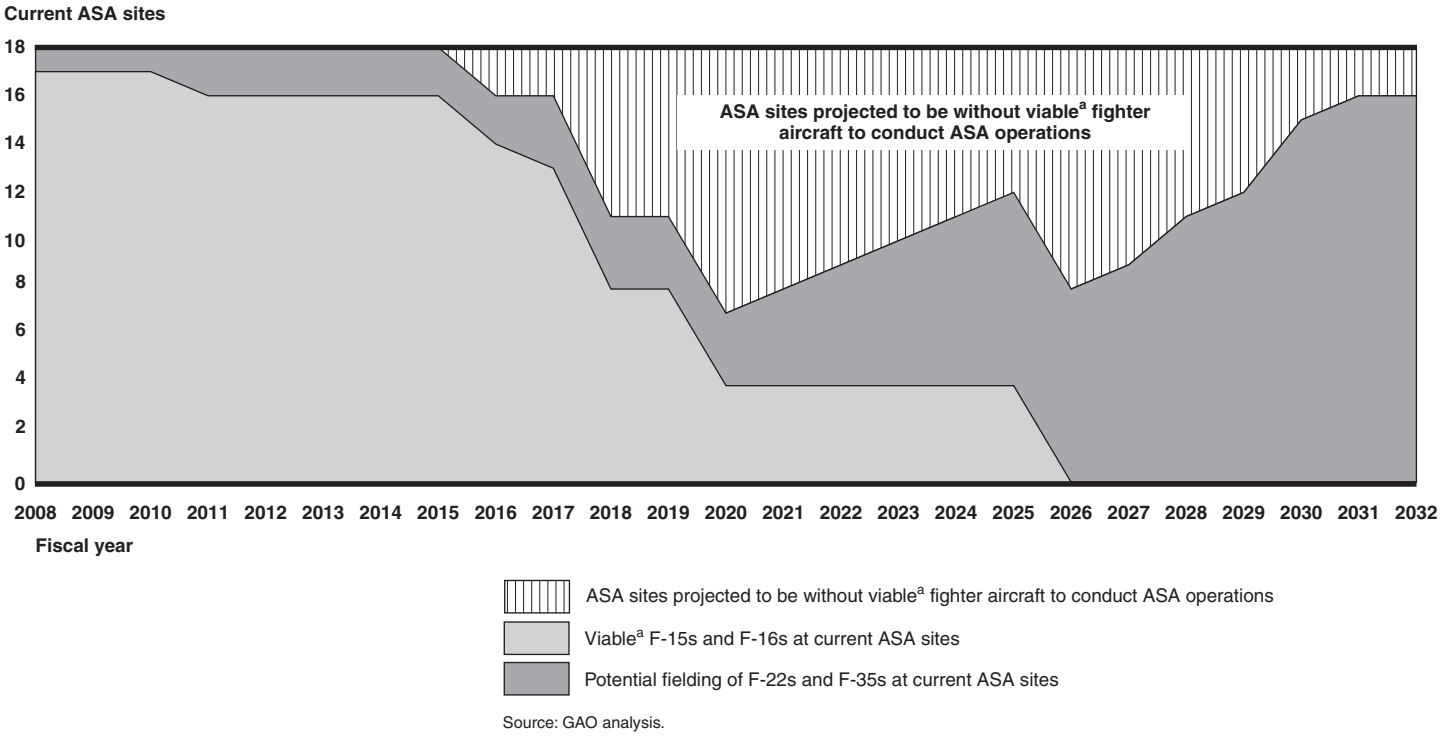
[11] In the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009, Congress directed the Secretary of Defense to submit a consolidated budget justification covering all programs and activities of the ASA mission for the Air Force, beginning with the fiscal year 2010 budget submission. Pub. L. No. 110-417, § 354 (2008).

[12] By viable, we mean aircraft that have not yet reached the end of their useful service lives.

[13] In comments on a draft of our January 2009 report, DOD said that extending the service lives of its F-15 and F-16 aircraft is also an option; however, the Air Force had not determined the extent to which such actions were feasible.

15s and F-16s and the Air Force's fielding schedules for the F-22s and F-35s at the time of our review, and represents one possible scenario.[14]

Figure 2: Projected Number of Current ASA Sites with and without Viable Aircraft to Conduct ASA Operations between Fiscal Years 2008 and 2032 Based on Current F-22 and F-35 Fielding Schedules



Source: GAO analysis.

[a]By viable, we mean aircraft that have not yet reached the end of their useful service lives.

The House report accompanying the National Defense Authorization Act for Fiscal Year 2008 directed the Secretary of the Air Force, in consultation with the Chief of the National Guard Bureau and the Secretary of Homeland Security, to conduct a study on the feasibility and

[14]Our analysis contains a number of assumptions we made based on information that DOD provided us. However, because specifics are unknown, our analysis does not reflect the effects of the need for ASA units to backfill at sites that either lose aircraft or transition to F-22 and F-35 aircraft. It also does not reflect the effect of units going off-line if the Air Force places F-16s in a maintenance program to extend their service lives. Our analysis assumes that none of the current ASA sites will be adversely affected by the Air Force's proposal to retire the F-15s and F-16s earlier than originally planned because we were not given enough specific information to determine the current locations of the aircraft that will be retired early.

desirability of equipping certain ASA units with F-35s.[15] The Air Force study, which was submitted to Congress in December 2008, states that, although the F-35's capabilities make it a desirable platform to conduct air defense operations, a number of factors—such as fiscal, operational, and environmental considerations—will affect where F-35s are based. Consequently, it is unclear whether or when the current ASA sites will receive F-35 aircraft. For the purpose of our analysis, however, we assumed that the Air Force would provide the F-35s to ANG sites conducting ASA operations. Our March 2009 reports about the F-35 acquisition program have also questioned the reliability of its production schedule and cost estimates. [16] For example, we reported that despite the program's continued manufacturing problems and the infancy of the flight test program, DOD officials wanted to accelerate F-35 production from 485 to 654 aircraft over a 6-year time frame from fiscal years 2010 through 2015. On April 6, 2009, the Secretary of Defense announced that DOD intends to increase F-35 production to 513 aircraft across the 5-year defense plan. We continue to believe DOD's increased production approach is overly optimistic.

During our review, we discussed some options with Air Force and ANG officials that could reduce the potential gap between retired aging aircraft and the replacements needed to conduct ASA operations, but these options are not without challenges. The options we discussed included the following:

- Replace the F-16s with either F-22s or F-35s, both of which the Air Force is acquiring. However, according to the F-22 and F-35 fielding schedules at the time of our review, only 1 of the 12 units—Shaw Air Force Base, South Carolina—will receive the new aircraft before its fleet of F-16s reaches the end of its useful service life.

- Replace the F-16s with F-15 models from the current inventory. However, F-15s, like F-16s, are beginning to reach the end of their useful service lives for reasons including structural problems and accelerated use for overseas deployments and other missions.

[15]H.R. Rep No. 110-146 at 111-112 (May 11, 2007). Congress did not request a corresponding F-22 study.

[16]GAO, *Defense Acquisitions: Assessments of Selected Weapon Programs*, GAO-09-326SP (Washington, D.C.: Mar. 30, 2009); and *Joint Strike Fighter: Accelerating Procurement before Completing Development Increases the Government's Financial Risk*, GAO-09-303 (Washington, D.C.: Mar. 12, 2009).

- Extend the service life of the F-15 and F-16 aircraft. However, at the time of our review, the Air Force had not determined the extent to which such actions were viable.

Until the Air Force plans accordingly, the extent to which replacement aircraft will be available to conduct ASA operations and mitigate this fighter shortage is unclear. Given the importance of the capability to deter, detect, and destroy airborne threats to the United States, it is important that the Air Force address current and future requirements of the ASA mission to ensure its long-term sustainability.

GAO's Prior Recommendations and DOD's Response

In our January 2009 report, we recommended that DOD take a number of actions to address the issues that we identified during our review. In summary, we recommended that the Secretary of Defense direct

- The Commander of the U.S. command element of NORAD to routinely conduct risk assessments to determine ASA requirements, including the appropriate numbers of ASA sites, personnel, and aircraft to support ASA operations.

- The military services with units that consistently conduct ASA operations to formally assign ASA duties to these units and then ensure that the readiness of these units is fully assessed, to include personnel, training, equipment, and ability to respond to an alert.

- The Secretary of the Air Force to establish a timetable and implement ASA operations as a steady-state mission, to include:
  - updating and implementing the ASA program action directive;
  - updating Air Force guidance to incorporate and define the roles and responsibilities for ASA operations; and
  - incorporating the ASA mission within the Air Force submissions for the 6-year Future Years Defense Program.
- The Secretary of the Air Force to develop and implement a plan to address any projected capability gaps in ASA units due to the expected end of the useful service lives of their F-15s and F-16s.

In its written comments on our report, DOD fully or partially concurred with all of our recommendations. However, based on DOD's written response, it is unclear the extent to which DOD will implement these recommendations. For example, DOD partially concurred with our recommendation to employ a risk-based management approach, which would include routine risk assessments to determine ASA requirements.

However, DOD stated that sufficient guidance and a long-standing risk-based process currently guide its decisions on ASA operations and, therefore, it does not plan on taking any further action.

Mr. Chairman and Members of the Subcommittee, this concludes my prepared statement. I would be happy to answer any questions that you may have at this time.

Contacts and Acknowledgements

For further information regarding this testimony, please contact Davi M. D'Agostino at (202) 512-5431 or dagostinod@gao.gov. In addition, contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this statement. Individuals who made key contributions to this testimony are Lorelei St. James and Marc Schwartz (Assistant Directors), Tommy Baril, Grace Coleman, Greg Marchand, Terry Richardson, Bethann Ritter, Kenneth Cooper, and Jane Ervin. In addition, Victoria DeLeon and John Trubey made significant contributions to the January 2009 report that supported this testimony.

Appendix I: Locations of the 18 ASA Sites in the United States as of October 2008

Source: GAO analysis of DOD data.

[a]The Vermont ANG unit at Burlington International Airport is conducting ASA operations until the Massachusetts ANG unit at Barnes Air National Guard Station assumes responsibility for ASA operations in fiscal year 2010.

[b]A detachment from the Vermont ANG conducts ASA operations at Langley Air Force Base, Virginia; the South Dakota ANG unit from Sioux Falls is assisting with ASA operations at this site until the Massachusetts ANG assumes responsibility for the New England ASA operations in fiscal year 2010.

[c]ASA operations at Homestead Air Force Base, Florida are conducted by a detachment from the Jacksonville, Florida ANG unit.

[d]ASA operations at Ellington Field, Texas are conducted by a detachment from the Tulsa, Oklahoma ANG unit.

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