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Statement of

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Before the
House Committee on Science and Technology
Subcommittee on Investigations & Oversight

Setting New Courses for Polar Weather Satellites and Earth Observations

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INTRODUCTION

I am honored to appear before you today to address this Committee. I am also pleased to be joined today by my colleagues from the Executive Office of the President, Ms. Shere Abbott, the National Oceanic and Atmospheric Administration (NOAA), Ms. Mary Glackin, and the National Aeronautics and Space Administration (NASA), Mr. Chris Scolese.

On February 1, 2010, the Executive Office of the President (EOP) directed the restructuring of the National Polar-orbiting Operational Environmental Satellite System (NPOESS) program, assigning each agency responsibility for their highest priority orbit. Accordingly, the Department of Commerce (DOC) will populate the afternoon orbit through the Joint Polar Satellite System (JPSS); the Department of Defense (DoD) will populate the early morning orbit. We will rely on capabilities from our European partners for the mid-morning orbit, upon the conclusion of the Defense Meteorological Satellite Program (DMSP) operations in that orbit.

For the morning orbit, DMSP continues to provide key terrestrial forecasting and space environmental sensing for defense and civil uses. DMSP Flight 17 was launched into the early morning orbit on November 2006 and continues to perform very well. There are two DMSP satellites remaining with Flight 19 and 20, and they are currently undergoing a Service Life Extension Program (SLEP) to refurbish, replace, and test components that have exceeded their shelf life and upgrade components which are known life-limiters. Flight 19 is scheduled to launch in October 2012 with Flight 20 serving as a back-up.

Mission data requirements for environmental monitoring remain unchanged. Additionally, the agencies will continue to share data and work together where possible. The DoD, in cooperation with NOAA/NASA, is completing an analysis for fulfilling the morning

orbit requirements, and the outcome will serve as the basis for the restructured program. While progressing on this effort, we have continued to work closely with the civil agency partners to ensure our plans will support and enable continuity of the JPSS afternoon orbit.

CURRENT STATUS

Since receiving EOP direction, the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD/AT&L) has chaired three Defense Acquisition Board (DAB) reviews to assess follow-on options and acquisition approaches to address DoD responsibilities under the restructure and ensure transition of former NPOESS elements to the appropriate acquisition agencies. At a minimum, the DoD program, designated the Defense Weather Satellite System (DWSS), will be available for launch in 2018, and meet or exceed DMSP legacy performance while ensuring mission continuity in the early morning orbit. The DoD is deliberately studying available options to ensure the DoD strikes the right balance of cost, performance, and technical risk while staying within current budgetary constraints (the PB 11 DoD NPOESS budget).

To meet the on-orbit timeline required, the DoD will leverage technology and previous investments in the NPOESS program. The DWSS and JPSS programs will share a common ground system based on that designed for NPOESS. Under the restructure, ground system development is a NOAA/NASA responsibility. NOAA will operate DoD satellites on a reimbursable basis, as it does today for the DMSP. Additionally, the Visible Infrared Imager Radiometer Suite (VIIRS) and Space Environmental Monitor-NPOESS (SEM-N) are prominent in our plans for use on the DWSS program. The Air Force is also developing an implementation plan addressing the most appropriate microwave sensor and satellite bus to

meet DoD requirements, and procurement strategy. Further, the procurement strategy will seek to maximize the Government's investment in NPOESS; it will focus on the best mix of cost, technical risk, and capability, and where applicable, support NOAA's JPSS program. DoD plans to finalize its procurement strategy not later than August 10, 2010.

The DWSS program office will be established under the Program Executive Officer/ Space (PEO/SP) at the Space and Missile Systems Center (SMC), Los Angeles Air Force Base. This location will afford the DoD the best opportunity to leverage our procurement expertise, resources and location to maximize success on this program. We have begun the process of staffing the program office with the requisite skills (program management, systems engineering, contracting, etc) to enable program execution. SMC is also working with NOAA/NASA management to transition key sensors from the NPOESS contract to support the JPSS in meeting its afternoon mission requirements. Our firm goal for completing the transition is the end of calendar year 2010.

GAO REPORTS

I would now like to address the recent GAO reports. Regarding GAO report 10-456 "*Environmental Satellites: Strategy Needed to Sustain Critical Climate and Space Weather Measurements*", the GAO had no specific actions for the DoD. However, I want to ensure you that the DoD team will fully support OSTP efforts to consider Earth and Space Weather monitoring from an enterprise and systems-of-systems standpoint. This support includes both full sharing of environmental monitoring data with our civil agency partners as well as exploration of opportunities to have this data supplied by commercial and foreign sources. We look forward to continued participation in OSTP-sponsored activities and initiatives to ensure

we, the agencies, act to satisfy our collective needs in a reasonable and cost-effective manner, and that we coordinate our investments to the benefit of the users of this information and the taxpayers.

Regarding draft GAO report 10-558 *"Polar-orbiting Environmental Satellites: Agencies Must Act Quickly to Address Risks that Jeopardize the Continuity of Weather and Climate Data,"*, the DoD thanks the GAO for their informed and expert insights and recommendations. The draft GAO report states, "In order to ensure that the transition from [the National Polar-orbiting Operational Environmental Satellite System (NPOESS)] to its successor programs is efficiently and effectively managed, we recommend that the Secretaries of Defense and Commerce take the following four actions:" We concurred with the four recommendations, as follows:

> **RECOMMENDATION 1:** *The GAO recommends that the Secretary of Defense direct the DoD National Polar-orbiting Operational Environmental Satellite System (NPOESS) follow-on program expedite decisions on the expected cost, schedule, and capabilities of their planned programs (p. 38/GAO Draft Report)*

We concur. The DoD agrees that expedited decisions are necessary to ensure FY10 funds are applied where most needed. Decisions on the DoD early morning orbit program will be executed per established acquisition guidelines. USD(AT&L) issued Acquisition Decision Memorandums on March 17th , May 10th, and June 22nd 2010. The most recent ADM directs the Secretary of the Air Force to immediately begin acquisition efforts to support a 2018 launch for a DMSP successor program and to consider maximum use of the Government's investment in

NPOESS, and in a manner that offers maximum opportunities for collaboration with the NOAA JPSS program.

> **RECOMMENDATION 2:** *The GAO recommends that the Secretary of Defense direct the DoD NPOESS follow-on program to develop plans to address key transition risks, including the loss of skilled staff, delays in contract negotiations and setting up a new program office, loss of support for the other agency's requirements, and oversight of new program management. (p. 38/GAO Draft Report)*

We also concur with this recommendation. The DoD is assessing numerous risks associated with the transition. We will ensure personnel for this effort have the requisite experience and skills (e.g. contracting, program management, systems engineering) to effectively manage the program. The DoD will continue to work with NOAA to ensure that common areas (such as the satellite control, data processing and dissemination capabilities) are arranged as necessary to support other agency needs.

> **RECOMMENDATION 3:** *The GAO recommends that the Secretary of Defense direct the NPOESS program office to develop priorities for work stoppage to allow the activities that are most important to maintaining launch schedules to continue. (p. 38/GAO Draft Report)*

We concur. On 17 March, the Under Secretary of Defense for Acquisition, Technology and Logistics signed the "Acquisition Decision Memorandum (ADM), National Polar-orbiting

Operational Satellite System (NPOESS) Program Restructure." In turn, the Acting Program Executive Officer for Environmental Satellites (PEO/ES) provided ADM implementation guidance to the NPOESS System Program Director (SPD) on March 26, 2010. This guidance outlines priorities for work stoppage and provides transition guidance for those activities most important to maintaining launch schedules. Subsequently, the PEO and SPD have worked to refine the specifics of implementing the ADM. The June 22nd ADM extended the transition deadline to the end of calendar year 2010 and plans for a decision by the Under Secretary of Defense for Acquisition, Technology and Logistics not later than August 10, 2010 on a) microwave sensing capability and performance, b) optimal bus configuration to host selected DoD payloads, c) recommended procurement strategy to provide capabilities, and where appropriate, support NOAA's need in filling an afternoon orbit, d) rough-order-magnitude cost estimate, and e) necessary staffing and organization..

> **RECOMMENDATION 4:** *The GAO recommends that the Secretary of Defense direct DoD officials to develop timeframes for making key decisions on – or accepting the risks related to – the timeliness of NPP's data (p. 38/GAO Draft Report)*

We concur and we have accepted the current limitations on the timeliness of NPP data. Further, we will continue to work with our agency partners to make sure all NPOESS follow-on data is made available in a timely a manner to support warfighter missions.

CONCLUSION

Weather observation and forecasting has greatly improved over the last four decades primarily due to space-based environmental sensing. Global, high resolution measurements of atmospheric temperature, density, and humidity populate mathematic models for weather prediction. Our warfighters need accurate, time-sensitive weather data as a key enabler for maneuver planning, weapons employment, and intelligence collection. DWSS will continue to provide critical global environmental information to effectively employ military capabilities and aid in the protection of national resources. Thank you for your time today.