

HOLD FOR RELEASE
UNTIL PRESENTED
BY WITNESS
June 29, 2010

**Statement of
Christopher J. Scolese
Associate Administrator
National Aeronautics and Space Administration
before the
House Subcommittee on Investigations and Oversight
Committee on Science
House of Representatives**

Mr. Chairman and Members of the Subcommittee, thank you for this opportunity to appear today to share with the Subcommittee information regarding NASA's role in and commitment to NOAA's Joint Polar Satellite System (JPSS) Program. JPSS is crucial to the Nation's ability to make important weather measurements and is critical to the Nation's climate monitoring and climate research activities. As the Nation's Civil Space Agency, NASA is fully prepared to support JPSS.

Background

On February 1, 2010, the Executive Office of the President (EOP) released the FY2011 budget request, which contained a major restructuring of the National Polar-orbiting Operational Environmental Satellite System (NPOESS) in order to put this critical program on a more sustainable pathway toward success. This satellite system is essential to meeting both civil and military weather forecasting and climate-monitoring requirements.

The EOP recommended a restructured program with the agencies sharing common elements where that has proven successful in the past, and developing separate elements where conflicting perspectives and priorities made the tri-agency managed program unsuccessful.

As you know, the Independent Review Team led by Tom Young made a number of recommendations to improve the viability of the NPOESS program. Specifically, Mr. Young recommended that the acquisition of the NPOESS system be done by an experienced spaceflight hardware acquisition center, such as the Department of Defense (DOD) Space and Missile Command or NASA's Goddard Space Flight Center (GSFC). NASA, and more specifically NASA's GSFC, has over 40 years of experience developing large-scale operational space systems for NOAA. NASA GSFC has developed a series of Geostationary Operational Environmental Satellites (GOES) and Polar Orbiting Environmental Satellites (POES) for weather forecasting and climate

monitoring. GSFC also developed the Landsat series of satellites for the US Geological Survey (USGS). In addition, NASA has extensive experience developing Earth Science research missions, such as those that are part of NASA's Earth Observing System (EOS). JPSS is very similar to EOS satellites, which GSFC developed and has been supporting for years. Hence, adding the acquisition of JPSS to the GSFC portfolio, while a large task, is extremely well aligned with GSFC's existing capabilities and experience.

GSFC will manage the acquisition and integration of the JPSS program elements and has the necessary depth and technical expertise to do the job. GSFC has developed many successful missions for NOAA with a demonstrated track record of success. The Program Manager and senior leadership team will be a combination of GSFC and NOAA employees with significant spaceflight and Earth remote sensing experience. The JPSS program at GSFC will develop the flight mission elements for the afternoon orbit which includes multiple spacecraft and the Visible-Infrared Imaging Radiometer (VIIRS), Cross-track Infrared Sounder (CrIS), Advanced Technology Microwave Sounder (ATMS), and Ozone Mapping and Profiling Suite (OMPS) instruments. NASA will also develop the ground system for both the NOAA and DOD systems prior to handover to NOAA for operations. The JPSS program will also lead integration across all of the elements to ensure delivery of the data products.

Steps Taken to Date to Accomplish the Transition

All three agencies remain committed to a partnership that preserves and enhances the Nation's weather and climate measurement capabilities. NASA is working closely with DOD and NOAA to allow for a smooth transition. NASA's role in the restructured program will follow the model of the successful POES and GOES programs, where NOAA and NASA have a long and effective partnership. NASA program and project management practices have been refined over decades of experience developing and acquiring space systems and these practices will be applied to JPSS. NOAA and NASA will strive to ensure that weather and environmental monitoring requirements are met on the most rapid practicable schedule without reducing system capabilities or further increasing risk.

The three agencies have established a joint team to transition the NPOESS contracts and activities to the responsible agencies with as little disruption as possible, and we expect to have contracts or contract modifications in place by early FY 2011.

NASA is working with NOAA to establish a high caliber team of experienced personnel to implement JPSS. This team will be composed of personnel from the NPOESS Preparatory Project (NPP) mission, as well as members from the following successfully completed missions: Hubble Space Telescope Servicing Mission-4; Lunar Reconnaissance Orbiter; Solar Dynamics Orbiter; and the NOAA GOES-N-series (N-P) geostationary satellites. NOAA personnel from the NPOESS IPO will also fill key positions in the JPSS program. GSFC is also hiring additional staff to directly support JPSS or backfill others who assume that role. Staffing and supporting projects at GSFC is a continual process as missions are completed and new projects are initiated. As such,

JPSS is in line with GSFC's normal operating practices. All projects at GSFC are being supported appropriately, and none will be deleteriously impacted by JPSS.

Current cost estimates provided for JPSS are consistent with similar missions developed by NASA. As NASA continues to negotiate contracts with the instrument, ground system, and spacecraft suppliers, the cost confidence will mature as the contracts are put in place. The program cost estimates will be produced at or close to the 80 percent confidence level.

NPP Instruments Are Complete/Some Risk Remains

The NPOESS Preparatory Project (NPP) was originally designed to provide continuity between the EOS Terra mission and the first NPOESS satellite in the morning orbit. The NPP mission was intended to provide risk reduction for the key sensors and the ground system prior to the first NPOESS launch and was not intended to be an operational asset. However, the delays in the delivery of the NPOESS system have required that NPP be shifted from the morning orbit to the afternoon orbit to minimize the potential for a data gap in the operational weather forecasting and environmental monitoring requirements.

The concern about operational data gaps in weather forecasting drove the need for the Administration to establish the EOP task force on the restructuring of NPOESS. The concerns about availability of weather forecasting data in the afternoon orbit and for continuity of climate records are driving the launch of NPP as soon as practicable, and will drive the JPSS program to deliver JPSS-1 as soon as possible.

The final instrument delivery for NPP occurred June 15, 2010, and the NPP spacecraft is on track for launch in 2011. The ground system development to support the NPP launch remains a major challenge, and NOAA and NASA are working to address this in time to support the NPP launch.

Although the first flight models of these instruments will be flown on NPP, the remaining development of these sensors is not considered low risk. These are highly complex Earth remote sensing instruments that require a significant amount of oversight and careful testing to ensure success. NASA has a great deal of experience in developing these types of instruments on EOS, NOAA POES and GOES missions. NASA is adept at managing the risk and providing the needed oversight to successfully deliver these instruments. The lessons learned from the development, test, and flight of NPP will be incorporated into later flight models for the JPSS program.

Conclusion

NASA and NOAA are committed to a successful JPSS program. NASA will work closely with NOAA in establishing the path forward for JPSS and to identify the right leaders. In addition, we will work closely with DOD to ensure that the civil and defense programs take advantage of the respective skills of each agency and to ensure that the common elements of the program meet the needs for all three agencies.

The existence of NPOESS (now JPSS) was assumed when the National Academy of Sciences (NAS) developed the priorities specified in the recent Earth Science Decadal Survey. NASA is ready to support JPSS as a partner with NOAA and as a part of fulfilling the scientific goals set forth by the NAS. Ensuring the success of JPSS is of the highest importance to NASA and the Agency has the requisite expertise and experience to take on this task.

Once again, thank you for the opportunity to testify today. I appreciate the support of this Committee and the Congress for NASA's programs and would be pleased to answer any questions.