

HOLD UNTIL RELEASED BY THE
U.S. HOUSE OF REPRESENTATIVES

STATEMENT OF
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ASSISTANT SECRETARY OF DEFENSE
(ACQUISITION)

BEFORE THE
HOUSE COMMITTEE ON ARMED SERVICES
SUBCOMMITTEE ON STRATEGIC FORCES

ON
OPTIONS FOR ASSURING DOMESTIC SPACE ACCESS

MARCH 17, 2015

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Chairmen Rogers, Ranking Member Cooper, and distinguished members of the Committees, I appreciate the opportunity to appear before the subcommittee and testify about a critical national security issue: assuring the Department's access to space.

Introduction

Our defense space capabilities are central to our national security. This is amplified by 10 U.S.C. 2273, which requires the Department of Defense to sustain at least two space launch vehicles capable of delivering into space any national security payload, while also maintaining a robust space launch infrastructure and industrial base.

Our assured access to space provides national security decision-makers with unfettered global access and unprecedented advantages in national decision-making, military operations, strategic indications and warning, and homeland security. We cannot achieve this without an efficient and reliable space launch capability. The nation requires robust, resilient and affordable space transportation capabilities that enable and advance our space operations.

Mission Assurance

The Department recognized the importance of Mission Assurance for space launch following a string of Titan IV launch failures in the late 1990's during which more than \$5B worth of hardware and three national security payloads were lost. The resultant focus on Mission Assurance ensured that the follow-on Evolved Expendable Launch Vehicle (EELV) program was able to provide 80 successful launches for national security payloads since 2002, an unprecedented record of success. The Department intends to retain this focus on Mission Assurance as we reintroduce competition and drive further affordability through New Entrants into the EELV program. In cooperation with each of these prospective New Entrants, the Air Force has implemented a multi-step certification process designed to ensure all new launch service providers meet the existing high U.S. Government levels of design and operational reliability prior to being awarded a National Security Space (NSS) launch service certification.

Reducing the Cost of Space Launch

The Air Force and the Office of the Secretary of Defense significantly restructured the EELV program in 2012 due to concerns over the escalating cost of domestic space launch. The Air Force and OSD reviewed the history of costs associated with the EELV program and

developed a strategy that employed economic order quantity procurement while reintroducing competition. The strategy was structured to allow for competition between the United Launch Alliance (ULA) and New Entrants as early as they can be certified. This resulted in the Air Force successfully negotiating and awarding ULA a contract for launch services, utilizing 36 EELV cores, over the period of five years. A core is generally one launch vehicle, with the exception of the Delta IV Heavy, which requires three cores. This contract award had two significant impacts: 1) it effectively stabilized significant portions of the U.S. launch industrial base and; 2) saved the DoD and taxpayers more than \$4.4 billion dollars when compared to the FY12 President's Budget baseline.

Since restructuring the program, we have reversed the burgeoning cost of maintaining a domestic launch capability, without sacrificing the rigor required to maintain mission success. At the same time, the Department is encouraged by the potential for commercial competition to include capable and certified New Entrant launch providers in the years to come.

Competition

The Under Secretary of Defense for Acquisition, Technology & Logistics approved the Air Force's strategy to reintroduce competition into the EELV program in November 2012. Potential competitive launch service providers self-nominate via a Statement of Intent (SOI). The Air Force received the SOI from Space Exploration Technologies Corporation (SpaceX) in February 2012. The Air Force/SpaceX Cooperative Research and Development Agreement for the Falcon 9 v1.1 launch system New Entrant Assessment Certification Plan was signed in June 2013. The Air Force continues to apply significant resources to the certification process with completion of SpaceX certification projected in 2015.

To further enable competition, the Air Force has set aside higher-risk tolerant payloads for competition amongst potential EELV New Entrants. While this approach uses a separate non-EELV contract requiring less rigorous Mission Assurance, it effectively exposes New Entrants to the Government's Mission Assurance process and provides them operational experience that, once certified, makes them more effective in competing for future EELV-class NSS missions. Using this approach, the Air Force competitively procured launch services from SpaceX for its Space Test Program-2 mission and for the joint National Aeronautics and Space Administration (NASA) and National Oceanic and Atmospheric Administration (NOAA) Deep

Space Climate Observatory mission. The Space Test Program-2 mission is currently scheduled for launch in 2016. The Deep Space Climate Observatory mission successfully launched on 11 February 2015 on a Falcon 9 v1.1 launch vehicle.

In response to Section 1611 of the Carl Levin and Howard P. “Buck” McKeon National Defense Authorization Act for Fiscal Year 2015 (Pub.L. 113-291) (FY 15 NDAA), we brought forward two additional competitive EELV launches in the FY 16 President’s Budget Request (PBR). The NSS manifest is dynamic, and we are still working to identify the payloads to be launched on those competitively-procured launch vehicles.

Use of the Russian RD-180 Rocket Engine

Approximately 18 years ago, we selected the Atlas V with the Russian RD-180 engine as a cost effective way to meet the National Space Transportation Policy of Assured Access to Space. In 1995, there were sound policy and cost saving reasons for the original decision to allow the incorporation of the RD-180 engine into a U.S. launch vehicle. One of the considerations explicitly addressed at the time of that decision -- and periodically since that time -- was the risk associated with using a non-U.S.-manufactured propulsion system for a critical national security capability. In compliance with Sections 1604 and 1608 of the FY 15 NDAA, we have reevaluated our use of the Russian manufactured RD-180 rocket engine.

The Department is committed to eliminating its use of Russian propulsion systems in the most efficient and affordable manner possible. As an initial step, the Department reprogrammed \$40M to initiate engine risk reduction activities. This funding, when combined with the \$220M added by Congress in FY 15 legislation will fund critical rocket propulsion work as directed in Section 1604 of FY 15 NDAA. The Department currently procures launch services rather than launch vehicle hardware, and is committed to working with industry on how to provide these services utilizing domestically-produced propulsions systems.

The current prohibition on use of Russian propulsion systems, Section 1608 of the FY15 NDAA, represents significant challenges to an orderly and cost effective transition to domestically-produced propulsion systems. Based on current 1608 language, the DoD believes ULA may exhaust the Atlas V RD-180 inventory it can use for NSS missions before the end of the decade. Additionally, ULA recently announced their plan to phase out medium/intermediate Delta IV variants after 2018. The medium and intermediate class payloads that these two

systems service represents the bulk of our launch manifest. Even assuming a New Entrant is certified in the near term, the Department is concerned that with the loss of Atlas V and medium/intermediate class Delta IV vehicle, we could be faced with a multi-year gap without at least two price competitive launch providers servicing medium to intermediate class missions.

Today the Department of Defense is not dependent or reliant on Russian technology to launch its critical space assets. The Delta IV launch vehicle has a domestically-produced propulsion system that is capable of lifting all NSS payloads, although it is not our most cost effective launch solution for classes other than heavy missions. Additionally, once certified, New Entrants are expected to be able to launch a large portion of the NSS manifest, thus increasing our domestic capabilities and providing opportunities for cost reductions. The ultimate goal is for the Department to have two or more commercially-viable launch service providers capable of launching the entire NSS manifest using domestically produced propulsion systems.

Conclusion

The goal of the Department in spacelift has been, and continues to be, maintaining Mission Assurance while leveraging the advantages of competition to make spacelift more affordable. We have accomplished this goal by implementing the principles of Better Buying Power, saving over \$4.4B for the taxpayer since the FY12 President's Budget, and setting in motion a sound strategy to foster future competition. We will continue to stress the importance of Mission Assurance that has already resulted in 80 successful EELV launches in pursuit of affordable and reliable space access services.

The transition from the use of Russian manufactured propulsion systems has been and continues to be a difficult challenge. The Department will continue to work with Congress and our industry partners to create a cost-effective and technically viable plan to end the Department of Defense's use of Russian manufactured rocket propulsion systems.