CONGRESSMAN JIM BRIDENSTINE
STATEMENT FOR THE RECORD
FY 2018 DEFENSE APPROPRIATIONS - MEMBERS DAY
HOUSE APPROPRIATIONS SUBCOMMITTEE ON DEFENSE
THURSDAY, MARCH 9, 2017

Introduction

Chairwoman Granger, Ranking Member Visclosky and distinguished members of the subcommittee. Thank you for the opportunity to testify on fiscal year 2018 national security appropriations.

During the Cold War, outer space was a relative sanctuary from military conflict. Two big players – the United States and the Soviet Union – shared the "ultimate high ground" with each possessing a small number of high-value satellite systems. Now, space is an increasingly congested and contested theater of operations for the United States, our allies and partners, and commercial operators. From GPS-guided munitions, to mobile communications, to high-fidelity imagery, the American Way of War relies upon space-based capabilities.

In the space domain, the Department of Defense (DOD) must develop, acquire, operate, and sustain space capabilities in fundamentally new ways. Our current space systems are **stovepiped, vulnerable, and expensive**. Our next-generation space systems must be **integrated, resilient, and affordable**. My five requests help move DOD toward these objectives.

Commercial Weather Data Pilot Program

First, this Subcommittee should appropriate $10.0 million in Air Force Weather Service or Weather System Follow-On RDT&E to fund the Commercial Weather Data Pilot Program. Congress formally established this Pilot Program in the FY17 NDAA. The Appropriations Committee provided $5.0 million for the program in the FY17 Defense Appropriations bill we passed yesterday. Multiple companies are launching constellations of small weather satellites to serve customers ranging from agriculture, to transportation, to energy, to insurance.

The pilot program will test, validate, and hopefully purchase commercial weather data and services to improve DOD weather models and forecasts. Buying data and services from commercial operators distributes our space-based weather data architecture and complicates the targeting picture for our enemies. Commercial weather data also improves DOD weather models through providing more data, more recent data, and in some cases, better data. Planners and operational forces get more accurate and timely forecasts. Since the U.S. government is one of many customers, the cost to the taxpayer would be shared and correspondingly reduced. I urge the Subcommittee to continue its forward-thinking support for this innovative program.

Satellite Communications Pilot Program

Secondly, this Subcommittee should appropriate at least $50.0 million in Air Force Wideband Global SATCOM RDT&E for the Air Force Satellite Communications (SATCOM) Pilot Program. The FY15 NDAA created this Pilot Program to fund demonstrations of commercial SATCOM services which offer order-of-magnitude increases in capability. The defense authorization and appropriations committees have strongly supported the program. This Appropriations Committee included $10.0 million for it within the FY17 bill.

The DOD relies heavily on both commercial and military systems to deliver communications capability – voice, video, and data – to the warfighter. In fact, commercial operators provide 80% of SATCOM, but the Department buys commercial in the most inefficient way possible – annual spot market leases.

In the face of surging demand and growing adversary threats (such as jammers), DOD is currently conducting an Analysis of Alternatives to help determine the follow-on architecture for the legacy Wideband Global SATCOM or WGS system. Will DOD replace one stovepiped, vulnerable, and expensive architecture with another? Or will DOD open the aperture and consider integrated, resilient, and affordable alternatives? This AoA will shape the answer and the SATCOM Pilot Program will inform the process. Dedicated funding is needed to demonstrate promising technologies and commercial business models such as managed services.

Protected Tactical Service

Sticking with SATCOM, this Subcommittee should support the President's likely budget request for Protected Tactical Service (PTS). In truth, we really need to accelerate this program. As I mentioned earlier, our current SATCOM architecture is stovepiped and imposes a choice between protection and throughput. Protection stops jamming, cyber attacks, and other attempts to degrade or deny the signal. Throughput delivers the "bits" – voice, video, and other data – to the warfighter. Commercial SATCOM systems – the kinds that deliver DirecTV and internet from space – have a massive throughput advantage over government systems, but generally lack the most robust military-grade protection. Protected Tactical Service helps "level the playing field" by developing standardized protected waveforms and modems usable on both government and commercial systems. Bringing commercial up to military-grade protection moves us closer to a unified SATCOM architecture.

Enterprise Ground Services

Fourth, this Subcommittee should support the President's likely budget request for Enterprise Ground Services (EGS). Ground stations process and transmit data and command the satellite. Today's ground stations, however, are custom-built which prevents automated and efficient data sharing between them. For example, a GPS ground station cannot "talk" to a missile warning ground station. Walled off ground systems prevent national and operational commanders from getting a common operating picture. We link together systems in the air, maritime, and land domains. Let's do the same for the space domain.

EGS will develop common standards and interfaces for ground systems for protected communications, GPS, missile warning, and weather. Eventually, EGS will insert a common operating system which increases automation and data sharing across the enterprise. Commonality and automation will dramatically reduce the sustainment costs and produce a common operating picture that is essential for exercising command of forces in a contested environment. I urge the Subcommittee to continue its support for EGS.

Responsive Space Launch

Finally, this Subcommittee should appropriate at least $30.0 million in Air Force RDT&E for the Space Test Program to fund responsive launch operational demonstrations and missions. The Appropriations Committee included $15.0 million in FY17 Appropriations for this purpose. In the space business, launch is rightly considered the "long pole in the tent". The dearth of U.S. launch capacity is forcing our most innovative space companies to launch overseas on foreign rockets. Recently, the U.S. remote sensing company Planet sent 88 next-generation imagery satellites to space on an Indian rocket. It's truly disgraceful when U.S. companies – and U.S. astronauts – must hitch a ride on Russian rockets only to see Moscow use the fare to fund its military space programs.

This problem is about to get much worse. OneWeb, SpaceX, Boeing and others are planning multi-thousand satellite constellations in Low-Earth Orbit. The only question is will they launch American? The military also needs responsive launch capabilities as much as commercial operators. An army of inexpensive, responsive rockets could rapidly populate and reconstitute military satellites. Responsive launch facilitates rapid technology refresh and deters adversaries from attacking on-orbit assets.

NASA's Venture Class Launch Services program is fostering the burgeoning small launch vehicle market through dedicated cubesat launches. DOD's Space Test Program has the experience and expertise to do the same for expendable, partially reusable, and reusable vehicles launching payloads of all sizes.

Conclusion

The Subcommittee has already helped DOD begin to adapt to the fundamentally new space domain. The FY17 defense appropriations bill we passed yesterday is testament to this Subcommittee's forward-thinking. I urge the Subcommittee to continue its work through supporting the five innovative initiatives which I have discussed. I thank the Subcommittee for the opportunity to testify this morning.