

**DEPARTMENT OF THE AIR FORCE**

**PRESENTATION TO THE OVERSIGHT AND GOVERNMENT REFORM  
COMMITTEE  
SUBCOMMITTEE ON GOVERNMENT OPERATIONS  
U.S. HOUSE OF REPRESENTATIVES**

**SUBJECT: NASA's MANAGEMENT OF ITS REAL PROPERTY HOLDINGS  
LOCATED AT CAPE CANAVERAL AIR FORCE STATION**

**STATEMENT OF: BRIGADIER GENERAL NINA M. ARMAGNO  
COMMANDER, 45TH SPACE WING**

**FEBRUARY 10, 2014**

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OVERSIGHT AND GOVERNMENT REFORM COMMITTEE  
SUBCOMMITTEE ON GOVERNMENT OPERATIONS  
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On behalf of the almost 10,000 military, government civilian and contractor personnel who work on our installations, and who make up Team Patrick-Cape, thank you for the opportunity to appear before you today to discuss our management of real property holdings located at Cape Canaveral Air Force Station.

As Commander of the 45th Space Wing and Director of the Eastern Range, my responsibilities include ensuring required Range assets, such as radars and telemetry sites, are ready to support a variety of missions. These not only include the space launch mission of our government's national security payloads, but also all NASA human spaceflight, research and exploration missions and Navy missile test and commercial launches. We expect 2014 to be one of our busiest years with over 20 launches scheduled.

Every day, our nation, and especially our military personnel around the world rely on vital space-based products that begin their journey just across the river from where we sit today. The same goes for space capabilities that are part of our citizens' daily lives such as the global positioning system (GPS). We're proud that every GPS satellite since 1989 was launched from Cape Canaveral Air Force Station.

As managers of such crucial national assets as Cape Canaveral Air Force Station and the Eastern Range, we are well aware of our reliance on multiple partners to accomplish our mission. Thousands of government contractor personnel support the operation and maintenance of Eastern Range instrumentation encompassing 15-million-square miles to include island locations more than 5,000 miles from the coast of Florida. At Cape Canaveral Air Force Station alone, we have more than 1,600 facilities and 16,000 acres of land.

Managing such a large number of facilities at Cape Canaveral Air Force Station is an ongoing challenge. These facilities range from expansive hangars, to multi-story satellite and

launch processing facilities all the way down to a facility no larger than 100 square feet. Most of these were built over fifty years ago and are located in a marine environment where corrosion, heavy rain and high winds are constant adversaries.

While addressing these challenges, our team of 45th Space Wing personnel and dedicated United Launch Alliance contractors continue to successfully process and launch the Delta IV and Atlas V rockets. These rockets are the two pillars of our nation's medium and heavy space-lift capability. Building on a number of Falcon 9 successful launch campaigns from Complex 40, we are excited about our relationship with SpaceX, which has a robust 2014 launch manifest for the Eastern Range. In addition, we have a great partnership with NASA's Kennedy Space Center, as well as our local Economic Development Commission and Space Florida who assist us in ensuring commercial companies are able to successfully navigate the government approval processes in order to operate at the Cape.

We also receive outstanding local military launch support from the 920th Rescue Wing, Naval Ordnance Test Unit and the Cape Canaveral Coast Guard Station, all of whom bring much-needed and invaluable support to our number one priority here at the 45th Space Wing: Achieving 100 percent mission success.

The rich heritage, geographic advantages and resident expertise of Cape Canaveral Air Force Station and the entire Space Coast, make it an attractive location for private sector customers. Many commercial companies not only want to operate at our site, but seek unused facilities to occupy. We give careful consideration to every private entity request and weigh a multitude of factors in our decisions.

Whenever an organization vacates a facility, we must consider the viability of future occupants based on anticipated government needs, the structure's condition and associated

maintenance costs, and the potential environmental and community effects of foreseeable future uses or demolition. To facilitate these decisions, our Civil Engineer squadron leads a Facility Utilization Board process including local wing leaders and input from Air Force Space Command experts, base tenants and other interested government parties.

If the Board cannot identify a current or near-term government requirement for a particular facility, providing it meets certain criteria, it can be considered for private-sector interests in support of commercial space activities. At that point, we make those facilities available for possible real property license or lease to a private interest willing to take on the operations and maintenance cost of the facilities or we seek funding for its demolition. It is in the Air Force and the taxpayer's interest to actively pursue both of these options. As our wing operating budgets continue to shrink, the costs of maintaining unneeded facilities drains resources away from other mission-essential requirements.

To make a facility available to a private entity, foremost, we must decide if the prospective tenant's operation is a good fit for co-location with the Air Force. Doing business on a limited-access military base in the shadow of active launch pads and hazardous processing operations presents security, safety, environmental and mission assurance challenges for both the prospective tenant and the 45th Space Wing.

Also, we must ensure that requests for launch property, in support of commercial launch activities, are accompanied by a statement that no U.S. domestic firm can reasonably provide substantially equivalent facilities. The statement must contain enough information to allow the wing commander to ensure the provision of Air Force property will not result in giving any commercial user an unfair competitive advantage. In addition, the wing commander is required to determine if the launch property being requested will be used to support Federal Aviation

Administration-licensed space activities, is compatible with Air Force/federal activities, and is consistent with public safety, environmental responsibilities, and national security and international treaty obligations.

We take our responsibility seriously in national space policy and other Department of Defense (DoD) and Air Force guidance to lean forward in making excess or underutilized Eastern Range assets available to private entities when feasible. Our recent history offers many examples of how we've purposefully moved towards that goal.

Launch facilities are a good starting point. Of our current active, or most viable launch pads: two of them, Complexes 37 and 41, host a DoD and commercial partnership; one, Complex 40 is licensed by a commercial space company, SpaceX, and Space Launch Complexes 36 and 46 are licensed to Space Florida, specifically to foster future commercial launches. To date, we have licensed or leased more than 850,000 square feet of Air Force facilities representing approximately 25 percent of our total square footage. Of the other launch complexes at Cape Canaveral Air Force Station, only a few are realistic candidates for additional launch programs. They are either targeted for future long-range development, have safety and environmental issues or high renovation costs. Additionally, historical preservation restrictions make some of them of little interest to the government or private entities for launch operations. We also have other areas that could be developed for future launch sites in support of government or commercial launch activities.

We have also made booster and satellite processing facilities available to private entities. SpaceX now licenses Hangar AO in our industrial area and just recently signed a license for our Large Processing Facility (LPF), once the home of the Titan IV rocket program, which allows them to process their payloads. In addition, we have leased a processing facility to Space Florida

to process solid propellant launch vehicles for commercial companies performing test launches at Cape Canaveral Air Force Station. Future initiatives include making additional government satellite processing facilities on Cape Canaveral Air Force Station available for lease to commercial companies using competitive processes such as like enhanced use lease (EUL) authorities. In addition to satellite processing facilities, our Air Force Civil Engineering Center is performing an Opportunity Assessment for the Cape Canaveral Air Force Station port area, which could lead to a future EUL. Two other EUL opportunities we're pursuing include property in Puerto Rico and here locally in Palm Bay, FL.

Our Wing Plans and Program office maintains our "Front Door Process" and frequently hosts representatives from commercial companies, DoD-sponsored contractors, educational institutions and other private entities who are researching possible operating locations. In recent years, many of those customers were approved, some to pursue major launch activities while others have successfully performed limited tests, training exercises and research at Cape Canaveral Air Force Station locations. Many other companies are in the early stages of development and are eager to return when their programs mature.

We understand that many government approval processes are daunting. We have attacked this issue over the past several years, attempting to balance the government's need for detailed information on rockets fueled with hazardous commodities carrying billion dollar payloads with the limited resources and need for timely responses that many of our private entities depend upon to be competitive.

We spent the last several years revising and streamlining our range approval processes to make it easier for companies and organizations to navigate. Space Florida has been a valuable partner in guiding these customers through their actions. To that end, our Wing Safety office has

tailored their extensive new program requirements to more expeditiously approve new customers.

We have worked with Space Florida to facilitate their investment in up-front environmental reviews, explosive siting and Air Force Space Command commercial support agreements for their two leased launch pads. This investment clears several time and financial obstacles for future commercial companies wishing to operate at those locations.

Working with our federal mission partners, we are constantly examining facility utilization. With our NASA partner, the Kennedy Space Center, we are working to acquire some of their excess facilities located on Cape Canaveral Air Force Station which meet our mission needs. The mission of the Naval Ordnance Test Unit (NOTU) located on Cape Canaveral Air Force Station has recently grown and through our facility space allocation process, we are providing real property permits to NOTU which were once used by the Delta II program. We made land available for the National Reconnaissance Office's new processing facility and we're also actively working with the National Guard Bureau and the Florida Air National Guard for a location for their new mission.

We have achieved all these successes while maintaining focus on our primary mission, assuring our nation's access to space. Our two current rockets, the Delta IV and Atlas V, have operated more than a decade without a catastrophic launch failure. We are also charged with ensuring public safety during our operations. Our record speaks for itself—there have been no launch-related fatalities to the public in over fifty-five years of space launches at Cape Canaveral Air Force Station.

We will continue to safeguard our personnel, the surrounding community, the wildlife and environment of our bases and ensure we do our business in an efficient and effective

manner. We have revised our long-range installation development plan to incorporate potential new sites for commercial launch and processing facilities. We will also continue to work with our neighbors such as the Canaveral Port Authority on important initiatives. Our recent agreement with the Port Authority that facilitated a channel-widening project will foster future economic growth. Finally, we strive to ensure facilities excess to our needs are made available to private entities when feasible or demolished when funds are available.

As always, we appreciate the tremendous support we get from Congress. The 2013 update to Title 10 section 2276 (commercial space launch cooperation) is one example of how Congress has given us greater freedom in partnering with the private sector. Thank you for your unwavering support of the men and women of the United States Air Force and of our space launch mission here at the 45th Space Wing. With that, I conclude my statement, and I welcome your questions.





# BIOGRAPHY

UNITED STATES AIR FORCE



## BRIGADIER GENERAL NINA M. ARMAGNO

Brig. Gen. Nina M. Armagno is the Commander, 45th Space Wing, and Director, Eastern Range, Patrick Air Force Base, Fla. She is responsible for the processing and launching of U.S. government and commercial satellites from Cape Canaveral Air Force Station, Fla. She is also the final approval authority for all launches on the Eastern Range, a 15-million-square-mile area which supports an average of 15 launches per year aboard Delta, Atlas, Falcon, Navy and emerging launch vehicles. In addition, she manages wing launch and range infrastructure supporting NASA, commercial and missile test missions.

General Armagno entered the Air Force after graduating from the U.S. Air Force Academy, Colo., in June 1988. Her experience in space systems operations includes combat-mission-ready operator, instructor, evaluator and flight commander in strategic missile warning, space surveillance, space control, space launch and theater missile warning mission areas. She was the operations officer at the 1st Space Launch Squadron, Cape Canaveral Air Force Station, Fla.



Prior to her current assignment, General Armagno served as the Commander, 30th Space Wing, Vandenberg AFB, Calif., responsible for space lift and range operations, and support of operational and developmental missile system testing for the Department of Defense from the West Coast of the United States. She has served as the installation commander of the 6th Space Warning Squadron at Cape Cod Air Force Station, Mass., the commander and deputy commander, 21st Operations Group, Peterson AFB, Colo., as the Department of Defense senior military assistant and chief of staff to the director, Operational Test and Evaluation, Office of the Secretary of Defense. In addition, she has

held staff assignments at Headquarters U.S. Air Force, Headquarters Air Force Space Command, Headquarters 14th Air Force and the 381st Training Group and served as an Air Force Legislative Fellow in the office of Congresswoman Ellen Tauscher.

## **EDUCATION**

1988 Bachelor of Science degree in biology, U.S. Air Force Academy, Colorado Springs, Colo.

1992 Squadron Officer School, Maxwell AFB, Ala.

1999 Master of Arts degree in education administration and management, Chapman University, Calif.

2000 Air Command and Staff College, by correspondence.

2002 Air Force Legislative Fellowship, Washington, D.C.

2003 Certificate in Legislative Studies, Georgetown University, Washington, D.C. 2003 Air War College, by correspondence.

2007 Master of Science degree in national security studies, National War College, Washington, D.C.

2010 United States Air Force Enterprise Leadership Seminar, University of Virginia, Darden School of Business, Va.

2010 Leadership Development Program, Center for Creative Leadership, Colorado Springs, Colo.

## **ASSIGNMENTS**

1. July 1988 - November 1988, Student, Undergraduate Space Training, Lowry AFB, Colo.

2. November 1988 - December 1988, Student, Combat Crew Training, Peterson AFB, Colo.

3. January 1989 - February 1993, Missile Warning Crew Commander, chief of training and chief, standardization/evaluation, 7th Space Warning Squadron, Beale AFB, Calif.

4. March 1993 - November 1994, Chief, operations training, 21st Operations Support Squadron, Peterson AFB, Colo.

5. November 1994 - September 1996, Flight Commander, 11th Space Warning Squadron, Schriever AFB, Colo.

6. September 1996 - July 1998, Instructor and Flight Commander, 533rd Training Squadron, Vandenberg AFB, Calif.

7. July 1998 - July 1999, Executive Officer, 381st Training Group, Vandenberg AFB, Calif.

8. July 1999 - July 2000, Chief, warning operations, Headquarters 14th Air Force, Vandenberg AFB, Calif.

9. July 2000 - September 2001, Operations Officer, 1st Space Launch Squadron, Cape Canaveral Air Force Station, Fla.

10. September 2001 - September 2002, Air Force Legislative Fellow, Washington, D.C.

11. September 2002 - May 2003, Chief, ground-based warning, Headquarters Air Force, Pentagon, Washington, D.C.

12. June 2003 - December 2004, Commander, 6th Space Warning Squadron, Cape Cod Air Force Station, Mass.

13. December 2004 - July 2006, Deputy Commander, 21st Operations Group, Peterson AFB, Colo.

14. July 2006 - June 2007, Student, National War College, Washington, D.C.

15. June 2007 - May 2008, Military Assistant for Space and Intelligence, Surveillance, and Reconnaissance Systems to the director, Operational Test and Evaluation, Office of the Secretary of

Defense, Washington, D.C.

16. May 2008 - June 2009, Senior Military Assistant and Chief of Staff to the Director, Operational Test and Evaluation, Office of the Secretary of Defense, Washington, D.C.

17. June 2009 - July 2011, Commander, 21st Operations Group, 21st Space Wing, Peterson AFB, Colo.

18. July 2011 - January 2012, Director of Staff, Headquarters Air Force Space Command, Peterson AFB, Colo.

19. January 2012 - May 2013, Commander, 30th Space Wing, Vandenberg AFB, Calif.

20. June 2013 - Present, Commander, 45th Space Wing, and Director, Eastern Range, Patrick AFB, Fla.

## **MISSILE/SPACE INFORMATION**

Command Space Badge

## **MAJOR AWARDS AND DECORATIONS**

2010 Women of Influence Award

Defense Superior Service Medal

Legion of Merit

Air Force Meritorious Service Medal with four oak leaf clusters

Air Force Commendation Medal with two oak leaf clusters

Army Commendation Medal

Air Force Achievement Medal

Air Force Meritorious Unit Award

Air Force Outstanding Unit Award with three oak leaf clusters

National Defense Service Medal with one oak leaf cluster

Global War on Terrorism Service Medal

## **EFFECTIVE DATES OF PROMOTION**

Second Lieutenant June 1, 1988

First Lieutenant June 1, 1990

Captain June 1, 1992

Major Oct. 1, 1999

Lieutenant Colonel March 1, 2003

Colonel Sept. 1, 2007

Brigadier General Oct. 2, 2013

(Current as of October 2013)