

FINAL VERSION 7.0

**Congressional Hearing Testimony
for the
Under Secretary of the Air Force
The Honorable Peter B. Teets**

Greeting/Stage Setting Remarks:

It is my distinct honor to be before the Committee today representing the “space side” of the world’s greatest air and space force. You have previously heard from the Secretary of the Air Force and the Chief of Staff about the state of affairs of the Air Force as a whole. I believe the “Top 4” of the Air Force--The Secretary, the Chief of Staff, the Vice Chief and I--make a good team. We are of one mind regarding the vision of a Total Air and Space Force providing global reconnaissance and strike across the full spectrum of operations in the service of this great nation. Given the focus of this committee, and my role in the implementation of the National Security Space Commission, I plan to focus my remarks today on the space responsibilities and capabilities of the Air Force.

The commission the Congress chartered to assess the organization and management of National Security Space, commonly referred to as the Space Commission, recommended several changes in the way the Department of Defense (DoD) is organized to perform the National Security Space mission. As you know, Secretary Rumsfeld chaired that commission before he became Secretary of Defense (SECDEF), and he’s provided the Air Force with tremendous support in our implementation efforts. Secretary Roche and I are in lock step with his directions for implementing the Commission’s recommendations.

I am delighted to report that the Air Force has made good progress with the tasks assigned to it by Secretary Rumsfeld. In order to apply the “cradle-to-grave” approach recommended by the Commission, we have transferred command responsibility for the Air Force’s Space and Missile Systems Center (SMC) from the Air Force Materiel

FINAL VERSION 7.0

1 Command to the Air Force Space Command to align space Research & Development
2 efforts and operations under one organization. We have also made the SMC Commander
3 the Air Force Program Executive Officer for Space. I have been jointly named Director
4 of the National Reconnaissance Office (NRO) by the Director of Central Intelligence
5 (DCI) and the SECDEF. Serving jointly as the Under Secretary of the Air Force and as
6 the Director of the NRO is not without precedent. The first Director of the NRO, Dr
7 Charyk, served in this dual role capacity, as have several of our nation's previous
8 National Security Space leaders including Mr Aldridge, our current Under Secretary of
9 Defense for Acquisition, Technology and Logistics. I have also been tasked by Secretary
10 Roche to assist him by serving as the Air Force's Acquisition Executive for space related
11 systems. Secretary Rumsfeld's request that Mr. Aldridge delegate Milestone Decision
12 Authority for major DoD space programs to the Under Secretary of the Air Force has
13 made me the senior civilian responsible and accountable for managing the nation's
14 national security space program for the Department of Defense and the Intelligence
15 Community. In my view, the buck stops with me for National Security Space issues—and
16 I am thrilled and honored to have been asked to take on this important challenge.

17 As you know, we are in the midst of an epic struggle of good versus evil in the
18 war on terrorism. To date, our space-based systems have performed incredibly well in
19 support of our troops engaged in Operation Enduring Freedom in Afghanistan. Air Force
20 aircraft have dropped nearly 7000 tons of munitions in Afghanistan with 73% of that
21 tonnage being precision guided. A good portion of that 73% would not be possible
22 without today's space-based assets such as the Global Positioning System (GPS). In
23 addition to the precision guidance supplied by GPS, our military SATCOM systems form
24 the backbone of the information pipeline providing critical data to U.S. and allied soldiers
25 operating in that theater. Furthermore, our satellite collection systems for weather and

FINAL VERSION 7.0

1 intelligence data have been more responsive to our warfighters on the ground than in any
2 time in our history.

3 The ever-increasing significance of the Intelligence, Surveillance and
4 Reconnaissance (ISR) contribution to operational and tactical warfare is simply
5 phenomenal. We can finally assess the effects of our attacks in near real time because of
6 the contributions of GPS, SATCOM and space-based ISR systems and all the hard work
7 that has been done to integrate space with airborne ISR and airborne strike systems. In
8 the near term we will continue to focus on improving the integration of our space-based
9 systems across the full spectrum of joint operations.

10 The execution of the war has demonstrated once again how critical space
11 dominance is for successful force projection and force application. In addition, we
12 continue to recognize the need for persistent, 24/7, all-weather, surveillance collection
13 capabilities. We talk on the “air” side about the number of sorties generated as a measure
14 of support and effort to a campaign. One of the best features about a space-based asset is
15 that it doesn’t require additional sorties in wartime—it’s already there, on-orbit, ready
16 when called upon. Of course, with the limitations of today’s imaging satellite
17 constellations, we aren’t able to stay at any one place for very long. My vision for
18 National Security Space includes leading the transformation from a reconnaissance to a
19 surveillance mindset in order to provide persistent on-demand space-based capabilities to
20 achieve Universal Situational Awareness for our warfighters and our nation’s leaders.

21 That is a brief assessment of how I see the current National Security Space
22 environment and a bit of our vision for the future. I would now like to talk about my four
23 immediate priorities for addressing the near-term needs of the nation’s National Security
24 Space portfolio. These are 1.) Getting space acquisition programs on track; 2.) Providing
25 assured access to space; 3.) Integrating black and white space, applying “best practices”

FINAL VERSION 7.0

1 where applicable; and 4.) Establishing a career path for space professional and leadership
2 development.

3

4 **SECTION 1—Getting Space Programs Back On Track:**

5 As the Committee is no doubt aware, the Air Force is facing significant
6 challenges in several of our most important space acquisition programs. Our biggest
7 challenge is in developing the Space Based Infrared System (SBIRS) High program,
8 which is designed to provide the nation with the next-generation of missile warning
9 capability as well as enabling missile defense. In January of this year, the Joint
10 Requirements Oversight Council revalidated warfighter requirements for the SBIRS
11 system-of-systems, reconfirming the need to field this capability as soon as possible. At
12 the same time, however, the Air Force-chartered Independent Review Team examining
13 SBIRS High reported a number of deficiencies in the program. It found that the program
14 was too immature when it entered the System Design and Development phase, that
15 higher-level system requirements were not properly allocated into lower-level
16 requirements, and finally, there was a significant breakdown in execution management.
17 These findings concern me not only because of the importance of SBIRS but also because
18 these problems may afflict other space programs. One of the common threads of the
19 review team's findings was that inadequate systems engineering contributed to the
20 problems affecting SBIRS High. So in response, I am currently examining other space
21 acquisition programs to see if they suffer from the same problem. It is clear that the Air
22 Force must address these deficiencies wherever they exist in order to be a good steward
23 of space programs and the taxpayers' money. Later in my statement I will discuss
24 reforms we are pursuing in order to improve the stability of space acquisition programs.

FINAL VERSION 7.0

1 As for SBIRS High, on 31 December 2001 Secretary Roche reported a Nunn-
2 McCurdy cost breach requiring that the Secretary of Defense, or in this case his delegate,
3 Secretary Aldridge, certify by 3 May 2002 that:

- 4 1) The program is essential to national security,
- 5 2) That no less costly alternatives that provide equal or greater military
6 capability exists,
- 7 3) That new cost estimates are reasonable, and finally
- 8 4) The management structure is adequate to manage and control the program

9 It is obvious that both the contractors and the government have made mistakes
10 with this program. I have asked my staff to prepare alternative solutions that may satisfy
11 these criteria if it is determined that the SBIRS High program cannot meet them.

12 Secretary Aldridge will chair a meeting, in late April, to review both the current SBIRS
13 High program as well as the alternatives, and to make a decision whether to continue or
14 cancel the existing program. I cannot stress strongly enough the need to field a system
15 that delivers the required capabilities in time to replenish the existing Defense Support
16 Program constellation. If the current SBIRS High program cannot meet those
17 requirements, it is my priority to deliver a system that can.

18 While we are working hard to address the problems with SBIRS High, I would
19 like to highlight an emerging success story in the area of military satellite
20 communications. In the war in Afghanistan we are providing 322 times more
21 communications bandwidth per person when compared to Operation Desert Storm ten
22 years ago. However, even this increased capacity is not enough to meet projected
23 requirements. My highest priority is making certain that warfighters have the space-
24 borne capabilities necessary to fight and win our wars, and MILSATCOM is one of those
25 areas where the warfighters need as much capability as we can give them. To that end I

FINAL VERSION 7.0

1 have directed the National Security Space Architect office to conduct a Transformational
2 Communications Study examining what the next generation of SATCOM systems must
3 provide in order to meet future requirements. This study is examining a variety of
4 capabilities and architectures that will help us achieve our goal of eliminating
5 communications as a constraint on the warfighter. Among other things, we are looking at
6 cutting-edge areas such as laser communications, optical links, and the development of a
7 network-centric architecture integrating satellites and terminals to replace existing stove-
8 piped systems. The final architecture will deliver orders-of-magnitude increase in
9 capability over the systems in service today. I anticipate that the study, expected to be
10 complete in July 2002, will give the military space community an integrated roadmap
11 showing how we can deliver transformational communications capabilities to warfighters
12 and national users in the near term.

13

14 **SECTION 2—Assured Access to Space:**

15 In delivering those kinds of capabilities to the warfighter, it is my job as the chief
16 acquisition executive for military space programs to ensure that the United States has
17 assured access to space. We have a lot of hard work to accomplish to make sure we have
18 the access we need and desire.

19 The phrase “access to space” historically has meant launch operations and, in
20 partnership with the commercial sector, the Air Force is striving to fulfill this mission.
21 The Atlas V and Delta IV are expected to have their first commercial launches this
22 summer, with the first DoD launch scheduled for later this year. The Evolved
23 Expendable Launch Vehicle (EELV) is already projected to save the taxpayer well over
24 25% of the costs typically associated with our legacy launch vehicles, and it will do so
25 while meeting our stringent requirements for safety and reliability. Beyond EELV, the

FINAL VERSION 7.0

1 Air Force continues its relationship with NASA in developing a Reusable Launch
2 Vehicle technology roadmap. We welcome the opportunity to exploit a future RLV to
3 conduct military missions ranging from reconnaissance to on-orbit satellite support and,
4 potentially, even force application if directed by national leadership.

5 In support of these launch efforts, the Spacelift Ranges at Cape Canaveral and
6 Vandenberg AFB continue to be modernized to become more responsive to users and
7 easier to maintain, while becoming less expensive to operate. These national assets are
8 becoming increasingly valuable to both government and commercial users, and the Air
9 Force is actively seeking new ways to exploit our civil and commercial partnerships in
10 spacelift to increase efficiencies and reduce costs.

11 However, even these efforts are not enough to provide assured access to space.
12 We are not where I want to be yet, but we are taking steps to get there.

13 For instance, access to space extends beyond spacelift--it also means making sure
14 that once we get into space we stay there for the duration. As the global environment
15 grows increasingly dangerous, we are exploring new systems, tactics, and policies that
16 can guarantee the security and performance of our space-based assets. Our space control
17 efforts are developing new space surveillance software that, extrapolating from existing
18 telemetry, can tell us when our satellites are being attacked, and how. This universal
19 situational awareness capability is vital to ensure that we cannot only rapidly identify the
20 enemy attacking us, but also can take the appropriate measures in response. By also
21 developing offensive space control capabilities--including counter-communications,
22 counter-surveillance, and counter-reconnaissance systems, as well as a new "space range"
23 to test and exercise these capabilities--the Air Force will provide our national defense
24 leadership with a number of options in the event that our defensive systems fail to
25 guarantee our access to space.

FINAL VERSION 7.0

1 We are also pursuing methods of protecting the integrity of our GPS signal for
2 both military and civil users alike. As the war in Afghanistan demonstrates, weapons like
3 the GPS-guided Joint Direct Attack Munition are absolutely critical to winning battles.
4 We must not forget that delivering this all-weather, day-and-night attack capability to the
5 warfighter requires a modern and secure GPS infrastructure. Our GPS modernization
6 efforts, including our GPS III satellite program, will result in a more robust signal
7 providing the warfighter with more accurate location and targeting information. They
8 will also give theater commanders more options to protect the signal from disruption by
9 hostile forces, enabling our units to successfully continue the fight even when faced with
10 a jamming threat. While the improvements to GPS are critical to our military, it must not
11 be forgotten that a better GPS system also provides numerous benefits to civil authorities
12 and commercial industries in America and worldwide. GPS is truly a modern American
13 success story, and the Air Force is working hard to guarantee its performance in the
14 future.

15 Guaranteeing GPS performance, as well as providing increasingly capable
16 MILSATCOM, requires that the U.S. military maintain access to critical sections of the
17 radio frequency spectrum. We are seeing a number of proposals to develop new wireless
18 services using frequency bands currently required for a number of critical U.S. military
19 capabilities. It is obviously of critical importance that we achieve a solution which meets
20 the need of all interested parties to ensure that the U.S. military retains use of the
21 spectrum frequencies critical to our warfighting capabilities.

22 Due to our increasing dependence on access to space for military, commercial,
23 and civil missions, the Air Force must remain in the vanguard in developing innovative,
24 reliable, and affordable space capabilities. In the future, we must do more to assure our

FINAL VERSION 7.0

1 access to space, and I am committed to a thorough review of what systems, strategies,
2 and policies this access requires.

3

4 **SECTION 3—Black/White Space Integration & Best Practices**

5 As our SBIRS experience clearly demonstrates, existing Air Force and DoD
6 acquisition practices are too inflexible to address the unique requirements of space
7 system acquisition. As part of the Air Force’s Space Commission implementation
8 planning during the summer of 2001, a series of “Best Practice” teams composed of both
9 NRO and Air Force members were formed to align Air Force and NRO space programs
10 and practices in various areas. As you might expect, one valuable team focused on the
11 critical area of acquisition practices.

12 Over the course of this investigation, the team made a key discovery: the Air
13 Force and the NRO already share many of the same “Best Practices.” The team did find
14 a number of areas, three on the NRO side and two on the Air Force side, that required
15 relatively minor administrative changes to the way the NRO or Air Force did business.
16 However, they discovered one additional, substantial difference between the way the
17 NRO and Air Force operates. The NRO’s acquisition milestone decision cycle time was
18 much shorter than the typical DoD milestone decision cycle time for programs of similar
19 magnitude and complexity. Obtaining a decision at a Defense Acquisition Board via the
20 process described in the DoD 5000 series documents typically takes 8 to 12 months to get
21 through the Integrated Product Team structure. In contrast, historical data on NRO
22 programs shows the nominal time required to get through the NRO’s Independent
23 Program Assessment process is only 8 to 12 weeks. Months to weeks--that’s a
24 significant reduction in decision cycle time!

FINAL VERSION 7.0

1 I'll be the first to admit that making bad decisions quicker than before would not
2 be an improvement, but decision delays often impose unintended costs on a program just
3 as surely as requirements creep and program mismanagement do. Faster decisions by
4 senior leaders can actually help provide program stability, a key ingredient to program
5 success, by allowing the program office and contractor to spend their time performing
6 actual development work instead of preparing for overly burdensome oversight. Faster
7 decision cycles also support agile and flexible acquisition practices because they allow
8 for direction from the real decisionmakers when needed, thereby enhancing our ability to
9 make timely adjustments to our plans. This is the best way to enable our system program
10 offices to deliver the most cost-effective capability possible to the warfighter in a timely
11 manner.

12 To that end, we have adapted the NRO process to fit DoD statutory requirements
13 and allow full involvement by OSD and the other Services. I plan to approve several
14 "pathfinder" activities using this NRO-like acquisition oversight process to assess how
15 this NRO process can be best applied to DoD space programs. A "pathfinder" activity
16 for GPS-III is already underway and I expect to be able to report on its results this
17 summer. This "streamlined" process has worked for the past seven years at the NRO,
18 and I see no reason why it won't work for DoD space systems.

19 The establishment of similar processes between black and white space is a terrific
20 first step toward integration, but we will continue to explore other "Best Practices" and
21 diligently implement associated findings. I'm not picky about where we find these "Best
22 Practice" ideas. We started this effort by focusing on the Air Force and the NRO, but we
23 are now in the process of expanding our vision to include the practices of the other
24 Services and from industry. The motto "not invented here" will not apply on my watch--
25 a good idea is a good idea.

FINAL VERSION 7.0

1 The establishment of Joint Program Offices (JPO) between the Air Force, the
2 NRO, and the other Services is also on my agenda in order to foster further continued
3 black and white space integration. The first evidence of this will be the establishment of
4 a JPO for Space-Based Radar in the very near future.

6 **SECTION 4—Space Career Development & Space Leadership Development**

7 Implementing these best practices and improving National Security Space
8 management both depend first and foremost upon great people doing great work.
9 As part of the Space Commission implementation, we are working to describe and define
10 the appropriate set of education, training, experience, and personnel policies needed to
11 develop a cadre of Air Force space professionals. Air Force Space Command, under the
12 leadership of General Ed Eberhart, has taken the lead on this very important task. The
13 plan they are putting together focuses primarily upon the Air Force and Air Force
14 elements of the NRO, but we are working to share our ideas, problems and our potential
15 solutions with the other Services to create the necessary construct that will build and
16 maintain the quality of our nation's National Security Space personnel. Secretary Roche
17 is expending significant energy to build a space community equal to the pilot community.
18 I am wholeheartedly committed to putting the appropriate structure in place to make sure
19 we continue to have the world's best space personnel.

21 **Conclusion:**

22 Since becoming the Under Secretary of the Air Force in December 2001, I have
23 tried to follow a rule that Stephen Covey identified in his book: “The 7 Habits of Highly
24 Effective People” which is “Seek first to understand, then to be understood.” I have
25 spent some time getting up to speed on the issues, and we are now beginning to move out

FINAL VERSION 7.0

1 in earnest in making the changes that need to be made to transform our nation's National
2 Security Space capabilities and organizational constructs.

3 These are exciting times for National Security Space as we transform, reorganize,
4 and establish roles, missions, strategy, streamlined acquisition policies and space career
5 guidelines. The Air Force and the NRO are going to lead this effort with the full
6 integration and inclusion of our sister Services and other applicable government agencies.
7 We obviously have received tremendous encouragement from Congress in this effort, and
8 I thank you all for your continued guidance and support.

9 I am on a great team with great support from General Eberhart, General Jumper,
10 Secretary Roche, Secretary Rumsfeld and DCI George Tenet. When I look at the superb
11 quality of the people that work as part of the NRO, Air Force Space Command, and the
12 Air Force in general—I don't see how we can fail at anything that we put our effort
13 against.

14 America is currently the preeminent spacefaring nation in the world. It is
15 imperative that the National Security Space capabilities support our troops and national
16 leaders. I will strive with your help and support to ensure we maintain our dominant
17 position.