STATEMENT OF

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AND

UNITED STATES SPACE COMMAND

BEFORE THE UNITED STATES SENATE ARMED SERVICES COMMITTEE

STRATEGIC SUBCOMMITTEE

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Mr. Chairman and members of the Committee:

Thank you for this opportunity to appear before you today representing the outstanding men and women of North American Aerospace Defense Command (NORAD) and United States Space Command (USSPACECOM). The soldiers, sailors, airmen, Marines, civilians, reservists and guardsmen serving in NORAD and USSPACECOM have been instrumental in our success to defend the homeland and attack terrorist factions in the Global War on Terrorism. At home or abroad, the commitment of our servicemen and women to the Nation's security has been nothing less than phenomenal.

People – Our #1 Priority

Our first priority is our people. Our warfighting edge depends on the dedication, professionalism and sacrifice of the men and women in our Commands. Without them, even our most effective weapon systems are of little value. As always, we need to continue to recruit, retain, equip and train our entire force.

We appreciate the critical role the members of this Committee have played to improve their quality of life. The FY02 National Defense Authorization Act reflected the country's confidence in and concern for the men and women who serve in our Armed Forces. Our people have heard your message and are grateful for your actions. This year's Defense Authorization Act provides many important quality of life improvements such as needed pay raises, more robust health benefits, improved housing benefits (better on-base housing and increased off-base housing allowance), and greater educational opportunities. All of these are key to helping us retain and recruit the quality force our Nation needs.

The men and women of our Commands serve in virtually every location where U.S. and allied forces operate. To the best of our ability, we are safeguarding our people and facilities by continuing to conduct regular anti-terrorism training, assess and correct our own vulnerabilities, and educate

our people to be constantly on guard. We do not view force protection as a mission unto itself, but inherent in all we do.

NORAD

For 44 years, NORAD has adapted to the changing threats by transitioning from an initial "air" defense orientation to a broader "aerospace" dimension—-one that also provides surveillance and warning of ballistic missile attacks and space events. Our ability to provide surveillance and control of U.S. and Canadian airspace remains vital and constitutes a critical component to the defense of North America. The unprecedented attacks on 11 September 2001 were a reminder to the U.S. of the need to detect, assess and warn of hostile aircraft or missile attack against North America.

Operation NOBLE EAGLE (ONE). Prior to 11 September 2001, our air defense posture was aligned to counter the perceived external threats to North America air sovereignty—-we considered flights originating domestically as "friendly by origin." Within this context, our aerospace warning and control missions were oriented to detect and identify all air traffic entering North American airspace, and if necessary, intercept potentially threatening inbound aircraft. In response to the attacks on 11 September 2001, NORAD's mission has expanded to protect North America against domestic airborne threats.

On 11 September 2001, we quickly transitioned to an interoperable, joint and interagency force consisting of active, Reserve and National Guard units, and U.S./Canadian military aircraft and naval vessels. Over 13,000 men and women are participating in ONE activities on a day-to-day basis. For the first time in NATO's history, Article V of the North Atlantic Treaty was invoked in defense of the U.S. homeland. As a result, seven NATO Airborne Early Warning aircraft and nearly 200 people from thirteen nations are serving side-by-side with our forces to ensure the safety of our citizens.

NORAD forces remain at a heightened readiness level to counter potential threats. In all, over 19,000 sorties have been flown over the U.S. and Canada

in support of ONE. By contrast, only 147 sorties were flown as part of the NORAD air defense mission during all of 2000. To the credit of the outstanding men and women involved in this critical homeland defense mission, all sorties to date have been executed without a mishap. Our success is the result of the professionalism of our people and cooperation between the U.S. and Canada.

In addition, we have partnered with the Federal Aviation Administration (FAA) and NAVCANADA to streamline notification between regional and sector operations centers, to improve communications connectivity, and to deploy additional portable radars in “blind spots” across the country for better interior coverage. The result is a more rapid, reliable response to FAA requests for assistance as incidents unfold. With the approval of the President and Secretary of Defense, we have also developed effective rules of engagement for hostile acts over domestic airspace to ensure the safety of our citizens and the protection of critical infrastructure.

We continue to improve our procedures and coordination with the Office of Homeland Security, the FAA, civilian law enforcement organizations, and other government agencies from the U.S. and Canada. Feedback regarding our air defense support to National Security Special Events such as the Super Bowl and 2002 Winter Olympics has been very positive.

We are heartened by the progress made to improve security at our airports and aboard aircraft. Measures such as new passenger and baggage screening procedures, heightened terminal security, hardened cockpits, and more air marshals are our first, and best, defense. This increased vigilance should deter foul play on the ground and reduce the need to commit fighters in the air. We believe our NORAD air defense capabilities are the last line of defense; when NORAD interceptors are called to action, we are exercising the Nation’s option of last recourse. This progress made to secure our airports, aircrews and aircraft has made flying in the U.S. and Canada safer than at any time in aviation history.

Low-Altitude Air Threat. In addition to traditional air defense threats, we need the capability to defend North America against low-altitude, air-breathing threats such as cruise missiles, crop dusters, and general aviation traffic traveling below 5,000 feet. This is a significant challenge in congested population areas due to volume of air traffic, as well as the northern regions in which general aviation serves as the primary means of travel between remote communities. We advocate a three-pronged approach to counter this evolving threat. First, through the efforts of the North American Aerospace Surveillance Council, we will continue to improve our wide-area surveillance around the perimeter and internal regions of North America. Our goal is to provide a single, integrated air picture of North America that is made available to NORAD, FAA, NAVCANADA and other government agencies. Second, we will support an Advanced Concept Technology Demonstration to assess alternative surveillance technologies that can support this goal. Finally, we will leverage law enforcement initiatives related to general aviation (specifically for indications and warning of potential incidents), emerging command and control capabilities, and other research and development efforts.

Resources. We appreciate your quick passage of the Defense Emergency Response Fund. As a result, we have been able to address several critical command and control shortcomings highlighted by the terrorist attacks. Specifically, we are upgrading our Battle Control System from vintage 1970's technology to enable us to provide real-time display of North American airspace, and provide effective command and control of our air defense aircraft. Additionally, we will be able to tap into a more extensive array of radars and sensors, process data more timely and accurately, and monitor a larger number of aircraft across a broader area, which will improve our situational awareness at all levels. In the long term, we remain committed to the sustainment and modernization of our air defense command and control infrastructure.

Homeland Security. We remain engaged as the DoD explores options for the formation of a new command for homeland security. Our focus is to maintain current readiness and meet the requirements of this vital mission, regardless of the command option selected.

USSPACECOM

Established in 1985, USSPACECOM is charged with the missions of force enhancement, space control, space support, planning for force application, and most recently, the DoD's computer network operations. While we prosecute the war on terrorism, the decisive advantage space and information-based capabilities provide to our warfighters will continue to be critical to our Nation's success.

Operation ENDURING FREEDOM (OEF). We continue to bring every space and information operations (IO) capability to bear for General Tommy Franks at CENTCOM and the other Combatant Commanders. Currently, we have people deployed in support of OEF to include a robust Space and Information Operations Element (SIOE) forward at the CENTCOM Headquarters. In addition, we are leveraging an SIOE reachback capability at Peterson AFB to provide additional space and IO expertise and planning support to CENTCOM and the other Combatant Commanders in support of the Global War on Terrorism.

Force Enhancement. Our force enhancement efforts over the past decade have helped us integrate space into joint and coalition operations. OEF has illustrated again the effectiveness of, as well as our reliance on, these systems.

Over 50% of the precision-guided munitions employed in OEF are Joint Direct Attack Munitions, guided by GPS. The all-weather, day-night accuracy of these weapons gives our warfighters a decisive advantage. Similarly, GPS has become a necessity for civil authorities and commercial industry around the world. From precision farming to financial transactions to surveying

remote parts of the earth's surface, every sector of our society relies on the navigation and timing services provided by this system. As a result, we have initiated a modernization program to provide a more robust anti-jam capability for our military forces, and additional signals for civil and commercial applications. We appreciate Congress' continued support to properly sustain and modernize this national resource.

Missile warning continues to be one of our top priorities. The Defense Support Program (DSP) has served as our mainstay for strategic missile warning for over three decades. Through innovative improvements, we have successfully fielded new theater missile warning and battlespace characterization capabilities to provide direct support to theater commanders and deployed forces. While DSP has served us well, we need the improved detection capabilities of the Space-Based Infrared System (SBIRS) to counter emerging strategic and theater ballistic missile threats. The SBIRS system-of-systems will be essential to our future early warning and space surveillance capabilities, ballistic missile defense systems, and will provide commanders better battlefield situational awareness. We are aware of the SBIRS acquisition difficulties. However, the Joint Requirements Oversight Council's revalidation of our warfighter requirements in January 2002 reconfirmed the urgency to develop and field this critical capability.

Reliable and secure satellite communications (SATCOM) systems are also vital to our military's readiness. In OEF, we are providing 322 times the communications bandwidth per person deployed compared to Operation DESERT STORM a little over a decade ago. This exponential growth reaffirms our need to modernize our capabilities with a blend of military, civil and commercial systems.

Computer Network Operations. On 2 April 2001, we activated the Joint Task Force-Computer Network Operations (JTF-CNO) to better align our computer network defense and attack missions and improve unity of command. In addition, the JTF-CNO makes more efficient use of available resources,

establishes a clear cross-agency coordination process, and eases integration with the intelligence community and other mission partners.

Computer Network Defense continues to be our top priority, with the goal to ensure stable, effective networks for the Department of Defense. Our experience with the Code Red Worm and its variants underscored our reliance on INTERNET connectivity and the vulnerability of our gateways. While the effects of many viruses and intrusions caused considerable damage to the commercial sector, we have been able to keep our networks operating at peak performance. In OEF, we have sustained proactive defensive postures based on potential threats, verified Information Assurance Vulnerability Assessment compliance, and maintained heightened operational security levels. For the long term, we are assessing technical and operational solutions to further strengthen the Defense Information Infrastructure and develop computer network attack capabilities for all our warfighters.

Space Control. The political, economic and military value of space systems makes them attractive targets for state and non-state actors hostile to the U.S. and its interests, especially as an asymmetric method for leveling the playing field. Not only are threats emerging on a daily basis, but access to advanced commercial space services continues to chip away at our information superiority edge.

In response, our first priority should be to field effective space situational awareness capabilities that enable us to identify, track and characterize potentially hostile threats. We must understand potential adversaries' intent and be capable of warning of hostile acts before they occur. We will also need to develop new capabilities for operations through, to, from and in space. Along with increased vigilance on our part, these efforts will serve as a deterrent to would-be attackers.

Space Support. The path for Evolved Expendable Launch Vehicles (EELVs) is clear as we prepare for the first commercial launches of the Atlas V in May 2002 and the Delta IV in July 2002. Our first DoD EELV launch is

scheduled for September 2002. By contrast, we still have much work to do to determine our long-term strategy and the investments needed for Reusable Launch Vehicles (RLVs). We are partnering with the Air Force and NASA to develop an RLV Roadmap that will be released within the next few months. We are excited about the potential military application of RLVs and believe early missions could include satellite reconstitution, refueling, and intelligence, surveillance and reconnaissance. RLVs hold tremendous promise as we strive to better meet warfighter needs by providing a "launch on demand" capability in the future.

Space-Based Radar (SBR). The requirement for an SBR capability remains valid. Our military operations require the day-night, all–weather, broad-area surveillance capabilities an SBR system offers. In response to the FY01 DoD Authorization Conference Report, the Deputy Secretary of Defense has recently signed a multi-service, multi-agency SBR roadmap, which brings together requirements for DoD and national users. As part of the SBR roadmap implementation, we are involved in an analysis of alternatives to allow DoD leadership to make SBR decisions as we consider other intelligence, surveillance and reconnaissance needs.

Radio Frequency Spectrum. Access to the radio frequency spectrum is considered essential to our success in all future military operations. We depend on the 1755-1850 MHz band to perform a host of critical DoD command, control and communications functions, as well as to operate many of our military satellites. It is also the preferred operating band of the U.S.-based communications industry as they develop the third generation wireless services. Without question, limiting our access to this band or forcing our move to another band could have serious consequences in terms of combat capability. We need to achieve the right "win-win" solution and will continue to work with all parties to find the best answer to this challenge. We ask for your support to protect the spectrum needed to execute critical warfighting missions.

Space Commission. We continue with implementation of the Space Commission Report recommendations. Specifically, we are preparing for the split off of Air Force Space Command from NORAD and USSPACECOM on 19 April 2002. We believe the changes being made will help ensure our military and national space communities are ready to meet the challenges ahead.

Partnerships. Effective partnerships across the entire space and information communities—-military, intelligence, civil and industry—-are essential to better leverage our space and information capabilities. We continue to work with the National Reconnaissance Office, National Imagery and Mapping Agency, and National Security Agency to seek new avenues to improve support to warfighters and national decision-makers. In addition, we are working with the National Aeronautics and Space Administration to explore common space systems, increase our space surveillance capability and improve human spaceflight safety. Finally, through our partnerships with other agencies, we are investigating ways to collectively support our computer network operations mission.

We need to balance the advantages of commercial partnerships with the inherent risks associated with expanding our use of commercial systems. We do this by assessing our vulnerabilities and ensuring protected military systems are available for our most critical military missions.

Conclusion

We believe the NORAD and USSPACECOM missions will continue to grow in importance as the Nation responds to current and emerging threats. Our capabilities will help build the foundation needed to fulfill DoD's transformational goals to protect the U.S. homeland and critical bases of operation, deny sanctuaries to our enemies, as well as project and sustain combat power. We will also serve a central role as the DoD leverages information technology, conducts effective information operations, and strengthens space operations in the future.

We continue to find new ways to improve these unique capabilities by integrating them into all aspects of our military missions. As we develop our next generation systems, we should invest the necessary resources, energy and intellectual capital to protect our vital interests and sustain our lead in the space and information domains. We appreciate Congress' continued support of our people and to maintain our high state of readiness. With your help, we will ensure our air defense, space, and information forces continue to play a key role in our Nation's defense.

Again, I am honored to appear before you and look forward to your questions.