

**OPENING STATEMENT  
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**PREPARED FOR  
THE HOUSE ARMED SERVICES COMMITTEE  
PROJECTION FORCES SUBCOMMITTEE**

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Mr. Chairman, Congressman Taylor, and distinguished members of this Subcommittee, thank you for the opportunity to come before you to discuss Air Force capabilities for conducting long-range strike operations -- a matter of national significance. Today, Mr Chairman, your subcommittee is striving to answer the question "how should funds be invested to maintain and improve DoD's capabilities for conducting conventional strikes against distant targets in an era of limited and uncertain access to land bases in overseas theaters of operations?" From the Air Force point of view, the immediate answer to that question is full funding of the FY05 President's Budget that you have before you.

Historically, power projection has been a unique national characteristic that enables the diplomatic, informational, and economic instruments of power. Being able to ensure freedom of navigation and freedom of trade; being able to rapidly send envoys and aid to one's allies; and being able to rapidly deploy decisive military forces are all aspects of power not lost on any great nation since the time of the Athenian Navy. Today, the American military supports a National Security Strategy that demands each of these capabilities and more in order to achieve its goals.

As airmen, we have always understood the criticality of the power projection mission and the challenges associated with it. Whether flying over "The Hump" of the Himalayas to get supplies to ground forces fighting the Japanese in China or Doolittle's Raiders and their daring mission over Tokyo, the Pacific theater during World War II epitomized the challenges of using American airpower over long distances. Similarly, American airmen flying from fields in England had to face the newest generation of German aircraft, and integrated air defense system, and tremendous distances on legendary raids like ones against the factories at Schweinfurt and the refineries at Ploesti.

Today, we can look back and be thankful that Congress was willing to work with a handful of airmen to improve its long-range strike forces. In fact, at the outbreak of war in 1939, airmen had few options in conducting strikes against distant targets. American airmen found themselves with a mere 26 long-range B-17 bombers. In the next two-years, US airpower would ramp up to 374 strategic bombers, while the German Luftwaffe would reduce its long-range strike fleet and abandon designs of a four-engine bomber. Our heritage set up this lesson illustrated over and over again throughout US military history -- long-range strike is a vital national capability and critical component of any US National Military Strategy.

We view long-range strike as the capability to achieve the desired effects rapidly and/or persistently on any target set in any environment anywhere at anytime. As airmen, we understand that this task encompasses much more than just bombers. Everyday, the Air Force

is responsible for being able to conduct long-range strike missions as part of the Global Strike Concept of Operations (CONOPs). Unlike any other service, our forces must be able to be responsive to multiple combatant commanders simultaneously, be able to strike any point on the face of the planet and we must be ready to do so at great distances.

In the past five years, the US has called on airmen from Whiteman Air Force Base in Missouri to engage targets in Belgrade, Serbia – airmen from Diego Garcia in the Indian Ocean to destroy Taliban targets inside Afghanistan – and airmen from Fairford Air Base in England to play a major part in ending Saddam Hussein's despotic regime. In this last case, Operation IRAQI FREEDOM was unique. United States airpower had maintained an air presence over Iraq for nearly 12 years. During this period, we:

- Leveraged access to nearby bases in the region;
- Continually maintained battlespace access by suppressing Iraqi air defenses, and
- Nearly completely characterized the nature of our adversary and its systems.

We are unlikely to encounter such a luxury in subsequent conflicts. In the future, we will require deep strike capabilities to penetrate and engage high value targets during the first minutes of hostilities anywhere in the battlespace. Our National Military Strategy requires a portfolio of deep strike capabilities that can operate effectively even in the face of advanced enemy anti-access systems or limited support from overseas basing.

### **Long-Range Strike Mission**

Mr. Chairman, today, the Air Force provides deep strike capabilities through a variety of platforms, the advanced weaponry they carry, and the critical enablers, which amplify the effectiveness of the total system. Our legacy bombers, the B-1 and B-52, have combat proven deep strike capability in permissive and moderate threat environments. Against the most advanced current and future enemy anti-access threats, the F/A-22 will be required. Combining stealth and supercruise, the F/A-22 will destroy these systems -- pave the way for penetrating F-117s and B-2s – and support follow-on operations by our non-stealthy bomber and legacy fighter–bomber fleets.

Although today's hearing is not about munitions, Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR), or Unmanned Aerial Vehicles (UAVs) associated with long-range strike – they cannot be totally separated from the equation. The effectiveness of an entire strike package depends on many of these items. For instance, the low-observable Joint Air-to-Surface Standoff Munition (JASSM) adds penetrating stealth to our responsive and highly persistent B-1s and B-52s. The JASSM-ER (Extended Range) will add even further reach to the current deep strike capability. Other capabilities, such as unmanned low-observable vehicles, information warfare, and other initiatives like the future conventional ballistic missiles (CBM) fill out the deep strike portfolio and complement the air-breathing pillar. An integral part of long-range strike is deep surveillance and reconnaissance, and the associated intelligence analysis that provides high fidelity information and Predictive Battlespace Awareness ensuring that we employ our deep strike capabilities in the most effective manner possible.

Today we will closely examine Air Force long-range Bombers, theater-range combat aircraft, and some of the Air Force support aircraft that enable long-range strike assets. There are five key points that we must carefully review in each of these platform areas.

## **Current Long-Range Strike Capabilities**

First, the current military strategy demands that services organize, train, and equip their forces in order to provide combatant commanders a range of executable options. Our current long-range bombers, theater-range combat aircraft, and support aircraft are currently adequate to meet this task. Bombers have been, and will continue to be, the critical pillar in the long range strike system of systems. Our Air Force long-range strike systems must continue to contribute significantly to two key LRS attributes: responsiveness and persistence. Bombers cost effectively deliver a robust, combat-proven, man-in-the-loop responsive capability, reaching any point on earth less than 24 hours after launch from a CONUS base and faster from overseas bases. Additionally, bombers carry the widest array of weapons in the Air Force inventory, with unparalleled flexibility to adapt to future weapons that enter the inventory. A broad weapons mix permits planners to precisely tailor weapons loads to create specific combat effects enhanced by long range strike operations. Additionally, only bombers carry a large quantity of munitions and have long endurance in the battlespace. These two qualities are key to providing persistence, our ability to hold adversary targets continually at risk and employ ordnance to create effects at any tempo we choose. To fully exploit the innate capabilities bombers bring to the fight and closely tie them to complementary capabilities in the systems of systems, we must focus on enablers: Intelligence, surveillance and reconnaissance, and command and control capabilities which fully leverage the power of networked communications. Only with robust, modern enablers do we maximize the inherent responsive and persistent capabilities of our bomber fleet to, for example, adaptively target the enemy only minutes after the decision to engage.

Today, our current projections show all three (B-1, B-2, and B-52) bombers to be viable weapons systems for decades to come. Modernization of this bomber force can meet near term combatant commander requirements at significantly less cost than a new bomber equivalent but cannot go on forever. However, aging aircraft sustainment and advances in threat technology will eventually make a new bomber equivalent mandatory.

In order to meet our wartime commitments, the Air Force needs a minimum of 157 bombers (B-1, B-2, B-52) operating at their full capability. Currently, the Air Force is pursuing a time-phased modernization program (approximately \$600M in FY05) of this fleet in order to improve its lethality, survivability, supportability, persistence, and responsiveness. The table below (NOT INCLUDED) illustrates the fleet size, including number of platforms in the inventory – Average fleet age – Mission Capable Rates – and our proposed investment included in the FY05 budget submission.

## **Future Improvements**

Second, just as we could not clearly predict the changes that September 11th, 2001 and the Global War on Terror have made on our national security strategy or the subsequent national military strategy, we cannot define future LRS requirements with 100% certainty. As with all weapons systems since the beginning of warfare, our Air Force long-range strike capabilities will undoubtedly have to adapt and improve in order to operate in new environments and to be able to execute future national military strategies. Over the past three years, Defense Department, research and contractor analytical organizations have completed more than 24 LRS studies, all of which have determined that a system of systems approach is required to provide the desired effects. Several of these studies focused on ballistic missile weapon systems and Common Aerospace Vehicle (CAV) development to provide an improved prompt global strike capability in

the next decade. Most focused on the joint force commander's requirement to employ enhanced mass and persistence. For this, the Air Force will need to continue in its investment in the current long range strike platforms (B-52, B-1B, and B-2A) in order to improve their lethality, survivability, supportability and responsiveness.

Additionally, the Air Force Research Lab's (AFRL) Long Range Strike Platform (LRSP) study and the Institute for Defense Analysis's (IDA) study both concluded that to provide the future desired LRS capability and meet the OSD directed 2012 Long Range Strike Platform (LRSP) acquisition program start date, the Air Force needs to make Science and Technology (S&T) investments in several areas – platform concepts, weapons, and C4ISR. Doing so ensures that critical technologies supporting several concepts would be available to enable the initiation of a concept refinement phase of an LRS capability acquisition program. Their analysis showed that a single concept could not provide all of the required capabilities drove their decision to invest in the technologies supporting multiple platform concepts.

The AFRL and IDA studies also determined that the platform concepts having the maturity for a 2012 start with an affordable S&T investment were limited. They determined that the high supersonic and hypersonic technology would not be mature enough to support a 2012 program start, but recommended that the DoD should continue to invest in hypersonic technology to provide a prompt global strike capability in the 2050 timeframe.

One of the critical enablers of LRS capabilities, all of the studies identified the importance of having a robust, networked, global Command, Control, Communications, Computer, Intelligence, Surveillance, and Reconnaissance (C4ISR) system that has the capability to pass target information and mission changes to theater and LRS force package elements, command and control aircraft and sensor platforms. This network-centric system will also improve force package element survivability by enabling the passing of threat information from off-board sensors to the LRS platforms. The strike package, sensor platforms, and C2 elements will also be able to pass video information using the networked C4ISR capability.

Other technologies identified that require future investment that are key to the LRS capability are dependent upon the platform concept or multiple platform concepts selected for development. Because each concept has key technologies and future capability needs are not easily defined or clearly understood, the Air Force must invest in a wide array of technologies at this point in time in order to have several viable options available to support the LRS System Design and Demonstration (SDD) acquisition phase. However, the key technologies can be grouped into 3 broad categories: platform, weapons, and crosscutting technologies. The following are the key technologies within these broad categories:

### **Low Speed and High Speed Reusable Platform**

- Airframe Propulsion Integration
- Propulsion Systems
- Structures, Materials, and Processes
- Vehicle Subsystems
- Vehicle Aerodynamics
- Weapons Integration
- CAV Thermal Protection
- Space Guidance and Control Systems

## **Weapons**

- Guidance and Control
- Light Weight Airframe/Thermal Protection
- Expendable Turbine/Scramjet
- Data links and Seekers
- Penetrating and Kinetic Energy Warheads
- Fuzing Submunition Deployment
- Space environment and re-entry technologies

## **LRS Cross Cutting**

- Data Fusion/Crew Systems
- Secure beyond line-of-sight voice communication and high capacity data links
- Sensors
- Simulation and Studies
- Sustainment
- Defensive Countermeasures/Low Observable Characteristics

Again, we believe that there are many avenues that must be explored in order to retain our long-term advantage in long-range strike and power projection. Pursuit of these avenues does not, however, preclude the near and mid-term requirement to be able provide a survivable, responsive, persistent, and flexible capability able to operate in any environment and able to reach any point on the globe. To ensure that we can provide these capabilities we believe that now is the time to move forward in this area.

## **Current Investments and the Way Ahead**

Third, Air Force investment in FY05 is designed to provide a full spectrum of long-range strike capabilities to joint force commanders. In front of the full committee last week, Secretary Roche and General Jumper both illustrated how important this issue is to the Air Force and their efforts to move out with regard to long-range strike. Methodically, we began. First, in December 2003, I opened the Long-Range Strike Summit that aimed to consolidate the findings of the numerous ongoing studies described earlier. After those findings were briefed to Air Force senior leadership, Secretary Roche and General Jumper announced that they would stand up two offices. On 11 Feb 2004, the new Long Range Strike (LRS) office led by Air Force Materiel Command (AFMC) met for the first time. The second office, an Air Combat Command (ACC)-led LRS integrated planning team (IPT) stood up in the last week of February and will participate in developing an Analysis of Alternatives (AoA) and manage possible acquisition of the LRS capability. The Air Force plans to use a portion of the \$45 million FY04 Congressional plus up to establish the LRS office. Its first priority will be to work with the ACC IPT to define the capabilities needed to provide the desired effects supporting the national military strategy by completing the Functional Capability/Needs Analysis and Functional Systems Analysis process. In the end, establishment of these new organizations and this pre-Milestone A activity signals our commitment to moving forward in this important area.

In parallel with this year's establishment of the LRS office, Air Force Research Lab (AFRL), using the Long Range Strike Platform (LRSP) recommendations, is defining the fiscal year 2006 and Future Years Defense Program (FYDP) Science and Technology (S&T) investment needed to mature selected technologies supporting multiple platform concepts. Mature technologies are needed to support the start of a LRS Systems Development and Demonstration (SDD)

acquisition effort in the 2012 to 2015 timeframe. In defining the funding requirements, AFRL will leverage existing DoD and NASA technology investments including \$190 million in FY08 and \$590 million in FY09 ear-marked to support a Long Range Strike acquisition program. Based upon the LRS platform concept selected, the SDD effort would lead to a Milestone C production decision in the 2020 to 2025 timeframe and subsequent fielding in the 2025 to 2030 timeframe.

As previously stated, the Air Force is pursuing a time-phased modernization program, investing \$612.4 million in FY05 and \$3.2 billion in the FYDP, to improve lethality, survivability, supportability, persistence, and responsiveness of the bomber fleet. Examples of these investments include:

- **B-1 (\$86.5 million in FY05)** -- Fully integrated data link (FIDL)--includes Link-16 and Beyond Line of Sight C2 Connectivity and Situational Awareness (BLOS/SAE). Block E upgrade adds mixed load weapons capability, Wind Corrected Munitions Dispenser (WCMD), JASSM integration, and ALQ-161 upgrades.
- **B-2 (\$388.4 million in FY05)** -- Center Instrument Display/Link-16 (CID/Link-16), Radar Frequency Modification (RMP), JDAM Mk-82, Low Observable improvements and Advanced Extremely High Frequency (AEHF) radio - provides BLOS/SAE. AEHF satisfies C2 connectivity requirements with US Strategic Command (STRATCOM)
- **B-52 (\$137.5 million in FY05)** – Avionics Midlife Improvement (AMI), Electronic Countermeasures Improvement (ECMI), and Combat Network Communications Technology (CONNECT)--upgrades current avionics architecture allowing flexibility to future avionic growth capability and adds Link-16 and AEHF. Advanced weapons being fielded are JASSM. Threshold platform for WCMD-Extended Range (ER) and Miniature Air-Launched Decoy (MALD)

We believe that implementing these investment plans now will eliminate some of our deficiencies. This year's foundation will make future investments more effective and are the most fiscally responsible way to address the improvements needed to operate in the challenging environments of the future.

### **Changes to Investment Strategy**

Fourth, as stated earlier, our projected funding levels are designed to effectively and methodically implement changes and sufficiently support the improvements required for future national military strategies. We believe that our current funding strategy supports modernization of legacy platforms as well as investments in a next generation capability. While the precise form that capability takes is being determined, we are fully funding technologies which will make the form a reality. While increases in funding above our projected levels and the realization of technological advances are not linearly connected, we fully support our robust science and technology budget.

Changes to funding for any of our long-range strike assets directly effect all of them. For instance, changes to force structure and the retirement of B-1 bombers could have devastating effects on the readiness of the current fleet, completion of modernization programs, and the implementation of our next generation capability. While 60 B-1s provide a robust supportable, lethal, and survivable fleet of 36 combat coded aircraft, attempting to return 23 jets to flight status is not possible. While we would like to fund 67 jets in accordance with Air Combat Command's requirement, an additional \$175-225 million over the FYDP may be required. We

believe that bringing back more than 7 aircraft would be detrimental to the overall survivability, lethality, and supportability of the entire B-1 fleet. In fact some suggest that due to the extremely high cost (\$3.3 billion across the FYDP), fleet wide improvements and record mission capable rates that led to our success in Operation IRAQI FREEDOM may actually be reversed.

While there are many skeptics about the dividends that force structure changes pay, the fact remains that MC rates (53% versus 71.5%) and cannibalization rates (85.5 versus 55.5) have improved and the Air Force can afford more badly needed upgrades for these reduced fleets. Any changes in these programmed changes would have made these improvements exponentially more difficult to attain. Likewise, in this years budget submission there are two proposed force structure changes (one bomb squadron will be stood down and its aircraft re-coded as BAI and the retirement of ten F-117s) aimed at improving overall strike capabilities and meeting the joint force commander's wartime requirements. Again, changes in these plans will likely be detrimental to the overall long-range strike portfolio of capabilities.

### **Tankers and Support Aircraft**

Limited overseas basing does not change our ability to conduct long range strike, but it dramatically increases the tanker support required to conduct such missions and it decreases the responsiveness and level of persistence available to the combatant commander. The cumulative effect of limited basing in all of these areas may be significant enough to delay strategic effects and/or make their cost unacceptable.

Air refueling is a critical force enabler adding flexibility in aerospace employment by creating a maneuver force capable of decisive effects. As you have heard time and again for the past three years, without tankers the Air Force would not be able to accomplish the mission of power projection.

Without tanker support during Operations ENDURING FREEDOM and IRAQI FREEDOM, our bombers would have been significantly less effective. Flying sorties from the middle of the Indian Ocean against Taliban targets is similar to traveling from Tampa, Florida to Anchorage, Alaska. Obviously, many of US platforms could not have accomplished this mission at all, let alone have time to loiter over the battlespace without available air refuelings. Using 222 KC-135s and 35 KC-10s deployed to 17 locations, the Air Force provided fuel for USAF, USN, and coalition aircraft. Our KC-135Es did not deploy to OIF due to flight restrictions. Instead these aging aircraft performed mission here in the US in support of Operation NOBLE EAGLE and played a vital role in the air bridge that got forces from CONUS to southwest Asia. Air Force KC-135R and KC-10 tankers under USCENTCOM operational control flew 8,101 tanker sorties delivering over 475 million pounds of fuel to USAF, USN and Coalition aircraft. The capabilities of the KC-10 and KC-135 were useful force multipliers supporting Navy and Coalition probe-equipped aircraft extending range and allowing them to strike targets outside of their normal combat radius. USAF tankers dragged USN strike packages that had launched from Carriers in the Mediterranean Sea to their targets. They remained in place until after the strike when fighters would rendezvous with the tankers and be refueled enroute back to the carrier.

As the Combined Forces Air Component Commander, I depended on persistence as a key capability of the air and space forces. Tankers enabled all of the theater-range combat aircraft and exponentially increased their on-station times, their ability to respond to time-sensitive targeting, and their ability to support ground forces on the road to Baghdad. For instance, air refueling enabled F-16s stationed in the southern Gulf to reach targets deep inside Iraq. Other F-16s stationed in Kuwait saw their on-station time more than triple. Finally, the A-10, our

primary Close Air Support asset, could now fly overhead our troops for more than two hours in Iraq with tanker support, versus forty minutes without it.

As a key element in all our force projection, tomorrow's tanker force must be shaped in lock-step with any next-generation strike capability. As part of a joint effort, the Air Force's lead command on this, Air Mobility Command (AMC), in partnership with the Office of Secretary of Defense Program Analysis and Evaluation Division (OSD/PA&E), completed the Tanker Requirements Study - 2005 (TRS-05) in June of 2001. This study provided insight into air refueling requirements and the capability of the Mobility Air Forces (MAF) to meet those future requirements. The primary objective of TRS-05 was to determine the number of tanker airframes and aircrews needed to support the National Military Strategy of conducting two nearly simultaneous major theater wars (MTW) using multiple scenarios. TRS-05 identified shortfalls in both aircraft and aircrews. While the study examined potential work-arounds to mitigate some of the shortfalls, the work-arounds increased risk to the warfighter without eliminating the shortfalls.

While subsequent analyses (e.g., Quadrennial Defense Review) echoed the TRS-05 requirement, real world events such as September 11th require a new force-sizing construct. The resultant 1-4-2-1 defense strategy changes the requirements complexity and increases force structure requirements above the TRS-05 levels.

Today and in the future, the MAF is committed to provide the capability to refuel inflight assets for bomber force execution, employment, and subsequent bomber survival, recovery, and reconstitution, in all operating environments. To succeed, the follow capabilities are required:

- Capability to conduct air refueling operations in adverse weather conditions
- Capability for reduced detection from radio frequency (RF) and infrared (IR) air defensive systems
- Capability to counter RF, IR and command line-of-sight man portable air defense systems (MANPADS)
- Capability to refuel unmanned platforms
- Capability to automatically IFF identify all aircraft (friend or foe) in the vicinity
- Capability to sustain flight operations in an electromagnetic pulse (EMP) environment
- Capability to operate autonomously from austere airfields
- Capability for continuous secure communications with higher headquarters before, during and after OPLAN 8044 execution
- Capability to perform mission requirements in chemical, biological, radiological, nuclear and enhanced conventional weapons (CBNRE) environments.

To account for the current National Military Strategy and Defense Planning Scenarios, the Air Force, through AMC, and OSD/PA&E will conduct the Mobility Capabilities Study (MCS) later this year, with an anticipated completion in calendar year 2005. The MCS assessment will include sizing the required number of mobility (both airlift and air refueling) airframes and aircrews needed to support the National Defense Strategy through the Future Years Defense Program.

In addition to air refueling, long-range strike assets currently are supported by a number of Air Force assets including suppression of enemy air defense aircraft, command and control and intelligence surveillance, and reconnaissance platforms, and electronic warfare or jamming aircraft. From EC-130H Compass Call and F-16CJ Block 50/52 HARM shooters to externally carried jamming pods we must examine the survivability that this system creates. In the future,



we will have to examine how to optimize the technological advances of long-range platforms with these support systems. One example is the conversion of 16 B-52s to conduct a stand-off jamming role. Beginning in October 2004, the Air Force will begin program management activity work on this and has requested \$57.5 million in FY05 and approximately \$500 million over the FYDP to make this a reality.

### **Closing**

Finally, I want to thank you, Mr Chairman for holding this hearing today. The men and women stationed around the globe who call long-range strike their primary mission and performed so brilliantly in OEF and OIF appreciate your attention and efforts in this area. Last year, those same airmen and I applauded the HASC reorganization that created the Projection Forces subcommittee signaling this mission as one of importance and permanence. Thank you Mr Chairman and Congressman Taylor for the opportunity to discuss this critical issue and I welcome the chance to answer any questions you or the committee may have.