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THE HOUSE ARMED SERVICES COMMITTEE  
TACTICAL AIR AND LAND FORCES SUBCOMMITTEE

STATEMENT OF  
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BEFORE THE  
SUBCOMMITTEE ON  
AIR AND LAND FORCES  
OF THE  
SENATE ARMED SERVICES COMMITTEE  
ON  
FY 2007 NAVY TACAIR PROGRAMS  
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Mr. Chairman, distinguished members of the Subcommittee, thank you for this opportunity to appear before you to discuss the Department of the Navy's Fiscal Year (FY) 2007 Tactical aviation programs.

Your Naval Aviation Team continues to play a major role in providing credible power to help shape our strategic landscape and in prosecuting the Global War on Terrorism (GWOT) with significant involvement in Operations ENDURING FREEDOM (OEF) and IRAQI FREEDOM (OIF). These efforts are reflective of the substantive return on your investment in our combat readiness, our people, and our unique maritime warfighting capabilities. These investments clearly demonstrate the latest technologies in surveillance, command and control and persistent strike as our forces operate from sovereign U.S. territory and exploit the vast maneuver space provided by the sea.

The Navy's TACAIR aviation programs are comprised of both Platforms and Weapons in direct support to the Sea Strike, Sea Shield, Sea Basing, and ForceNet pillars. The Fiscal Year 2007 President's Naval Aviation TACAIR budget request balances continued recapitalization while simultaneously sustaining the legacy fleet aircraft that are performing magnificently in current operations. The Department's Fiscal Year 2007 Naval Aviation TACAIR budget request continues multi-year procurement (MYP) arrangements for the F/A-18E/F (both airframe and engine), the E-2C, and MH-60S. Our proposed plan will procure 44 tactical, fixed wing aircraft (30 F/A-18E/F aircraft, 12 EA-18G Low Rate Initial Production (LRIP) aircraft, and two E-2C aircraft. This plan also continues the development of the JSF, the E-2D Advanced Hawkeye, and the EA-18G.

The GWOT, OEF and OIF continue to demonstrate the enormous contributions that Naval Aviation makes to the effectiveness of joint and coalition forces. The Naval Aviation systems we are pursuing in our Naval Power 21 vision will greatly enhance our war fighting concepts and capabilities.

Our recapitalization plan includes the JSF, a stealthy, multi-role fighter aircraft designed jointly (domestically and internationally) to be an enabler for Naval Power 21. The JSF will enhance precision strike capability with unprecedented stealth, range, sensor fusion, improved radar performance, combat identification and electronic attack capabilities compared to legacy platforms. The carrier variant (CV) JSF complements the F/A-18E/F and EA-18G in providing long-range strike capability and much improved persistence over the battlefield. The short takeoff and vertical landing (STOVL) JSF combines the multi-role versatility of the F/A-18 and the basing flexibility of the AV-8B. The commonality designed into the JSF program will reduce acquisition and operating costs of Navy and Marine Corps tactical aircraft, and allow enhanced interoperability with our Allies and sister Services. The DON Fiscal Year 2007 Naval Aviation TACAIR budget request contains \$2.0B RDT&E for continuation of SDD of the JSF and \$245M APN for long lead requirements for the initial lot of DON low rate initial production aircraft.

The JSF has completed its fourth year of SDD, and the program continues working to translate concept designs to three producible variants. Manufacture and assembly of the first

flight test aircraft, a conventional takeoff and landing (CTOL) variant, is well underway, with assembly times much less than planned and exceptional quality demonstrated in fabrication, assembly and mating. Over 4100 engine test hours have been completed through mid-January 2006 and engine performance is meeting expectations. Detailed design work continues for the CTOL and STOVL variants and first flight (CTOL aircraft) is planned later this year. The JSF program has aggressively addressed earlier performance issues associated with weight and airframe design. The November 2005 actual weight of 7,600 delivered components for the first test aircraft was within 1% of predicted JSF weight.

While the first test aircraft lacks some future design changes, demonstrated manufacturing processes and outcomes justify high confidence in design and weight predictions for all variants due to commonality of design, tools and manufacturing methods. The JSF acquisition strategy, including software development, continues to reflect a spiral acquisition approach. The Air System Critical Design Reviews for the STOVL and production CTOL configurations were held this February to evaluate design maturity and performance against requirements and the overall consensus was that the designs display appropriate maturity, but moderate level risks still exist. All three variants are projected to meet Key Performance Parameter requirements. The JSF Program is executing to the approved replan that commenced two years ago.

The F/A-18E/F continues to transition into the fleet, improving the survivability and strike capability of the carrier air wing. The Super Hornet provides a 40 percent increase in combat radius, 50 percent increase in endurance, and 25 percent increase in weapons payload over our older Hornets. Over 350 F/A-18E/Fs will be procured through fiscal year 2006, and the program is on track to complete procurement of the program of record (462 aircraft) in 2011. The Fiscal Year 2007 Naval Aviation TACAIR budget requests \$2.34B for 30 F/A-18 E/F aircraft for the third year of the five-year MYP contract (Fiscal Year 2005 to 2009). The Super Hornet uses a spiral development approach to incorporate new technologies, such as the Joint Helmet Mounted Cueing System, Advanced Targeting FLIR, Shared Reconnaissance Pod System and Multifunctional Information Distribution System data link. The first F/A-18F with the LRIP Advanced Electronically Scanned Antenna (AESA) radar system has been delivered to the fleet and the AESA radar system will undergo operational testing this year to support a full rate production decision in 2007.

The E/A-18G continues development as the Navy's replacement for the EA-6B Airborne Electronic Attack (AEA) aircraft. The EA-18G will replace carrier-based Navy EA-6B aircraft by 2012. The Fiscal Year 2007 Naval Aviation TACAIR budget request reflects \$372M for R&D and \$905M for the procurement of the first 12 LRIP aircraft. The Navy is using the F/A-18E/F MYP contract to buy 12 aircraft in Fiscal Year 2007. These aircraft will support EA-18G Fleet Replacement Squadron Stand-up and allow the Department to deliver the next generation (AEA) capability at reduced cost and in the shortest possible timeframe. The SDD continues on schedule with construction well underway of the two development aircraft. First flight continues on schedule for the fourth quarter of Fiscal Year 2006. A total quantity of 30 systems will be procured in LRIP with a planned Fiscal Year 2009 IOC and Fiscal Year 2012 FOC.

The Fiscal Year 2007 Naval Aviation TACAIR budget request contains \$389.7M for the continuation of the systems upgrade programs for the F/A-18 A-F platforms. As the F/A-18 program transitions to the F/A-18E/F, the existing inventory of over 600 F/A-18A/B/C/Ds will continue to comprise half of the strike aircraft assigned to a Carrier Air Wing until 2012. Included in this request is the continued procurement of recently fielded systems such as Joint Helmet Mounted Cueing System, Advanced Targeting FLIR, Multi-Function Information Distribution System, and Digital Communications System. These upgrades ensure that our F/A-18s remain viable and relevant in support of Tactical Air Integration and Expeditionary Maneuver Warfare. The Fiscal Year 2007 Naval Aviation TACAIR budget request also includes procurement of Center Barrel Replacements to extend the service life of F/A-18A/C/Ds by seven years to meet fleet inventory requirements until 2022.

The Fiscal Year 2007 Naval Aviation TACAIR budget request of \$49.0M reflects continuing EA-6B upgrades and readiness improvements which increase the operational availability of this low density high demand aircraft and reduce operating costs. This includes installation of four Improved Capability (ICAP) III aircraft systems and four Multifunction Information Distribution System (MIDS) kits, which will provide dramatically improved emitter identification and location information as well as Link -16 connectivity to share the information. It also allows for the procurement of three Low Band Transmitters to provide new jamming capability as well as replace inadequate quantities of aging transmitters, which are in near continuous use in Iraq and Afghanistan today in support of our troops on the ground. The Naval Aviation TACAIR budget also provides for Operational Safety Improvement Program procurements for avionics and structural equipment. The EA-6B has been in ever-increasing demand as DoD's only tactical electronic attack aircraft that also engages in communications jamming and information operations. Program priorities are current readiness, successful first deployments of ICAP III aircraft, which are currently at sea with two squadrons, and continued procurement of the Low Band Transmitter.

The E-2D Advanced Hawkeye is a critical enabler of transformational intelligence, surveillance and reconnaissance, providing a robust overland capability against current and future cruise missile-type targets. The Advanced Hawkeye program will modernize the E-2 platform by replacing the current radar and other system components to maintain open ocean capability while adding transformational surveillance as well as theater air and missile defense capabilities. First flight of the E-2D will be in 4Q FY07. The Fiscal Year 2007 Naval Aviation TACAIR budget requests \$204M to procure two E-2Cs in the last year of a four-year MYP. This effort will keep the production line viable while the AHE continues spiral development toward an IOC of Fiscal Year 2011.

### **Unmanned Aircraft Systems (UAS)**

The Fiscal Year 2007 Naval Aviation TACAIR budget request contains, \$239M in RDT&E funding to establish a Navy Unmanned Combat Aircraft System (UCAS) program to develop and mature technologies for carrier operation of a low-observable unmanned combat air system. The 2005 Quadrennial Defense Review (QDR) recommended terminating the Joint Unmanned Combat Air Systems (J-UCAS) capability demonstration program. The QDR allocated limited resources to the DoD's overall joint capabilities portfolio to support future

military operations by joint air forces. PDM-III subsequently cancelled J-UCAS and allocated resources to DON to develop and demonstrate technologies for carrier operation suitability of a low-observable UCAS with the goal of fielding a carrier based persistent ISR capability. Navy UCAS is part of the Naval strategy for a family of unmanned aircraft systems that will provide persistent surveillance, penetrating surveillance, and tactical ISR to support the warfighter. The Navy UCAS program will heavily leverage the work, accomplishments, and technology of the terminated J-UCAS program.

Additionally, the Broad Area Maritime Surveillance (BAMS) UAS is integral to the Navy's Intelligence Surveillance and Reconnaissance (ISR) recapitalization strategy and will provide a persistent, maritime ISR capability for Fleet Commander maritime dominance, mobility, decision superiority and precision strike support. Initial Operating Capability (IOC) for this platform is scheduled to occur in 2013.

## **WEAPONS**

The Fiscal Year 2007 TACAIR budget provides for affordable Precision Guided Weapons programs to support that vision and ensure that America is secure at home; sea and air lanes are open for peaceful, productive commerce; and the capability developed and delivered is large enough, agile enough, and lethal enough to deter threats or defeat foes in support of Joint and Coalition Forces.

The combat proven JSOW family of joint Navy and Air Force air-to-ground weapons continues on the highly successful path broadened in 2005 when the JSOW system hit a milestone of 400 successful combat employments; won the highly competitive 'Packard-Award' for Acquisition excellence; and conducted the first and very successful JSOW Block II test flight on October 11, 2005. We continue to implement lean initiatives, innovative processes, and engineering changes in this program that will be leveraged for future enhanced capabilities. The Fiscal Year 2007 Naval Aviation TACAIR budget requests \$125.6M to procure 397 JSOW-C's, a highly lethal precision weapon that employs an Imaging Infrared Seeker, GPS/INS, and an augmenting charge with a follow-through penetrator bomb for use against hardened targets. Production of other JSOW variants remain deferred as we continue to work with the Office of the Secretary of Defense and our sister Services to resolve unexploded battlefield ordnance issues that are of a concern to the Department and our Allies.

The Navy is requesting upgrade of surface-launched Harpoon cruise missiles to provide the all-weather, anti-surface warfare capability needed to operate with 'improved selectivity' in the cluttered environment of the littoral battlespace. Under the Harpoon BLK III Program, we plan on upgrading this very capable system to improve selectivity and enhance our standoff operations via integration of a two-way data-link for use under stringent Rules of Engagement. The Fiscal Year 2007 Naval Aviation TACAIR budget requests \$36.3M in RDT&E to develop this capability and \$55.5M in weapons procurement in the outyears to procure and install 197 weapon upgrade kits and associated systems.

### **Dual-Mode Direct Attack Weapons**

Based on an Urgent Needs Statement and feedback from the Combatant Commanders in Iraq and Afghanistan directly engaged in the GWOT, the Navy determined that improved responsiveness

and flexibility was required for Close Air Support Missions in support of Marine and Army ground forces. To address these shortcomings, the Department leveraged Congressionally directed funding in the research of dual-mode laser-guided weapons and successfully competed laser-guided bomb manufacturers to develop and integrate GPS/INS and laser guided technologies into a single direct-attack weapon. This capability will be integrated on F/A-18A-D and AV-8B aircraft to reduce the number of sorties needed to destroy intended targets, while providing the warfighter with increased flexibility in adverse weather against time-sensitive targets. The Fiscal Year 2007 Naval Aviation TACAIR budget requests \$23M to modify 2,272 single-mode Laser Guided Bombs (LGB) into Dual-Mode LGB Weapons. Further, with Fiscal Year 2006 Congressional language, the Navy will also conduct non-recurring efforts and testing of a non-developmental laser kit for the Joint Direct Attack Munition (JDAM).

#### **Advanced Anti-Radiation Guided Missile (AARGM)**

The Fiscal Year 2007 Naval Aviation TACAIR budget requests \$97.3M for the continuation of the development of the Advanced Anti-Radiation Guided Missile (AARGM). AARGM upgrades legacy High-Speed Anti-Radiation Missiles and leverages the Department's highly successful investment and partnership with the European Combatant Commander on the 'Quick-Bolt' Advanced Concept Technology Demonstration program. Further, we are pleased to announce that AARGM is now also an International Cooperative Program as formal agreement with the Italian Air Force was signed during the first quarter of Fiscal Year 2006. The AARGM development program is on cost and schedule to deliver a supersonic fly-out, multi-spectral targeting capability to destroy sophisticated enemy air defenses and time sensitive strike targets. The system will also utilize our networks and is scheduled to be deployed in Fiscal Year 2009 on the F/A-18 Hornet and Super Hornet, and Fiscal Year 2010 on the EA-18G Growler. The Fiscal Year 2007 funding request will continue development of an AARGM derivative to further expand the target set. This software upgrade to AARGM is on track for Fleet deployment in Fiscal Year 2011.

#### **Advanced Medium-Range Air-to-Air Missile (AMRAAM) AIM-120**

AMRAAM is a Joint Navy/Air Force (Air Force led) advanced, medium range missile that counters existing aircraft and cruise missile threats having advanced electronic attack capabilities operating at high/low altitudes from both beyond visual range and within visual range. AMRAAM provides an Air-to-Air First Look, First Shot, First Kill capability working within a networked environment in support of Sea Power 21's Theater Air and Missile Defense Mission Area. We plan to complete the AIM-120D missile SDD during the next year. The Fiscal Year 2007 Naval Aviation TACAIR budget requests \$6.7M in RDT&E to complete development efforts and \$98.7M for production of 150 all-up rounds and associated hardware to equip our strike fighter squadrons.

#### **Sidewinder AIM-9X Air-to-Air Missile**

The Joint Navy/Air Force (Navy led) Sidewinder missile is the only short-range infrared Air-to-Air missile integrated on USN/USAF strike-fighter aircraft. The AIM-9X is the newest variant in the Sidewinder family. This 5<sup>th</sup> Generation air-to-air weapon incorporates high off-bore sight acquisition capability and thrust vectoring to achieve superior maneuverability and provides increased sensitivity through an imaging infrared focal plane array seeker and advanced processing. The Fiscal Year 2007 Naval Aviation TACAIR budget requests \$40.4M for production of 174 all-up rounds and associated hardware to equip our strike fighter squadrons.

## **SELF PROTECTION SYSTEM**

### **Integrated Defensive Electronic Countermeasures (IDECM)**

The Fiscal Year 2007 Naval Aviation TACAIR budget reflects \$5.4M in RDT&E for completion of Integrated Test and Evaluation of IDECM Block III (ALQ-214 combined with the ALE-55 Fiber Optic Towed Decoy) that began in Fiscal Year 2006. Additionally, \$35.2M in Aircraft Procurement funding is included for the procurement of 16 ALQ-214 systems. There is also \$18.5M in Ammunition Procurement funding for 480 ALE-55 decoys, pending a Full Rate Production decision.

### **SUMMARY**

Mr. Chairman, and distinguished members of this subcommittee, on behalf of the men and women of Navy TACAIR, I thank you for your commitment, service and continued support of the armed forces as we continue to execute the War on Terror and continue challenging operations in critical areas overseas. Navy TACAIR forces are at a high level of combat readiness today and the current plan extends that same high level of readiness – balanced with other Naval Aviation TACAIR budget priorities – throughout the Five Year Defense Plan. Our Naval Aviation TACAIR budget plan makes sound investments and is a firm foundation for current and future readiness. Thank you again for this opportunity to appear today. I am happy to answer any questions you may have.