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THE HOUSE ARMED SERVICES COMMITTEE
AIR AND LAND FORCES SUBCOMMITTEE

STATEMENT OF
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BEFORE THE
SUBCOMMITTEE ON
AIR AND LAND FORCES
OF THE
HOUSE ARMED SERVICES COMMITTEE
ON
FY 2008 NAVY TACAIR PROGRAMS
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SUBCOMMITTEE

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 2008 tactical aviation programs. I am delighted to share this time with my colleagues from the Department of the Navy, U.S. Marine Corps, and U.S. Air Force to convey the critical needs of tactical aviation in our Armed Forces.

Naval Aviation continues to play a major role in providing tailored effects in support of Operations ENDURING FREEDOM (OEF) and IRAQI FREEDOM (OIF), as well as the broader Global War on Terrorism (GWOT). The ability of Naval Aviation to shape strategic, operational and tactical environments is reflective of the substantive return on your investment in our people, our combat readiness, and our refined spectrum of critical warfighting capabilities. These investments – in surveillance, command and control, and persistent strike, among others – ensure our tactical aircraft can operate effectively from aircraft carriers that exploit the vast maneuver space provided by the sea.

The Navy's TACAIR aviation programs, comprised of both platforms and weapons, directly support the Sea Strike, Sea Shield, Sea Basing, and ForceNet pillars that underpin our Navy Strategic Plan and Naval Power 21 strategy. The Fiscal Year 2008 President's Budget balances conventional and irregular warfare aviation capabilities, reduces excess capacity, and achieves technological superiority through cost-wise investments in recapitalization, sustainment and modernization programs. The adjustments reflected in the budget maintain sufficient capacity to meet global presence and warfighting requirements, manage overlap with Joint capabilities, and preserve warfighting relevance through 2024.

From Fiscal Year 2008 to Fiscal Year 2013, the Department's Fiscal Year 2008 budget request procures 1295 aircraft, reduces the average aircraft age from 74% to 61% of expected service life, and concentrates on resourcing capabilities that generate critical maritime and Joint effects. The plan procures 51 fixed wing tactical aircraft in Fiscal Year 2008 (24 F/A-18E/F aircraft, 18 EA-18G Low Rate Initial Production (LRIP) aircraft, 6 STOVL JSF LRIP aircraft, and 3 E-2D aircraft) and is structured to support ongoing and potential multi-year procurement (MYP).

CARRIER BASED AIRCRAFT

Joint Strike Fighter (JSF) - At the core of our TACAIR recapitalization plan is the JSF, a stealthy, multi-role fighter aircraft that will enhance precision strike capability with unprecedented range, sensor fusion, radar performance, combat identification and electronic attack capabilities. The carrier variant (CV) JSF complements the F/A-18E/F Block II 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 with the 5th generation attributes required to be effective against emerging peer rivals. The DoN Fiscal Year 2008 budget requests \$1.7B RDT&E to continue JSF System Development and Demonstration (SDD) and \$1.3B APN to procure 6 STOVL aircraft in Fiscal Year 2008 and the long lead requirements for 8 STOVL aircraft in Fiscal Year 2009.

The JSF is executing its sixth year of SDD, with 11 SDD aircraft in various stages of assembly. AA-1, the first Conventional Takeoff and Landing (CTOL) production flight test article, is conducting test flights to validate design, fabrication, and flight performance parameters. With over approximately 7300 engine test hours completed through early March 2007, engine performance is meeting expectations. The progress of the CTOL to date, and the significant commonality between the three JSF variants, warrant confidence in the STOVL and CV developmental efforts.

Final detailed design work on the STOVL is nearing completion. STOVL weight has remained within requirements since the Critical Design Review (CDR) last year, and BF-1, the first STOVL test aircraft, is meeting its critical path metrics for a May 2008 first flight. STOVL weight control efforts have been effectively leveraged to manage CV weight growth over the last three months. The bulk of the ongoing engineering effort is now focused on the drawing packages required for the CV JSF Critical Design Review this summer. The JSF program is executing in accordance with the approved replan that commenced two years ago, and the STOVL and CV variants are projected to meet their respective Key Performance Parameters.

JSF F-136 Alternate Engine - The DoN maintains that developing and procuring the F-136 alternate engine for the JSF is undesirable for a variety of reasons – Pratt and Whitney F-135 engine development is progressing satisfactorily, the form/fit/function parity requirement between the F-135 and F-136 engines undermines any competitive incentive to improve engine performance, and the business case indicates the cost of developing the second engine will not be recouped for more than two decades. These factors make the very limited risk associated with a single engine manufacturer, commonplace among tactical aircraft, an appropriate one to take. Within the context of the fiscal constraints and competing investment priorities that characterize the Future Years Defense Plan (FDYP), the considerable resources necessary to develop the F-136 are best applied to the core, essential elements of the JSF program and other critical DoN capabilities.

Super Hornets (F/A-18E/F) - The F/A-18E/F continues to replace retired F-14 and legacy F/A-18A/B/C/D aircraft, measurably improving the strike capability and survivability 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 legacy Hornets. The Fiscal Year 2008 budget requests \$2.1B to procure 24 F/A-18 E/F aircraft in the fourth year of a five-year MYP contract (Fiscal Year 2005 to 2009). The Super Hornet uses a spiral acquisition approach to develop and incorporate new capabilities, such as the Active Electronically Scanned Array (AESA) radar system. The AESA radar has completed Initial Operational Test and Evaluation and is awaiting a full rate production decision. All critical OT deficiencies are expected to be resolved with the release of software upgrades in Summer 2007. The first F/A-18F squadron with AESA radar is scheduled to deploy Summer 2008.

Legacy Hornets (F/A-18A/B/C/D) - Inventory reductions stemming from USN/USMC TACAIR Integration, F/A-18A/B/C/D service life limits, the JSF program replan, and lowered JSF procurement ramps have combined to create a DoN strike-fighter shortfall that exists today and will extend through the transition to JSF. The shortfall is derived from the projected DoN

TACAIR inventory compared to the USN Carrier Air Wing and USMC expeditionary TACAIR requirements for 35 USN and 19 USMC active strike-fighter squadrons. This lean force structure is essential to meet DoN rotational deployment and major combat operations surge requirements. Fiscal Year 2008 President's Budget based projections show legacy strike-fighter shortfalls ranging from about 50 aircraft to more than 200, depending on the service life extension for F/A-18A/B/C/D aircraft (10K or 9K hours) and the JSF buy rate (50 or 35 per year beginning in Fiscal Year 14). Fully funding the strike-fighter procurement programs of record through full operational capability (FOC) and the legacy aircraft service life extension programs, are critical first steps in managing this shortfall.

To begin mitigating the shortfall, the Fiscal Year 2008 budget procures 28 additional F/A-18E/F above the Fiscal Year 2007 Appropriations Bill in Fiscal Years 2010 through 2012. When the legacy Hornet service life assessment program is completed in December 2007, the F/A-18E/F and JSF procurement plans will be adjusted to ensure DoN recapitalizes the capacity necessary to deliver the effects expected of Naval TACAIR.

The 28 F/A-18E/F aircraft added in the Fiscal Year 2008 budget increase the program of record from 462 to 490. Twelve additional F/A-18E/F's are requested in the 2008 Global War on Terrorism Supplemental to replace 3 F/A-18s and 1 F-14 lost in theater, as well as to offset the aircraft service life expended on the remaining F/A-18 aircraft due to increased deployed utilization since 911. These 12 Super Hornets would increase Boeing production from 42 to 54 aircraft in 2008. Boeing's maximum production capacity is 72 aircraft per year, making Australia's procurement of 12 F/A-18F aircraft per year in 2008 and 2009 easy to accommodate.

Hornet (F/A-18 A-F) Sustainment - The Fiscal Year 2008 budget requests \$442M to continue replacing the center barrels on up to 421 legacy Hornets and to procure critical F/A-18 A-F aircraft system upgrades. The center barrel replacements will extend the service life of the F/A-18 A/C/D aircraft seven years and are essential to help mitigate the strike-fighter shortfall through 2022, when the last legacy Hornet is scheduled to retire. Procurement of capability enhancements such as the Joint Helmet Mounted Cueing System, Advanced Targeting FLIR, Multi-Function Information Distribution System, and Digital Communications System are required to ensure that our F/A-18s remain relevant in the rapidly advancing threat environment that will characterize the remainder of their service life.

Airborne Electronic Attack (AEA) - The Navy continues to develop the EA-18G as the replacement for the EA-6B Airborne Electronic Attack (AEA) aircraft. The Fiscal Year 2008 budget requests \$273M for RDT&E and \$1.319B for the procurement of 18 LRIP aircraft. The Navy is leveraging the F/A-18E/F and EA-18G MYP contract to buy 18 aircraft in Fiscal Year 2008. These aircraft will support EA-18G Fleet Replacement Squadron stand-up and the transition of three EA-6B squadrons to EA-18G, leading to an Initial Operational Capability (IOC) in Fiscal Year 2009 and Full Operational Capability (FOC) in Fiscal Year 2012.

The Office of Naval Research (ONR) is working to develop adaptable, modular, and open architecture hardware, firmware and software for a next generation jamming capability that will be hosted on the EA-18G. In this regard, the Navy is working with the Air Force on jamming transmitters, and has leveraged previous work completed as part of their B-52 Stand-Off Jammer

(SOJ) program that has since been cancelled. The Navy and Air Force technology teams continue to meet quarterly to ensure their efforts are coordinated and duplication does not occur.

The EA-6B, DoD's only tactical electronic attack aircraft with full spectrum jamming capabilities, has been in high demand to provide direct support to counter-IED, Special Operating Force and time-sensitive targeting operations in OIF/OEF. The Fiscal Year 2008 budget requests \$24.2M in RDT&E and \$30.6M in procurement to field critical EA-6B capability enhancements and readiness improvements required to increase the operational availability of this low density, high demand aircraft. This funding also procures ten Low Band Transmitters that will replace the aging transmitters that are employed nearly continuously today in Iraq and Afghanistan, as well as provide new jamming capability. In addition, the budget procures essential avionics and structural equipment in support of the EA-6B Operational Safety Improvement Program.

E-2D Advanced Hawkeye - The Fiscal Year 2008 budget requests \$809M to procure three E-2D Pilot Production aircraft and supporting systems for Operational Test and standup of the first operational squadron in 2011. The E-2D Advanced Hawkeye provides essential Battle Management command and control, and is a key enabler for maritime intelligence, surveillance, and reconnaissance. Its significantly upgraded radar provides unparalleled overland capability against current and future cruise missile targets, in addition to transformational surveillance that meets theater air and missile defense requirements. The E-2D, with its ability to meet the current threat and pace the emerging threat posed by potential peer rivals, is programmed to replace the legacy E-2C fleet over the next decade.

WEAPONS

The Fiscal Year 2008 budget procures and develops a mix of legacy, advanced and next generation weapons that are lethal throughout the entire range of military operations. The demands of irregular warfare and counterinsurgency operations require adaptation of our legacy weapons to a wide variety of tactical environments.

Hellfire missile (AGM-114) improvements are being implemented in response to urban warfare requirements that mandate minimal collateral damage. Thermobaric warhead improvements that contain blast effects were deemed operationally effective in 2006, and will be complemented by trajectory shaping - which allows flight crews to select the missile flight profile most effective for the particular engagement. The Fiscal Year 2008 budget request includes \$45.7M to procure 439 weapons and components to address these requirements.

The low-collateral-damage bomb (LCDB), otherwise known as the BLU-126/B, bridges a capability gap identified by CENTCOM. The LCDB is a low cost solution identified by the Naval Aviation Enterprise (NAE) that has been approved for use with the Joint Direct Attack Munitions (JDAM) and Laser Guided Bomb (LGB) precision guidance kits. It will be fielded in March 2007 using General Purpose Bomb funds.

The Navy continues to pursue a Network Enabled Weapon Strategy with Joint Standoff Weapon (JSOW), Standoff Land Attack Missile-Expanded Response (SLAM-ER), Harpoon, and Small Diameter Bomb II (SDB II) capabilities. The Fiscal Year 2008 budget requests technical risk reduction funding for SDB II leading to IOC on JSF in Fiscal Year 2016. SDB II moving target, through-the-weather capability is a key future capability for the JSF.

Direct Attack Moving Target Capability (DAMTC) - The Fiscal Year 2008 budget requests \$29.1M in Fiscal Year 2008 and \$214.6M across the FDYP for the DAMTC program, which seeks to use JDAM and/or LGB weapons as the foundation for a dual mode weapon that is capable of prosecuting targets moving at speeds up to 70 mph. An open competition will be expeditiously conducted in response to the urgent need for a fixed wing aircraft moving target weapon that will culminate in a fielded solution following operational testing in Fiscal Year 2009. This low cost, rapid integration program adds significant capability while leveraging the existing industrial base to procure 17,720 DAMTC weapons.

Joint Standoff Weapon (JSOW) - The combat proven JSOW family of Navy and Air Force air-to-ground weapons has achieved on-time deliveries for five consecutive years and delivered its 2,000th weapon in 2006. Cost reduction initiatives and Foreign Military Sales have resulted in a 6% reduction in JSOW-C Average Procurement Unit Cost (APUC) compared to the Fiscal Year 2007 Appropriations Bill. The Fiscal Year 2008 budget requests \$131.3M to procure 421 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 remains 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 concern to the DoN and our Allies. The Fiscal Year 2008 budget also includes \$24.9M to continue development of a network enabled weapon, termed JSOW-C-1, in order to fill a critical mission capability gap against moving ships at tactically significant ranges.

Harpoon Block III - The Navy requires an upgrade to the air-launched Harpoon cruise missile to provide an all-weather, over the horizon, anti-surface warfare capability with 'improved selectivity' in the cluttered littoral environment. This initiative is in direct support of the most recent PACOM Integrated Priorities List. The Harpoon BLK III Program will integrate a two-way data-link and GPS to achieve the enhanced selectivity that will facilitate employment under stringent rules of engagement. This program will leverage the Surface Harpoon program's efforts already started with Fiscal Year 2007 RDT&E funds. Data-link development and NSA certification costs are being shared with the Navy JSOW program. The Fiscal Year 2008 budget requests \$3.3M in RDT&E to initiate the air launched Harpoon Block III effort. Procurement of 400 Harpoon Block III missile kits and associated systems in the outyears requires \$58.0M in Fiscal Year 2011 through Fiscal Year 2013.

Advanced Anti-Radiation Guided Missile (AARGM) - The Fiscal Year 2008 budget requests \$32.8M to continue AARGM System Development and Demonstration (SDD), and requests \$41.3M for the first increment of LRIP tactical and training weapons. AARGM utilizes legacy High-Speed Anti-Radiation Missile (HARM) weapon components with advanced multi-spectral /multi-sensor technologies to transform the AGM-88 weapon system from a Suppression of Enemy Air Defenses (SEAD) capability to a Destruction of Enemy Air Defenses (DEAD) capability. The program is expected to reach Milestone C and begin Operational Evaluation (OPEVAL) in Fiscal Year 2008.

AARGM's high speed and extended stand-off capability to engage long-range threats with GPS precision; coupled with the geolocation precision resident in the EA-18G or F/A-18E/F with AESA; will provide the Navy a critical time sensitive strike capability. AARGM is scheduled to reach IOC in Fiscal Year 2009 on the F/A-18 C/D Hornet, followed by the F/A-18 E/F Super Hornet and EA-18G Growler 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. AMRAAM incorporates advanced electronic attack capabilities and is effective against a broad spectrum of targets operating at high/low altitudes beyond and within visual range. AMRAAM provides an essential air-to-air first look, first shot, first kill capability that exploits the networked environment supporting Sea Power 21's Theater Air and Missile Defense mission area. The AIM-120D missile is currently in SDD with a planned first live shot in June 2007. The Fiscal Year 2008 budget requests \$4.6M in RDT&E to complete AIM-120D developmental efforts and \$87.5M for production of 79 AIM-120 D all-up rounds and associated hardware. This procurement is critical to begin building an inventory of air-to-air weapons effective against emerging threats.

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 and is a 5th Generation weapon that incorporates high off-bore sight acquisition capability, thrust vectoring to achieve superior maneuverability, and increased seeker sensitivity through imaging infrared focal plane array technology and advanced processing. The Fiscal Year 2008 budget requests \$54.9M for production of 110 all-up round missiles, 74 Captive Air Training Missiles (CATMs), and the associated hardware required to make the capability available to our strike-fighter squadrons.

SELF PROTECTION SYSTEMS

Integrated Defensive Electronic Countermeasures (IDECM) - The Fiscal Year 2008 budget requests \$131.4M in aircraft procurement funding for 61 ALQ-214 on-board Radio Frequency Countermeasures systems and \$25.0M Ammunition Procurement funding for 581 ALE-55 Fiber Optic Towed Decoys, pending a full rate production decision. IDECM Block 3/ALE-55 Operational Testing and Evaluation identified a number of deficiencies that are being expeditiously corrected. A full rate production decision is expected in Fiscal Year 2008.

Digital Radio Frequency Memory (DRFM) Onboard Jammer - The Fiscal Year 2008 budget requests \$8.2M in RDT&E for development of an onboard jammer that will employ state-of-the-art Digital Radio Frequency Memory devices to replace the ALQ-126B Jammer that was last produced in 1991. This effort will measurably improve the survivability of Naval tactical aircraft by delaying, denying, and defeating threat air-to-air and surface-to-air missile systems operating in the radio frequency spectrum. The lead platform for the DRFM program is the F/A-18C/D, followed by the AV-8B. An Analysis of Alternatives has been initiated to investigate alternative solutions, costs, and schedules. This developmental effort and the resulting capability is required to pace rapidly proliferating threat systems.

Tactical Aircraft Directed Infrared Countermeasures (TADIRCM) – The Fiscal Year 2008 budget requests \$27.6M in RDT&E for development of an improved Missile Warning System (MWS) and Infrared Countermeasure (IRCM) system for Navy and Marine Corps helicopters. This system will provide aircrew protection against current and next generation IR guided man portable air defense systems (MANPADS). The Analysis of Alternatives for TADIRCM has been completed and the program is working toward a Milestone B in Fiscal Year 2008.

SUMMARY

Mr. Chairman, and distinguished members of this subcommittee, I would like to thank you for your continued support of Naval aviation and Navy TACAIR in particular. This budget submission – balanced with other Naval aviation budget priorities – ensures our young men and women, who fight daily with courage and commitment, have what it takes to win. Our budget submission makes sound investments in capabilities that make relevant contributions to irregular warfare, pace the threat posed by potential adversaries, and ensure Navy TACAIR remains an effective anti-access force in major combat operations. Thank you again for this opportunity to appear today to speak on behalf of Navy TACAIR.