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HOUSE ARMED SERVICES COMMITTEE
TACTICAL AIR AND LAND FORCES
SUBCOMMITTEE

STATEMENT OF

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BEFORE THE

TACTICAL AIR AND LAND FORCES
SUBCOMMITTEE

OF THE

HOUSE ARMED SERVICES COMMITTEE

ON

DEPARTMENT OF THE NAVY'S ROTORCRAFT MODERNIZATION PROGRAMS

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INTRODUCTION

Mr. Chairman, Representative Reyes, and distinguished members of the Subcommittee, we thank you for the opportunity to appear before you today to discuss the Department of the Navy's (DoN) Rotorcraft Modernization programs. Our testimony will provide background and rationale for the Department's Fiscal Year 2013 Budget request for rotorcraft modernization programs that will make investments aligned to our strategic priorities and budgetary goals.

The vertical lift capability provided by the department's rotorcraft platforms is a key enabler of the Navy and Marine Corps ability to come from the sea and conduct missions rapidly across the range of military operations. The speed, range, and flexibility provided by these platforms when coupled with air capable ships give our nation unmatched global reach and expeditionary agility. The range of missions supported by vertical lift aircraft are unparalleled; these airframes are used to move troops and materials, conduct search and rescue, evacuate casualties, deliver humanitarian aid and disaster assistance, conduct reconnaissance, hunt submarines, clear mines, provide air assault and close air support. They can deliver and retrieve personnel and material practically anywhere, including ship decks, open water, unimproved landing sites, roof tops, and the White House lawn. This versatility has made them a ubiquitous and inseparable part of the blue and brown water Navy and Marine Corps expeditionary forces.

The Fiscal Year 2013 DoN Budget request, while less than was requested in Fiscal Year 2012 aligns with the new strategic guidance for the Department of Defense (DoD) and provides the Department with the best balance of naval aviation requirements. The DoN Fiscal Year 2013 aircraft program budget is funded for planned program execution throughout the Future Years Defense Program (FYDP).

The Fiscal Year 2013 President's Budget requests funding for 82 manned rotorcraft including 17 MV-22B tiltrotor aircraft, 15 UH-1Y and 13 AH-1Z helicopters, 19 MH-60R and 18 MH-60S helicopters. The Budget request also addresses the continued development of the CH-53K and VXX to recapitalize the aging fleets of CH-53E and VH-3 and VH-60 rotorcraft.

In Fiscal Year 2013, three major rotorcraft modernization programs are in full rate production: the MH-60R/S, the H-1 Upgrades, and the MV-22B. Two of these programs, the MH-60R/S and MV-22B, are using multi-year procurement (MYP) strategies to achieve substantial procurement cost savings. The CH-53K program continues to progress through the Systems Development and Demonstration (SDD) phase, and VXX is updating the Analysis of Alternatives (AoA) and preparing for a Defense Acquisition Review Board for a development decision. The Department continues to support and participate in the DoD's Future Vertical Lift initiative.

Guided by the Defense Strategic Guidance, the Navy-Marine Corps team is built for war, capable of operating forward to preserve the peace, respond to crises and protect United States and allied interests. Rotorcraft modernization continues to focus on expanding vertical lift capacity, range, and speed while improving survivability, availability, and affordability.

ASSAULT SUPPORT AIRCRAFT

MV-22

The Fiscal Year 2013 President's Budget requests \$54.4 million in RDT&E, N for continued product improvements and \$1.5 billion in APN for procurement of 17 MV-22Bs (Lot 17) and \$95.9 million for continuation of follow-on block upgrades. Fiscal Year 2013 is the first year of the planned follow-on V-22 MYP contract covering Fiscal Year 2013-2017. The funds requested in the Fiscal Year 2013 President's Budget fully fund Lot 17 and procure long lead items for Lot 18 as well as Economic Order Quantity buys for Lots 18 - 21. The Marine Corps continues to field and transition aircraft on time. The APN request includes \$95.9 million to support the ongoing Operations and Safety Improvement Programs (OSIP), including Correction of Deficiencies and Readiness.

The MV-22B has been supporting the Marines continuously since October 2007, in extreme environmental conditions during thirteen deployments to Iraq, Afghanistan and aboard amphibious shipping. In February 2011, the V-22 fleet exceeded a total of 100,000 flight hours. The MV-22B squadrons in Afghanistan and the Marine Expeditionary Unit (MEU) are seeing mission capable rates in the seventy percent range and are performing every assigned mission. Additionally, the Osprey has the lowest Class A flight mishap rate of any USMC fielded tactical rotorcraft over the past ten years.

The effectiveness and survivability of this revolutionary, first-of-type MV-22B Osprey tiltrotor has been repeatedly demonstrated in combat. The rescue of a downed F-15E airman during Operation ODYSSEY DAWN was an example of what the Navy and Marine Corps' expeditionary force brings our nation. As an integral part of that seaborne presence, the MV-22B was able to perform its mission with unprecedented speed and agility. Twenty minutes from the time he was evading capture in hostile territory, the rescued pilot was safely back on American territory aboard USS KEARSARGE.

Under the existing MYP, Ospreys have been delivered under cost and on time. The fifth and final buy of the current multi-year occurred in Fiscal Year 2012. The Fiscal Year 2013 President's Budget request includes provisions for a follow-on five year MYP (FY13-17) which builds on the successes of the first. The follow-on MYP will procure 91 MV-22Bs over five years and produce significant savings when compared to a series of single year procurements. This procurement strategy supports the Marine Corps' need to retire older aircraft and field more advanced capabilities. Additionally, the MYP contract provides out year stabilization of the supplier base and enables long-term cost reduction initiatives on the part of the prime contractors and their suppliers.

The introduction of this new tiltrotor capability into combat has provided valuable lessons with respect to readiness and operating costs. Improvements to both continue and are having a clear effect on increasing aircraft availability and decreasing flight hour costs. At the close of Fiscal Year 2011, the mission capability rate of the MV-22B was up 19 percent over Fiscal Year 2010 and the cost per flight hour decreased 13 percent in the same period. Due to these cost reduction efforts, the V-22 program received the prestigious David Packard Excellence in Acquisition

Award which recognizes exemplary performance and innovation acquiring and delivering products and capabilities to the warfighter.

To keep these improvements on track, we introduced a readiness OSIP into the Fiscal Year 2012 President's Budget. This OSIP provides a stable source of crucial modification funding as we continue to improve readiness and reduce operating cost.

The MV-22B capability is being increased and fielded over time via a block upgrade acquisition strategy. The great benefit of a fly-by-wire rotorcraft was very clear recently when we increased airspeed and lift by simply modifying the flight control software. Such improvements require thorough testing and Fiscal Year 2013 RDT&E,N funds requested will be utilized to complete the fully-instrumented test aircraft to replace the existing test aircraft. The current test aircraft is five iterations behind the V-22 being flown today and requires hundreds of maintenance man-hours per flight hour to operate and maintain.

CH-53K Heavy Lift Replacement Program

The Fiscal Year 2013 President's Budget requests \$606 million RDT&E,N to continue SDD of the CH-53K. Since completing its Critical Design Review in July 2010, the CH-53K program began system capability and manufacturing process demonstration, and started fabrication of the first test aircraft. During Fiscal Year 2013, the program will continue work on manufacturing the various test articles needed to support developmental test activities to achieve the planned first flight of the CH-53K in 2014.

The new build CH-53K will replace the legacy fleet of CH-53D/E helicopters with an aircraft that provides the performance necessary to support our future warfighting requirements. The CH-53E Super Stallion provides unparalleled combat assault support to the MAGTF and is one of the Marine Corps' most-stressed aviation communities. CH-53s, providing vital lift of heavy equipment, supplies and troops, are currently deployed in Afghanistan, the Horn of Africa, and onboard ship with our MEUs. Since May 2011, CH-53D/Es have flown over 19,000 hours; carried more than 73,000 passengers and moved over thirteen million pounds of cargo in support of coalition forces in Afghanistan and the Horn of Africa while flying well above their programmed rates in austere, expeditionary conditions. The need for heavy lift support has increased substantially when compared to last year's numbers over the same reporting period. The only heavy lift helicopters deployed to Afghanistan, CH-53D/Es have performed combat external recoveries of five coalition helicopters during this period. Forward-deployed aircraft have been operating at up to three times the peacetime utilization rates.

To keep these platforms viable until the CH-53K enters service, the Fiscal Year 2013 President's Budget requests \$61.4 million for both near and mid-term enhancements, including Integrated Mechanical Diagnostic System, T-64 Engine Reliability Improvement Program kits, Directed Infrared Countermeasures, Critical Survivability Upgrade, and sustainment efforts such as Kapton wiring replacement. While these aircraft are achieving unprecedented operational milestones, they are nearing the end of their service life. The CH-53E is approaching 30 years of

service and the CH-53D is scheduled to retire from active service in late 2012, after operating for almost forty years.

The new-build CH-53K will fulfill land and sea based heavy-lift requirements not resident in any of today's platforms, and contribute directly to the increased agility, lethality, and presence of joint task forces and MAGTFs. The CH-53K will transport 27,000 pounds of external cargo out to a range of 110 nautical miles, nearly tripling the CH-53E's lift capability under similar environmental conditions, while fitting into the same shipboard footprint. The CH-53K will also provide unparalleled lift capability under the high altitude, hot weather conditions similar to those found in Afghanistan, greatly expanding the commander's operational reach.

Maintainability and reliability enhancements of the CH-53K will improve aircraft availability and operational effectiveness over the current CH-53E with improved cost effectiveness. Additionally, survivability and force protection enhancements will increase protection dramatically, for both aircrew and passengers, thereby broadening the depth and breadth of heavy lift operational support to the joint task force and MAGTF commander. Expeditionary heavy-lift capabilities will continue to be critical to successful land- and sea-based operations in future anti-access, area-denial environments, enabling seabasing and the joint operating concepts of force application and focused logistics.

ATTACK AND UTILITY AIRCRAFT

UH-1Y / AH-1Z

The Fiscal Year 2013 President's Budget requests \$31.1 million in RDT&E, N for continued product improvements and \$824.1 million in APN for 28 H-1 Upgrade aircraft: 15 UH-1Y and 13 AH-1Z (includes one OCO) aircraft. The program is a key modernization effort designed to resolve existing safety deficiencies, to enhance operational effectiveness, and to extend the service life of both aircraft. The 85 percent commonality between the UH-1Y and AH-1Z will reduce lifecycle costs and logistical footprint significantly, while increasing the maintainability and deployability of both aircraft. The program will provide the Marine Corps 349 H-1 aircraft through a combination of remanufacturing and new production.

The H-1 Upgrades Program is replacing the Marine Corps' UH-1N and AH-1W helicopters with state-of-the-art UH-1Y and AH-1Z aircraft. These legacy aircraft have proven enormously effective over decades of heavy use, and as they reach the end of their service lives, we look forward to expanding utility and attack helicopter capabilities. The new "Yankee" and "Zulu" aircraft are fielded with integrated glass cockpits, world-class sensors, and advanced helmet-mounted sight and display systems. The future growth plan includes a digitally-aided, close air support (CAS) system designed to tie these airframes, their sensors, and their weapons systems together with ground combat forces and capable DoD aircraft. Low-cost weapons such as the Advanced Precision Kill Weapon System II (APKWS II) will increase lethality while reducing collateral damage.

The UH-1Y “Yankee” aircraft achieved Initial Operating Capability (IOC) in August 2008 and Full Rate Production (FRP) in September 2008. The “Yankee Forward” procurement strategy prioritized UH-1Y production in order to replace the under-powered UH-1N fleet as quickly as possible. The AH-1Z completed its operational evaluation (OT-II3C) in June 2010 and received approval for FRP in November 2010. As of January 31, 2012, 75 aircraft (54 UH-1Ys and 21 AH-1Zs) have been delivered to the Fleet Marine Force; an additional 56 aircraft are on contract and in production. Lots 1-5 aircraft deliveries are complete and Lot 6 deliveries are progressing on schedule. To date, all aircraft deliveries since Lot 3 have been completed ahead of the contracted schedule date.

The AH-1Z achieved IOC in February 2011 and in November 2011, the first all-Upgrades (UH-1Y/AH-1Z) MEU departed on November 15, 2011 with the USS MAKIN ISLAND Amphibious Ready Group. The UH-1Y completed its first overseas deployment with the 13th MEU in July 2009 and has supported sustained combat operations in Operation Enduring Freedom (OEF) since November 2009. The fourth OEF UH-1Y deployment (nine aircraft) is on-going, and aircraft continue to meet required readiness goals. This deployment marks two years in OEF with the UH-1Y flying nearly 11,500 hours in support of combat operations. The aircraft continue to fly three times the normal continental United States (CONUS) based utilization rate in OEF, and increased sortie rates are expected in support of the 11th MEU. The combined UH-1Y/AH-1Z fleet has flown over 44,000 hours since first delivery in January 2007.

In December 2011, to address existing attack helicopter shortfalls, the Marine Corps decided to pursue an all AH-1Z Build New (ZBN) procurement strategy and leave AH-1W airframes in inventory rather than removing them to begin the remanufacture process. The transition to an all ZBN airframe strategy is planned to begin with Lot 10 (Fiscal Year 2013) as reflected in the current USMC program of record. The previous mix of 131 remanufactured AH-1Z and 58 ZBN aircraft has been revised to delivery of 37 remanufactured AH-1Z and 152 ZBN aircraft. The total aircraft procurement numbers remain the same at 160 UH-1Ys and 189 AH-1Zs for a total of 349 aircraft.

ANTISUBMARINE AND SUPPORT HELICOPTER

MH-60R and MH-60S

The Fiscal Year 2013 President’s Budget requests \$843.1 million for 19 MH-60R aircraft including Advanced Procurement (AP) for 19 Fiscal Year 2014 aircraft and \$6.9 million RDT&E,N for continued replacement of the Light Airborne Multi-Purpose System MK III SH-60B and carrier-based SH-60F helicopters with the MH-60R. The RDT&E,N funds will continue development of the following: Mode V interrogation capability for the identification friend-or-foe system; and an aluminum gearbox which is replacing the current magnesium gearbox to reduce corrosion and total ownership cost. The Automatic Radar Periscope Detection and Discrimination program, a fleet-driven capability upgrade to the APS-147 Radar, is scheduled for IOC in fourth quarter, Fiscal Year 2013.

The MH-60R is used in both ASW with its dipping sonar, sonobuoys and torpedoes and in the surface warfare (SUW) role with its Electronics Surveillance Measures system, multimode radar with inverse synthetic aperture radar, Forward Looking Infrared (FLIR) system and Hellfire missiles. It has demonstrated significant improvement in capability in the ASW and SUW capability roles over legacy systems. The MH-60R program achieved FRP in 2006 and the fifth MH-60R operational deployment is currently underway with HSM-77 aboard the carrier USS ABRAHAM LINCOLN (CVN 72). There are five operational Carrier Air Wing squadrons and two fleet replacement squadrons operating the MH-60R. Three additional air wing and two Expeditionary operational squadrons will transition to the MH-60R by the end of Fiscal Year 2013.

The Fiscal Year 2013 President's Budget requests \$456.9 million in APN for 18 MH-60S aircraft including AP for 18 Fiscal Year 2014 aircraft and \$29.7 million in RDT&E,N funds for the MH-60S to continue development of the Organic Airborne Mine Countermeasures (OAMCM) (Block II) and the Armed Helicopter (Block III) missions. The MH-60S is the Navy's primary combat support helicopter designed to support carrier and expeditionary strike groups. The MH-60S has replaced three legacy Navy helicopter platforms. The basic MH-60S reached IOC and FRP in 2002. The Armed Helicopter configuration reached IOC in 2007 and OAMCM is scheduled to reach IOC with the LCS Mission Module in 2014. The fifth MH-60S operational deployment is currently underway with HSC-12 aboard USS ABRAHAM LINCOLN (CVN 72). MH-60S helicopters currently operate with self-defense equipment, crew-served weapons and Hellfire missiles. MH-60S configuration enhancements include Fixed Forward Firing Weapons that will begin fielding in 2012. There are five operational Carrier Air Wing squadrons, six Expeditionary squadrons, and two fleet replacement squadrons operating the MH-60S. One additional air wing squadron will transition to the MH-60S by the end of Fiscal Year 2013.

The Fiscal Year 2012 National Defense Authorization Act and Consolidated Appropriations Act included Congressional authority to enter into the joint Army UH-60M/HH-60M and Navy MH-60R/S helicopter MYP contract (MYP8) and the Navy MH-60R/S Mission Systems and Common Cockpit contract (MYP2).

EXECUTIVE SUPPORT AIRCRAFT

VH-3D/VH-60N Executive Helicopters Series

The VH-3D and VH-60N are safely performing the Executive Lift mission worldwide. As these aircraft continue to provide seamless vertical lift for the President and Vice President of the United States, the Department is working closely with HMX-1 and industry to sustain these aircraft until a Presidential Replacement platform is fielded. The Fiscal Year 2013 President's Budget requests an investment of \$58 million to continue programs that will ensure the In-service Presidential fleet remains a safe and reliable platform. Ongoing efforts include the Cockpit Upgrade Program for the VH-60N, Communications Suite Upgrade, Structural Enhancement Program and the Obsolescence Management Program. The VH-3D Cockpit Upgrade Program, a Fiscal Year 2012 new start program, will provide a common cockpit with the VH-60N and address obsolescence issues. Continued investments in the In-service fleet will ensure continued safe and reliable execution of the Executive Lift mission.

VH-71 / VXX Presidential Helicopter Replacement Aircraft

The Fiscal Year 2013 President's Budget includes \$61.1 million for continuing efforts on VXX, the follow-on program for presidential helicopters. The Fiscal Year 2013 request reflects a funding adjustment that is a result of re-phasing the VXX program.

The requirement for a replacement Presidential helicopter was validated by the Joint Requirements Oversight Council; the details and specifications on how the requirement will be met safely and affordably have not yet been finalized. VXX activity in 2012 will focus on completing the update to the AoA, and to continue to develop an acquisition strategy that targets affordability, cost control and reduction of risk prior to the award any major contracts. The Navy will leverage the results from the risk and cost reduction activities associated with maturing technologies to not only improve the functionality and sustainment of the In-Service Presidential Helicopter fleet, but to also position the replacement program for optimal execution.