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HOUSE OVERSIGHT AND GOVERNMENT REFORM COMMITTEE

STATEMENT OF

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BEFORE THE

HOUSE COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM

ON

UNITED STATES MARINE CORPS

MV-22B OSPREY PROGRAM

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Chairman Towns, Congressman Issa and distinguished Members of the committee, thank you for providing me with this opportunity to appear before you to discuss the Department of the Navy's MV-22B Osprey aircraft program. Your Marine Corps remains engaged every day in support of our ground forces in harm's way. For nearly eight years, we have been at an extraordinarily high operational tempo and we will sustain this pace as long as our nation calls. Your Marines are serving honorably and we remain guided by our tradition and history while we keep an eye on the future. The significant accomplishments of those who serve our Corps are a direct reflection of the tireless efforts and the consistent support of the military by the Congress and this committee. Thank you for your dedication and for your oversight.

The Fiscal Year 2010 President's Budget request includes \$2.3 billion in APN for procurement of thirty MV-22Bs and continued development of follow-on block upgrades. Fiscal Year 2010 is the third year of the V-22 multiyear procurement contract. Our strategy supports a continued cost reduction and affordability trend, provides a stable basis for industry, and best supports the needs of the warfighter. The Fiscal Year 2010 appropriations will fully fund Lot 14 and procure long-lead items for Lot 15 under the V-22 multiyear contract.

The Marine Corps Combined-Arms Team

Marine Corps expeditionary operations typically center on what we call the "MAGTF," the Marine Air-Ground Task Force. In 1988, then-Commandant General Al Gray described his vision of the future of expeditionary warfare. Painting a vivid mental picture, General Gray stated that, "if I am a MEU commander off of North Carolina, I want every bad guy from New York to Miami to be nervous." General Gray's vision became reality last week when VMM-263 deployed aboard USS *Bataan* with the 22nd Marine Expeditionary Unit (or MEU). The leap in technology our former Commandant envisioned is now a reality, and the extraordinary range and speed of future expeditionary operations, once only imagined, are now the norm.

The MV-22B is not a one-for-one replacement for any of our current, aging helicopters. Osprey is not technology for technology's sake. The capability this aircraft represents does not just deliver Marines and equipment faster; it changes the entire calculus of planning and fighting at the

tactical and operational level for our joint force and MAGTF commanders. None of us knows what the 2025 battlefield will look like. What we do know is what your Marine Corps will look like: it will be fast, light, agile, expeditionary and lethal. Further, the Osprey will be a key component of the future of the Corps' contribution to the joint fight.

One of our officers described this capability perfectly, saying, "The Osprey is a great airplane that lands like a helicopter. It's not a helicopter that flies like an airplane." This aircraft shrinks the battlefield, flying higher, faster, farther, and longer than any of our legacy assault support helicopters. Osprey provides the commander with new speed and distance options in maneuvering while in support of Marine ground forces. It takes off and lands like a helicopter, but it transits from objective to objective at medium to high altitudes – above the small arms, man-portable air defense systems (MANPADS) and rocket-propelled grenades (RPGs) that have claimed so many of our conventional helicopters in Iraq. The MV-22B will save lives with its speed and range. It is now combat-tested and ready for deployment throughout the globe.

MV-22 Procurement

In September 2005, the Defense Acquisition Board approved MV-22B Full Rate Production. Initial Operational Capability was subsequently declared on 1 June 2007. By the end of Fiscal Year 2009, the Marine Corps will have one MV-22B Fleet Replacement Training Squadron, one operational test and evaluation squadron, and six tactical VMM squadrons home based at Marine Corps Air Station New River, North Carolina. Three of these New River squadrons have been combat tested in Iraq, and one is embarked with the 22nd Marine Expeditionary Unit afloat. At our current annual build rate of thirty aircraft, we are creating two Osprey squadrons per year. We have accepted delivery of 91 Ospreys, a quarter of our program objective of 360 aircraft. Our west coast transition will commence with the standup of squadrons at Marine Corps Air Station (MCAS) Miramar, California beginning in Fiscal Year 2010, followed by Okinawa bases in Fiscal Year 2013, then Marine Corps Base Camp Pendleton, California and Marine Forces Reserve by the end of the decade.

As the MV-22 is fielded over time, the capabilities will be increased via a block upgrade acquisition strategy. MV-22 Block A aircraft are now used predominantly in our training squadron. Block B aircraft are being fielded with our operational squadrons and will continue to be delivered via the current multiyear procurement contract. Block C aircraft are operational aircraft with mission enhancements that will be procured beginning in Fiscal Year 2010 and delivered to the fleet in Fiscal Year 2012. In addition, the Marine Corps is teaming with Special Operations Command to field a 7.62mm, all-aspect, crew-served weapon system that will provide an enhanced defensive suppressive fire capability. Pending successful developmental and operational testing, we expect to begin fielding limited numbers of this system later this calendar year.

Combat Operations Summary

A recent Commanding General of Multinational Forces – West in Iraq stated that, “I could dominate Al Anbar Province because I had V-22s, which are an amazing capability. I couldn't do what I did with just helicopters.” This statement summarizes the Marine Corps’ view of what this aircraft has done in the crucible of combat.

The MV-22B has been supporting our Marines in Iraq continuously since October 2007, with the third successive squadron recently completing a highly successful seven month rotation in support of Operation IRAQI FREEDOM just last month. In Iraq, our Ospreys have penetrated every threat zone, conducting assault support, Command and Control (Senior Leader Transport), Aero Scout, Tactical Recovery of Aircraft and Personnel, and Casualty Evacuation missions. Operating from Al Asad, the MV-22 effectively covered the entire country of Iraq, at twice the speed of conventional helicopters.

Over the past two years we have flown this aircraft hard. In Iraq, we have flown the Osprey at twice the rate we had previously planned and in very demanding, austere conditions and with a newly-fielded aircraft. It is important to note that VMMs 263, 162 and 266 have all deployed to and returned from Iraq and, while there, these squadrons flew *the same ten* Ospreys that originally arrived in theater in October 2007 along with two more aircraft we added in March 2008.

Therefore, all combat operational data is drawn from the most heavily-used twelve of our 91 aircraft. The dramatic upswing in operational flight hours in harsh environmental combat conditions has uncovered reliability and maintainability issues and these challenges are being addressed aggressively.

We accelerated introduction of the Osprey into the fight a year ahead of our programmed Material Support Date, despite the aviation logistics risks we knew we would incur, as well as the second-order effects we knew we would impose on transitioning the remaining east coast HMM squadrons. However, we simply could not hold back this revolutionary capability from supporting our Marines in combat. The operational performance metrics are impressive: the three VMM squadrons that have deployed to Iraq have flown over 9800 hours while executing more than 6000 sorties, carrying over 45,000 passengers and lifting 2.2 million pounds of cargo. The MV-22B completed these lifts almost exclusively by transiting at high altitudes and executing steep descents into all threat zones. To date, while they have been engaged with MANPADS and small arms, we haven't lost any of these aircraft in combat. The Osprey has shown that it can carry an operational load of 24 combat-loaded Marines out to a combat radius of 300 nautical miles at altitudes above the small arms and rocket-propelled grenade threat envelope; this dwarfs the 75 nautical mile radius of a CH-46E loaded with twelve Marines operating right in the heart of the enemy's threat envelope.

Reliability and Maintenance

This aircraft's usage has leapt dramatically since its deployment to Iraq and employment in combat. We began to consider the incredible potential of tilt-rotor technology almost three decades ago, but the V-22 community has flown 85% of its total flight hours since 2004, with *50% of its total program flight hours in the past two years alone*. These numbers are high in themselves; they are even more dramatic when one realizes that these hours have been flown in some of the world's harshest environments, in a combat zone, and in response to urgent operational warfighting requirements.

Most new aircraft - especially innovative technological advances like the Osprey - fly their first years at a slow and controlled rate of increasing hours, in a peacetime environment, and under highly controlled operational conditions. Like other types of aircraft in the early operational phase of their lifecycles, the MV-22B has experienced lower-than-desired reliability of some components and therefore higher operations and support costs, but this aircraft has experienced them in an acute fashion due to its early employment overseas. In effect, the operations and maintenance (O&M) costs and reliability issues which we are addressing are compressed: they seem more intense because they are happening in a shorter time, to fewer airplanes, in a more intense environment than is normal with new technology.

With the cooperation and support of our industry partners, we are tackling these issues head on with aggressive logistics and support plans that will increase the durability and availability of the parts needed to raise reliability and concurrently lower operating costs. The reliability and maintainability challenges of the MV-22B are not unique for an aircraft this early in its life cycle. What we now consider to be “legacy” airframes all once went through similar growing pains and a concentration of resources was required to bring improvement. The Naval Aviation Enterprise is responding to MV-22B in the short term by increasing the use of spares (sparing) and by focusing logistics. In the long term, the enterprise is incentivizing industry and making engineering changes to improve reliability.

Our average mission capable rate for the MV-22B in Iraq was 62%. This readiness rate represents the percentage of time an aircraft is free from downing discrepancies on a 24-hour clock. Assessed in another way, our deployed Ospreys averaged well over 70% aircraft available and “ready for tasking” at the commencement of each Air Tasking Order (ATO) day. This level of reliability is less than the threshold goal of 82% the Marine Corps desires. However, it is important to note that the MV-22B *accomplished all assigned tasking* in combat (with the exception of occasional and normal maintenance or weather aborts).

The MV-22 Program Manager has had an aggressive reliability Corrective Action Plan (CAP) in place since the fleet introduction of this aircraft. To ensure the CAP was sound, we have requested two separate outside non-advocate reviews. Both reviews reported the program’s

foundation was strong, but the lack of dedicated funding sources and length of time required to process Class 1 engineering changes was inhibiting the incorporation of corrective actions in a timely manner. To address these issues, the Program Office implemented various initiatives, including incentivized Joint Performance Based Logistics contracts to increase reliability and improve component repair cycles; reduced cycle time to process and implement Class 1 changes to the fleet; and requested Operational Safety Improvement Program funding to address emerging reliability issues.

The Program Office has likewise recently instituted the V-22 Critical Item Logistics Review (CILR) process which will assist in providing a common list of degraders to ensure the optimized focus of the contractors, government integrated product teams, and the type/model/series team members in improving V-22 readiness and operational cost by addressing all of the logistics elements.

The difference between the desired and observed mission capable rates in the MV-22 program is due primarily to the premature failure of selected components. In the initial stages of any new aircraft procurement, spares are purchased to support the failure rates predicted by an engineering analysis rather than on actual historical data. A number of parts on this aircraft have failed sooner than predicted by this original engineering analysis. When errant predictions occur, the impact is a higher than expected demand on spare parts, thereby driving up the burden on the logistics system, increasing costs, and decreasing availability. Some examples of premature failures we have seen in the MV-22 are:

- Swashplate Actuator – Failed at 149 hours actual, versus 195 hours predicted
- Central Deice Distributor Bracket – Failed at 422 hours actual, versus 6,173 hours predicted
- Constant Frequency Generator – Failed at 192 hours actual, versus 404 hours predicted

An adjustment of 1,400 line items to the Operation IRAQI FREEDOM Aviation Consolidated Allowance List (AVCAL) in August of 2008 resulted in a sharp reduction in the number of

cannibalizations and customer wait times for parts and improved readiness rates. However, because spares procurement can take years to fully accomplish, we were then just receiving the increased spares quantities we purchased in late 2006.

Several degraders (such as infrared suppressor panels and center bodies and Coanda bleed air tubes and valves) that were originally designated as consumables are now repaired by the depot. The MV-22 depot will be fully operational in Fiscal Year 2011 and we anticipate they will then repair many more components than they do today.

Cost Factors and Mitigation

O&M costs of both deployed and home-based MV-22B squadrons are higher than predicted. Leadership tracks and addresses these conditions through an Executive Supportability Summit comprised of Marine and Air Force aviation advocates, Naval Inventory Control Point representatives, the Naval Air Systems Command, and the Original Equipment Manufacturers. The response by government has been to increase spares and improve maintenance procedures in the short term to keep availability at a manageable level while making engineering changes to components and systems and broadening repair capability at the aviation depots. Industry has responded by investing its own capital to improve production capacity of vendors while designing and implementing improvements to known and predicted degraders. The average year-to-date cost through March 2009 across the fleet, training, and test commands is \$11,748 per flight hour, with the fleet-specific average being \$9700. This cost is roughly comparable to that of our legacy CH-53E helicopters. Initial model forecasts used engineering predictions based on legacy systems. Adjustments to MV-22 estimates in the future, though, will include actual cost data and demonstrated reliability.

GAO Report

Last week, the Government Accounting Office released a report on the V-22. It is important to note that this report concluded that the Osprey is operationally effective, while mentioning the operational and cost issues that the Marine Corps is addressing. Reliability and availability are

parameters which affect operational *suitability*, not operational *effectiveness*. This aircraft is effective and suitable: it is the future of Marine Corps assault support, and is one of the foundations on which we are building the MAGTF of the future. However, we are not satisfied with current reliability numbers, and we are working with the V-22 program office and our industry partners to evaluate, address, mitigate and then resolve these issues.

While we agree with, and are addressing, availability and reliability issues, we do not agree with the GAO's recommendation that the Department of Defense conduct a new alternatives analysis. None of the alternatives allow me to fly our Marines as deep into the enemy's battlespace as quickly, nor to offer the takeoff and landing agility of a helicopter while transiting above the threat, thus protecting our embarked Marines, as does the Osprey. None of the options do these things, and that is why we are fully committed to this capability and to further exploiting the immense potential it holds for the future of joint warfighting.

The leadership of the naval service, nearly thirty years ago, made a conscious decision to take a generational leap in technology and give our MAGTF and joint force commanders an unsurpassed asymmetric advantage on the modern battlefield. Osprey technology is no longer new, but it is still unique. Our supply chain and logistics support systems are maturing, catching up to the aircraft, and as they do so we are confident the costs will fall as reliability and aircraft availability rates rise.

Bridge to the Future

We fully expect this aircraft to perform magnificently while supporting our widely dispersed Marines at high altitude and from austere bases throughout Afghanistan. In the irregular warfare environment, the solution to the small arms threat is often to simply fly over it, and in Afghanistan this aircraft will do just that. Analyzing the challenges of our current fight requires us to honor the complexities of engaging an enemy quickly and effectively, bridging the tyranny of distance, and countering the uncertainty of the enemy's lethalties in any clime and place.

The MV-22B has done exactly what we have asked it to do, and more. Its capabilities will form the Marine Corps' bedrock of our doctrine of operational maneuver from the sea. The commander of Task Force 58 (TF-58), who led the first Marines into combat in Afghanistan in November 2001, pointed out that mission accomplishment from ships based hundreds of miles away from the objective area was actually quite tenuous. TF-58 forces had to leapfrog from ships at sea, across one country and into the center of another, over mountainous terrain and hundreds of miles of empty desert. The Commanding General split his forces into helicopter lifts and vehicle convoys, dependent on the goodwill of host nation governments to move his Marines across international borders.

With Osprey, the operational burden of TF-58 would have been lightened considerably. The range, speed and altitude capabilities of V-22 would have allowed the commander to push the invasion force 400 miles from ship to objective, then maneuver that force quickly throughout the depth of the enemy's battlespace. This agility would have allowed TF-58 to operate at far lower operational risk while at higher tempo. This is the paradigm – light and expeditionary, ready to go anywhere at any time– at which the Marine Corps excels, and this is exactly what the country needs from its Corps. In order to bridge to the future force, we must have a nimble lethality which only a capability such as the Osprey can provide.

SUMMARY

We have interviewed dozens of our combat veteran MV-22B pilots over the past two years. The one consistent theme among them has been that they want to fly this aircraft even harder, higher and faster than we have to date. The Fiscal Year 2010 President's Budget reflects our commitment to the MV-22B Osprey program. We will continue to aggressively pursue efficiencies in the development, testing, procurement and sustainment of this aircraft and its components and weapons systems. Since 2001, the Marine Corps has been fighting shoulder to shoulder alongside our joint and allied partners overseas, supporting an extremely high operational tempo in two theaters while growing our force, introducing new aircraft and systems, and looking beyond the current fight. As we continue to shape naval aviation with your help, we have no doubt about the Osprey's key role at the center of our future warfighting vision.

In closing, Mr. Chairman, I thank you for the opportunity to testify before your committee regarding the Marine Corps' MV-22B Osprey program. I look forward to your questions.