



# War on terrorism raises questions about V-22

## *Can and should Osprey fixes be accelerated?*

By John Guardiano  
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America's impending world war against terrorism raises several compelling questions regarding the controversial and much-derided V-22 Osprey.

First, should the United States employ in this war the dozen flyable Ospreys that it now has in its inventory? Second, can the fixes recommended by the independent Osprey review panel be made quickly enough to ensure safe and effective use of the V-22 in combat? Third, should Osprey production be accelerated?

No one knows the answers to these questions. However, they are being asked—and with an understandable sense of urgency—within the V-22 program office, Marine Corps, Special Operations Command, Pentagon, Defense Secretary's Office and Bell Boeing.

No one from any of these organizations is willing to speak to these questions, though they acknowledge their importance. But outside military and industry analysts say that, before this war is over, we likely will see the Osprey employed in a series of combat operations.

### *Comparative Advantages*

"What always happens in wars is that necessity is the mother of invention," says Frank Gaffney, president of the Center for Security Policy in Washington, D.C. "I think it's very likely that the 24 V-22s in our inventory are going to be in operational use before this [war] is over... It could be a matter of months, if not weeks. The unique capabilities that justified the program all along are



Photo courtesy NAVAIR

*The V-22's ability to reach in-land destinations from off-shore ships is an attractive feature for the U.S. military if it does not sustain a long-term operational presence in Afghanistan and central Asia.*

presenting themselves and are urgently needed in light of our current circumstances."

Adds Richard Aboulafia of the Teal Group in Fairfax, Virginia: "If you've ever sat through all the [Bell Boeing] briefings on potential V-22 operational scenarios, you say to yourself, 'I hope this doesn't happen, but if it did, the Osprey sure would be useful.' Well, this is the real thing. The truth is, the requirement has been here all these years. We just needed a wake-up call, maybe, to make it happen."

"It's not likely that we can sustain a long-term operational presence in Afghanistan, Pakistan and central Asia, and that's a terribly significant problem," says Dan Goure, a senior fellow at the Lexington Institute in Arlington, Va.

The Osprey, he explains, gives the United States the ability to project power from ships on the high seas, far from our target areas, in

a much more rapid and expeditious manner.

The V-22 can fly as both a helicopter and an airplane. The aircraft has nearly twice the speed and range of most conventional helicopters and can self-deploy over a 1,000 nautical mile radius, with 24 combat-ready Marines, or 15,000 pounds of equipment.

Goure says the Osprey's speed advantage is crucial in America's new world war on terrorism.

"Our targets are fleeting and elusive," he notes. "We may miss the mark even with the Osprey, but we have a much greater likelihood of success with the V-22 than we do with a conventional helicopter. Timing, location, the ability to operate in bad terrain, rapid infiltration and exfiltration, survivability—these all point to the V-22."



Photo by Doug Kinnear

Col. T.L. "Stash" Conant (USMC), Lt. Col. Scott Hoskins (USAF), Lt. Col. Barney Wick (USMC) and Mike Tkach, Bell Boeing V-22 Joint Program Director, pose for a photo in front of the V-22 Osprey kiosk.

## Marines pitch V-22 Osprey to National Guard

By Zac Northup

On Aug. 27, representatives from the Marine Corps aviation community gave a presentation to members of the National Guard's leadership in Indianapolis, Ind. Taking place during the National Guard Association of the United States' (NGAUS) annual conference, the briefing was designed to help keep Guard leaders abreast of efforts to bring the V-22's production schedule back online.

The briefing, conducted by Col. T.L. "Stash" Conant, followed a short luncheon where members of the tiltrotor team mingled with general officers and state aviation officers from states as geographically diverse as New York, California, Minnesota and Hawaii.

Just recently assigned as Head, Aviation Plans, Programs, Budget and Joint Matters Branch, Headquarters, United States Marine Corps, Conant is partly responsible for placing the V-22 back on firm footing.

As he has become familiar with the intricacies of his new job in the Pentagon, Conant has already identified some of the challenges and obstacles he is facing. In fact, during his presentation he acknowledged that as the Corps continues to explain the importance of the Osprey, "some people are listening, and some aren't."

But those present at the luncheon were certainly listening. Representative Julia Carson, from Indiana's Tenth District, was

particularly interested in the technological niche that the Osprey is designed to fill.

During the question and answer period following the presentation, she asked Conant about his assertion that the V-22 is not a helicopter.

"If it's not a helicopter," she asked, "what is it? A bird? A plane? Superman?"

Conant explained that, because of the Osprey's unique combination of speed, range, Vertical Takeoff and Landing capabilities and flight characteristics, it could not easily be called a helicopter or an airplane, but was indeed an aircraft that combines the capabilities of both.

Even though many questions from the audience involved issues such as safety, cost and training, some of the more pointed comments involved the current timeline for returning the program to a predictable production schedule.

Maj. Gen. Eugene Andreotti, the Adjutant General of Minnesota, told Conant that he was interested in eventually acquiring the Osprey for his state, but couldn't put any formal plans together until the Marine Corps specified its testing and fielding schedule. Andreotti is one of several Adjutants General working to position their states to receive the Osprey.

During an interview earlier this year, he noted, "In Minnesota, we have extensive interest in the CV-22 aircraft. I believe that this aircraft is especially well suited to support

not only the federal mission, but also our state mission and the Guard's growing mission in Weapons of Mass Destruction."

In response to Andreotti's query, Conant insisted that the program will return to full-testing status, but that the decision—as to exactly when—will be made by the Marine Corps and the Office of the Secretary of Defense.

Bell Boeing Joint Program Director, Mike Tkach, provided additional insight to the arduous process of restructuring the program after a series of program assessments by a DoD Blue Ribbon panel and NASA teams, each of which has endorsed continuation of V-22 production.

"It's been very challenging, but we are very near closure with the customer on the way ahead," said Tkach. "We look forward to providing a much more definitive brief next year along with a long list of successful flight test and validation efforts."

Designed to help solidify support for the V-22 within the often-deployed and politically powerful National Guard community, the late-August luncheon also helped identify some of the latent concerns held by those who don't work with the Osprey on a day-to-day basis.

"I think the briefing in Indianapolis did exactly what we needed it to do," said Tkach. "By identifying some of the misperceptions held by members of the extended military community, we will be better able to address those misperceptions and explain why both the active and reserve components need tiltrotor technology."

According to Tkach, the next step will be to continue the process of briefing individual state leaders around the country on the specific program issues of interest to them while defining with them the Guard-appropriate roles and missions of the Osprey in their states and regions.



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# Osprey could see action if need arises

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## Contingency Operations

In fact, the Osprey was designed specifically to address many of the types of contingency operations now under consideration by the Pentagon—operations in inhospitable and remote, distant areas where the United States lacks forward bases from which to operate.

Indeed, that's precisely why U.S. Special Forces want the aircraft. Ditto the Marines, who see the Osprey as central to their ability to project power rapidly and overwhelmingly, and for a variety of missions, including: vertical assault and envelopment, emergency crisis response, and special operations warfare.

"The birth of our modern-day Special Operations Command... was really the debacle that we had at "Desert One," [the failed 1980 Iranian hostage rescue], said Lt. Gen. Maxwell Bailey, commander of the Air Forces Special Operations Command, at a public forum on the V-22 sponsored last spring by the Center for Security Policy.

"If you had a CV-22 type technology, [that mission] could have been done with a single in-and-out pass (albeit with helicopter refueling with C-130 type assets) moving directly into the objective area, and then being able to extract during a single period of darkness," Bailey observed.

## Problems

There's only one obvious and perhaps fatal problem for the Osprey: The aircraft crashed twice last year, killing 23 Marines. This has caused some observers, such as Lawrence J. Korb, a former assistant defense secretary in the Reagan administration, to call for cancellation of the program.

Moreover, allegations of records falsification and Marine malfeasance prompted an investigation by the Pentagon's Inspector General (IG).

Clinton Defense Secretary William Cohen and Marine Corps Commandant Gen. James L. Jones called for the appointment of an independent expert review panel to investigate the program's technical feasibility and management.

The review panel told Congress last spring that it would take one to two years to fix the V-22 so that it is ready for production. However, the aircraft's manufacturer, Bell Boeing, in conjunction with the Marine Corps,

have said previously that, if the money and commitment are there, these changes could be made more expeditiously—perhaps within six months.

## Fixes

The most significant fixes include: remedying a software glitch that contributed to a fatal Dec. 11, 2000, Osprey crash that killed four Marines; rerouting the hydraulic lines to prevent chaffing, which also helped cause the Dec. 11 crash; and additional flight testing for the aerodynamic phenomenon known as vortex ring state (VRS), which was implicated in the April 8, 2000, V-22 crash that killed 19 Marines.

Program officials say that none of these problems are "showstoppers." These difficulties are instead highly resolvable, they argue. VRS can be avoided if Osprey pilots stay within the prescribed flight envelope. Software glitches, likewise, can be easily fixed.

Moreover, problems such as these, they note, are par for the course for any new military aircraft. The F-117 Nighthawk stealth fighter, for instance, suffered three crashes while in development and three more crashes after it was declared operational. Gen. Jones told Congress last May. Yet, the F-117 proved to be stunningly successful during the Gulf War.

There's one big difference, though, between the V-22 Osprey and the F-117 Nighthawk: The latter is a high-profile, public program that has been subject to more scrutiny and second-guessing than any aircraft in history. The F-117, by contrast, was a top secret "black" program that escaped the rhetorical gunfire of critics and naysayers.

## Risk Analysis

So there are practical political and public relations problems inherent in employing the V-22 in combat.

For example, what if the aircraft crashes again? Will Congress say, in effect, enough is enough and, finally and completely, kill the program? Will the American people accept more Osprey casualties, especially if they are self-inflicted rather than imposed by the enemy?

The truth is that no one knows the answers to these questions, because no one yet knows how this war will progress.

We do not know how our enemies will respond to American resolve. Nor do we know just how enterprising and bold our military leaders will have to be—or dare to be. The reality is that the U.S. military is a bureaucracy just like any other and is sometimes risk-averse.

Douglas MacArthur, for example, encour-

tered fierce resistance from the U.S. military high command when he proposed landing the Marines at Inchon during the Korean War. Not much has changed in the intervening 50 years. In fact, if anything, the U.S. military, spooked by the ghosts of Vietnam, is more risk-averse today than it was in MacArthur's time.

Equally worrisome for the Pentagon is the fact that, as the review panel observed, the Osprey has had insufficient operational testing and has not yet been tested in combat. But as any combat veteran will tell you, there is a world of difference between a military exercise, even a live-fire military exercise, and combat, which is infinitely more messy and unpredictable.

There are bureaucratic hurdles that also must be surmounted if the aircraft is to enter full-rate production. These could be overcome in a bona fide war emergency, provided the military possesses the will to do that. But again, this requires leadership.

## Conclusion

Ultimately, though, the decision on whether or not to push ahead more rapidly with the Osprey boils down to one consideration: Do the risks inherent in not using the V-22 outweigh the risks inherent in doing so?

If the answer to that question is yes, then we must accelerate Osprey development and production, and we must employ the aircraft in America's new war against terrorism.

If, however, the answer to that question is no, then perhaps the V-22 is better suited for our next war rather than for this conflict.

So far, the experts who can answer that question haven't spoken to that issue. However, Lt. Gen. Fred McCorkle was quite clear on this point. A plain-spoken Tennessean, McCorkle is a decorated helicopter pilot who served honorably in Vietnam.

Before he retired in August, McCorkle was in charge of all Marine Corps aviation. "When these glitches are fixed, this aircraft will be safer and more effective, I think, than any of the old legacy helicopters we now have—CH-46s and CH-53s," he told HN last spring.

That's true of the Marine Corps. The Army, however, employs UH-60 Black Hawks. U.S. Special Forces have a derivative aircraft, the HH-60G Pave Hawk.

Sikorsky's 'Hawk line of helicopters are sturdy, resilient and battle-tested. But they do not have the speed, range and versatility of the Osprey. They certainly function well in a conventional war.

The question is whether they are adequate for a new kind of unconventional war like the one that is now upon us.



## V-22 program perspective outlined by program director

By Mike Tkach  
Vice President, Program Director  
V-22 Program Office, Pax River, Md.

**Editor's Note:** This is the first in a series of leadership messages from Mike Tkach, Bell Boeing Joint Program Director, that summarizes milestones, challenges and successes from V-22 sites and suppliers.

Recently the V-22 Joint Program Office, or JPO, (both government and contractor elements) implemented the initial steps leading to a new organizational structure and new ways of more efficiently conducting our daily business. Both Col. Dan Schultz and I have embraced these changes, believing they will enhance our effectiveness while we continue to work together for the progress of the program.

Customer support for our program remains strong at the operational level. We continue to work closely with all levels of both the U.S. Marine Corps and the U.S. Air Force to ensure that awareness of the extraordinary capabilities of this "transformational" aircraft

remains high.

The V-22 Government-Industry team has conducted several important reviews with senior DoD officials, including an Aug. 14 meeting with the Honorable Pete Aldridge, Undersecretary of Defense for Acquisition Technology and Logistics. A follow-up meeting with Aldridge and his staff is expected in November to discuss key programmatic issues.

In addition, we have held three Executive Committee meetings attended by senior officials from the Marine Corps, Air Force, Navy and Bell-Boeing. We reviewed our plans for the *Way Ahead* and the new *Integrated Master Plan/Integrated Master Schedule*.

This plan includes detailed elements to solve the 300-plus issues that were identified on the V-22 program resolution matrix and will result in specific product improvements that will define our future block upgrades.

Communication on the V-22 team will become easier in the future as we establish a joint Government-Industry web site on which all key program data will be available. You will also be able to use this web site to access program personnel through e-mail.

Additionally, industry and government personnel are being relocated, side-by-side, as the restructured V-22 Joint Program Office is moved to the first floor of the NAVAIR Headquarters building here at Pax River.

All these steps are being taken in response to recommendations from the Blue Ribbon Panel to improve communications and efficiency throughout the program.

Col. Schultz and I believe our new organizational structure, our collocation of the JPO and the establishment of a single V-22 web site will be key to achieving greater synergy and productivity.

Our folks in Philadelphia have focused on a theme of *Perform to Plan*. Examples of the successes we've seen from this focus are reductions in cycle times and part defects. In three years, they have reduced assembly cycle time by 31 percent and defects are down 82 percent. Additionally, V-22 contract proposal deliveries have been 100 percent *on time*, and all of their fuselage deliveries have occurred on schedule.

From Fort Worth and Amarillo, a number of organizational changes have occurred that have reinforced a hierarchy of clear lines of responsibility, by product, that reiterates responsibility from the design stage through field support.

As Amarillo continues to produce V-22s at the rate of approximately one per month, planning for aircraft preservation, storage and Mod Line for the Block aircraft has continued and nears finalization.

As you can see, there is a lot going on in the V-22 program. In fact, it seems the only thing constant lately is change. But what does remain constant is our collective commitment to providing the best possible product to our customers.

Despite these challenging times, I'm confident that the changes we are making will enable us to succeed and ensure that the Team has the tools and means needed to meet our goals.



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