

Presidential helo teeters on the edge

by R. Randall Padfield

The future of the VH-71 presidential helicopter program neared the wire last month as Congress worked to pass a final 2010 defense appropriations bill that the President would sign before the start of the fiscal year on October 1. If the bill is not signed into law by then, Congress would need to pass a continuing resolution to temporarily fund the Department of Defense. As *AIN* went to press, the bill had not yet become law.

After Secretary of Defense Robert Gates on April 6 recommended the presidential helicopter replacement program be terminated and the DOD on May 15 issued an internal memo terminating work on the VH-71 and the Navy on June 1 announced that it would terminate the contract, most people understandably considered the program dead. But some support for the program remained in Congress, particularly in states and districts where businesses with VH-71 contracts were affected. So on July 30, the House of Representatives approved \$400 million in its version of the defense appropriations bill (H.R. 3326) to continue research, development, testing and evaluation of the VH-71, with the objective of making five of the nine VH-71As that have been built to date into operational helicopters for the President. (The five are "pilot production" aircraft, while the other four are "test vehicles.")

After Congress came back into session last month following its recess in August, the Senate Appropriations Committee on September 10 decided to exclude similar funding for the VH-71 in its version of the defense appropriations bill, as was recommended by its subcommittee. With the House and

Senate appropriation bills now at odds regarding the program, it was left to their conference committee to work out a solution, which is where the situation stood as this article was written. If the VH-71 continuation funding is included in the final appropriations bill, Congress would be openly challenging President Barack Obama, who has said he would veto any defense bill that includes such funding for the new Marine One helicopter.

But according to some observers, the President has a face-saving loophole, if he decides to change his mind. An official White House statement about the House defense appropriations bill issued on July 30 states, "If the final bill were to include funds that continue the existing VH-71 program...the President's senior advisors would recommend that he veto the bill." In Washington-speak, this wording is "softer language" and "less ironclad," according to insiders, than what the same statement says, for example, about the Lockheed Martin/Boeing F-22 fighter, specifically, "If the final bill contains this provision [about the F-22], then the President will veto." So, conceivably, Obama could decide not to accept the recommendation of his advisors regarding the VH-71 and allow its funding to continue.

The 'Expanded' Increment 1 Solution

It was in 2005 that the U.S. Navy awarded the contract to provide a fleet of 23 VXX (as they were then called) presidential helicopters in two increments to Lockheed Martin System Integration (prime contractor and systems integration), AgustaWestland (providing the basic three-engine



President Obama has said that the current Sikorsky VH-3D Sea King helicopters, operated by Marine Helicopter Squadron One (HMX-1) "seem perfectly adequate to me."



The AgustaWestland triple-engine AW101, formerly the EH101, provided the basic airframe and components for the VH-71 presidential helicopter. Lockheed Martin System Integration developed the mission equipment.

Cost Estimates for the Expanded Increment 1 VH-71A Option

	Nr. of A/C	Sunk cost* (in \$ billions)	Extra cost (in \$ billions)	Total cost (in \$ billions)
Congressman Bartlett (R-Md.)	19	3.2	N.S.	~6.5
Senator Gillibrand (D-N.Y.)	19	3.3	3.5	6.8
AgustaWestland	23	N.S.	N.S.	6.8
Lockheed Martin	19	3.0	3.8	6.8
Senator Schumer (D-N.Y.)	19	3.2	3.8	7.0
Lockheed Martin	23	3.0	4.3	7.3
Congressman Hinchey (D-N.Y.)	19	3.1	4.4	7.5
WBB Consulting	23	3.3	4.2	7.5
U.S. Navy	19	3.3	~5.6	<9.4
U.S. Navy	23	3.3	6.1	9.4

Notes: N.S. = not specified

* Sunk costs include approximate program expenditures, but do not include termination costs and cost of maintaining the current presidential fleet.

AW101, formerly the EH101 helicopter) and Bell Helicopter (flight-test engineers and maintenance support and eventual final assembly of the aircraft), following a competition with a Sikorsky Aircraft team, which offered its twin-engine S-92.

Since the termination of the contract in May, Lockheed Martin has laid off some 700 employees involved in the program at its Owego, N.Y. facility. The U.S. joint-venture AgustaWestlandBell, formed in 2003 to manufacture the US101, has laid off 48 people and Bell Helicopter has laid off about 100.

Not surprisingly, Congressman Maurice Hinchey, a New York Democrat and a member of the House Appropriations Subcom-

mittee on Defense, supported the effort to have an additional \$400 million for the VH-71 inserted into the House version of the defense appropriations bill. If this funding is ultimately approved, it will result in the restoration of many of the jobs in Owego, according to a statement from Hinchey's office. Hinchey said, "We have not only restored funding for the presidential helicopter replacement program, we've breathed new life into it by making a very substantive argument for why it is in the best interest of the American taxpayers and the President to continue the program."

Hinchey's "substantive argument" is about the \$3.3 billion already expended on the program and what he calls "an expanded

Increment 1 VH-71 program," which was one of four potential alternatives suggested in a Navy briefing to the House Armed Service Committee in May. Under this proposal, he and other Congressmen, including Michael Arcuri (D-N.Y.) and John Murtha (D-Pa.), contend that the Navy could purchase a full fleet of 19 Increment 1 (VH-71A) helicopters for a total cost of about \$7 billion, which is close to the original \$6.1 billion approved for 23 helicopters comprising three test aircraft, five interim Increment 1 and 15 more-capable Increment 2 (VH-71B) helicopters. The current Marine One presidential fleet comprises 11 VH-3D Sea Kings and eight VH-60 Night

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Source: Various published statements and reports

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Hawks, a total of 19 aircraft, all built by Sikorsky Aircraft.

Secretary Gates in April said, "Today the [VH-71] program is estimated to cost over \$13 billion, has fallen six years behind schedule and runs the risk of not delivering the requested capability." In May, while testifying before the House Appropriations Subcommittee on Defense, he said that the VH-71 program "was a poster child for an acquisition process gone seriously wrong." He suggested that one solution could be to procure two different presidential helicopters, "one that the President basically uses here in town to go to Andrews [Air Force Base] and other places in the U.S. and "an escape helicopter that could perhaps be a modified [combat] helicopter."

If the VH-71 program receives no more funding to convert the five pilot production aircraft into operational presidential helicopters and a new acquisition program is begun—because the need for a replacement for the aging fleet of VH-3Ds and VH-60s is still valid—the Navy estimates that a new VXX program would cost \$10 to \$17 billion on top of what has already been spent and an additional \$55 million in costs to terminate the first program. (Contract termination liability expenses could add an estimated \$400 million.) So on the face of it, \$7 billion or so (see table on page 44, "Cost Estimates for the Expanded Increment 1 VH-71A Option") for 19 Increment 1 helicopters would seem to be good for taxpayers and the President, not to mention the employees and stockholders of Lockheed Martin, AgustaWestland, Bell and their subcontractors.

Indeed, AgustaWestland in May commissioned WBB Consulting of Reston, Va., to prepare a white paper providing a comparison of four VXX program options. The options included resumption of the canceled program in full (for a total estimated cost of \$12.9 billion, including the \$3.3 billion already spent); restructure of the canceled program so that some Increment 2 requirements are met with Increment 1 aircraft (total estimated cost \$7.5 billion); a new acquisition program starting immediately, meaning FY2010/2011 (\$13.3 to \$15.5 billion); and a new acquisition program starting in FY2012/2013 (\$13.4 to \$15.6 billion).

The first two options (including the least expensive \$7.5 billion option) favor the Lockheed Martin team, while the other two, those involving rebidding a new contract,

would presumably favor no particular bidder. Lockheed Martin also produced its own white paper, which favors procuring 19 Increment 1 VH-71s, arguing that the VH-71 is faster, safer and can travel farther while carrying more passengers than the existing presidential helicopters.

Congressman Roscoe Bartlett (R-Md.) said at a May 19 hearing on FY2010 Navy aviation programs before a subcommittee of the House Armed Services Committee, "We know that Increment 1 is deficient—a little deficient in payload capability, in speed and in how far it can go in range [compared with Increment 2]—but the essential reason we were told for moving away from the current fleet was to have the better communication capabilities

because it was an interim solution.

Regarding fatigue life, while the AgustaWestland AW101, upon which the VH-71A is based, has a service life of 10,000 flight hours, the Navy set the VH-71A's service life at 1,500 hours after cutting airframe-certification fatigue testing from the program to save time and cost because the Increment 1 helicopters were to be an interim solution. After delays in the program made it apparent that Increment 1 aircraft would be in service longer than originally planned, the Navy brought back its fatigue testing in FY2009 and stated in a March 30, 2009 information paper provided to Congress, "An Increment 1 life over a potential 30-year/10,000-flight-hour service life is viable."



The first purpose-built test vehicle (TV-2) for Increment 1 made its first flight on July 3, 2007.

that we understand the [Increment 1] VH-71 provides [compared with the current fleet]. And I am told by the manufacturer that for roughly \$100 million each, which comes well under the original \$6.8 billion, they will enter into a fixed, firm-price contract to deliver another 14, which would mean we would have a total fleet then of 19 planes."

The Navy Weighs In

The main obstacle to any option that seeks to optimize use of Increment 1 VH-1As, either by increasing the number delivered or by improving their capability with some Increment 2 add-ons or both, is that by design the VH-71A does not fulfill the original stated requirements for the VXX presidential helicopter, which were established during the Bush Administration. This is because Increment 1 was meant as an interim solution until the longer lived and more capable Increment 2 could be developed, tested and delivered. Specifically, the fatigue life of the Increment 1 helicopter's airframe and components have not been verified by the Navy; the aircraft is too heavy/not powerful enough to meet stated mission requirements (hover out of ground effect [HOGE] and range); and the airframe includes some areas that are not considered fail safe, which was considered acceptable

Regarding the latter two issues, the Navy said in the same paper, "After four years of study, the VH-71A airframe design includes some areas which are not fail safe.... A fail-safe design was deferred to Increment 2 since the transmission, engine and [main rotor] blade improvements were to be replaced anyway to achieve the required HOGE and range performance. Fail safety will come with these improvements at little additional cost."

Finally, the Navy concluded thus: "Although it appears a viable path is available to certify Increment 1 fatigue life to 30 years/10,000 flight hours, the actual usual life will be determined by the results of the fatigue-test article, as well as the power/growth margin measured against the approved requirements or possibly reduced. Regardless of fatigue life, the risk associated with the lack of fail safety will grow over time with accumulation of flight hours. The sum of these factors makes the viability of the VH-71 Increment 1 aircraft problematic, at best, as a long-term solution for the Presidential Helicopter Transport Mission and would require significant mitigations if it was deemed the final solution."

Nevertheless, the House Armed Services Committee said in its report on the House 2010 defense authorization bill (H.R. 2647), "The committee supports a new acquisition plan which may incorporate more than a one-platform solution to the needs of the President.... Therefore, the committee strongly suggests that the Department of Defense consider continuing procurement of the current Increment 1 helicopter for use as the normal transport for the President, and study other alternatives for Presidential transport in other situations.

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Presidential Helicopter Timeline

1975	The current fleet of 11 VH-3D presidential helicopters achieves initial operational capability.
1989	The current fleet of eight VH-60N presidential helicopters achieves initial operational capability.
March 1998	Marine Helicopter Squadron One (HMX-1) submits a Fleet Operational Needs document for a replacement presidential helicopter (VXX).
September 1999	The Navy approves the Mission Needs Statement.
November 2002	A White House memorandum expresses the need to accelerate the presidential helicopter program.
Dec. 18, 2003	Naval Air Systems Command requests proposals for the VXX.
Jan. 28, 2005	John Young, assistant secretary of the Navy (research, development and acquisition) announces that the Lockheed Martin-led team wins the VXX competition. The program's acquisition cost for 23 helicopters is estimated at \$6.1 billion (2005 \$).
July 3, 2007	VH-71 Increment 1 test vehicle (TV-2) makes its first flight at AgustaWestland's facility in Yeovil, England. TV-1, a leased EH101, did early flight testing there.
January 2008	The program's total acquisition cost is estimated at \$11.2 billion (2008 \$).
Sept. 22, 2008	PP-1, the first operational pilot production Increment 1 VH-71, makes its first flight in Yeovil.
December 2008	The program's acquisition cost is estimated at \$13 billion (2008 \$).
Jan. 30, 2009	As required by the Nunn-McCurdy provision, the DOD informs Congress that the program has breached an established cost overrun threshold.
Feb. 23, 2009	President Obama says, "The helicopter I now have seems perfectly adequate to me."
Mar. 16, 2009	Sixteen Congressmen suggest the expanded Increment 1 solution in a letter to Secretary of Defense Gates.
April 6, 2009	Secretary of Defense Gates recommends the termination of the VH-71 program.
April 28, 2009	In Yeovil, AgustaWestland officially delivers PP-5, the last of the nine Increment 1 helicopters built, to Lockheed Martin. A few days later it is transported aboard a USAF C-17 to the U.S.
May 15, 2009	An internal DOD memorandum cancels the program. The Naval Air Systems Command Contracting Offices issues a stop-work order.
June 1, 2009	The Navy announces it will terminate the contract for the VH-71 program.
July 30, 2009	The House Appropriations Committee includes \$400 million in its version of the FY2010 defense bill "to make the five Increment 1 VH-71 presidential helicopters operational."
Sept. 10, 2009	The Senate Appropriations Committee approves its version of the \$636.3 billion defense appropriations bill, which does not include funding to continue the VH-71 program.
Oct. 1, 2009	Fiscal Year 2010 begins.

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The committee notes that this approach will leverage on the investment already made by the taxpayer in developing a helicopter that would meet all normal requirements of the President.”

More Politicking To Come

As mentioned before, the Department of Defense terminated the VH-71 presidential helicopter replacement program on May 15. On that same day, the Navy issued a stop-work order “on all activities associated with VH-71 Systems Design and Demonstration requirements.” No work on the program has been done since then, except for contract termination activities.

Of the \$400 million in funding included for Increment 1 research, development, evaluation and testing in the House version of the defense appropriations bill, H.R. 3326 Department of Defense Appropriations Act, 2010, Congressman Murtha, chairman of the House Appropriations Defense subcommittee, said, “I think this is one the White House might back down on.” (Total VH-71 funding of \$485.2 million in H.R. 3326 includes \$55.2 million for termination costs and \$30 million for the initial studies for the new VXX program, both of which were requested by the Navy.)

Meanwhile, neither the House defense authorization bill (H.R. 2647) nor the Senate’s (S.1390) includes funding recommendations that would continue the presidential helicopter program (in other words, the extra \$400 million), although as noted above, the House Armed Services Committee seems to give the idea moral support. However, when it comes to funding, it is the appropriations bills “where the rubber meets the road,” as one observer said. So it’s logical that both of New York’s senators, Democrats Chuck Schumer and Kirsten Gillibrand, asked the Senate Appropriations Committee to include funding for the Increment 1 helicopters. If the House and Senate conference committee on defense appropriations agrees to include additional funding for the VH-71 program in the final version of the defense appropriations bill, which will then likely be approved by both houses, the final decision will be left to the President.

President Obama has been saying since February that he’s happy with the Marine One VH-3 helicopters that now carry him. At a White House fiscal summit on February 23, Sen. John McCain (R-Ariz.), Obama’s former presidential rival, said, “Your helicopter is now going to cost as much as Air Force One.” Obama replied, “The helicopter I have now seems perfectly adequate to me. Of course, I’ve never had a helicopter before; maybe I’ve been deprived and I didn’t know it.” Then he added, “But I think it is an example of the procurement process gone amok.”

Following passage of H.R. 3326 on July 30, the White House that same day issued a Statement of Administration Policy, which says, “The Administration strongly objects to the addition of \$400 million to make

operational five partially completed VH-71 helicopters. These helicopters currently have no mission equipment and would require in excess of \$2 billion to complete and to operate as presidential helicopters, yet would still not meet full operational requirements for that mission. DOD and the White House are conducting a requirements analysis, and the outcome of this effort should not be pre-empted. *If the final bill were to include funds that continue the existing VH-71 program, or would prejudge the plan to re-compete the presidential helicopter program, the President’s senior advisors would recommend that he veto the bill.*” [Italicized sentence underlined in the original document.]

On August 17, in a speech to the Veterans of Foreign Wars, the President said, “It [the new presidential helicopter] would let me cook a meal while under nuclear attack. Now, let me tell you something: If the United States of America is under nuclear attack, the last thing on my mind will be whipping up a snack.” He added, “If a project doesn’t support our troops, if it does not make America safer, we will not fund it. If a system doesn’t perform, we will terminate it. And if Congress sends me a defense bill loaded with a bunch of pork, I will veto it.”

However, according to an AgustaWestland spokesperson and others, the final line of the Statement on Administration Policy—“the President’s senior advisors would recommend that he veto the bill”—gives the President an out, if he decides not to veto the bill. The spokesperson said the President could “theoretically decide not to follow his advisors’ advice.” A Lockheed Martin spokesperson told AIN, “The VH-71 program has been terminated by our customer, and we are complying with that direction. We are not facilitating interviews on the program at this point.”

Perhaps more ominous for the future of the VH-71 is the fact that it is only one of cluster of defense programs (F-22, F-35 alternate engine, C-17, Air Force air refueling tanker and more) vying for attention and dollars this year. In the arcane world of defense procurement, politics, national security and industrial survival create a backroom, multibillion-dollar version of “Let’s Make a Deal.” If the VH-71 is not the most important program for a particular politician, four-star or CEO, it might be quietly put on the shelf while its former proponents pick their lobbying battles elsewhere.

Furthermore, the VH-71 has been plagued by public relations problems—“It’s been vilified in the press repeatedly,” one source told AIN. And the powerful chairman of the Senate Appropriations Committee, Sen. Daniel Inouye (D-Hawaii), said last month, “The President does not want it. I don’t want to force it down his throat.”

What Could Be the Results?

If funding to make the five Increment 1 pilot production aircraft operational for the President’s use *is* included in the final 2010 defense bill and the President *does not* veto it, then the program will continue on a reduced level and with an implied mandate

that could see President Obama flying on a VH-71A before his first term ends. Additional funding in future years will be needed to add more Increment 1 helicopters to the five converted aircraft.

If funding is *not* included in the bill or if it *is* included and the President *vetos* it, then the VH-71 program as it stands now is likely terminated for good. From this point, what happens next is less clear, but a few things seem inevitable.

First, the current HMX-1 Marine One fleet needs to be maintained and likely upgraded. One observer said the Navy is already working on a service life extension program (SLEP) for the VH-3s. Under consideration are new composite rotor blades developed by Carson Helicopters of Perkasi, Pa., which are already flying on one Navy helicopter, according to Jeff Hill, Carson executive vice president. The Navy estimates the cost of this SLEP/upgrade option at \$1.4 billion, not including the \$3.3 billion already sunk into the VH-71.

Second, since there would still be a requirement for a presidential replacement helicopter—and the White House has proposed starting in FY2010 a new VXX program as a successor to the VH-71—this will likely be bid in the coming years. According to a statement from the office of Tom Laux, Deputy Assistant Secretary of the Navy, “The Naval Air Systems Command (Navair) along with the White House

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How Did the VH-71 Get So Heavy?

A simple answer to the question, “Why does the VH-71 weigh so much that it can’t meet its performance objectives?” is that the nobody really knew how much the not-yet-developed mission equipment would weigh when the contract was awarded to the Lockheed Martin team in 2005.

The complex answer is found in classified documentation and in the minds of participants who are not willing to talk publicly. As the July 13, 2009 Congressional Research Service report put it, “Owing to the unique security concerns surrounding an aircraft designed to carry the President, the specific technical and operational requirements for presidential helicopters are not fully discussed in public, which can make it difficult for outside observers to fully evaluate this issue.” Or as one participant said to **AIN**, not entirely tongue-in-cheek, “If I told you the answer, I’d have to kill you.”

In between these extremes, one finds numerous references in released documents and news reports and from comments by individuals that paint a broad picture and support President Obama’s contention that the VH-71 program “is an example of the procurement process run amok.”

According to the above Congressional Research Service report, “The VH-71 program was established with a sense of urgency. DOD officials argued at the time that in light of security issues raised by the terrorist attacks of September 11, 2001, replacing the existing presidential helicopter was an urgent matter. It was reported that White House officials repeatedly urged DOD to accelerate the VH-71 program, proposing an IOC by 2007. Numerous VH-71 program documents

and statements by DOD officials referred to the ‘urgent need’ to field a new presidential helicopter.” Other sources name Andy Card, former President George W. Bush’s chief of staff, as one these White House officials.

Still, the exact equipment specifications for the helicopter—described by some as an “Oval Office in the sky” able to operate over terrain and in climates and adverse weather encountered almost anywhere in the world—remain shrouded in secrecy. The following elements have been variously reported: secure, encrypted communications, including video conferencing; missile defense, including jamming of seeking devices and fending off incoming missiles; and a hardened fuselage that can resist the electromagnetic effects of a nuclear blast. This last feature likely elicited President Obama’s comment about his being able to cook a meal during a nuclear blast on the VH-71. However, two sources told **AIN** the helicopter’s galley does not have even a microwave oven to cook food and other sources would not comment.

Several reports suggest that requirements were added to the original helicopter design after the program was awarded to Lockheed Martin. “This is an urban myth,” claimed Joe Haddock of Sikorsky. “I’ve spoken several times to Tom Laux [Deputy Assistant Secretary of the Navy] who has told me the government did not change one single requirement.” Laux would not speak to **AIN** directly nor would he provide a formal statement on this question. However, a Navy spokesperson who works for him said, “Every time I show him an article claiming requirements were added, he

says, ‘The requirements never changed.’ He is very clear about this.”

However, one source told **AIN**, “There was an urgent need to get an off-the-shelf aircraft and put in equipment. When you throw in more bells and whistles, you add weight. The Navy said there was requirements creep.” And another claimed, “The White House and Navair went berserk trying to put stuff in the helicopter; then they wanted more stuff. It wasn’t mission creep; it was beyond creep. The whole thing could not have had a worse outcome.” Haddock said, “Lockheed Martin does not make helicopters. It makes mission systems.” He speculates that it therefore did not fully understand the critical effect extra weight has on helicopter performance. “To be fair,” he added diplomatically, “there were a thousand pages in the RFP [request for proposal] that required 100,000 pages of documentation in the proposal. One person’s minor requirement can be another’s major requirement. It’s very complex.”

The Government Accountability Office in its March 2009 report provided this response from the Navy program office regarding the VH-71’s problems. “The Navy stated that the program is executing at an accelerated schedule driven by an urgent need to replace existing aging assets. Concurrency in development, design and production was necessary to meet the accelerated schedule, but Increment II will follow a more typical acquisition approach. The Navy reported significant production maturity has been developed for Increment I, including the first flights of two pilot production aircraft.”

—R.R.P.

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Military Office and the Office of the Joint Chiefs of Staff are conducting preliminary scoping to meet the present presidential helicopter replacement requirement and expect to start an analysis of

alternatives by the end of the calendar year. All options are under consideration.”

Sikorsky is primed to rebid the contract. According to Joe Haddock, Sikorsky vice president of government business, the company sent a letter to Defense Secretary Gates after the announcement about the VH-71 program’s cancellation, suggesting that the

Navy consider the possibility of incorporating the Lockheed Martin mission equipment package designed for the AW101-based VH-71 into the S-92.

Although some have suggested that the AW101’s larger cabin was one of the deciding factors in the Navy’s choosing it over the S-92 in 2005, statements made at that time by John Young, assistant secretary

of the Navy for research, development and acquisition, counter this assertion. “The S-92 offers a cabin that’s pretty comparable in size to today’s VH-3D,” Young said. “The 101 [has] a larger cabin, so it offers a little more flexibility. That was something we considered. But both cabins met the requirements, so that wasn’t a discriminating factor.” (Cabin volume

“The viability of the VH-71 Increment 1 aircraft [is] problematic at best, as a long-term solution for the Presidential Helicopter Transport Mission.”

—U.S. Navy

and maximum seating of civil versions of the AW101 and S-92 are, respectively, 970 cu ft/30 passengers and 790 cu ft/24 passengers. The VH-3D, designed to carry 16, is generally limited to 10 passengers now because of added equipment; the VH-71 is designed to carry 14 passengers with four crewmembers.) Young also said, “Each team could deliver the required product for the President,” and somewhat ironically now, “The government team must make a best value selection, which controls the risk and cost to the taxpayer, while delivering the capability demanded by the White House mission.”

Ray Jaworski, who has been following the program for Forecast International of Newtown, Conn., said, “It will be interesting to see who bids on the subsequent competition. Sikorsky will certainly bid the S-92 and Boeing might bid the V-22 tiltrotor, though it’s service record may not be considered long enough for a presidential transport from a public relations point of view. Agusta-Westland and Lockheed Martin may decide not to compete.”

Other options include buying more VH-60Ns or converting an existing helicopter, such as the CH-53K, to presidential use. Both are Sikorsky products.

Still undecided, or at least not announced, is what will happen to the nine VH-71As already manufactured, the Lockheed Martin mission equipment package, the intellectual property and everything else for which the taxpayers have paid some \$3.3 billion. Some suggest AgustaWestland may buy back some of the aircraft, modify them and sell them elsewhere (one of the four test vehicles was industry funded, the rest of the eight helicopters were government funded, five of the latter being the pilot production aircraft). Some or all of the mission equipment package could end up in the next VXX helicopter. And some VH-71s could be converted for other U.S. military operations. □