



# vertiflite Industry Briefs

**T**he National Full-Scale Aerodynamics Complex at NASA Ames, which includes the 40x-80-foot, 80x120-foot wind tunnel complex, is receiving a lot of attention lately, since NASA closed the NFAC in May 2003. A recently published RAND report on *Wind Tunnels and Propulsion Test Facilities* concluded that unless NASA, in collaboration with the Department of Defense, addresses specific deficiencies, investment needs, budgetary difficulties and collaborative possibilities, the nation risks losing the competitive aeronautics advantage it has enjoyed for decades. Full cost recovery accounting practices imposed by NASA will have serious implications for the financial health of important but currently underutilized facilities, such as the NFAC. The study concluded "computational fluid dynamics (CFD) cannot replace wind tunnels and will not for decades." A report issued earlier in the year by the Institute for Defense Analyses (IDA) arrived at a similar conclusion. In the meantime, the Department of Defense is proceeding with plans to take over the maintenance and operation of the NFAC, a facility now viewed by Pentagon leaders as critical to national security. In order to accomplish this, the Department will have to reprogram more than \$10 million in fiscal year 2005 funds and negotiate a transfer of the facility from NASA to the DoD.

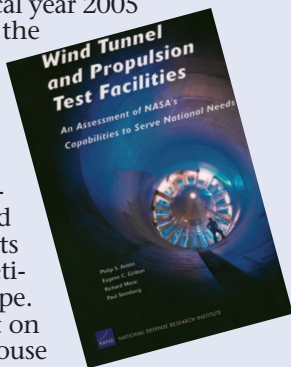
Meanwhile, language inserted in the fiscal year 2005 Omnibus Spending Bill, approved by the House and Senate, instructs NASA not to close any wind tunnels during fiscal year 2005 and requires the agency to restructure its wind tunnel fees to ensure competitiveness with facilities in Europe. Lawmakers require NASA to report on its fee restructuring plans to the House and Senate appropriations committees by March 1, 2005. Almost unnoticed in the fray is a current Federal regulation – 14 CFR Part 1210 – requiring NASA to maintain the NFAC as a "national aeronautical facility" for "industry, NASA, the Department of Defense, and other Government agency projects." The regulation goes on to state "no fee will be charged for Government projects."

**T**he military's future heavy lift transport continues to receive close scrutiny within the Pentagon. The Air Maneuver Transport is the platform the Army envisions will carry its Future Combat Systems vehicles to and around the battlefield. According to Glen Harrison, speaking at the Society's 11th Helicopter Military Operations Technology Specialists Meeting in Williamsburg on October 20, the Joint Requirements Oversight Council (JROC) could review the heavy lift requirements during December. "AMT will provide a capability that is revolutionary," said Harrison. Further, he stated, based on the Army's studies, the requirement "comes out vertical every time." Working independently of the Army, the Pen-

tagon's Joint Vertical Aircraft Task Force (JVATF) – created by Under Secretary of Defense for acquisition, technology and logistics Michael Wynne – has developed its own initial capabilities document for heavy lift transport, with a JROC review expected in December as well. Its purpose is to aid with the critical design and development process associated with heavy lift. The new heavy lift requirement is being driven not simply by the Army's need to provide mobility for its Future Combat Systems but also the Navy's new seabasing doctrine.

According to reports, a Wynne memorandum dated October 4 directs the JVATF to recommend whether the project should be led by one service arm or the joint community, and whether the project should include NASA and DARPA. Finally, it requests the report team to "identify funding requirements for fiscal year 2005 through fiscal year 2007 and potential funding sources." Previously, in a February 2004 briefing to the JVATF, a team of AHS and industry experts advised the JVATF that, to achieve notional heavy lift goals, an initial investment in rotorcraft science and technology would be needed, lasting four to five years and costing at least \$500 million per year. (That report stated that the S&T focus should be on advancing air vehicle technologies, such as structures; rotors or alternate vehicle lift systems; interactional aerodynamics; vehicle management; power, including drive train and engines; and payload interface. Technology advances should address operational support and sustainment features of the air vehicle system early in the design process so that reliability and maintainability goals drive the operational and support costs.) Current budgets do not incorporate spending anywhere near this level. Observers will be watching the fiscal year 2006 defense budget proposal for any indication that heavy lift will emerge in the near future as a major requirement.

**S**peculation increased that the U.S. Air Force will soon announce a Request for Proposals for its much-awaited Personnel Recovery Vehicle (PRV) Program, a 132 aircraft medium lift requirement for a search and rescue vehicle valued at \$6 to \$9 billion. The aircraft will replace 104 aging Sikorsky HH-60 currently used for combat search and rescue applications. Possible competitors include the Bell Boeing V-22 Osprey tiltrotor, Sikorsky's H-92, AgustaWestland's US101 and Europe's NH90 helicopters (EADS North American and Northrop Grumman announced a partnership for this purpose on September 1). While the Internet buzzed with premature announcements that the RFP had been released on November 30, those reports proved false. But it is widely expected that draft requirements for the off-the-shelf procurement will be released as early as January or February 2005 with the final RFP to be issued in May 2005. Selection could occur as early as fall 2005. The PRV, by comparison to the Presidential VXX aircraft, will be austere and equipped for combat, with 22 troop fold-up seats, a large rear ramp, a medical workstation, a rescue hoist, a fast rope, rappelling equipment and an in-flight refueling probe.



**F**inal selection of the Presidential VXX helicopter – a \$1.6 billion program to acquire 23 medium lift helicopters for the White House – has been pushed into late January, a third delay that has many within the industry asking why. The first, from pre-November 2 to late November, was easily attributed to political factors, since in Karl Rove-speak there would be little or no benefit in announcing a controversial decision immediately prior to election date. Later in the month, it was announced that a decision would be postponed until December 17. That might have been understandable, since the White House was arguably busy on other matters, including a major cab-



Top, Sikorsky VH-92 and bottom, Team US101.

inet reshuffling. NAVAIR, meanwhile, claimed it wanted to pursue further “risk mitigation” measures. But then came the latest announcement, deferring selection into 2005. Competitors in this hard-fought contest are Sikorsky Aircraft Corporation and its VH-92 and Team US101, which include prime Lockheed Martin, AgustaWestland and Bell Helicopter offering an Americanized EH101. According to some reports, the winner will have an advantage in the much-larger U.S. Air Force competition for its Personnel Recovery Vehicle.

**T**he Center for Rotorcraft Innovation (CRI), a concept promoted by Rep. Curt Weldon (R-PA) and funded at \$2.5 million in the fiscal year 2005 Defense Appropriations Act, will be located in Philadelphia, Pennsylvania, pursuant to an agreement reached in November 2004 by senior industry representatives and the Rotorcraft Industry Technology Association (RITA), in association with the Weldon staff. During 2005, RITA will relocate to Philadelphia from its current Connecticut base of operations. While RITA, comprised of Bell, Boeing, Kaman and Sikorsky plus other industry and academic members, will continue to direct government-industry research funding as it has since 1994, it will change its name to CRI, it will broaden its membership base, and it will establish a local facility in the Philadelphia area to perform rotorcraft research. One possible venue under discussion is the Delaware County, Pennsylvania campus of Penn State University, one of three Rotorcraft Center’s of Excellence.

**B**ell Helicopter – under the leadership of CEO Mike Redenbaugh – is emphasizing the importance of advanced research and development as key to regaining market share lost recently to Eurocopter and



Bell 407.

other competitors. Foremost among many projects at Bell’s XWORX is a new tail fan system currently being tested on a Bell 407 airframe. Bell has completed high-altitude flight-testing of its tail fan demonstrator in Leadville, Colorado, including out-of-ground-effect hover at 11,700 ft and forward flight at even higher altitudes. Thus far, the new blade design demonstrates improved noise performance compared to Bell’s competitors. The expectation is that the new prototype tail fan will be incorporated in Bell’s Modular Affordable Product Line (MAPL) series of next-generation helicopters. The first among those will be the Bell 351, a single-engine aircraft scheduled to be certified during the 2008 time frame.

**C**omings and Goings. Bell Helicopter Textron has announced a number of management additions. John L. Bean has been named senior vice president of the company’s government business unit. Bean comes to Bell from Lockheed Martin, Fort Worth, where he served as vice president and general manager of F-16 programs for the past three years. He replaces General Terry Dake, USMC (Ret), who retired from Bell in mid-2004. He will be the senior executive for all U.S. government programs, including the V-22 Osprey, the H-1 and the Bell Eagle Eye. He will also direct Bell’s involvement in foreign military programs and aftermarket support to the U.S. military. Earlier in the year, Bell named former astronaut Tom Henricks as vice president for government business development. Previously he was Bell’s V-22 deputy director in Philadelphia. A NASA astronaut from 1985 to 1997, Henricks flew four Space Shuttle missions. Most recently, Bell named Michael Blake senior vice president of its commercial business unit. He comes to Bell after a 27-year career with United Technologies Corporation, where he was vice president and program director of the Comanche helicopter program at Sikorsky. Blake will be responsible for commercial helicopter business strategy at Bell, plus program management, product development, aftermarket strategy and customer support and services worldwide. Lockheed Martin, moving to reinforce the management of the F-35 Joint Strike Fighter program, has assigned Bob Elrod general manager of the F-35 program. Tom Burbage, who has been given the role of executive vice president and general manager for program integration, had previously held that position. According to a Lockheed Martin spokesperson, Elrod will be responsible for the technical and fiscal aspects of the program; Burbage will be the main contact for the U.S. government and deeply involved in all international aspects of the program.

