Rotorcraft Report

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Body

Next Steps for Army AATE/ITEP Program

The U.S. Army has issued a Request for Information as the next phase in development of its Improved Turbine Engine Program (ITEP). The ITEP is a 3,000-shp engine program "based upon Advanced Affordable Turbine Engine (AATE) technology development," the Army stated in its RFI, issued on July 22. The ITEP is planned as a replacement for the T700-GE-701C/D engines that currently power the UH-60 Black Hawk and AH-64D Apache and date back to 1978. The engine is also used to power a wide variety of helicopters, from other U.S. military services as well as commercial and foreign military helicopters, such as the S-92, S-70, NH90 and EH101. The Army issued its initial announcement for a growth engine replacement in 1998, although launch funding did not become available until the 2007/2008 timeframe.

Two U.S. companies are competing for the ultimate production contract for the ITEP - GE, maker of the original T700/CT7 family, and the Advanced Turbine Engine Company (ATEC), a 50/50 joint venture created in 2007 between Honeywell and Pratt & Whitney to develop AATE technology. Both companies are now in the science and technology (S&T) phase of demonstrating the AATE technology for the future ITEP. ATEC ***designated*** its future ITEP engine the HPW3000, while GE is offering its GE3000.

The U.S. Army's Aviation Applied Technology Directorate completed the Preliminary Design Review (PDR) on the engines late last year. The Detailed

Design Review has also been completed and the Critical Design Review (CDR) will be conducted this December, with validation and full engine testing expected to continue through 2011. The AATE program is being conducted under a $109-million contract for each competitor.

GE stated that it had initially been selected as the winner of the AATE competition and awarded the contract. "Subsequently, the Army decided to also award a similar contract to the competition. Additionally, GE has distinguished itself by being selected for five AATE components - turbine technology ceramic matrix composites, advanced power turbine, mechanical systems, compact high-power combustor and advanced compressor," a company spokesperson said.

Full S&T development and testing for the AATE is expected to last through fiscal year 2012. The recently released Army RFI reflects that ITEP development will enter engineering manufacturing development (EMD) in FY2013 with the two contractors who will continue development of their candidate engines through preliminary flight rating test and flight demonstrations, before down selecting to contractor in FY2016.

Objectives of the new engine program are based on comparative parameters of the -701C, providing a 25 percent improvement in specific fuel consumption, a 65 percent increase in power-to-weight ratio, a 35 percent reduction in production and maintenance costs and a 20 percent increase in engine design life.

Reduction in the SFC is considered paramount, considering that under current combat conditions in Iraq and Afghanistan, the Army estimates the cost of fuel to be $30 per gallon when delivered by truck to an aviation unit 600 km (324 nm) inland, and $400 per gallon when delivered by CH-47. A 25 percent reduction in SFC equates to a 12 percent reduction in direct fuel consumption, or an estimated savings of 9.4 million gallons per year.

The Army states that the ITEP is focused on "development and qualification of a new centerline, turboshaft engine that is needed to support modernization requirements necessary to ensure the Apache and Black Hawk remain

operationally effective well into the 21st century." It also noted that "additional Black Hawk lift capability is needed for hot/high operating conditions and a significant increase in aircraft mission radius capability, up to 500 km (270 nm), is desired for both the Apache and Black Hawk helicopters."

As the program transitions into EMD, based on the Army's RFI acquisition strategy, it requires the two contractors to install and demonstrate their engine's performance and ease of installation and integration. The primary objective is to have a drop-in configuration with minimum cost and complexity to accomplish the installation.

The HPW3000 configuration will be a two-spool engine designed for drop-in installation. It reportedly will require less power to start and reduce overall installation costs. It enables the use of a battery to start, providing the Army the option to eliminate the need for an auxiliary power unit (APU).

GE stated it could not discuss the technical aspects of the GE3000, simply that it will be a new centerline engine, able to start with or without an APU.

A lower retrofit cost is also expected, since the new engine will fit into the current mounts without a need for redesigned fittings or any fuselage changes. ATEC claims its engine will feature a 25 percent growth capability within the same installation envelope in anticipation of future helicopter performance and growth requirements, while GE simply stated that the GE3000 "is designed to meet specific requirements set forth by the Army for its future platform requirements."

ATEC also pointed out that it is a "green" engine, not only operating at a lower SFC, but producing fewer emissions, having a lower noise footprint and possessing the ability to operate on alternative fuels, to include biofuels.

Current combat assault specifications for the UH-60M Black Hawk with the T700-701D engine under 4,000-ft, 95Â degreesF conditions include a mission radius of 233 km (126 nm) with a payload capacity of 3,190 lbs at a max gross takeoff weight of 19,401 lbs. Expanding the current -701D from 2,000 to 3,000

shp would increase Black Hawk empty weight by 200 lbs, but could retain the same payload while increasing fuel consumption and reducing mission radius to 190 km (103 nm). The 3,000-shp ITEP engine will enable retention of the same max gross takeoff weight and payload, but with reduced fuel consumption that will increase the mission radius to 271 km (146 nm). An ITEP engine on the UH-60M would either extend the mission radius with an external payload of 9,000 lbs from 65 km (35 nm) to 135 km (73 nm), or would allow the ITEP engine with an improved transmission to carry a 9,000-lb payload 135 km, while the -701D-equipped UH-60M would be restricted to just over 5,000 lbs.

For the Apache powered by the -701C engine, the new ITEP engine would increase range from 260 nm (140 nm) to 325 nm (175 nm) and payload from 3,400 to 4,500 lbs.

Both competing engines are expected to exceed the Army's requirements, as well as minimize the Army's current T700 logistic footprint. Program development cost for the ITEP is estimated at $500 million. However, annual direct operating and support (O&S) cost savings are estimated at around $80 million per year. This includes a savings of $44 million in engine O&S costs and $9 million in fuel for the UH-60 fleet of 1,500 aircraft, and $24 million in engine O&S costs and $3 million in fuel for the AH-64 fleet of 700 aircraft. Based on those estimates, the Army's development cost breakeven point is 6.25 years. - By Douglas W. Nelms

American Eurocopter Opens Customer Service, Fleet Operations Center

Various Eurocopter helicopters in U.S. and Texas state livery conduct a demo flight during a July 10 event in Grand Prairie, Texas.

Grand Prairie, Texas-based American Eurocopter has officially launched its U.S. customer service and fleet operations center (CSFC). The facility, located at the company's Grand Prairie site, will serve as a global service and logistics network, along with sister fleet operations facilities in Europe (in La Durane, France) and Asia (Hong Kong, China). The CFSC opening followed an event in mid-July commemorating American Eurocopter's 40th year of business in

the U.S. Opening the new CSFC "is not just a move to a new location with new technology," explains Larry Roberts, vice president of sales, marketing and customer support, but "a major step forward for our business, and part of an initiative designed to bring our customer service and support to the top of the industry." The company is investing in local repair and overhaul facilities, and beefing up supply chain and training services. American Eurocopter has also reorganized its marketing, sales and customer support functions into a single entity.

The company has high hopes for the future of its services and products.

During the 40th year event, Rusty Weiger, deputy program executive officer for U.S. Army Aviation, noted that the UH-72A program "has accomplished what few - if any other - major programs have achieved: staying on price and schedule this far into the project, and I see no reason why we can't continue this performance. I also believe the Lakota program's reputation will position us - even with today's budget constraints - to grasp future opportunities that may arise, which will be a win for the U.S. Army, EADS North America and American Eurocopter." For more information on the Lakota testing to meet the armed aerial scout requirements, see page 12.

American Eurocopter traces its roots to 1969, when Aerospatiale and LTV Aerospace formed Vought Helicopter in Texas. The Eurocopter subsidiary employs 750 workers in the U.S.

EADS LUH Platform Meets Key U.S. Army Armed Aerial Scout Profile

"We have met the most stringent requirements of the Army," said David Oliver, CEO of EADS North America at a Washington, D.C. press conference in reference to the high/hot testing of the EC145 conducted in Alamosa, ***Colo.*** "This is a capable system. The Army will need it soon and will need it for a while," Oliver continued.

A standard, commercial EC145, the platform that serves as the baseline for the UH-72A Lakota Light Utility Helicopter (LUH), has completed a series of successful high/hot flight demonstrations. These tests proved it is able to meet

the U.S. Army's demanding high altitude/high temperature mission profiles for both current and future armed aerial scout, according to EADS.

Operating from Alamosa, ***Colo.*** with a takeoff elevation of more than 7,500 feet and carrying a simulated 2,300-lb mission equipment package (MEP), the Lakota platform (to be known as the Armed Scout 645 once missionized) successfully hovered-out-of-ground-effect (HOGE) at a density altitude of 6,000 feet and 95 degrees Fahrenheit. This requirement was included in the Army's Sources Sought document issued in October 2008 and reflects the evolving armed aerial scout mission environments faced by U.S. forces operating in theaters such as Afghanistan. The demonstration flight not only validated the aircraft's high/hot hover capability but also confirmed tail rotor authority and controllability with the simulated MEP payload in hover-out-of-ground-effect conditions at a weight of 7,407. These numbers represent a 201-lb increase from the previously certified capability.

A subsequent flight with the simulated MEP payload validated the aircraft's long-range endurance capability - completing a 2 hour, 30 minute flight with a 35-minute fuel reserve.

"This series of successful flights with a Lakota platform clearly demonstrates our team's ability to meet the Army's demanding high and hot operational requirements with a full combat mission package. We did so with a platform that provides broad commonality to the successful UH-72A Light Utility Helicopter flying in the Army inventory today," says David R. Oliver, EADS North America's CEO.

Quick Thinking Beats Fire

Ultra Helicopters operates various types, including the Bell 204C, 205A-1, 206 and 206L3, as well as the Eurocopter AS350 FX2 and Robinson R44.

An engine fire engulfed this Ultra Helicopters Bell 204C, forcing a quick response from the pilot.

A rapid response and quick thinking by Ultra Helicopters pilot Wayne Norris saved his life and that of a passenger, following a fast-spreading engine

fire in a Bell 204C helicopter (the 204C is an early civilian version of the UH-1).

Norris was doing long-line work, hoisting a water bucket over Easterville, Manitoba in Canada on June 15, 2009, when he noticed "dark smoke coming out of the 204's hellhole in his rear-view mirror," says Ultra Helicopters chief pilot Josh Poirier. The hellhole is an area in the aft cabin that runs from the transmission to the bottom of the aircraft and houses hydraulic and electrical connections. "Wayne dropped the bucket and line, then made an abbreviated final approach to the nearest base just a mile away." Norris' fast reaction saved his and his passenger's lives. "It was two minutes from the time Wayne noticed the smoke to the time he landed," Poirier tells Rotor & Wing. "A minute after landing, the helicopter's engine compartment and mast were engulfed in flames. Had he tried to make it to a further base, which he considered doing, the machine might have broken up in air."

Canada's Transportation Safety Board is currently investigating the cause of the fire. Ultra Helicopters is headquartered in Peace River, Alberta. It provides charter helicopters for fire suppression, oil and gas ***exploration***, medevac and air taxi services.

AW139 Begins Service with Bel Air

Denmark's Bel Air has taken delivery of its first AgustaWestland AW139. The 12-seat aircraft will be used for offshore transport services. At a handover ceremony that included Prince Henrik of Denmark, consort to the Queen of Denmark Margrethe II, Bel Air dubbed the helicopter "Spirit of Agusta" to honor the "fantastic support [AW has] provided since the very beginning," said Susanne H. Lastein, managing director for Bel Air.

The AW139 is the first of a series of helicopters that Bel Air will receive. The company has also become an AgustaWestland service center for the AW139 in Denmark. According to AgustaWestland, more than 150 AW139s are operating in the offshore capacity around the globe.

From left to right, Susanne H. Lastein, managing director for Bel Air,

Prince Henrik of Denmark and Ian Savage, regional sales manager of AgustaWestland's commercial business unit, prepare to board the AW139.

NTSB: Maryland I-70 Helicopter Victims ***Mulled*** Driving

The National Transportation Safety Board (NTSB) has released a preliminary report on the I-70 helicopter crash in Maryland that resulted in the deaths of the pilot and three passengers. The Robinson R44 helicopter struck a guy wire that crossed I-70 near Boonsboro the night of July 23 and crashed just off the roadway. Advanced Helicopter Concepts (AHC), a nonprofit charity and helicopter pilot training organization based at Frederick Municipal ***Airport*** (FDK), was maintaining the helicopter for a private owner, who is a trustee for the Advanced Helicopter Youth Foundation (AHYF). While the NTSB report did not reveal who piloted the R44, media outlets have identified the pilot as Jeffrey Nordaas, 24, of Columbia, Md. Two of the passengers - Niall Booth, 43 and George Tutor, 39 - were employees of AHC. Kim Felix, 48, was the other passenger.

NTSB notes that on the day of the accident, the helicopter flew from FDK to Hagerstown Regional ***Airport*** (HGR) to transport passengers, followed by sightseeing rides for an AHYF event. After finishing business meetings and the rides, the pilot called another AHC employee to ask about weather conditions for the return flight to FDK. The employee "informed the pilot that the weather conditions were -miserable' with severe thunderstorms in the area," the NTSB report states. He offered to drive to HGR to pick up the pilot and passengers, but the pilot said he would "wait out" the storm, calling the employee back around an hour later, at around 10:00 pm. According to NTSB, the employee relayed that the rain had stopped, but said it was still foggy with wind and lightning in the area. He renewed the offer to pick them up with a car or minivan. The pilot again said he would wait out the storm, and NTSB estimates that the helicopter took off from HGR at around 10:15 pm. "The HGR air traffic control tower closed at [10:00 pm], and there were no known communications with the helicopter," the report continues.

One witness driving eastbound on I-70 described the helicopter appearing

to fly into "low clouds," and turn around to head west when it hit the power lines, crashed into the ground and "burst into flames." Another witness said the helicopter was flying parallel with the interstate when it "seemed to be getting lower" and faded out of view, followed shortly after with "sparks in the sky."

The helicopter struck an unmarked steel guy wire about 70 feet high that ran across I-70 near mile marker 37. According to power company records, a power fluctuation took place at 10:26 pm. Two power lines below the guy wire were also damaged. The resulting fire severely damaged the R44's cabin, a majority of the main rotor gearbox and all the drive belts. NTSB took the wreckage to a storage facility in Clayton, Del. Initial inspection of the airframe, engine and drive system does not indicate mechanical malfunctions. The helicopter's most recent inspection took place in March 2009. AHC hired the pilot in January 2009. He amassed a total of 630 hours of flight experience, and held a flight instructor certificate with ratings for rotorcraft and instrument helicopter operations, as well as a commercial pilot certificate.

Canada Places Order for 15 New CH-47F Chinooks

Boeing has obtained a $1.15-billion contract for 15 new CH-47F Chinook heavy lift helicopters from the Canadian government. As part of the agreement, Boeing will partner with Canadian companies and issue supplier contracts. Initial support tied to the contract is estimated at more than $500 million, with future investments reaching a potential of $2 billion to the Canadian industry in support of the CH-147 fleet over the next 20 years. Areas of support could include aircraft maintenance, training, engineering and supply chain management.

Mark Kroenberg, vice president of international business development for Boeing Integrated Defense Systems, describes the contract as a "win-win" for both parties, adding that it has "created opportunities for new partnerships to further grow our already large supplier base in Canada."

Boeing will manufacture the 15 Chinooks at its Rotorcraft Systems facility in Ridley Township, Pa. They will feature two 4,700-hp Honeywell

engines and be capable of transporting 21,000 lbs (9,525 kg) of cargo. Deliveries are scheduled to begin in 2013 and run through 2014.

Meanwhile, Boeing Defence UK conducted the first flight of its Chinook Mk3 in June at the UK Ministry of Defence's Royal Air Force (RAF) Boscombe Down facility. Boeing's group of suppliers for the Mk3 reversion program includes QinetiQ and GE Aviation Systems, who are working with RAF to convert eight Mk3s for compatibility with the Royal Air Force fleet of 40 Mk2s. The eight helicopters, which will be based at RAF Odiham in Hampshire, are scheduled for delivery from late 2009 through 2010. Defence UK is a subsidiary of St. Louis-based Boeing Integrated Defense Systems.

HAI Gives Safety Award to STAT MedEvac

Alexandria, Va.-based Helicopter Association ***Intl*** (HAI) recently awarded STAT MedEvac for its outstanding safety record in 2008. HAI gives the award to members who demonstrate an excellent safety record. STAT MedEvac, a nonprofit service of the Center for Emergency Medicine of Western Pennsylvania, flew a total of 11,300 hours last year. The unit also received an ***FAA*** Diamond Certificate for 2008.

Dan Nakles, manager of business relations and development, says both awards reflect the hard work of "our pilots, medical flight crews, maintenance technicians and support staff." STAT MedEvac operates from 17 sites under a consortium of hospitals - UPMC Presbyterian Shadyside, UPMC Children's Hospital of Pittsburgh and UPMC Mercy Hospital.

Marines Seek Helicopter UAV Assistance

The U.S. Marine Corps, eager to reduce the number of troops exposed to roadside bombs laid to ambush convoys in Afghanistan, took a step Aug. 5 toward producing unmanned helicopters to deliver supplies to forward operating bases (FOBs) in that rugged country. Kaman Helicopters and Lockheed Martin Corp's Systems Integration division received $860,000 to demonstrate their unmanned K-MAX. The Marines gave Boeing Co. a separate $500,000 contract to demonstrate its A160T Hummingbird.

The Corps wants a nearly autonomous helicopter that can deliver 10,000 lbs of cargo in sling loads within 24 hours to a range of 150 nm, hover either in or out of ground effect at 12,000 feet density altitude and fly at 15,000 feet with a full load of cargo. In a Request for Proposals, the Marines said that the goal was to find a machine that could do all that by February 2010. But in meetings with the companies, Corps ***officials*** avoided calling the demonstrations a fly-off, an industry ***official*** told Rotor & Wing.

The manned version of the K-MAX, a 5,100-lb helicopter that can lift 6,000 lbs of external load at sea level, has seen use in logging and construction since 1994. The far lighter Hummingbird - about 2,500 lbs empty - was designed for reconnaissance, but Boeing says it will demonstrate that the aircraft can carry at least 2,500 lbs of cargo the required distance in fewer than six hours.

The Marines haven't said whether they'll actually buy either entry, but industry ***officials*** expect the service to procure anywhere from 12 to 70 unmanned cargo re-supply helicopters once the technology is proven. Winning all or part of such a deal could be far more lucrative than that: the Army also wants such a system, and while it doesn't have a similar program yet, its need could far outstrip the number the Marines might buy. - By Richard Whittle

Sikorsky Delivers Training S-300C to UND Aerospace

Stratford, Conn.-based Sikorsky's Global Helicopters unit in Horseheads, N.Y. has handed over an S-300C to the University of North Dakota's John D. Odegard School of Aerospace Sciences (UND Aerospace). The university, which has been using Sikorsky helicopters to train students since 1983, will incorporate the S-300 into its training program. Describing the helicopter as dependable and safe, Don Dubuque, UND's fleet manager and director of extension programs, explains that the school uses the S-300C "because it is a good training platform." Ken Polovitz, assistant dean of student services, adds that UND Aerospace has more than 800 students enrolled in helicopter and fixed-wing training programs, "and more and more of them are becoming interested in the

helicopter industry as a career track."

The S-300C becomes the seventh Sikorsky helicopter in its fleet. UND Aerospace has three more S-300Cs on order that are set for delivery this year.

In a separate development, Sikorsky has received an order from the National Police Agency (NPA) of Japan for an S-92. The helicopter will carry out search and rescue (SAR) and special-mission operations in the country. Japan's NPA, which has used Sikorsky helicopters since 1996, also operates two S-76Bs for SAR, transportation, utility work and other special needs.

Night Flight Concepts, Gladstone Team Up

Gladstone Aerospace (GAC) of Ottawa, Ontario has established a strategic business alliance with Night Flight Concepts (NFC). The goal of the partnership is to "leverage each [other's] respective know-how, experience and resources," in the aerospace, defense and security (ADS) markets.

Port St. Lucie, Fla.-based NFC will work with Gladstone on various joint programs, including night vision training and maintenance support. Night Flight will help expand the Canadian company's reach in the U.S., while Gladstone will help NFC increase its presence in Canada's ADS markets. The two plan to collaborate on international markets as well.

Five AW139s Join Agusta Order Book

Italian manufacturer AgustaWestland (AW) has received orders for five AW139s - four from the government of Trinidad and Tobago and one from the Los Angeles Fire Department (LAFD). The LAFD helicopter (example shown above) will join two AW139s that conduct search and rescue (SAR), aerial firefighting and medevac operations in the city and surrounding areas.

AW will build the LAFD helicopter at its manufacturing plant in Philadelphia, Pa. The company says LAFD chose the AW139 for various reasons, including safety, performance and economics. Battalion Chief Joseph Foley notes that LAFD "can respond faster with increased loads in an aircraft that exceeds current safety standards."

Trinidad and Tobago's Air Guard (TTAG) will use the four AW139s for

various missions, including law enforcement, SAR, disaster relief, surveillance and drug interdiction. Worth around $348 million, the agreement signifies the establishment of the first SAR helicopter unit in the South American island nation off the coast of Venezuela.

AgustaWestland will partner with Bristow Caribbean, UK-based FB Heliservices and Helidex of East Rutherford, N.J. to manage the AW139s. Training will primarily take place in Italy, the UK and the United States. Operations will be carried out from Piarco ***Intl*** ***Airport*** and from offshore patrol vessels, in partnership with the Coast Guard.

SkyBOOKS Lite to Serve Orange County FA

Jacksonville, Fla.-based SkyBOOKS has introduced Lite, a user-managed version of its aviation maintenance management program. The launch customer for SkyBOOKS Lite is the Orange County Fire Authority (OCFA), which will employ the program for its fleet of two Bell 412 and two UH-1 helicopters.

SkyBOOKS COO John Willis explains that while the Lite version reduces operator costs, "it will still provide AD/SB [airworthiness directive/service bulletin] and maintenance manual revision services, although daily updates will be user-managed." Operators can still use all the SkyBOOKS functions in the full program, as well as alert services and warranty tracking.

John Wilson, OCFA's director of maintenance, notes that SkyBOOKS Lite "will allow us to manage all compliance requirements and revisions within one program."

Meanwhile, SkyBOOKS has added updates to its full software suite. Based on recommendations from customers, SkyBOOKS release 4.1 contains summary task cards, a minimum equipment list (MEL)/Discrepancy module and improved warranty component tracking. Users can create summary task cards from all items that appear on the "Due" list, and an optional certification statement can serve as a return-to-service logbook entry. Among the features of the MEL/Discrepancy module are tracking operational limitations and maintaining the MEL historical log. The warranty component tracking function allows users to add warranty data

and associated documents on the component level.

American Eurocopter Achieves ODA

American Eurocopter President and CEO Marc Paganini (left) receives a certificate for organization ***designation*** authorization (ODA) from Charles C. Harrison, acting manager of ***FAA***'s Rotorcraft Certification Office.

FAA has granted organization ***designation*** authorization (ODA) to American Eurocopter, Grand Prairie, Texas. The approval enables the helicopter manufacturer to act on behalf of the U.S. regulatory agency when issuing and certifying supplemental type certificates (STCs). The ***designation*** "will allow us to be more responsive to market demands and significantly improve our reactiveness to [customer] requirements," says Allen Andress, vice president of operations.

"In giving us this responsibility, the ***FAA*** has determined that we possess the integrity and skills to do STC work on behalf of the government," explains George Sparling, director of certification for American Eurocopter. "After we receive ***FAA*** approval, we issue the STC," he adds. Through July, American Eurocopter has received more than 450 STCs from ***FAA***.

Alaska CAP to Use FLIR EVS

Portland, Ore.-based FLIR Systems has received an order for 20 enhanced vision system (EVS3) cameras from the Alaska Civil Air Patrol (CAP). The Alaska CAP fleet will use the EVS3 cameras for various missions around the state. Aerospace Instrument Support of Denton, Texas - which is an ***FAA***/EASA approved repair station and EVS3 distributor - will perform the CAP installations. The order includes an option for 10 additional cameras.

Certs for URS, Ahlers

The Australian Civil Aviation Safety Authority (CASA) has issued CAR 35 approval for United Rotorcraft Solutions and Ahlers Aerospace night vision lighting modifications on the Bell 412. URS and Ahlers' efforts to obtain ***FAA*** approval for the lighting mods are ongoing. The two companies have also obtained an ***FAA*** supplemental type certificate (STC) for night vision lighting mods on the

BO105. ***FAA*** also granted a Part 145 repair station approval to URS for maintenance and modifications on the MD Helicopters MD500.

Camcopter Partnership

A new division Boeing Co. has created to capitalize on the boom in unmanned vehicles announced Aug. 11 it is teaming with Schiebel Industries AG to offer the tiny Austrian firm's Camcopter S-100. Vic Sweberg, director of Boeing Unmanned Airborne Systems, said the companies already had bid on a U.S. Special Operations Command contract for an unmanned aircraft system to be used for surveillance and reconnaissance. The Camcopter made a bit of Paris Air Show history this year as the first UAV to fly at the storied venue. "There's a variety of customers interested," Sweberg said at the Association for Unmanned Vehicle Systems International (AUVSI) Conference in D.C. Hans Schiebel, director and owner of Schiebel Industries, said the S-100 has hard points that can accommodate a variety of sensors.

People

Textron Inc. has appointed John L. Garrison, Jr. as president and CEO of its Bell Helicopter subsidiary. He takes over from Richard "Dick" Millman, who worked in various roles for Textron for 43 years, becoming Bell's president and CEO in January 2007. Garrison comes from Textron's Industrial segment.

Textron has also hired Frank T. Connor as executive vice president and CFO of Bell. He comes from Goldman Sachs, where he was most recently managing director of Telecom Investment Banking.

EADS North America has hired Gary M. Bishop as vice president of its Armed Scout 645 program. Bishop, who served 20 years in the military, previously led the industry team for the U.S. Army's Apache Longbow programs in Mesa, Ariz.

Bobby Wilks, 78, a longtime helicopter and U.S. Coast Guard pilot who assisted with numerous rescue operations, died on July 13 in Woodbridge, Va. Wilks is credited as being the first African-American to become a captain in the Coast Guard, as well as the first to command a Coast Guard air station. He amassed around 6,000 flight hours in his career with 18 aircraft types.

The United States Senate has confirmed Deborah A.P. Hersman as the 12th chairman of the National Transportation Safety Board (NTSB). She will serve a two-year term as chairman and continue on as a board member for a five-year term ending Dec. 31, 2013.

Bristow Group has promoted Elizabeth D. Brumley to chief financial officer. She has served as acting CFO since April 2009. Brumley has worked for Bristow since November 2005.

Brett Gardner is the new director of sales and marketing for Becker Avionics. He comes from the U.S. Army Space and Missile Defense Command in ***Colorado Springs***, ***Colo.***, where he was a major on voluntary assignment as an Army Reserve company commander. Gardner, who holds a commercial rotorcraft license, has worked for a number of helicopter manufacturers, including American Eurocopter, Bell Helicopter and MD Helicopters.

Coming Events

September 22 - 24: Helitech 2009, Cambridge, U.K. Contact Reed Exhibitions, phone +44 (0) 208-271-2155 or visit *www.helitech.co.uk*

September 22 - 24: Diminishing Manufacturing Sources and Material Shortages (DMSMS) & Standardization Conference, Orlando, Fla. Contact DMSMS, phone 1-937-426-2808 or visit *www.dmsms.org*

September 22 - 25: 35th European Rotorcraft Forum, Hamburg, Germany. Contact ERF, +44-220-395-8692 or visit *www.erf2009.org*

September 29 - October 1: International Helicopter Safety Team (IHST)'s Third International Helicopter Safety Symposium, MontrÃcal, QuÃcbec, Canada. Contact IHST, phone 1-703-684-6777 or visit *www.ihst.org*

October 5 - 7: Association of the United States Army (AUSA) Annual Meeting, Washington, D.C. Contact AUSA, phone 1-703-841-4300, toll free 1-800-336-4570 or visit *www.ausa.org*

October 19 - 20: 2nd International Forum on Rotorcraft Multidisciplinary Technology, Seoul, Korea. Contact AHS ***Intl***, phone 1-703-684-6877 or visit *www.vtol.org*

October 20 - 22: National Business Aviation Association (NBAA) 62nd Annual Meeting & Convention, Orlando, Fla. Contact NBAA, phone 1-202-783-9000 or visit *www.nbaa.org*

October 25: Wings, Wheels & Rotors Expo, Los Alamitos, Calif. Contact: 1-562-598-6659 or visit *www.wwrexpo.net*

October 26 - 28: Association of Air Medical Services (AAMS) Air Medical Transport Conference (AMTC 2009), San Jose, Calif. Contact AAMS, 1-703-836-8732 or visit *www.aams.org*

October 26 - 29: DoD Maintenance Symposium & Exhibition, Phoenix, Ariz. Phone 1-877-606-7323 or visit *www.sae.org/dod*

November 2 - 5: International Air Safety Seminar, Beijing, China. Contact Flight Safety Foundation, phone 1-703-739-6700 or visit *www.flightsafety.org*

November 4 - 5: Human Factors in Aviation Maintenance, Phase 1, Las Vegas, Nev. Contact Grey Owl Consultants, phone 1-204-848-7353 or visit *www.greyowl.com*

November 15 - 19: Dubai Airshow, Dubai, UAE. Contact Fairs & Exhibitions, phone +9714-286-7755 or visit *www.dubaiairshow.aero*

November 30 - December 1: Human Factors in Aviation Safety, Los Angeles, Calif. Contact USC Viterbi School of Engineering, phone 1-310-342-1345 or visit *www.viterbi.usc.edu*

November 30 - December 3: The Interservice/Industry Training, Simulation and Education Conference, Orlando, Fla. Contact I/ITSEC, phone 1-703-247-2569 or visit *www.iitsec.org*

2010:

February 20 - 23: Heli-Expo 2010, Houston, Texas. Contact Helicopter Association International (HAI), phone 1-703-683-4646 or visit *www.heli-expo.com*

March 17 - 19: Association of Air Medical Services (AAMS) ***Spring*** Conference, Washington, DC. Contact AAMS, phone 1-703-836-8732 or visit *www.aams.org*

March 23 - 28: FIDAE 2010, Santiago, Chile. Contact FIDAE, phone 56 2 873 9752 or visit *www.fidae.cl*

April 7 - 10: Aircraft Electronics Association Convention, Orlando, Fla. Contact AEA, phone 1-816-347-8400 or visit *www.aea.net*

April 14 - 17: Army Aviation Association of America (Quad-A) Annual Convention, Fort Worth, Texas. Contact Quad-A, phone 1-203-268-2450 or visit *www.quad-a.org*

April 21 - 22: Search and Rescue 2010, Aberdeen, Scotland. Contact Shepherd Group, phone +44 0 1753 727015 or visit *www.shepherd.co.uk/events/44/search-and-rescue-2010/*

May 3 - 6: 2010 Offshore Technology Conference, Houston, Texas. Contact OTC, phone 1-972-952-9494 or visit *www.otcnet.org/2010*/

May 4 - 6: European Business Aviation Association and NBAA's EBACE 2010, Geneva, Switzerland. Contact EBAA, phone +32 2 766 0073 or visit *www.ebaa.org*

May 11 - 13: American Helicopter Society ***Intl*** 66th Annual Forum and Technology Display, Phoenix, Ariz. Contact AHS ***Intl***, phone 1-703-684-6777 or visit *www.vtol.org*

FAA Issues Certification for L-3 Trilogy

Grand Rapids, Mich.-based L-3 Avionics Systems has obtained technical standard order (TSO) authorization and an approved model list (AML) supplemental type certificate (STC) for its Trilogy ESI-100 electronic standby instrument. Trilogy was developed as a backup for glass cockpit avionics and designed specifically for Part 23 aircraft.

The AML STC "allows the Trilogy ESI to be installed in a variety of cockpits," explains Larry Riddle, vice president of business development for L-3 Avionics. The unit combines altitude, attitude, airspeed and optional heading data on a 3.7-inch active matrix LCD screen.

Becker Intercom Chosen for Phoenix PD

The Phoenix Police Department has selected Becker Avionics' DVCS6100

digital intercom and audio selector panel for its new Eurocopter AS350B3. American Eurocopter is currently finishing the AS350B3 and will install the Becker unit during completion. Describing the DVCS6100 as "ideal" for the Phoenix PD, chief pilot Phil Tilford says the police unit chose the intercom for its ability to manage and control all audio sources in the helicopter.

RR300 to Power Eagle 300T

Rolls-Royce has secured an agreement to provide its RR300B1 engine for RotorWay International's new Eagle 300T helicopter. The development of the RR300-B1, the second new model in the engine program, came together quickly since its launch in 2007, with production and deliveries starting in 2008. Ken Roberts, president of Rolls-Royce's Helicopter Engine business, notes that RotorWay's selection of a gas turbine engine for the Eagle 300T is an opportunity "to demonstrate the power, versatility and benefits of the RR300 engine." Under the deal, deliveries are scheduled to run through 2017.

Program Insider

H-1 Update

The U.S. Marine Corps' new UH-1Y Huey has now entered full rate production, with the Corps scheduled to have 21 aircraft by the end of the year, according to Marine Col. Harry Hewson, H-1 program manager.

The AH-1Z being developed in conjunction with the UH-1Y as part of the Marine Corps' H-1 upgrade program is still in low rate initial production (LRIP) and not expected to be declared IOC (initial operational capability) until sometime in 2011. Decision on full rate production is expected in first quarter FY2011, Hewson says.

The requirement numbers for both the UH-1Y and AH-1Z have been increased, with the AH-1Z going from a planned acquisition of 180 aircraft to 226, while the UH-1Y has gone from a planned 100 to 123. The Marine Corps has also switched the production priority ratio for the two aircraft. It was initially planned that production rate would be two Cobras to one Huey. "We've now switched that ratio to roughly two -1Ys to one -1Z in order to get the old UH-1N out of the

fleet as quickly as possible," Hewson says.

"They are becoming more and more challenged in the heat and high density altitude. We've put so many missions systems on them that they have very little left to give for the wide variety of utility missions that we use them for. So [the plan] is to push the Yankees ahead of the Zulus to get them out there."

The drive to replace the AH-1W is somewhat less, with the -1W being "a much younger aircraft than the UH-1N," he says. The AH-1Ws are at about the 6,800-hour mark, "with some life left in them. They are a relatively overpowered aircraft with a fairly light weight for the two (1,680 shp) T700 engines, and do very well in high pressure altitudes. We're doing some upgrades to the -1W just to see it through to that 2020 time frame when the last one will be inducted."

There are currently 162 AH-1Ws in the fleet, all of which will be remanufactured into -1Zs. The remaining 64 AH-1Zs will be new-builds. The AH-1Z has now been equipped with a new nose-mounted, three-barrel M197 20mm cannon to increase its firepower. The M197 is an electrically powered, lightweight derivative of the six-barreled M61A1 Vulcan Gatling type cannon, built by General Dynamics Armament and Technical Products, and capable of firing 1,500 rounds per minute. The M197 is currently fired using linked ammo, but will soon be going to linkless feed ammo, Hewson says. "This provides a significant cost reduction and reduces jamming."

While the AH-1Z is the Marine Corps' heavy attack gunship, the UH-1Y is also being heavily armed, carrying a complement of three different types of machine guns, to include the older lightweight M240 (previously M60) 7.62-mm machine gun, the GAU-17 7.62-mm mini-gun and the 50-cal. GAU-21 machine gun. "It can also carry 7.62-inch rocket pods, either seven or 19 per side.

These were all carried forward from Vietnam, except the unique thing now is the Advanced Precision Kill Weapon System (APKWS). This is a laser-guided package that is put on a standard 2.75-inch rocket to give precision guidance for the rockets," Hewson says. "The APKWS will be qualified for both the UH-1Y and the AH-1Z."

The AH-1Z line has now started taking deliveries of the Lockheed Martin Target Sight System (TSS), designed for day/night/adverse weather target acquisition and ***designation***, he explains. The TSS is mounted in a Wescam gimbal "that has its own on-board distance measuring units that are constantly comparing [the target] position location to the aircraft. It is an extremely stable sight system. Once we get it fielded, it will be the best battlefield sight system out there." The first production TSSs were installed last June, and "will be on every -1Z," Hewson says.

The new UH-1Ys will be equipped with Bright Star Block II sensors built by FLIR Systems, "which is a very good sensor," he says. "It's not quite the performance of the TSS, but the -1Y is not a Hellfire hard core shooter."

Along with the Bright Star sensor, the UH-1Y is getting a new satellite communication system to provide a satellite link network, as well as a new Command and Control package that will provide video data links from the aircraft sensors, as well as give ground commanders the ability to sit in the back of the aircraft with their own radios or laptops which they can plug into the system.

They can also upload ROVER, or Remotely Operated Video Enhanced Receiver, which receives camera images from nearby aircraft and UAVs, then integrates with other targeting software. - By Douglas Nelms

Contracts

Hurst, Texas-based Bell Helicopter has signed a memorandum of understanding (MoU) with PT Dirgantara Indonesia (PTDI) to collaborate on helicopters for Indonesian government agencies. Bell will manufacture model 412EPs in North America and PTDI will assemble them at its facilities in Bandung, Indonesia.

Lockheed Martin of Bethesda, Md. has obtained a $142-million follow-on contract for 55 additional Arrowhead modernized target acquisition ***designation*** sight/pilot night vision sensor (M-TADS/PNVS) kits for the AH-64D Apache attack helicopter. Lockheed Martin has also won a follow-on U.S. Army performance-based logistics (PBL) contract for the target acquisition ***designation*** sight/pilot

night vision sensor (TADS/PNVS) and modernized TADS/PNVS systems on the AH-64 Apache.

MACRO Industries, Inc. of Huntsville, Ala., has received a $9,514,350 firm-fixed-price contract for 357 OH-58D Kiowa Warrior helicopter armor panel ship sets and 36 OH-58D Kiowa Warrior helicopter armor repair kits. Work is set to take place in Huntsville, with completion scheduled by Sept. 30, 2010. U.S. Army Aviation & Missile Command, Redstone Arsenal, Ala., awarded the contract on Aug. 5, 2009.

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