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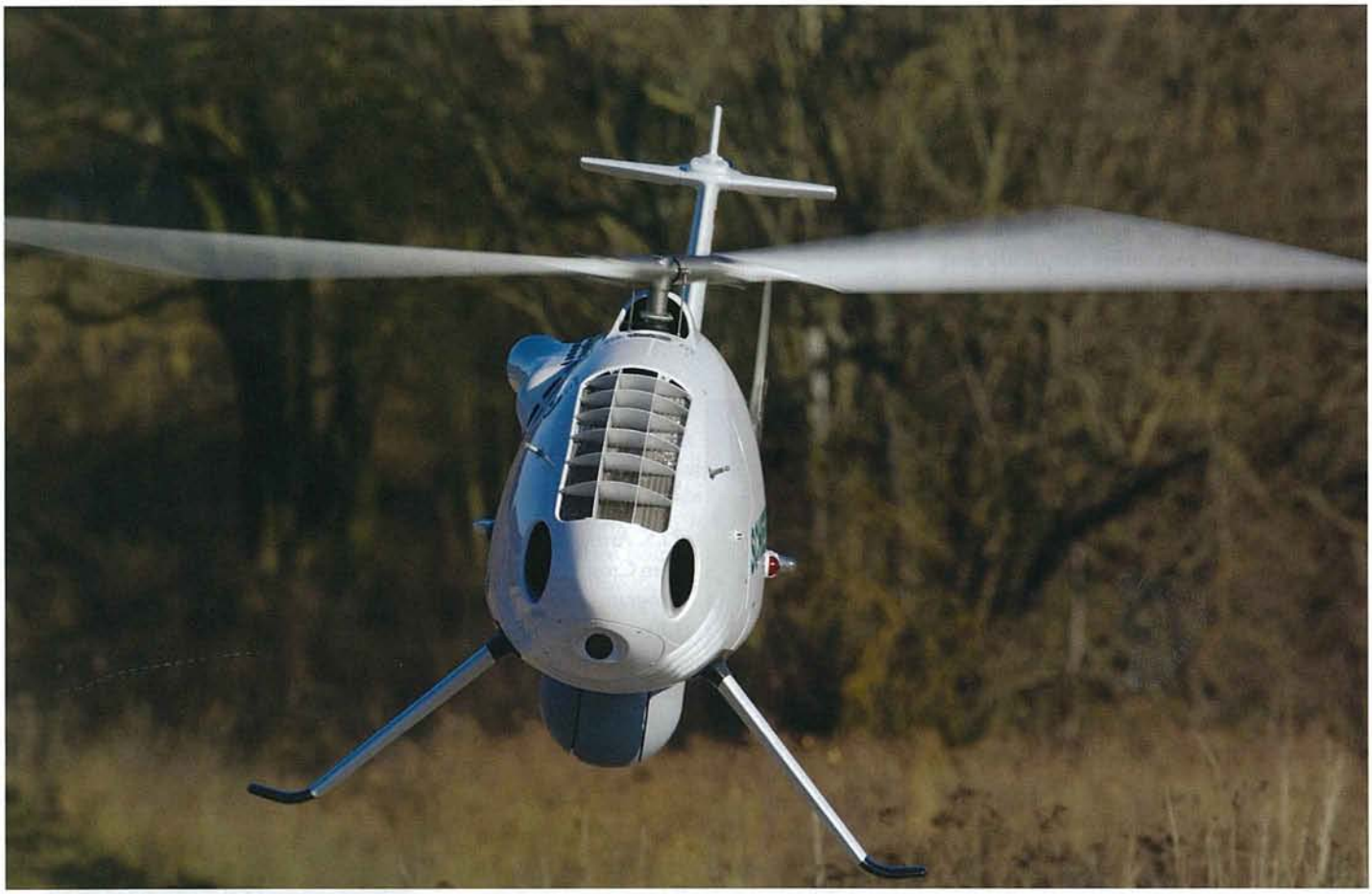


Camcopter S-100 shows its capabilities to Austria's army.

Camcopter S-100 Demonstrated to Austrian Army

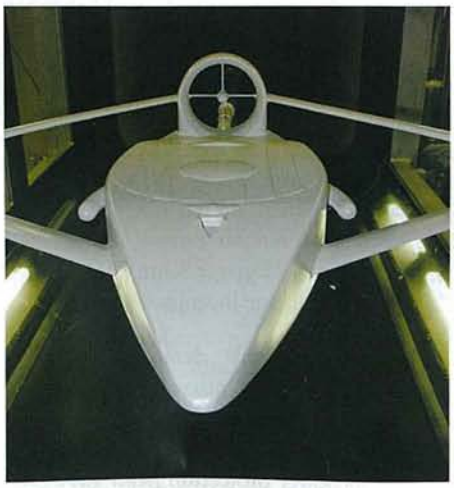
Austria's Schiebel continued demonstrations of its Camcopter S-100 in December, showing its tactical operation capability with Austrian army personnel at a military training site north of the company's Vienna headquarters.

During the exercise, the company tested the vehicle's tactical operation capability with army personnel, reaching altitudes as high as 18,000 feet. With a maximum takeoff weight of 200 kilograms, the vehicle carries a 50 kilogram payload with a range of 180 kilometers and an endurance of six hours.

The Austrian army could use the helicopter for force protection and project, surveillance and reconnaissance.

Frontline Aerospace Tests V-STAR in Wind Tunnel

Frontline Aerospace, Inc. of Broomfield, Colo., successfully completed wind tunnel tests of the V-STAR unmanned aircraft at the Naval Research Laboratory in Washington, D.C., in early December, the company says.



Frontline's V-STAR.

The vehicle would provide swift and quiet transport between ships and to troops on the front line, while also supporting reconnaissance missions. Designers say the vehicle provides exceptional payload flexibility, able to supply troops with ammunition, food, water, fuel and medical equipment. V-STAR, unveiled at AUVSI's Unmanned Systems North America 2008, also offers the capability to evacuate casualties from the battlefield.

"This is an important milestone in developing next-generation unmanned aerial vehicles for tactical military and civilian missions," says Frontline founder and chief executive Ryan Wood.

The V-STAR takes off vertically,

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transitions to fixed-wing formation during flight and reaches destinations three times more quickly than traditional helicopters, says chief designer Darold Cummings, a former Boeing Technical Fellow. "I am pleased with both our water and wind tunnel data," he says. "This allows for the fine-tuning typical of any aircraft design and we are increasingly confident V-STAR will perform as intended."

Wood says the system could also serve a range of naval missions such as task force and waterway protection, in addition to civilian missions such as disaster relief.

"It could be a uniquely effective defense against the increasing threat from pirates in international waters, since the vertical-takeoff-and-landing capability combined with a 300-knot speed is ideal for maritime interdiction," he says.

Maveric Provides 'Quick Eyes' on Target

Prioria Robotics, Inc. supported an experiment by the United States Special Operations Command in November at Camp Roberts, California, with one of the world's smallest tactical unmanned aerial systems—the Maveric.

The experiment integrated multiple sensors and used multiple camera systems queued by both radar and unattended sensors, with all sensors reporting into one "common operational picture" (COP). In the experiment, sensor activity triggered Maveric's launch to put "rapid eyes" on target, tracking and transmitting live video into the COP.

The company says it achieved its objective of integrating multiple sensors while maintaining the required network bandwidth to handle multiple feeds and data formats

"We built Maveric to be the smallest, tactical UAS for the warfighter that can be rapidly deployed and quickly transitioned to whatever the mission may require," says Jason Grzywna, director of the company's UAS division. "This experiment proved once again that a smart, adaptable [small] UAS can support nearly every mission."

The Maveric literally offers flexibility to military commanders, as it's designed to be stored within a six-inch tube and deployed in less than two minutes with no assembly required (and batteries included). The system also offers click-on-target functions, modular payload capability and a static "see-and-avoid" feature made possible by the artificial intelligence of an onboard processor.

Boeing's Hummingbird UAV Reaches 100 Hours

Boeing says its A160 Turbine Hummingbird unmanned helicopter achieved two key milestones in late last year, using its two-speed transmission to change gears in flight and passing the 100 flight-hour mark.

"Being able to shift gears in flight is the final significant step in realizing the full potential of our optimum speed rotor technology, which enables game-changing capability for the warfighter," says John Groenenboom, program manager for the system. "It allows us to significantly expand the flight envelope at higher gross weights and at higher speeds, while maintaining the A160T's world-record setting endurance."

The vehicle combines the performance of a fixed-wing aircraft with the precision and versatility of a rotorcraft, he says.

Beginning with a 12-minute flight in 2007, the vehicle continued testing to set a world record for its class at 18.7 hours, carrying multiple payloads of as much as 1,000 pounds to a ceiling of 20,000 feet. The company says the vehicle would provide an ideal platform for penetrating radar such as its Forester foliage-penetrating radar antenna that allows for the mapping of terrain hidden below the canopy of forestland or jungle.

The gear-change flight took place in late November and the vehicle passed 100 flight hours several days later in the tests, held in Victorville, Calif. The U.S. Defense Advanced Research Projects Agency paid for the tests with a $5 million contract.

MicroPilot Earns Product Certification

MicroPilot of Stony Mountain, Manitoba, Canada, achieved certification in design and production of autopilot and related accessories for use in small unmanned aerial vehicles from the International Organization for Standardization, the company says.

Last month, the company became the first among its peers to achieve ISO 9001:2000 certification.

"As a company, we are very proud of this prestigious designation," says Howard Loewen, the company's president. "I think we can give ourselves a pat on the back as no other small UAV autopilot company is ... certified at this time."

The company has been manufacturing UAV autopilot systems for 14 years.

PNI Releases Highest Resolution Sensing In Its Class

PNI Sensor Corporation of Santa Rosa, Calif., announced earlier this month the availability of its industry-leading magneto-inductive sensors, a product that facilitates six times greater magnetic resolution and sample rates than current iterations on the market, the company says.

The MagIC, a new magneto-inductive drive circuit, enables the company's SEN-XY product to more precisely and rapidly sense magnetic fields while needing little power to operate. The product meets the needs of developers of high-precision inertial navigation systems and digital compasses, in addition to the demand for speed and accuracy in video games and simulation controllers. The company also released a smaller 3-axis magnetic sensor module, appropriately called the MicroMagIC.

Tier II/STUAS Contender Gets First Flight

AAI Corp. says it conducted a successful first flight of its Aerosonde Mark 5 unmanned

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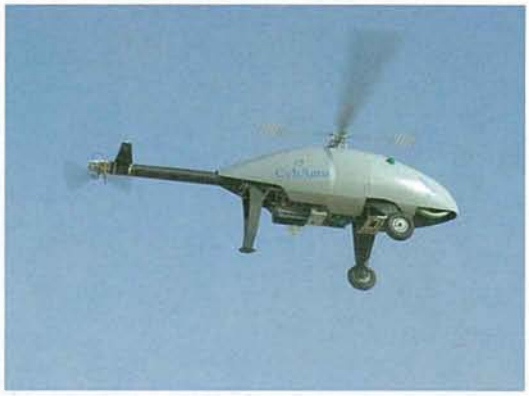
aircraft system at Yuma Proving Grounds in Yuma, Ariz.

The inaugural flight met or exceeded all test objectives and validated the aerodynamic capabilities of the new airframe, the company says. Next, the company plans to test the platform with additional performance parameters, including new payload capabilities.

AAI hopes to enter the vehicle in the upcoming competition for the U.S Navy and Marine Corps' Tier II/Small Tactical UAS. The Mark 5 has been under development for two years but AAI, now part of Textron Corp., says it designed the vehicle's final configuration only after the services confirmed their Tier II/STUAS requirements.

"We have incorporated the best features of our proven Aerosonde aircraft and Shadow tactical UAS," says Steven Reid, the company's vice president of unmanned aircraft systems. "The Aeorsonde Mark 5 delivers impressive endurance with superior intelligence, surveillance, reconnaissance and target-acquisition capabilities."



CybAero's APID helicopter.

Swedish Company Offers UAS Civil-Sector Service

The Swedish unmanned aircraft system manufacturer CybAero says it performed its first service flight of an unmanned vehicle.

The company flew its APID unmanned vertical takeoff and landing vehicle on behalf of the Swedish Defense Research Agency, with several more civilian-sector missions planned. The one-hour flight allowed the company to test a variety of sensors in bad weather: freezing temperatures during snowfall. The APID is one of two bound for delivery to Norway's Scandicraft under an earlier order; Scandicraft uses the vehicles to provide services such as aerial imaging and inspection.

"This is a breakthrough for us in the service sector [and] we believe more customers with civilian missions applicable for our helicopters will choose to buy the service itself initially, instead of a complete system," says Mikael Hult, the company's CEO. "This is more cost-effective for the customer and generates both revenue and more flight hours for us."

The service order completed a good business year for the company, which began last January with Sweden's first public autonomous demonstration flight flown in downtown Stockholm, a significant development given fears around the world concerning the safety of autonomous systems. Later that spring, the company flew a maritime mission from a Pakistani Navy frigate.

Hult says the company has received increased interest from customers in the product line and is talking with several large international industry groups regarding joint efforts on sales and development.

ViaSat to Improve U.S. Military Data Transmission

ViaSat Inc., of Carlsbad, Calif., received a contract to modify the Joint Internet Protocol Modem (JIPM) of the U.S. Army to enable operation as the network-centric modem for the Global Broadcast Service.

In support of the U.S. military, GBS broadcasts Internet Protocol-based live video and data with technology similar to that of satellite television. The company says it is also working to incorporate GBS requirements to achieve new size, weight and power performance for the modem, while making the product compatible with GBS and "DISA" specifications.

"We are making this change to align JIPM with the GBS mission within the deployment schedule set by the U.S. government," says Ric VanderMeulen, vice president for government Satcom Systems at the company. "This enables the rapid spread of this standard joint, network-centric IP system into a potentially large mission base."

A wideband broadcast service, GBS transmits classified and unclassified information for military use.

ISE's Sea Lion.

ISE to Deliver Deep-Diving Sea Lion to China

Amidst snow and freezing temperatures, ISE of Port Coquitlam, British Columbia, Canada, tested its China Geological Survey remotely operated vehicle, dubbed "Sea Lion."

The Guangzhou Marine Geology Survey, a division of China's ministry of land and resources, plans to take delivery of the vehicle in the next couple of months. With a depth rating of 4,000 meters, the vehicle comes equipped with eight hydraulic thrusters, two ISE Magnum manipulators, six cameras and a variety of sensors. Unique in its class, the vehicle also sports a hyperbaric clathrate bucket designed to collect hydrate cores containing methane gasses.

This month, the company tested the Sea Lion's power management optimization system, a significant step in the production process.