

Pentagon's Unmanned Options Keep Growing

By GAYLE S. PUTRICH

As the market for unmanned aerial and ground systems continues to explode, the big question for the U.S. Defense Department is how to harness a hurly-burly industry and control an increasingly crowded sky.

Unmanned system development and support is the hottest market for defense technologies right now, said Pierre Chao of the Center for Strategic and International Studies, Washington. But while it holds tremendous opportunity for new businesses, the market's pace is putting serious pressure on the Pentagon.

"It is a hot new market and a place to be, and a place where, as a small entrepreneur, you have an opportunity to really be an entrepreneur and an innovator," he said. "You can't be an entrepreneur in a fixed-wing fighter market."

But it's the government's job to set incentives that spur industry to develop new solutions for battlefield problems. If the Pentagon can't keep small entrepreneurs in business, Chao said, it is virtually guaranteed that some other countries will fill the gap.

"The strategic question is, who's going to exploit the beginning of this new cycle of innovation for aviation and tap into these Orville and Wilbur Wrights of the 21st century?"

That innovation was on display from contractors big and small who converged on the Washington area Aug. 6-9 to flaunt their products to Pentagon buyers, racing to satisfy a nearly insatiable demand from troops in Iraq and Afghanistan for more unmanned air and ground systems.

More than 300 companies from 30 nations attended the Association for Unmanned Vehicle Systems International's 2007 conference and trade show, which included flight demonstrations Aug. 6 at Naval Air Station Patuxent River, Md.

Raytheon's Cobra, one of the first UAVs certified by the U.S. Federal Aviation Administration for commercial flight, flew for the first time in public over the Navy airfield, guided by a new Universal Control System that can control multiple UAVs simultaneously. Executives see Australia and Canada as potential customers.

Northrop Grumman, which on Aug. 3 beat Boeing to win a Navy contract to demonstrate an unmanned carrier-based bomber, displayed its X-47B, slated to begin flight tests in 2009 on its way to service in 2013.

InSitu debuted its latest offering, the Integrator, a 50-pound cousin of the Boeing-marketed ScanEagle that's in service with the U.S. Marine Corps and the Australian Army in Iraq. Integrator has much in common with ScanEagle — like launch and recovery as well as electro-optical, camera and communications systems — but it also sports a mission bay for a range of optional payloads.

Integrator is expected to be in production within the year, said Eric Edsall, InSitu's business

development executive, but whether the UAV makes it into U.S. service remains unclear.

“Until you see the requirements, you just don’t know,” he said.

Some UAV startups are developing systems with a much closer eye to Pentagon needs.

The Echo Hawk UAV built by Aerocross Systems, a three-man company based in McKinney, Texas, is under development thanks to a series of Pentagon small-business grants totaling \$1 million and help from the U.S. Air Force’s 46th Test Wing at Eglin Air Force Base, Fla.

One mission for the converted commercial ultra-light? Replacing existing manned airborne communications relays. Manned flights have been successful, and unmanned tests are expected to begin next year.

The adoption of so many different unmanned air systems by each of the military services also creates air management challenges that top DoD and battlefield commanders are trying to address.

“The problem just continues to expand,” Lt. Gen. Donald Hoffman, the Air Force’s top weapons buyer, told an AUVSI conference audience Aug. 7. Small, low-flying drones compete with helicopters for airspace, just as high-flying systems compete with manned aircraft.

At Pax River, exhibitors were barred from even turning on their drones outside appointed time slots. Spectators were warned against using wideband area networking devices that could cause interference and even crashes.

To better coordinate UAV procurement, eliminate redundant programs and ease bandwidth pressures, the Air Force has pressed DoD leaders to become the DoD’s executive agency for all mid- and high-altitude UAVs.

Gen. T. Michael Moseley, the Air Force chief of staff, has led the two-year battle for UAV control, arguing that his service is best equipped to manage air operations over combat zones. To make their case, service leaders have highlighted collisions and near misses over Iraq.

Adm. Edmund Giambastiani, outgoing vice chairman of the Joint Chiefs of Staff, in a July 16 memo agreed to grant the Air Force executive agency status to standardize UAV platforms, ensure interoperability between systems, streamline acquisition and establish joint program offices, but not dictate operations. Each service and the U.S. Special Operations Command would — through the Joint Requirements Oversight Council — control its own requirements, planning, programming and budgeting, the memo said.

The Army and Navy, however, protested Giambastiani’s decision to Deputy Defense Secretary Gordon England, who has yet to make a final ruling.

That’s why Pentagon officials at AUVSI consistently declined to discuss the executive agency debate.

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E-mail: gputrich@defensenews.com.