

Sikorsky Begins \$1 Billion Venture Into Unmanned Black Hawk

Stephen Singer, The Associated Press

HARTFORD, Conn. — Sikorsky Aircraft Corp. announced a billion-dollar venture Monday that it hopes will respond to military demand for technology to fight two wars, including Black Hawk helicopters that can see and fly on their own.

The Stratford-based helicopter maker and military contractor said Sikorsky Innovations is intended to speed the transformation of the mechanical helicopter into a computerized aircraft.

The Black Hawk is a military workhorse, used in conflicts in Afghanistan, Iraq, Grenada and Panama. It's also part of military packages sold to other nations and has been used in civilian missions such as rescuing snowbound mountain climbers.

The Black Hawk, used for air assault and medical evacuation, was featured in the book and movie "Black Hawk Down," chronicling a battle in Somalia in 1993 when two helicopters were shot down, killing 18 soldiers.

Some of the deadliest crashes, involving five Black Hawk helicopters in Iraq, killed 51 soldiers between 2003 and 2007. The helicopter is heavily relied upon in Afghanistan, a mountainous nation with long stretches of desert and few decent roads.

"Imagine a vehicle that can double the productivity of the Black Hawk in Iraq and Afghanistan by flying with, at times, a single pilot instead of two, decreasing the workload, decreasing the risk, and at times when the mission is really dull and really dangerous, go it all the way to fully unmanned," Chris Van Buiten, director of Sikorsky Innovations, told an audience of 100 government, university and business representatives Monday.

Unmanned war planes are not new but are drawing interest from commanders trying to reduce casualties while not relenting in combat.

"The new thing here is to apply technologies in small airplanes and rotorcraft to the 20,000-pound Black Hawk," Van Buiten said in an interview. "It ups the stakes."

Sikorsky intends to have a demonstrator model of an unmanned Black Hawk ready this year and introduce it by 2015. An unmanned version could add about \$2 million to the current \$15 million price tag, but would save money with fewer or no crew members, he said.

Change will not only be technical, but also cultural, Van Buiten said. "Pilots are not going to give up that seat easily," he said in an interview.

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Mark Miller, vice-president of research and engineering at the subsidiary of United Technologies Corp., said officials want to harness Sikorsky's rapid growth — revenue and profit have more than doubled over the past five years — with technological advances that are remaking helicopters.

Sikorsky will design and build an "optionally piloted helicopter" to resupply troops or engage in battle. It will give commanders a choice between operating a Black Hawk with one pilot or two or none.

"We'll let it adapt to the mission," Van Buiten said.

Sikorsky is jumping into a lucrative and growing market. Steven Zaloga, a senior analyst at Teal Group Corp. in Virginia, said unmanned aerial vehicles represent "one of the few dynamic markets" in the aerospace industry, which was hit hard by the recession.

The Teal Group estimates the global market for unmanned aerial vehicle hardware will rise from \$2.9 billion this year to \$5.5 billion in 2019, Zaloga said.

Mark Tattershall, director of marketing and business development at Kaman Corp., a Connecticut-based aerospace manufacturer, said Kaman and Lockheed Martin Corp. demonstrated an unmanned cargo helicopter in Utah last week.

"To control something that's within sight is one challenge," he said. "To control something on the other side of a mountain and have it safely put down a load successfully and safely is a big challenge."

The Defence Advanced Research Projects Agency has developed the A160, which is now being tested by the Army and its network of researchers.

Phil Hunt, a program manager at the agency, said challenges include unmanned aircraft seeing and avoiding other aircraft in federally regulated or military airspace and the potential dangers of carrying weapons at the time of a crash.

Sikorsky Innovations, which over 10 years will spend \$1 billion from Sikorsky and its customers, also is researching technologies that would vastly increase a helicopter's speed, enable it to use computers to see through dust storms kicked up during takeoffs and landings, and allow it to gather data about its own condition and tailor the performance for quieter and more comfortable rides if necessary.

"We can allow a helicopter to morph itself for each function," Miller said.

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