Sikorsky And National Robotics Engineering Center Partner For Matrix™ Application To Demonstrate U.S. Army Autonomous UGV Delivery

Stratford, Connecticut -

Sikorsky Aircraft Corp. today announced it has won a significant demonstration project with the National Robotics Engineering Center (NREC) of Carnegie Mellon University to demonstrate an autonomous delivery of an Unmanned Ground Vehicle (UGV) by an Optionally Piloted BLACK HAWK helicopter enabled with Matrix™ Technology. The UGV will subsequently execute a mission to investigate a potentially contaminated area, while keeping human personnel out of harm's way. Sikorsky Aircraft is a subsidiary of United Technologies Corp. (NYSE: UTX).

The project is an 18-month program sponsored by the U.S. Army's Tank Automotive Research, Development, and Engineering Center (TARDEC) through the Robotics Technology Consortium. The NREC-led "Extending the Reach of the Warfighter Through Robotics" effort launched in March and will culminate with a final demonstration in September 2015.

"This mission execution will demonstrate how the technology will eliminate warfighter exposure to hazardous materials and threat of attack. It is another exciting opportunity for Sikorsky to highlight the application and value of Matrix™ Technology in diverse platforms with different autonomy applications, and we are excited to be working with the world-renowned NREC to offer the U.S. Army this unique collaborative capability," said Chris VanBuiten, vice president of Technology & Innovation.

The NREC is providing the UGV, a modified Land Tamer® all-terrain vehicle which uses key elements of several NREC world-class autonomy systems to support on-road and off-road autonomous exploration. The team of unmanned ground and air vehicles will autonomously survey sites with suspected chemical, biological, radiological, or nuclear contamination.

"Sikorsky is aggressively investing in and developing its autonomy applications with an eye toward the future products that will carry this technology and the capabilities they deliver," said Mark Miller, vice president of Research & Engineering. "Matrix is a proven technology built on our existing full authority flight controls system and flown on multiple platforms, and Sikorsky plans to continue leading the way in this aviation frontier and rewriting what rotorcraft can do."

Sikorsky will deploy its platform-agnostic Matrix technology on a U.S. Army UH-60MU BLACK HAWK helicopter, working jointly with the Utility Helicopter Program Office, and the ADD under the terms of the Manned/Unmanned Resupply Aerial Lifter (MURAL) Cooperative Research and Development Agreement (CRADA) and the TARDEC/RTC Robotics Other Transaction Agreement (OTA). The aircraft is a Government Furnished Equipment provided by U.S. Army Aviation Applied Technology Directorate (AATD). The same aircraft was recently used to conduct an optionally-piloted and autonomous cargo-delivery demonstration under the ADD/Sikorsky MURAL Optionally Piloted BLACK HAWK Program.

Sikorsky introduced its Matrix Technology in July 2013 to develop, test and field systems and software that will improve significantly the capability, reliability and safety of flight for autonomous, optionally piloted, and piloted vertical take-off and landing (VTOL) aircraft. Matrix™ aims to give rotary and fixed wing VTOL aircraft a high level of system intelligence needed to complete complex missions with minimal human oversight and at low altitudes where obstacles abound.

Sikorsky Aircraft Corp., based in Stratford, Conn., is a world leader in aircraft design, manufacture and service. United Technologies Corp., based in Hartford, Conn., provides a broad range of high-technology products and support services to the aerospace and building systems industries.
