Special Notice for Autonomous Cargo-Unmanned Aerial System Experiment

Synopsis:
This Special Notice announces, and requests applications to participate in, a limited objective experiment scheduled for the week of 25 March 2019, in the Patuxent River, MD area. This experiment will be conducted as part of an Advanced Naval Technology Exercise (ANTX) and will be used to assess the state of the art of autonomous cargo-UAS technology.

Notice Information:
The United States Navy desires the capability to autonomously deliver cargo with an unmanned aerial system (UAS) between shore-to-ship, ship-to-ship, and ship-to-shore. During the week of 25 March 2019, the Navy will hold a limited objective experiment to identify and evaluate solutions to address this need.

The objective of this experiment is to autonomously transport a 20 pound payload with an unmanned aerial vehicle (UAV). UAV shall autonomously launch from a fixed shore base, navigate through two waypoints to a vessel in open water making bare steerageway at 3-5 knots (kts) no less than 25 nautical miles (NM) away, loiter for 10 minutes, then autonomously land aboard the vessel. The UAV will then be required to autonomously launch from the vessel with the same 20 pound payload and return to the initial shore-based launch site.

The air vehicle must make the round trip without refueling (refueling or recharging will not be permitted aboard the vessel). Participants must provide a refueling/recharging demonstration at the shore site after landing.

The UAV must transit at an airspeed no less than 40 knots and an altitude no greater than 2000 feet above ground level (AGL). The UAV must be capable of launching and recovering without a catapult, arresting net or cable, or other mechanical launching or recovery equipment.

Participants will provide data that validates the maximum theoretical range of their air vehicle with a 20 pound payload and with its maximum payload. Participants shall ensure that the UAV is equipped with a transponder with a minimum of a Mode-3/C capability.

The Participant will be required to provide the Government with flight termination procedures to support range safety.

Participation in this experiment will be on an invitation-only basis, based on the Government’s review of each application submitted. Only U. S. citizens or permanent residents are eligible to participate. Only U.S. companies, or companies with U.S.-based offices are eligible to participate. Eligible and Interested Participants should visit http://impax.tech/cargo-uas-experiment to learn more about the conduct of the experiment, evaluation criteria, information that must be provided, and to apply for
participation. Applications for participation will be accepted until 2359 EST on 4 January 2019. Invitations to participate in the experiment will be issued via e-mail no later than 2359 EST on 16 January 2019. Responses to invitations will be due no later than 2359 EST on 23 January 2019.

Successful participation in this experiment may result in the award of an other transaction agreement (under 10 U.S. Code, Section 2371 or 2371b) or award of a procurement contract for experimental purposes (10 U. S. Code, Section 2373) or a combination of these authorities. In the case of an award under 10 U. S. Code, Section 2371b, a successful prototype project may result in the further award of a follow-on production agreement or contract without additional competition. In the case of an award under any of the authorities mentioned significant quantities may be needed for field testing. Some or all of the field tested units may be retained as a residual operational capability. The Government may make an award, even if all performance goals aren’t fully met.

Participation in this experiment will be at participant expense. The Government will not be responsible for any costs, to include submission costs, travel costs, technology demonstration costs or any associated costs.

The Government will coordinate exercise environment set-up and provide coordination assistance for airworthiness certification and frequency allocation as required. Contracted support personnel supporting Department of Defense functions may be used to facilitate the experiment. Participants are advised that contracted support personnel will assist the Government in reviewing application submissions. However, the Government will be solely responsible for determining which applicants will be extended an invitation to participate in the limited objective experiment in March 2019.

Participants will be granted access to the experiment site and to the recovery vessel prior to the experiment to facilitate the installation of equipment required to support autonomous operations. Installation and use of Participant equipment will be at the Participant’s risk. The Government will bear no responsibility for damages to equipment during the experiment.

**Point of Contact:**

For technical questions related to the experiment, contact Mr. Bill Macchione, William.macchione@navy.mil, telephone (301) 247-4008.