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**Aurora Flight Sciences Awarded Office of Naval Research Contract in Support of Multi-Vehicle Cooperation for Air and Sea Vehicles**

**Cambridge, MA,** October 14, 2008 - Aurora Flight Sciences announced today the award of a Phase II contract with the Office of Naval Research (ONR) in the area of multi-vehicle cooperation for air and sea vehicles conducting littoral operations.

The main objective of this project will be to successfully deploy multi-vehicle coordination algorithms onto teams of actual vehicles, using Aurora's On-board Planning Module (OPM). The OPM is a combined hardware/software element that enables coordination among teams of heterogeneous vehicles.

During Phase I of the contract Aurora broadened the scope of its multi-vehicle coordination research and development thrust to include Unmanned Surface Vehicles (USVs) and Unmanned Underwater Vehicles (UUVs). The goal of the Phase I effort was to demonstrate the feasibility of applying Aurora/MIT Cooperative Search And Track (CSAT) technologies to operations in the littoral environment using teams of heterogeneous vehicles.

Based on earlier successful demonstrations, the goal of the Phase II effort is to perform in-water testing and validation of these technologies on a team comprised of two real USVs and several simulated Unmanned Air Vehicles (UAVs). The testing activities will be conducted using prototype OPMs that will be deployed on the two USVs after additional software development and optimization, and extensive Hardware-In-the-Loop simulation (HILsim).

The contract focuses on the next generation of unmanned systems, which will be capable of communicating with one another, performing missions cooperatively, and sharing information. The ratio of vehicles to operators is expected to go up (perhaps significantly), and the number of different types of vehicles participating in a given mission will grow. "While current UAVs and USVs are very capable at their missions, they are invariably controlled by one or more operators. In the future, we expect that one operator will be in charge of many unmanned vehicles of various types," stated Dr. Jim Paduano, Autonomy, Control and Estimation Lead. Aurora Flight Sciences and MIT have been working together since 2006 on the algorithms that perform task prioritization, task allocation, path planning, and optimization for teams of vehicles performing missions including mine search, force protection, and littoral ISR; now this Phase II will particularly focus on teams of UAVs and USVs performing search, detection, and identification of threats in littoral environments.

**About Aurora Flight Sciences**

Aurora Flight Sciences designs and builds robotic aircraft and other advanced aerospace vehicles for scientific and military applications. Aurora is headquartered in Manassas, VA and operates production plants in Bridgeport, WV and Columbus, MS and a Research and Development Center in Cambridge, MA. To view recent press releases and more about Aurora please visit our web site at [www.aurora.aero](http://www.aurora.aero).

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