



**HARBOR WING TECHNOLOGIES, INC.**



## **MEDIA RELEASE**

### **ACR and Harbor Wing Establish Strategic Alliance**

*To explore deployment of Advanced Ceramics Research Inc.'s Silver Fox Unmanned Aerial Vehicle on board Harbor Wing's Autonomous Unmanned Surface Vessel as a concept/technology demonstrator to U.S. Navy, NOAA, Homeland Security and other potential customers.*

**Tucson, Arizona and Seattle, Washington – September 14, 2007** – Advanced Ceramics Research, Inc., a developer of small, lightweight, inexpensive autonomous unmanned aerial vehicles (UAVs), and Harbor Wing Technologies, Inc., a developer of unique wind-powered Autonomous Unmanned Surface Vessels (AUSVs), today announced a strategic alliance agreement.

Under the terms of the agreement, ACR and Harbor Wing will explore strategies and opportunities for integrating and leveraging their capabilities to perform military, homeland security, law enforcement, environmental and scientific reconnaissance and surveillance missions by installing and deploying ACR's Silver Fox Unmanned Aerial Vehicle on Harbor Wing's advanced prototype AUSV operating from Pearl Harbor, Hawaii.

The Harbor Wing AUSV will provide situational awareness to command stations on shore and at sea in support of military, homeland security, law enforcement, environmental, scientific and other missions. It integrates a multi-hull composite platform with a hard airfoil sail known as a WingSail and advanced software and algorithmic controls. Harbor Wing plans to offer two environmentally friendly production models – an offshore vessel fitted with hydrofoils and suited for long duration, long-range missions, and a coastal waters version for medium duration missions. Each model will be powered by Harbor Wing's innovative WingSail assembly that can be rotated a full 360 degrees, providing superior maneuverability and precise course and station keeping. As an autonomous unmanned wind-powered vehicle, it is capable of operating on station for extended periods without fuel or on-board personnel costs.

Since 2004 the United States Navy has awarded approximately \$5 million in research and development contracts to Harbor Wing Technologies to develop its AUSV design. This past June, the Company completed successful sea trials of its HWT X-1 prototype in which it

demonstrated autonomous WingSail propulsion on a designated figure-eight patrol track defined by GPS waypoints. Data provided by the sea trials and subsequent Navy review have affirmed the capability of Harbor Wing's AUSV to support critical mission requirements for the United States Navy.

The ACR Silver Fox is a small, lightweight, inexpensive Unmanned Aerial Vehicle (UAV) that can fly autonomously for long duration missions and is capable of providing low cost aerial surveillance imaging and carrying sensor payload packages. After initiating its mission from a small-footprint compact launcher, it can provide eight to ten hours of real-time stealthful airborne surveillance through a variety of control system and mission payload modules. Developed through Navy funding, Silver Fox prototype and production systems have operated since 2001 with the Office of Naval Research, United States Navy and Marine Corps commands and other United States and foreign military agencies. In 2006, the Silver Fox UAS participated in a demonstration whale tracking exercise with the National Oceanic and Atmospheric Administration in Hawaii.

Just as Unmanned Aerial Vehicles have proliferated in the skies, many Navy, government and industry officials believe that Autonomous Unmanned Surface Vessels will take to the world's waterways in significant numbers. Many of the world's navies, homeland security, law enforcement, environmental and scientific agencies are now working on unmanned vehicle capabilities roadmaps that will define the range of missions that they intend to pursue with UAVs, AUSVs and the supporting technologies needed to accomplish those missions. UAVs and AUSVs will increasingly be used to carry out important agency missions while freeing scarce personnel, financial resources and platforms for other critical requirements.

Harbor Wing's Chairman and CEO, Stuart F. Platt, Rear Admiral, U.S. Navy (Ret.), said, "Our strategic alliance with Advanced Ceramics Research is a natural fit for both companies and should lead to close co-operation on a range of opportunities for Navy, Homeland Security, NOAA and other government and commercial customers. ACR's core competencies in unmanned aerial systems combined with our AUSV can produce turnkey reconnaissance and surveillance solutions that can be quickly and cost-effectively adapted to the unique requirements of our clients."

"We are delighted with this agreement. Our alliance with Harbor Wing signals an opportunity to leverage and extend our proven Silver Fox unmanned aerial system into additional market opportunities." said Anthony C. Mulligan, Advanced Ceramics Research's CEO. "Harbor Wing's AUSV can enable the Silver Fox to acquire and transmit real-time data to a command center significantly beyond its usual operating and communication range. In addition, each system will be able to summon the other to investigate high-value targets of interest. As an integrated autonomous system, the Harbor Wing AUSV and the ACR Silver Fox will provide an innovative and unique capability to government and commercial customers."

#### **About Advanced Ceramics Research**

Advanced Ceramics Research was founded in 1989 to develop state-of-the-art high temperature, high strength ceramic materials and processes. Its Silver Fox and Manta unmanned aerial vehicles provide low cost aerial surveillance imaging and carry a range of sensor payload packages with extended flight endurance. For more information, visit [www.acrtucson.com](http://www.acrtucson.com).

### **About Harbor Wing**

Harbor Wing Technologies, Inc. is focused on the design, development, manufacture and sale of wind-powered Autonomous Unmanned Surface Vessel (AUSVs) for defense, government, commercial, and environmental markets. Unmanned, wind-powered and environmentally friendly, the AUSV will be able to remain on offshore or coastal patrol for indefinite periods of time. Harbor Wing maintains corporate offices in Seattle, Washington and conducts project management and vessel integration, testing and development in Honolulu, Hawaii. For more information, visit [www.harborwingtech.com](http://www.harborwingtech.com)

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