



NEWS RELEASE

## SPRAYCOOL® ENCLOSURE PLAYS CRITICAL ROLE IN ENABLING SUCCESSFUL FLIGHT TEST OF UH-60 BLACK HAWK RADAR SYSTEM

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**Liberty Lake, WA– Sept 2, 2008** – SprayCool®, a recognized leader in the development of advanced thermal management and environmental isolation products for the military, announced today that one of its electronics enclosures successfully completed its flight test program in brown-out conditions as part of Sierra Nevada Corporation's Helicopter Autonomous Landing System (HALS). The SprayCool liquid-cooled enclosure, mounted on the front of the UH-60 Black Hawk helicopter, is used as the closed loop thermal management system to isolate critical digital and RF electronics used in SNC's 3-dimensional (3D) imaging radar. The most recent flight testing at the Army's Yuma Proving Grounds (YPG) achieved a major milestone in the program. This testing was different than previous testing conducted at Ft. Eustis because it marked the first time the radar was flown in brownout conditions, where the UH-60 successfully negotiated takeoffs, landings, and en-route travel using the system. The HALS system provided the UH-60 pilots with continuous 3D real-time radar imagery of the landing zone throughout the approach, hover and landing in complete brownout.

SNC's 94 GHz HALS radar imaging system is the critical technology that enables pilots to "see through" brownout conditions. A critical component of the HALS design is the SprayCool Multi-Platform Enclosure (MPE) which enables the electronics to be located near the radar currently mounted on the front of the Black Hawk. Reliable operation of commercial grade electronics in such extreme dirty, sandy, and hot environments, which are so synonymous with rotorcraft, make SprayCool enclosures uniquely suitable for this application.

"The use of SprayCool enclosures allowed our technical team to select electronics that would normally not be possible in these harsh environments," said Greg Cox, VP GM for SNC's CNS/ATM Division. "This allowed us to use less expensive cards and power supplies in the design."

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The initial flight tests of HALS were conducted at Ft. Eustis to verify system performance. Subsequently, flight tests were recently conducted at Army's Yuma Proving Grounds utilizing an obstacle field surrounded by a graded field of fine powder-like dirt that closely replicates the levels of brownout experienced in Iraq and Afghanistan.

The HALS program is an Army Utility Helicopter Project Office sponsored program focused on reducing the risks of operating helicopters in degraded visual environment conditions such as brownout, whiteout and fog. Sikorsky manages the program as the prime contractor while SNC is responsible to develop and demonstrate the HALS system. "SprayCool has been working with SNC for over two years as one of their major subcontractors on both current and predecessor HALS systems", said Matt Gerber, President and CEO of SprayCool. "Our unique ability to deploy commercial grade electronics and isolate them from harsh environments has also enabled us to expand into other SNC programs," he added.

### **SprayCool Technology**

SprayCool patented [two-phase liquid cooling technology \(see video\)](#) uses a fine mist of non-corrosive, non-conductive liquid, sprayed in a thin layer, which evaporates and cools electronics. The process continuously cycles within a sealed, closed loop system. In doing so, SprayCool products isolate the electronics from dirty, corrosive environments found in military and industrial applications resulting in cooler, higher performance, and more durable electronic devices. The technology provides an efficiently controlled and isolated environment for a broad mix of electronics in a package that is significantly smaller, lighter, and more power and cost efficient, and faster to deploy by the integrator.

### **About SprayCool**

SprayCool (*also known as Isothermal Systems Research, Inc.*) is a global leader in the development of next-generation electronics thermal management and environmental isolation enclosure products for DOD and industrial computing applications, using its patented two-phase liquid cooling technology. SprayCool works with today's leading integrators to meet the military's most demanding requirements, and is gaining wide acceptance on a number of key SIGINT and EW programs. Founded in 1988,

SprayCool is a privately held corporation headquartered in Liberty Lake, WA. For more information, please visit [www.spraycool.com](http://www.spraycool.com)

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