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Navy Develops and ARUSI Completes Installation of Improved Fire Protection System for Military Aircraft Hangars at the Naval Air Weapons Station – China Lake, CA

New Aqueous Film Forming Foam Grate Nozzle System Installation is First of its Kind

(May 22, 2003, Phoenix and China Lake, California) -- The Naval Facilities Engineering Command (NAVFAC) has introduced a new low-level, low-expansion foam discharge nozzle for the protection of military aircraft hangars. The invention of this new in-floor Grate Nozzle technology was a joint effort between NAVFAC, Naval Air Systems Command (NAVAIR), and the Naval Research Laboratory and private sector firms, Viking Corporation and Underwriters Laboratory, among others. AR Utility Specialists, Inc., (ARUSI) a Phoenix, Arizona design-build engineering firm specializing in design, construction management, fire protection and environmental services, has successfully completed the installation and final testing of this advanced fire protection system. This is the first design-build retrofit and installation using this kind of technology in the Southwest United States.

The Navy expressed interest in new fire protection technology that minimizes collateral damage to aircraft and equipment. In cooperation with Viking Corporation, NAVFAC supported the design and development of a new evolutionary technology called the Grate Nozzle. The Grate Nozzle is specifically designed for protection of aircraft hangars. The Grate Nozzle is a foam/water solution discharge device located in trench drains at the floor level of an aircraft hangar. Unlike traditional fire protection systems, the Grate Nozzles use a flush mounted system, have no moving parts and eliminate the need for fixed oscillating monitors and other devices that take up valuable floor space and are easily obstructed.

The Department of Navy – Naval Facilities Engineering Command (NAVFAC), Southwest Division in San Diego, selected ARUSI as the design-build prime contractor to install the advanced fire protection system for the Naval Air Weapons Station at the 40,000 sq-ft Hangar 1 facility. ARUSI was awarded the design-build contract based on its unique combination of government project experience in fire protection, engineering and construction.

“This was a critical project for us and we needed a highly qualified design-build firm to address the many challenges we anticipated from this first time installation. ARUSI offered us that broad experience in managing government projects as well as their reputation for attention to detail and customer satisfaction,” said Joshua Jones, Fire Protection Engineer – NAVFAC Southwest Division.

Because of the unique nature of the project, the project scope involved challenging architectural, civil/structural, electrical, and mechanical engineering designs. The construction activities included the demolition and construction of a new 40,000 sq-ft flooring system with an in-trench drainage system. ARUSI’s simultaneous engineering team approach to contracting has proven dividends throughout the design and construction phases of the project.

“We start with the customer’s expectation and involve them throughout the design-build process,” said Michael Reynoso, ARUSI’s Director of General Contracting and principal project manager for this effort. Indeed, the precise project coordination by the ARUSI team allowed the work to proceed without hampering the hangar’s operation. “We pride ourselves on successfully delivering on these challenging projects and look forward to working on many more exciting projects for NAVFAC Southwest Division,” said Alejandro Reynoso, President/CEO, ARUSI.

In 1994, NAVFAC and NAVAIR embarked on a project to reevaluate fire protection criteria for high bay aircraft hangars. It was determined that a new fire protection system that didn’t damage multi-million dollar aircraft if it was inadvertently activated was necessary. “The development of the new low-level foam nozzle is the latest among numerous changes that stemmed from that research,” said Jones. As a result of the Navy’s efforts, NFPA 409 Standard for Aircraft Hangars was significantly revised. These revisions reflect the culmination of five years’ worth of research, development, and testing by the government and private sector.

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About Naval Facilities Engineering Command (NAVFAC):

The Naval Facilities Engineering Command (NAVFAC) manages the planning, design and construction of shore facilities for U.S. Navy activities around the world. Led by Rear Admiral Michael R. Johnson, Civil Engineer Corps, United States Navy, NAVFAC is a global organization with an annual volume of business in excess of \$8 billion. As an integral member of the Navy and Marine Corps team, NAVFAC offers and delivers timely and effective facilities engineering solutions worldwide.

About ARUSI

ARUSI is a Phoenix-based, multi-facet engineering, environmental, construction management, and fire protection firm, serving the federal government, municipalities and utility sectors. ARUSI experts are trained to exceed the best practices set forth in government protocols. An SBA 8 (a) firm, ARUSI has offices in Phoenix, Yuma, and Las Vegas.

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