Guan H. Su

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Mr. Su is a Founding Vice-President, project manager and senior mechanical engineer at Alare Technologies, LLC, with over 16 years professional experience in the aerospace industry. He was responsible for the design, development and validation test of the light weight tactical launcher used for the AeroVironment Switchblade program; as well as the development of several air-dropped, folding-wing SUAS for SOCOM and DARPA. He was also responsible for adapting and successfully demonstrating the Switchblade SUAS for operations from submerged submarines. Mr. Su is a small arms enthusiast, familiar with fundamental firearms and artillery functional principles. He is an ATFE authorized possessor of explosives material and is certified to handle ammunition and explosives in accordance with AMC-R 350-4, DAP 385-64, NAVSEA OP5, AF-M 91-201, DOD 4145.26, & CFR 29.

Education

1996 B.S. Aerospace Engineering, University of Southern California.

Professional Experience

2012 - Pres. Alare Technologies, LLC – Vice President. Co-founder of this startup company providing technical consulting and engineering services in addition to basic research and development supporting new concept and market feasibility assessments for government and industry.

1997 - 2012 AeroVironment Inc., Simi Valley, CA – Program Manager, Sr. Aeromechanical Engineer. In his 15 years at AeroVironment, Mr. Su was instrumental in a wide spectrum of special projects in unique aircraft development and energy efficient systems. Most notable accomplishments include:

Submarine Organic UAS: Mr. Su was the program manager and lead systems engineer in adapting the Switchblade air vehicle for submarine applications. Between 2009 and 2012, a number successful demonstrations were conducted from several nuclear submarines at various naval exercises in Australia, Bahamas, California coast, Guam, and Hawaii; fully validating submarine's new capability to organically deploy an aerial "flying periscope" to have eyes on target at beyond-the-horizon ranges, and seamlessly provide pin-point targeting solutions at maximum weapons range while remaining at a safe standoff distance. http://www.navaldrones.com/switchblade.html

Switchblade: Project manager responsible for the design, development, and productization of tactical launchers for the Block 1 and Block 10 Switchblade loitering munition. These compact, lightweight launchers were also designed to serve double duty as the transport container, enabling soldiers to carry all-up-rounds safely and efficiently. Mr. Su spearheaded the BATFE licensing, and implemented explosives training and safety processes to give AeroVironment the ability to possess and conduct testing with explosive devices. In his five-year leadership, no personal injuries related to explosives have occurred. http://www.avinc.com/uas/adc/switchblade/

Sensor Dart Glider: Program manager and lead engineer for this DARPA project to develop an air-launched, folding wing autonomous glider for precision emplacement of ground sensors at distances up to 45 miles from the initial drop point. Several prototypes of the 9 lb. gliders were built and successfully flown, autonomously deploying 28 lb. Sensor Darts within 50m of intended target areas.

Hawkeye UAS: Program manager and lead engineer for this air-launched, packaged UAV for sensor emplacement and precision re-supply of special operation forces. Twenty-four aircraft were built and air-launched from a variety of host platforms at altitudes up to 16,000 ft and speeds up to 200 kts. The project culminated in a Military Utility Assessment, which successfully demonstrated the ability to precisely deliver critical supplies from 30+ miles away. http://www.avinc.com/uas/adc/hawkeye/

Skytote UAS: Mechanical engineer for this VTOL UAV that is capable of transition to high-speed horizontal flight. Down selected the internal combustion engine and designed an innovative belt-driven counter-rotating propulsion system that weighted 40% less than conventional gear-driven systems. http://www.avinc.com/uas/adc/skytote

Energy Efficient Products: Mechanical engineer responsible for the design and testing of various energy efficient products including high efficiency ceiling fans (http://www.gossamerwind.com/), electrical leaf blowers, and solar-powered water pumping systems (http://www.avinc.com/clean_power/uspc/).

Test Facilities

Flight Test	Developmental test, training and demonstration flight operations on government ranges including: Yuma Proving Grounds, AZ / AUTEC, Bahamas / Camp Roberts, CA / Edwards AFB, CA / NBVC, CA / SCORE, CA / Avon Park, FL / Eglin AFB, FL / Naval Base, Guam / PMRF, HI / Joint Base Pearl Harbor-Hickam, HI.

Patents

US 2011/0315817 & WO 2011/066030 A2	Systems and devices for remotely operated unmanned aerial vehicle report suppressing launcher with portable RF transparent launch tube
US 6039541 A	High efficiency ceiling fan
US 6659721 B1	High efficiency ceiling fan blades
US 6884034 B1	Enhancements to high efficiency ceiling fan
US 7210910 B1	Enhancements to high efficiency ceiling fan