



Richard Paoello

Infrared Countermeasures

Mr. Richard “Dick” Paoello served in the U.S. Air Force during the Korean War and subsequently worked as an Electronics Engineer for the U.S. Army at Camp Evans and Fort Monmouth, New Jersey for over 35 years. With his military service he served over 42 years with the United States government.

Mr. Paoello was instrumental in developing systems to defeat Infrared heat seeking missiles that were attacking Army Aircraft. Mr. Paoello worked on ALQ-147 IR Countermeasure System which was fuel fired and mounted on OV-1 aircraft. He also worked most of his career on ALQ-144 IR Countermeasures System, affectionately referred to as the “Disco Ball”. The first ALQ-144 Production Contract was awarded in 1977 for a quantity of 200 systems. It was first deployed in 1979. Subsequently, additional Production Contracts were awarded for an additional 2800 systems. The AN/ALQ-144 IR Countermeasures System is an omni-directional active infrared Countermeasures Set which protects our helicopter set of aircraft. the EH-111, EH-1X, EH-60A, MH-60K, UH-60A, AH-1F, and AH-64A aircraft from air-to-air and ground-to-air heat seeking (infrared) missiles. The equipment has also flown on Marine 1 helicopters for the past thirty plus years.

The airborne installed systems included in this family of equipment are designed to provide jamming of threat IR missile systems. They are active, continuously operating, omni-directional, electrically fired IR jamming systems designed to confuse or decoy threat IR missile systems. Dick’s research and development work included modeling and simulation work and hardware-in-the-

loop exploitation of modern threats. His efforts gathered funding and support for a major upgrade which would improve jamming effectiveness through increased power output and wider IR spectral coverage to meet emerging threats. This led to the Band IV Development Contract awarded in 1985 for a quantity of 12 Engineering & Manufacture Development (EMD) systems. This EMD program successfully demonstrated increased jamming effectiveness and system performance improvements against modern Band IV threats. Subsequently, he gathered support/funding for the “A Model” upgrade which inevitably led to the ALQ-144A Production Upgrade Contract (DAAB07-89-C-S018) in which 3000 Modification Work Order (MWO) Kits were procured to Retrofit Fielded Units.

Mr. Paoello developed and fielded 144A Quick Reaction Capability programs including support training for Operations Just Cause (Panama) and, Desert Storm. After Desert Storm, Mr. Paoello pulled together the filter fix to correct problems from sand intrusion which did not receive funding until Desert Storm II. The revised system was later re-designated the ALQ-144C. The improved systems have saved countless numbers of lives throughout all military services. His ingenuity helped create ALQ-144A training videos for both operation and maintenance of the system and he developed the ALQ-144(V) 5 (dual jam head/synchronized systems) used by “special customers” to increase Jamming to Signal levels for increased survivability. In 1988, while serving as the Project Leader, Countermeasures, Electronic Warfare Protection Branch, Electronic Warfare Laboratory, Mr. Paoello was recognized for his achievements by being the first civilian to be awarded the Army Aviators Association of America (AAAA) Aircraft Survivability Equipment (ASE) Award.