SENSIAC Success Story

Innovating to Better Protect Low/Slow Flying Aircraft

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Customer:	U.S. Air Force, Warner Robins Air Logistics Center, Combat Sustainment Group
Challenge:	To better leverage the existing AAR-47, an ultraviolet-based missile warning system (MWS) used to protect low/slow flying aircraft from Man Portable Air Defense Systems, the Combat Sustainment Group (CBSG) sought simulation capabilities. Beyond basic simulation development, advanced capabilities were repeatedly required both to fully simulate actual combat scenarios and to test a variety of MWS sensors in addition to the AAR-47.
Approach:	One of the first steps the Military Sensing Information Analysis Center (SENSIAC) performed was to develop the Test Matrix Tool (TMT). The TMT is a robust system used to simulate and analyze large data sets. Uniquely, it includes a graphical user interface; the resulting visual depictions highlight data trends more clearly than traditional table format presentations. Furthermore, the TMT makes visual depictions easy to generate. After developing the tool, SENSIAC added a series of capabilities to the basic software. For instance, TMT was upgraded for use with other sensors. Also, more situational factors, such as weather, terrain, time of day, and operating condition for the target, were integrated into the simulation. These additional capabilities helped fully simulate actual combat scenarios faced by the Warfighter.
Value:	SENSIAC consistently met each challenge the CBSG presented. Development and continual improvement of the TMT provided for the evaluation and optimization of the AAR-47 and several other MWS sensors. Such optimization ultimately resulted in providing for a more fully protected low/slow flying aircraft. SENSIAC's expertise accelerated the delivery of these results to better serve the Warfighter.