

# Threat Representation – Operational Evaluation Approach Example

---

## **Example 1 – Sea Shark**

### **3.5 Operational Evaluation Approach**

The IOT&E for the Sea Shark missile will employ a new threat surrogate that represents the latest anticipated anti-ship cruise missile (ASCM) threat in altitude, speed, radar cross-section, maneuverability, and radar emission capabilities. The Program Manager will fund the development of 10 surrogate threat systems and the associated verification/validation studies. The Operational Test Activity will accredit the surrogates for use in IOT&E. In addition to developing a high fidelity threat surrogate for IOT&E, the Navy will develop the capability to launch multiple simultaneous threat surrogates to support the first FOT&E.

## **Example 2 – Dakota Helicopter**

### **3.5 Operational Evaluation Approach**

The IOT&E for the Dakota Helicopter will feature force-on-force missions which employs RTCA instrumentation to enforce the use of appropriate tactics by blue and red forces. The performance of Dakota-equipped Air Weapons Teams (AWT) will be compared to the performance of Legacy-equipped AWTs in the performance of reconnaissance and attack helicopter missions. The test will be conducted in a joint integrated operational environment to include indirect fires, and J-STARS against an appropriate validated threat.

## **Example 3 – Generic Air-to-Air Missile (GAAM)**

### **3.5 Operational Evaluation Approach**

The IOT&E for the GAAM will emphasize employment of the Modern Stealthy Fighter Target (MSFT) utilizing threat representative electronic attack waveforms against the GAAM. GAAM performance will be compared with the legacy Earlier Generic Air-to-Air Missile (EGAAM). GAAM performance will be compared with EGAAM in the areas of target range, high and low altitude, and electronic attack. GAAM will be launched off all relevant fighter aircraft. Modeling and simulation, validated by flight test, will supplement the limited number of flight tests used in IOT&E in order to develop a Probability of Target Kill ( $P_{tk}$ ).