



## *Joint Threat Emitter (JTE)*

*Train aircrews to be battle-hardened  
before the battle ever starts*

*The JTE simulates both single and double  
digit surface-to-air and anti-aircraft  
artillery radar systems.*

**T**he Joint Threat Emitter offers “True” Warfighter Training for the combat aircrews and provides a modern, reactive battlespace war environment, designed to help train military personnel to identify and effectively counter enemy missile or artillery threats. A multi-threat, hi-fidelity simulator with realistic effective radiated power levels, the JTE simulates both single and double digit Surface-to-Air and Anti-Aircraft Artillery radar systems and accurately trains combat aircrews to defeat or avoid Integrated Air Defense Systems (IADS) around the world in a war-like training environment.

### **What is a Joint Threat Emitter (JTE)?**

- JTE is a mobile air defense threat simulator that enables aircrews to train in threat environments matching actual combat conditions
- Each JTE can simulate up to six threat systems and multiple JTEs

can be integrated and controlled in a coordinated manner to simulate hostile Integrated Air Defense Systems (IADS)

- A plug-and-play Emitter Kit approach provides an adaptable configuration that allows training against today’s hostile threats as well as new generation threats not yet fielded.

### **The JTE Mission**

- Simulate Electronic Combat Signals Produced by Surface to Air Missile (SAM) and Anti-Aircraft Artillery (AAA) Threats
- Provide Realistic Electronic Warfare Training for Pilots and Aircrews
- Assess Performance of Aircraft Radar Warning Receiver (RWR) and Electronic Countermeasure (ECM) Systems
- Replace Antiquated and High Maintenance Threat Emitter Systems with modern, more capable state-of-the-art JTE Systems

### **Joint Threat Emitter Offers:**

- Capability to Train as You Fight
- Multi-Threat Training from a single System
- Fully Integrated IADS command and control emulation
- Reactivity to aircraft maneuvers and ECM
- Complete Debriefing Capability
- IFF Tracking System (Multi-Player)
- Superior Reliability & Capability
- Integrated Logistical Support (ILS)
- Spiral upgrade capability

### **JTE Components**

The JTE is composed of three subsystems – A Threat Emitter Unit (TEU), Command and Control Unit (C2U) and a Remote Power Unit (RPU).

- Threat Emitter Unit (TEU)
  - TEU is designed to utilize several full Effective Radiated Power (ERP) kits that are interchangeable. Any kit can emulate up to six threats at full ERP.

- A Wide Band Kit is also available which emulates the EW threats across the spectrum needed by test and training ranges when less than full ERP is suitable.
- Command and Control Unit (C2U)
  - Controls up to 12 different threat emitter units and serves as the overall system command and control center.
  - Can be deployed in two configurations: fixed within a range control center or mobile within a trailer mounted S-280 shelter.
  - In the mobile configuration, an Identification Friend or Foe (IFF) tracking subsystem is added to provide for autonomous tracking of all players on the training range.
- Remote Power Unit (RPU)
  - In remote locations, when commercial power is unavailable, the RPU provides AC power for the TEU and C2U.

### Realistic Training for the Warfighter

- Provides Multiple Realistic Threat Systems
- Superior Fidelity
- Real Time Kill Notification (High Fidelity Models)
- Full Reactivity
- Autonomous Operation

### Advanced Threat Emulation Capabilities

- Threat Generation
  - Emulate actual threat RF parameters
  - Reprogrammable for new threats
  - Multiple Threats from one pedestal for training flexibility
  - Emitter kit capability supports fast reconfiguration and future threats



- Threat Reactivity
  - Removes shortfall known as “Death Ray”
  - JTE simulates operator & equipment reactivity for: ECM, Terrain blockage, Aircraft maneuvers, Expendables
- Range Types
  - Large Force Exercise Ranges
  - Primary Training Ranges
  - Test & Evaluation Ranges
- Tracking Sources
  - ACMI (podded, non-podded aircraft)
  - FAA, ATC, and Military Radar Data
  - IFF Tracking Option
- Training Scenarios
  - “Train-as-you-Fight” IADS scenarios
  - Duplication of simple or complex enemy air defense systems
  - Real Time Kill Removal and Notification/Rebirth
- Feedback and Debriefing
  - Video and ECM recorded during mission
  - Compatible with ADDS-based debrief systems
- Mobility and Deployment
  - Packaging allows rapid relocation of JTE subsystems
- Sustainability
  - 24/7 Integrated Logistics Support (ILS)

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