

# AIR COMBAT TRAINING RANGELESS 6 (ACT-R 6)

## OVERVIEW

Cubic's ACT-R 6 System provides U.S. and allied aircrew with unparalleled live air combat training. ACT-R 6 builds upon Cubic's 40 years of experience in air combat training and is the successor to previous generation air combat training systems.

ACT-R 6 incorporates advanced GPS technology, allowing pilots to train anywhere at any time over land and sea. The system's rangeless capabilities enable training missions to be conducted without reliance on any fixed ground infrastructure.



The ACT-R 6 system is comprised of an airborne instrumentation pod used to record and transmit aircraft Time-Space-Position-Information (TSPI), and a transportable ground subsystem used to display and debrief training missions.

The ground subsystem utilizes Cubic's Individual Combat Aircrew Display System (ICADS™). ICADS™ allows aircrew to view computer-generated profiles of all participating aircraft, including flight dynamics, weapons events, and engagement outcomes.

The system's advanced features include the ability to accurately simulate air-to-air, air-to-ground, and ground-to-air weapons employment. The ACT-R 6 system also includes a real-time monitoring capability enabling Range Training Officers (RTOs) to observe and analyze training missions in real-time from the ground. ACT-R6 is interoperable with both 4th generation and 5th generation aircraft. ACT-R 6 also provides that capability to instrument cargo and rotary wing aircraft into the training scenario. The ACT-R 6 system prepares aircrews for the advanced, diverse, and challenging combat scenarios of the 21st century.



ICADS™



Transportable Ground Subsystem



Instrumentation Pod

## Key Components

- Instrumentation pods and ground-based live-monitor display and debriefing subsystem.
- The instrumentation pods collect and process in-flight data such as Time Space Position Information (TSPI) and weapons events. This information is both transmitted to the ground and recorded internal to the pod.
- The flight data is used by the pod to process weapons simulations in real-time.
- Based on the results of weapon simulations pilots receive real-time audio “kill/miss” notifications in their helmets.
- The ground based display and debriefing system provides a real-time air picture of all participating aircraft.
- Pod information is also merged post mission for debrief and analysis.
- The display and debriefing subsystem is available in both transportable rack mount cases and portable laptops.

## System Features

- Supports 72 high-activity aircrafts plus 100 low-activity participants.
- System includes a 125 nautical miles air-to-ground data link and a 80 nautical miles air-to-air data link
- Supports air-to-air, air-to-ground, and surface-to-air weapon simulations
- Real time weapons simulations with Real-Time Kill Notification ( RTKN ) to pilots
- No Drop Weapons Scoring ( NDWS) for air-to-ground training.
- Electronic combat warfare training capabilities
- Fixed and Transportable ground subsystems
- Compatibility with all U.S. and most coalition fighter and attack aircraft platforms

