DART
Deployable Affordable Reconfigurable Training

From concept through design, the DART system has been intended to provide Deployable, Affordable, and Reconfigurable Training. DART provides a dramatic increase in training effectiveness. At the same time, DART uses the latest in COTS and PC-based technology to reduce the cost of acquisition and support.

Using reconfigurable Deployable Mission Rehearsal Trainers (currently F/A-18 and JSF), DART provides realistic four-ship training in a distributed, interactive environment.
DMRT Stations
The four reconfigurable DART pilot stations consist of the proven systems used in our high-fidelity F/A-18 Pilot Training Systems (PTS). The PTS is a full mission trainer using the latest in COTS open architecture. Each pilot station provides a 120 x 40 degree Out The Window (OTW) display using three high-performance Image Generator (IG) channels with a resolution of 2048 x 1536 pixels overall.

Aggressor Stations
The DART aggressors can be computer generated or, using the three aggressor stations, experienced pilots can engage the trainees in simulated air-to-air combat. Each aggressor station consists of a functional HOTAS control system and interactive touch screens with OTW and cockpit displays. Aural and visual cueing are identical to the aircraft simulated. Available aggressor aircraft include F-16, F-15, F/A-18, F-4, A-4, AV8, Gripen, Mig-21, Mig-23, Mig-25, Mig-29, Su-24, Su-27, Mirage 2000, Predator UAV, Apache, Cobra, and Mi-24.

Instructor Operator Stations (IOS)
Two IOS are included with the DART system. Each IOS can monitor or control any of the four DMRT stations. In addition, any asset, threat or networked exercise can be controlled from either IOS. The IOS interface is object-oriented with drag and drop support for controlling entities and scenarios. In addition, each IOS contains a robust AWACS control, and Identify Friend Foe (IFF) interface with full broadcast control.

Mission Brief/Debrief Station
DART Brief/Debrief greatly enhances mission performance by reenacting mission activities using high-fidelity 3-D graphics, allowing pilots and weapons officers to quickly identify and correct mistakes. Crucial flight information is also displayed, maximizing feedback lesson retention.

The DART Brief/Debrief station is extremely user-friendly, offering offline and real-time viewing, various viewpoints, flight video-audio-data synchronization linked to a single timeline, and advanced ACMI capabilities based on high-resolution terrain.

Additional benefits of the Brief/Debrief station include: improved situational awareness, cockpit operations playback, pilot’s view monitoring and playback of Head Mounted Display, digital and analog video/audio/data playback, and embedded ‘What If’ capabilities.

Mission Observation Center
A complete Mission Observation Center allows interested parties to view mission progress as well as monitor brief/debrief status. Additionally, duplicates of the pilot and aggressor station cockpit and visual displays are presented.

Terrain and Navaid Databases
All databases include aerial and satellite imagery mapped onto real-world elevation data. You can produce your own terrain using the Terrain Author (TA) tool. After entering imagery and elevation data, TA converts the information into high-fidelity terrain.
DART Strategic Training System

Distributed Mission Training (DMT)
DMT connectivity with DART allows the environment to host DMT training missions or connect to other DMT simulators. When DART hosts a DMT mission, a native Simulation Instruction tool allows DART instructors to set the parameters and mission goals of each training scenario. This control includes: student monitoring, flight control over student aircraft, oral and/or written messages, outline avionics instruments in student cockpits, 2-D Map, ACMI viewing, record and playback for debriefing, and ‘What If’ capabilities.

Scenario Builder
Scenario Builder allows either the instructor or student to choose the location and objects of a training scenario. By allowing the user to directly manipulate the simulation environment, DART places control directly in the hands of the user, increasing readiness, and making training far more effective and retentive.

With the Scenario Builder, you can determine all of a mission’s variables including geographic coordinates, weather, time of day, and wind conditions.

Knowledge Center
The Knowledge Center provides a database for all student reading material. The self-learning center affords users the opportunity to learn at their own pace, providing all the benefits of eLearning with offline capabilities as well.

The Knowledge Center is comprised of:

- Library - a digital database of all books, manuals, and other relevant information.
- Tests - multiple-choice tests which can be mandatory, or self-tests for personal review.
- Tips - tips can range from anything such as NOTAMS prior to takeoff pointers to heads-up messages.
- Tutorials - Presentations given in concise format for the student with little spare time.
- Read & Sign - Required reading posted by the instructor which each student must complete and digitally sign.

Object Builder
The Object Builder allows you to create, delete, duplicate, or manipulate any object in the DART library. Objects include aircraft, runways, buildings, weapons, ground threats, ships, etc.

Common Questions About DART
Q: Is DART HLA certified and, if so, for what version?
A: Yes, HLA V1.3

Q: What DMRT aircraft types are currently supported?

Q: Is DART available under a fee-for-service arrangement?
A: Yes, DART can be purchased outright or under a fee-for-service agreement.

Q: Are there current government users of your systems?
A: Yes, USN, USAF, US ANG, ACC, AFRES, and AFSOC.