

CymLITE-MCS F-16 Viper

Advanced Mixed-Reality F-16 Combat Simulation



Train Like You Fight. Deploy Where You Fight.

Next-Gen Training, Mission-Ready Results

CymSTAR delivers next-generation training with the CymLITE Mission Combat Simulator (MCS) PRECISION X VIPER—an advanced solution that integrates Mission Systems, S.A.'s Mission Combat Simulator® (MCS) with the high-fidelity DogFight Boss PRECISION X VIPER cockpit replica. This modular, cost-effective system provides a deployable and immersive environment designed to accelerate mission readiness.

Immersive, Combat-Proven Simulation Software

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The system supports integration with test networks, threat generation systems and classified environments, including the Joint Simulation Environment (JSE), with applicability to STARCOM and Joint All-Domain Command and Control (JADC2) initiatives. Aircraft and weapons performance is customizable to reflect real-world parameters at any classification level.



True-to-Life Cockpit Hardware

The PRECISION X VIPER delivers full tactile fidelity. Every switch, display, and control mirror the F-16 experience, giving pilots the muscle memory and situational awareness they need to succeed in combat.

Modular by Design

Adapt quickly with a modular architecture built for upgrades. Whether adapting to a new F-16 BLOCK or specific aircraft configuration, the system remains aligned with evolving mission needs.

Deployable. Agile. Mission-Ready.

The CymLITE-MCS PRECISION X VIPER is compact, mobile and built for rapid deployment. It can be operated in classrooms, offices, hangars or forward locations. With a plug-and-train design, it requires only standard power and a secure network—enabling flexible integration across training and operational environments.

Elevate Mission Rehearsal

Simulate full CONOPS and real-world theaters of operation. CymLITE-MCS PRECISION X VIPER supports distributed, joint, and coalition training in the most complex mission scenarios.

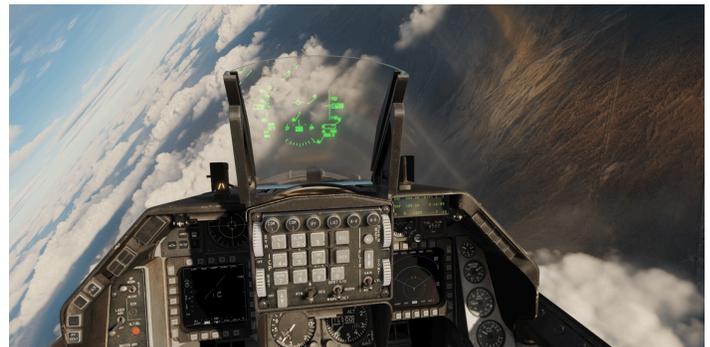
Key Features

- Supports joint and distributed mission training with full network capability
- Includes non-ITAR MCS software, customizable with commercial off-the-shelf (COTS) components
- Features a high-fidelity F-16 cockpit replica integrated in a mixed reality environment
- Simulates air-to-air and air-to-ground weapons, including guided bombs, missiles and gun pods
- Enables dynamic engagements with AI-driven constructive and semi-autonomous units
- Delivers high-resolution terrain with dynamic weather and geospecific landmarks
- Offers an extensive asset library including aircraft, vehicles, ships, weapons and infrastructure
- Provides terrain and software development kits for user-defined training environments
- Supports JTAC and JFO coordination in joint fires and close air support scenarios
- Offers optional performance analytics, including eye tracking, gaze mapping and gesture recognition to support pilot monitoring and human factors evaluation



High-Fidelity Mixed Reality

Varjo's XR Focal Edition headset provides the visual clarity necessary for high-consequence training. The system is also compatible with other headsets approved for classified use.



Contracting Advantage

CymSTAR was awarded a 10-year, \$32.5 billion TSA IV ID/IQ contract by the U.S. Air Force in 2023. This award reinforces CymSTAR's position as a trusted provider of advanced, mission-ready training systems.