F-16 TRAINING SYSTEMS

Customers worldwide are benefiting from Link Simulation & Training's expertise as the leading provider of F-16 training devices, ranging from concurrency and technology upgrades of fielded systems to delivery of new F-16 pilot and maintenance trainers.

Link's F-16 simulation solutions start with the highest fidelity F-16 flight and aero models, integrated with the complete range of F-16 systems, weapons and sensors.

This capability is underscored by three tiers of commonality; high resolution personal computer-based image generation; scalable visual display technology; distributed training networks; and human factors-engineered instructor operator stations.

Link's breadth of capabilities enable it to deliver customer-unique F-16 simulation systems built on proven common hardware and software solutions. The result: reliable simulation systems that enable pilots to develop and enhance their tactical skills in operation of this multi-role fighter aircraft.

COMMON TRAINING SYSTEM ARCHITECTURE

Link's first tier of commonality - our Common Training System Architecture (CTSA) - is the foundation for our F-16 training devices, providing the majority of system hardware and software commonality across various aircraft configuration baselines.

Link's CTSA supports Distributed Interactive Simulation interoperability, local and long haul networking, mission management, data recording for replay/debrief, and interfaces for a common synthetic combat environment, simulator cockpit and image generator.

COMMON SOFTWARE ARCHITECTURE

High functional fidelity software solution for ownship air vehicle, avionics, targeting, CNI and Electronic Warfare Our second F-16 tier of commonality - Link's Common Software Architecture (CSA) - includes a library of training-proven and portable hardware-independent training system models that fully support migration to future hardware platforms. Link's CSA includes commonality across simulation software for flight, systems and weapons models, synthetic combat environments and instructor operator stations, as well as interfaces to multiple image generation systems.

F-16 TRAINING SYSTEMS

COMMON HARDWARE ARCHITECTURE

Supporting the CTSA and CSA, Link has incorporated a Common Hardware Architecture across our devices as a third tier of commonality. For our F-16 training devices this open and standardized hardware architecture has been designed to fully support F-16 training and minimize logistics requirements.

Core to this common hardware is the high fidelity cockpit which is a form, fit and function replica for specific F-16 block simulators, including blocks 10, 15, 30, 32, 40, 42, 50 and 52.

VISUAL SYSTEM CAPABILITIES

Link's SimuView image generation system and scalable SimuSphere visual display are combined to provide exceptional visual cueing realism necessary to support F-16 pilot training. SimuView employs off-the-shelf personal computer hardware and video cards, in addition to hardware independent image generation softweare. SimuSphere partial dodecahedron frame design - which is marked by seamless facet tolerances - allows for 3, 5, 7 or 9 display panels that provide pilots anywhere from 180˚ to 360˚ horizontal field of view.

NIGHT VISION GOGGLE STIMULATION

Owning the night is key to successful F-16 air campaigns. Link has developed a Night Vision Training System (NVTS) that provides night vision goggle (NVG) training as an integrated product solution. Link's NVTS couples the image generator, NVG sensor stimulation, head tracking, user-supplied NVG goggles and correlated databases into a single integrated system.

DISTRIBUTED TRAINING NETWORKS

Link F-16 trainers are designed to support both local and wide area networking, enabling multiple simulators to participate in an exercise scenario. Depending on customer requirements, Link also can provide a distributed briefing, mission observation and debriefing capability.

INSTRUCTIONAL SYSTEMS

A modern personal computer-based Instructor Operator Station (IOS) provides a workstation designed for efficient and effective training scenario execution. The IOS provides individual control over a single device or can control multiple devices in a distributed training environment.

When combined with a scalable video wall consisting of plasma displays, the IOS becomes an integral part of a mission observation facility. The Link IOS includes an entity station consisting of a stick, throttle and visual display.

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