Unmanned Aircraft Systems

Training
Unmanned Aircraft Systems (UAS) are providing game-changing capabilities across the full spectrum of aviation. From High Altitude Long Endurance and Medium Altitude Long Endurance UAS that undertake battlefield-wide surveillance and reconnaissance missions to tactical UAS that support individual brigades, the demand for well-trained aircrews and operators is increasing exponentially as unmanned aircraft proliferate and missions continue to expand.

L-3 Link Simulation & Training is meeting this challenge with world-class UAS training.

Exceeding UAS Training Requirements
In response to a United States Air Force need for UAS aircrew and sensor operator training, L-3 Link delivered the first high-fidelity UAS training system in 2006. Training capability catapulted forward, introducing leading edge technologies and leveraging other state of the art training innovations. Today, complex, dynamic environments provide the ability to create realistic mission scenarios that prepare aircrews and operators.

By listening to our customers we are continuing to develop solutions that create targeted training capabilities that increase mission success.

From our comprehensive family of UAS training devices to full system training centers, L-3 Link stands ready to meet the challenges of UAS training in the 21st Century.
L-3 Link’s training center solutions produce proficient, qualified UAS aircrews. We apply proven instructional technology to design, develop and implement a cost-effective training center solution to meet demanding customer requirements.

Working closely with our customers, we define training requirements, develop performance-based training objectives and arrive at an optimum mix of training media to deliver effective training solutions.

From classroom instruction to computer-based training to high-fidelity simulation, L-3 Link provides a full range of products and services designed to produce mission ready aircrews and operators.

Training You Can Trust
We have decades of experience providing training centers with comprehensive technical, logistics and concurrency management support. Shaping emerging requirements, L-3 Link infuses fielded simulation systems with the latest training technology advancements.

Training Is Our Only Business
With this singular focus L-3 Link delivers cost-effective, premier training consistently producing skilled aircrews and operators.
Fast Delivery of Discriminating Solutions

We reduce new program risk, non-recurring costs and the time required to deliver customer-tailored training solutions by leveraging all technology from L-3 Link’s IR&D and extensive simulation program base. Our Common Training Solution Architecture™ provides a technology insertion model and reuse capability that leads the industry.

Our hardware and software simulation designs are built on an open and standardized architecture. To achieve high-fidelity simulation, L-3 Link integrates training software and geo-specific databases with operational UAS ground control stations (GCS) to provide aircrews with unparalleled training realism.

Results You Can Count On

Our UAS training solutions enable aircrews and operators to train in a high-fidelity environment prior to undertaking operational missions. From initial and mission qualification training to continuation and simulation-based mission rehearsal, we provide UAS solutions that meet your training objectives.

Relevant and Realistic Training Environments

Enabling crews to operate their unmanned platform under a wide range of environmental conditions is critical. To meet this training requirement, we work with our customers in developing virtual environments that accurately simulate real-world conditions and operational scenarios.
L-3 Link next generation visual system solutions realistically simulate UAS mission conditions.

**High-Fidelity Synthetic Environments**

Our HD World® simulation product line combines high-definition databases (terrain, weather, signal emissions, man-made features, synthetic forces) with image generation systems and physics-based processing technology to create a fully immersive training environment. This high-fidelity simulation enables aircrews to practice all relevant tactical tasks they will encounter within complex contemporary operating environments.

**The Blue Box HD™ Advantage**

*Blue Box HD™ combines all of Link’s IR&D technologies and extensive simulation program base development* with commercial and government off-the-shelf products into one small footprint unit. This includes an extension of our HD World product line, delivering high-definition virtual world content with multi-spectral visual imagery that enhances training realism and operational situational awareness.

Physics-based content includes vehicle models, weapons, threats, people, structures and scalable weather conditions. Mission progression and the reaction of entities in the database is variable depending on actions taken by UAS aircrew during training exercises.

*Blue Box HD can be integrated with all UAS platforms.*

**Fully Integrated Systems**

Our Instructor Operator Station supports control of single or multiple training devices during a distributed training exercise. To ensure aircrews gain maximum instructional benefit, L-3 Link’s Brief/Debrief system provides full mission record and play-back capabilities.
L-3 Link partners with leaders in industry and academia to develop leading edge UAS training solutions. Current examples include:

**UAS Training Center**

L-3 Link and the University of North Dakota created the *first non-military UAS Training Center* to provide Predator and Reaper aircrew training. The training center offers a comprehensive curriculum designed to produce qualified aircrews and operators.

**Federal Aviation Administration**

With an eye to the future, our team is working with the Federal Aviation Administration in developing requirements that will enable operators to qualify to fly within the National Airspace.

**Predator Mission Aircrew Training System**

With General Atomics Aeronautical Systems, Inc. we developed an immersive, high fidelity UAS simulation solution for MQ-1 Predator and MQ-9 Reaper crew training.

These simulators are integrated with General Atomics’ GCS hardware and software in addition to L-3 Link simulation software and visual systems. Our *platform-agnostic approach* can be integrated with any unmanned aircraft’s GCS hardware system. This approach, combined with our ability to support collective Manned-Unmanned Team training, enables L-3 Link to offer the broadest range of UAS training solutions designed to enhance aircrew mission performance and readiness.