

Live, Virtual and Constructive

Northrop Grumman's joint all-domain immersive environments will deliver the mission rehearsal and warfighter training required for future battlespace.

During live, virtual and constructive (LVC) training, live platforms are able to connect with manned simulators in a virtual environment, while training alongside computer generated forces in a constructive simulation. Northrop Grumman provides unparalleled experience as a training systems integrator and delivers all-domain training solutions that ensure warfighters are mission-ready for current and future threats.



MULTI-DOMAIN APPROACH

Northrop Grumman helps enable blended and synthetic training in a realistic, all-domain environment using real-world operational systems for warfighters to operate and interact in actual, real-world combat situations.

We are helping the warfighter define what's possible and provide timely solutions to address the needs of next-generation threats. As new technology comes online, the old way of developing operations and training is simply too costly, siloed and slow. We are helping the U.S. military and their allies develop cutting-edge solutions quickly. Our unparalleled experience and capabilities as an integrator of complex systems allows us to create an all-domain immersive environment. Our integrator role recognizes increased government ownership over the systems that replicate weather, weapons platforms and other elements required for realism in a Joint Synthetic Environment. We collaborate with the customers to network and then manage those systems to create the next-generation immersive environment. Through "digital twins" of the battlespace, we can create the realistic, scalable environment for future mission rehearsal and training. Our network-enabled immersive environment allows Services to explore, experiment, test and evaluate new operations and classified capabilities in a secure and discreet manner. Using virtual replicas and networking a diverse set of nodes to rehearse missions and train the warfighter saves precious resources because there is no need to deploy real assets by air, land or sea.



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OUR LVC SOLUTIONS

DISTRIBUTED MISSION OPERATIONS NETWORK

Distributed Missions Operations Network (DMON) delivers secure connectivity and network interoperability between unique simulator platforms across the globe, providing the backbone and infrastructure upon which the U.S. military and their allies can build the LVC training of the future.

DMON's cpabilities include:

- Blended Environment Services & Guidance
- Secure, High-Performance WAN
- Synthetic Mission Command



• High-End Air Combat Test, Training and Tactics



Joint/Coalition Exercises



Digital Twin

LEXIOS

LVC Experimentation, Integration and Operations Suite (LEXIOS) is a set of hardware and software solutions coupled with engineering services that enables a distributed LVC training experience. Northrop Grumman provides the decisive advantage to LVC training by blending the live environment with the synthetic (virtual and constructive) via the LEXIOS system.

DISTRIBUTED MISSION OPERATIONS 2022 STATISTICS

| 21 | YEARS OF DAILY OPERATION | 18 | UNIQUE PLATFORMS |
|----|---|---------------|------------------------|
| 15 | YEARS OF DAILY CROSS-DOMAIN OPERATIONS (CDS) | 2,096 | TEST & TRAINING EVENTS |
| 71 | GEOGRAPHIC LOCATIONS AND GROWING | 20,897 | HOURS |
| 2 | SECURITY DOMAINS | 99.8 % | SERVICE AVAILABILITY |
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