

Joint Secure Air Combat Training System (JSAS) —

MULTI-DOMAIN
AIR COMBAT
TEST AND TRAINING

Secure. Interoperable. Available now.





TRAIN SOONER WITH UNPARALLELED REALISM

JSAS enables more robust realistic operational test and training through the latest-generation technologies. This next-generation system for secure live, virtual and constructive (LVC)-capable training will field by 2022.

JSAS, a collaboration between Collins Aerospace and Leonardo DRS, brings the capabilities together for high-fidelity air combat training and offers warfighters the ability to train as they fight – in highly contested, highly congested scenarios. The system interacts with the aircraft to create the same conditions as when the warfighter is up against real adversaries. JSAS enables pilots to train with and against opponents flying dissimilar aircraft from their own nation's or coalition partners' aircraft. The system is secure enough to handle your nation's classified weapon simulations, so pilots can be objectively measured on their performance more accurately.

UNMATCHED OPERATIONAL REALISM

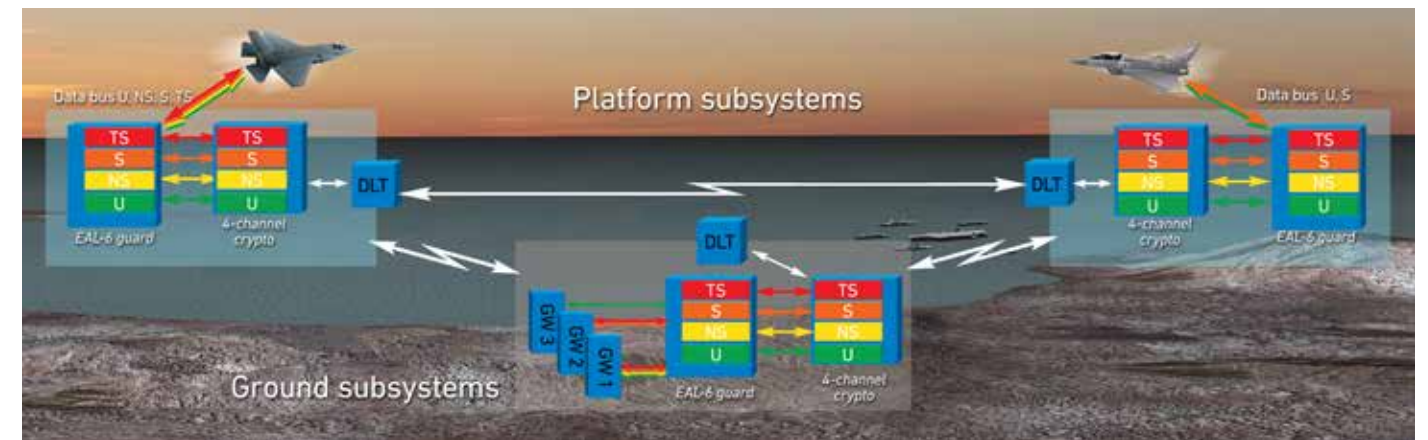
JSAS blends synthetic elements with live participants to realistically simulate high-threat air combat situations.

- Synthetic Inject to Live (SITL) featuring full-fidelity threat and weapon simulations for Department of Defense and NATO weapon types
- Real-time kill notification and removal with real-time RTO adjudication
- Reconfigurable in flight for effective training in less time
- Train with 5th gen platforms and against near-peer threats
- 5x more network capacity than existing air combat training systems, in the same bandwidth – more live players and excess capacity for LVC traffic

NEXT-GENERATION OPERATIONAL TEST AND TRAINING CAPABILITIES

No matter what scenario you would like to fly, JSAS provides the capabilities needed to execute the mission.

- The only air combat test and training system with an NSA certification that supports requirements of your 5th-Gen fighters
- Multiple independent levels of security (MILS) architecture featuring an accredited cross-domain solution, in the air and on the ground, for tethered or autonomous operations
- The world's first SCA 4.1 certified software defined radio capable of operation multiple waveforms such as P5, BMW, and 5G-ATW
- JSAS incorporates advanced systems and algorithms to operate effectively in a GPS degraded or denied environment



5TH-GEN TO 4TH-GEN INTEROPERABILITY

Now you can add depth to exercises by securely enabling 5th-generation, legacy and coalition forces to train together, accurately reflecting real-world environments.

- JSAS comes in an internal mount variant specifically designed for the 5th Gen fighters
- With MILS enabled, 5th Gen fighters can now interact more realistically
- With JSAS installed, many capabilities are available above the current system even without OFP modifications

FUTURE READY

Not only is JSAS real, certified and operating on ranges today, it's also designed to advance as your future test and training needs change.

- Scalable system supports participants from the small squadron to the large force
- Integrates with current test and training assets such as electronic-warfare threat emitters and ground-based participants
- Open systems architecture allows integration of third-party applications
- User-controlled security rule-sets manage information sharing between participants of different security levels ensuring interoperability with US, coalition, and NATO partners

TEAMWORK THAT MULTIPLIES YOUR TRAINING ADVANTAGES

Collins Aerospace and Leonardo DRS have teamed up for combined expertise that spans the entire air-combat test and training spectrum. Let us show you how JSAS can elevate your test and training operations.

- Takes advantage of more than \$300 million in technology investment to realize test and training commonality for reduced development and life-cycle costs
- Expertise in MILS encryption, advanced data links, networking, LVC, simulation systems and ConOps
- In-depth knowledge of customer needs in the air-combat test and training sphere
- Securely integrates with aircraft data bus/operational flight program to present realistic and real-time threats to the aircrew

ALLIES TRAINING LIKE THEY FIGHT

Not only is JSAS real, certified and operating on ranges today, it's also designed to advance as your future test and training needs change.

- Blend live and synthetic training across national boundaries for Gladiator type test and training
- Exportable to FVEY and other countries upon approval
- Both L- and S-Band for training frequencies approved
- Continue to leverage your range investments – easily integrated into your existing range infrastructure and ATO policies
- Compatible with any platform OFP or your favorite kneeboard



AIRBORNE SUBSYSTEMS

- Pod instrumentation system
- F-35 fully integrated internal mount system
- Internal/rack-mount system for F/A-18 and support aircraft

GROUND SUBSYSTEMS

- Fixed, portable, transportable and shipboard ground systems
- Secure mission room for live monitor/playback
- Remote range unit for real-time monitoring and mission control

To learn more, go to
collinsaerospace.com

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