

Torch-X™ Air

Tactical air control support system





Torch-X Air

Tactical air control support system

Torch-X Air is an integrated, end-to-end solution to support the tactical air controller operational process. The advanced system is designed to improve airspace sovereignty, early-warning, airspace management capabilities, mission planning and engagement, interception control, monitoring and operational training processes.

Torch-X Air is based on full integration with aircraft and vehicles, C² systems, radars and other external systems to allow a full and accurate local and recognized aerial situational picture (LAP/RAP).

System Overview

Torch-X Air creates an Aerial Common Operational Picture (ACOP) for tactical air coordination. The system enables an integrated and cohesive global aerial situational picture with advanced airspace control capabilities for land forces by integrating and fusing sensors and integrating to air platforms via link-16 and JREAP.

Unified situation picture: Integration with multiple sensors (e.g., EO/IR imagery sensors, radar, SIGINT, COMINT and more) provides a unified situation picture to support decision making as well as real-time operation.

Synchronization of integrated joint forces: Enables managing aerial assets in the tactical airspace and integrating airpower into maneuvering with joint and coalition forces.



Operational capabilities

Torch-X Air supports an aerial operational picture for both manned and unmanned platforms, providing:

- Local Air Picture (LAP) compilation and dissemination
- Recognized Air Picture (RAP) compilation and dissemination
- Tactical airspace monitoring and coordination
- Aerial mission planning
- Aerial mission execution control
- Multi-sensor data fusion and correlation
- Post mission analysis, after-action review and debrief

Open architecture infrastructure: Torch-X Air is based on Elbit Systems' E-CiX, a fast and efficiently developed modular framework based on commoditized existing building blocks using industry standards, open architecture and offering its capabilities in "as a service" model. The flexible infrastructure accommodates third-party applications and provides the development environment for future growth and modularity.

Multi-sensor and multi-source: Supports and seamlessly integrates multiple existing and new sensors. Correlates, cross-references and fuses all sensor sources holistically, enabling sophisticated multi-source and cross-system tracking.

Multiple interface connectivity: Optimizes data collection and enhances interoperability across sensor systems, domains, coalition forces and echelons. Supports numerous effector and sensor standards to enable multi-domain dominance and facilitates offline operational debriefing. Torch-X Air can easily integrate with legacy and future sensors and effectors.

Intuitive user experience: Reduces cognitive load and training burden with a simple and intuitive web-based user interface based on the principle of recognition rather than recall at its core, using modern and familiar building blocks. The aerial operating picture is customizable to meet specific user requirements.

Interoperability: Enables interfacing with various external C⁴ISR systems, including systems in active operational use. The system provides a variety of interfaces and standard data protocols, including:

- Friendly Force Tracking (FFT/NFFI)
- MIL-STD 6017: Variable Message Format (VMF)
- MIL-STD 6016: Link-16
- Asterix tracks
- ADS-B
- ADatP-3 / APP11
- Multilateral Interoperability Programme (MIP 3.1)

Up-to-date local and recognized air picture (LAP/RAP): Running on fixed or deployed/mobile ad-hoc networks, the distributed application drives and enables data dissemination and collaborative processing of data across multiple platforms and various node types. The system operates continuously in routine, emergency and training operations, generates and preserves an operational database and enables sharing among various node types.

Torch-X Air

Tactical air control support system

Key Features

- Unified situational picture
- Full aerial picture: LAP/RAP
- Open architecture
- Multi-source and sensor correlation and fusion
- Multiple interface connectivity for legacy and new sensors/effectors
- Enhanced interoperability

Key Benefits

- 24/7 real-time air support
- Modular and scalable
- Military off-the-shelf (MOTS) application
- Optimizes resource usage
- Accelerates combat tempo



Elbit Systems C4I and Cyber

2 Hamachshev St., Netanya 4250712, Israel

E-mail: C4icyber.info@elbitsystems.com www.elbitsystems.com

Follow us on   