

EDGE



TORCH-X™ FAMILY OF C⁴ISR NETWORK COMBAT SYSTEMS

NETWORKED COMMAND AND CONTROL SOLUTIONS FOR
MULTI-DOMAIN OPERATIONS



NETWORKED COMMAND AND CONTROL SOLUTIONS FOR MULTI-DOMAIN OPERATIONS

The Torch-X™ Family of C⁴ISR network combat systems delivers next-generation performance and advanced networked tactical, operational and strategic command and control capabilities, designed to increase survivability, lethality and combat tempo. The Torch-X™ Family provides secure communications and real-time connectivity for all levels of command, supporting collaborative, synchronized operations across the land, air and maritime domains with full support for manned and unmanned autonomous platforms. With a unified augmented reality targeting picture, a scalable toolbox of AI, machine learning and tactical decision support algorithms, the Torch-X™ Family brings true, multi-domain networked warfare capabilities.

Open architecture infrastructure: Based on Elbit Systems' E-CIX modular framework, the open architecture design provides a development environment that accommodates third-party applications for future growth and requirements. The agile and scalable framework can be integrated into multiple devices, sensors, effectors, and networks.

AI-based decision support: Powerful AI tools reduce cognitive load at all echelons, facilitating optimal decision making, planning, and execution processes and increased operational tempo. Torch-X™ solutions quickly and effectively collect, evaluate, and organize information from any source, recommending the best possible actions to the commander based on all available data.

Multiple interface connectivity: Optimizes data connection and enhances interoperability across systems, domains, and forces, supporting numerous effector and sensor standards to enable multi-domain dominance. Full integration and connectivity for legacy and new systems with the ability to control and manage in real time provide a comprehensive operational picture and situational awareness.

Elbit Systems has decades of global operational experience. With technologies and systems trusted by armed forces worldwide, Elbit Systems has a proven track record in the design, development, and deployment of comprehensive, large-scale, and complex C² and protection solutions.







Torch-X™ Dismounted

Integrated warrior dismounted suite for ultimate combat effectiveness

A soldier-centric integrated system, the Torch-X™ Dismounted warrior suite comprises advanced C² applications, personal network radios, mobile computing devices, tracking devices, augmented reality display and sensors. Integrating the soldiers' sensors and effectors to the network, the system dramatically shortens the sensor-to-shooter loop, delivering real-time situational awareness with automatic data dissemination based on hierarchy and geography. The suite features an optimal ergonomic and biomechanical design, a modular advanced load carriage and protective measures.

Torch-X™ Dismounted Joint Fires

Integrated digital solution for FST and JTAC

Designed for Fire Support Teams (FST), Joint Terminal Attack Controllers (JTAC) and Tactical Air Control Parties (TACP), Torch-X™ Dismounted-Joint Fires supports multi-domain non-kinetics and kinetics indirect fire and Close Air Support (CAS). The comprehensive suite for dismounted soldiers is controlled, managed, and operated by Elbit Systems' Torch-X™ Fires to enable rapid sensor-to-effector cycles. Featuring a single interface for all applications and users, the battle management solution integrates a wide range of advanced technology components to support mission planning and execution of digital fires.



Torch-X™ Comms

Military communications system

An advanced, field-proven military communications system, Torch-X™ Comms provides fast connectivity and seamless direct communication within the military network across all echelons and among a broad range of radios and communication devices. Providing integrated RoIP and VoIP collaboration services, Torch-X™ Comms improves voice, data and video communications and coordination capabilities, providing a complete operational picture in real time.

Torch-X™ Mounted

Weapon-integrated battle management system

A mature, battle-proven solution, Torch-X™ Mounted incorporates comprehensive C² applications, advanced computing terminals, tactical multimedia routers, and communications systems. The system seamlessly integrates into various tracked and wheeled platforms with a broad spectrum of weapon systems. Torch-X™ Mounted features a revolutionary automated network management and communication configuration, enabling superior situational awareness, collaboration, and synchronization.

Torch-X™ HQ

C⁵ISR system for enhanced operational effectiveness

Designed to support all battlefield domains and disciplines including manned and unmanned systems, Torch-X™ HQ enables collaborative planning and battle management. The cross-platform, comprehensive C⁵ISR solution shortens the decision-action cycle for the delivery of kinetic and non-kinetic effects in the battlespace. The battle management system meets 5-Eyes security standards and is updated to withstand emerging cyber security threats.



Torch-X™ Air

Tactical air control support system

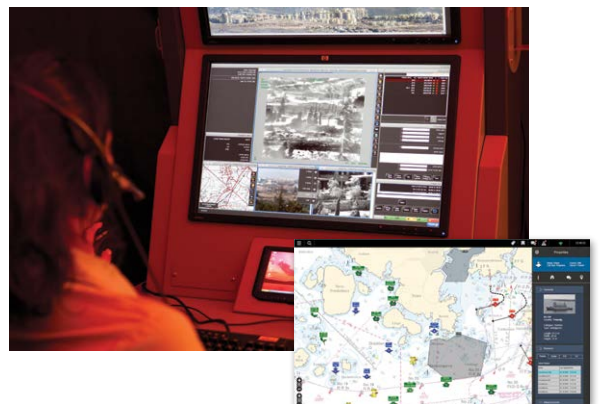
An integrated, end-to-end solution to support the tactical air controller operational process, Torch-X™ Air is designed to improve airspace sovereignty, early-warning, airspace management capabilities, mission planning and engagement, interception control, monitoring and operational training processes. Integration with aircraft and vehicles, C² systems, radars and other external systems delivers a full and accurate aerial common operational picture for manned and unmanned platforms, provides advanced airspace control capabilities for land forces, enables managing aerial assets in the tactical airspace and integrating airpower into maneuvering with joint and coalition forces.



Torch-X™ Maritime

Comprehensive maritime protection and command and control

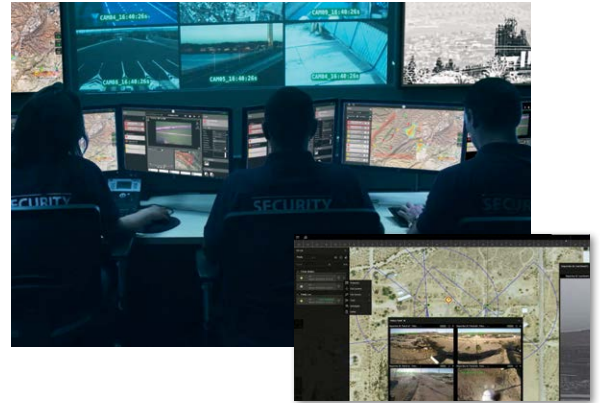
An integrated, advanced command and control solution, Torch-X™ Maritime features strategic and operational capabilities to address the challenges of monitoring, protection, security, and defense of maritime borders, maritime facilities, coastal sites, vessel traffic control and port entries. The solution enables highly effective cross-force coordination, quick and precise planning and execution with effective sensor-to-responder capabilities, as well as simulation and training capabilities for mission planning and development of emergency procedures. Real-time data, voice and live video information sharing between participating forces and platforms at sea ensures a common language and seamless operations.



Torch-X™ Borders

Comprehensive border protection and command and control

A unified networked command and control solution for border protection, Torch-X™ Borders planning and execution tools enable real-time regional surveillance, early warning, mission management, and interception. Delivering effective incident control and rapid response 24/7 in all terrain and weather, Torch-X™ Borders provides real-time connectivity across the border security array, enabling optimal coordination of intelligence, surveillance, and reconnaissance (ISR) efforts. The solution supports heterogeneous fleets of surveillance sensors and interceptors for vast area coverage throughout national territory operational zones and along country borders, automatically classifies and prioritizes threats, and recommends the optimal interception methods.



Torch-X™ RAS

Autonomous network combat solution for unmanned heterogeneous swarms

Designed to support a wide range of manned-unmanned teaming (MUM-T) operations, Torch-X™ RAS Robotics and Autonomous System offers an advantage in peer/near peer adversary combat scenarios, allowing coordinated deployment of swarms of connected, heterogeneous autonomous systems. Torch-X™ RAS easily integrates with any ROS-compliant platform, enabling connectivity and control of air, sea and land platforms that extend the range and reach of warfighters.



Torch-X™ Fires

Integrated fire support application

A joint multi-domain fires application, Torch-X™ Fires supports both indirect fire and CAS missions from planning to execution. The application supports both non-kinetic and kinetic effectors and creates secure digital connectivity between all joint fire integrators at all levels of command. Torch-X™ Fires easily interfaces with multiple military IoT devices, including tactical radios, laser range finders, E/O devices, laser target designators, and can interface with the Torch-X™ HQ battle management application.

