



**L3HARRIS™**  
FAST. FORWARD.

# **REDEFINING THE CONNECTED BATTLESPACE**

L3Harris Falcon Net Ecosystem™





# THE INDUSTRY'S BEST END-TO-END TACTICAL NETWORK SOLUTION

Tactical decisions need to move at the speed of light—and be correct. Rich data intelligence, video ISR, high-speed MANET networks and unwavering interoperability are critical for mission superiority. That is the foundation of Falcon Net Ecosystem technologies. This end-to-end solution is fueled by over six decades of global tactical expertise, and our commitment to warfighter safety and overmatch capabilities.

## DATA-DRIVEN INTEL: Fast. Accurate. Shared.

### REAL-TIME INTELLIGENCE

Battle management and multi-channel technologies support accurate, comprehensive ISR for shared intel across echelons. This allows faster, better-informed decisions at the point of battle where needed most.

### MULTI-DOMAIN INTEROPERABILITY

Land, sea, air and space—nations and their warfighters, first responders and border agents are able to communicate throughout joint operations. Hardware, software and applications work together to extend range and capabilities and to ensure robust, reliable connectivity.

### SPECTRUM SUPERIORITY

L3Harris proprietary waveforms can create and maintain a robust, high-throughput network connection at 75 kHz, while other communications providers require 1.2 MHz. This is a major differentiator in how L3Harris waveforms efficiently use the spectrum.

### RESILIENT COMMUNICATIONS

Warfighters stay connected as they move throughout the battlespace. Waveforms and networks automatically adapt to communication interferences, environments and distances between units.



Powered by tightly integrated networking technologies, the L3Harris Falcon Net Ecosystem delivers robust, resilient, data-centric communications, no matter how complex the scenario.

#### **FALCON® RADIOS**

**Battle-proven technologies architected by the global leader in tactical communications.**

- > Converged voice, data, Full Motion Video, crossbanding and Falcon family interoperability
- > Reduces need for extra radios through multi-channel, multi-mission capabilities
- > Software-defined architecture simplifies upgrades and protects investments
- > Engineered for warfighters—low SWaP, ruggedized, intuitive user interface

#### **WAVEFORMS**

**Growing, 50+ portfolio of waveforms gives warfighters the ability to keep pace with complex mission challenges.**

- > Low-latency transmissions deliver high-accuracy Friendly Force and target locations
- > Anti-jam solutions provide reliable communications in severely contested environments
- > Mobile warfighters stay agile through self-forming, self-healing, multi-domain MANET networks

#### **TACTICAL APPLICATIONS**

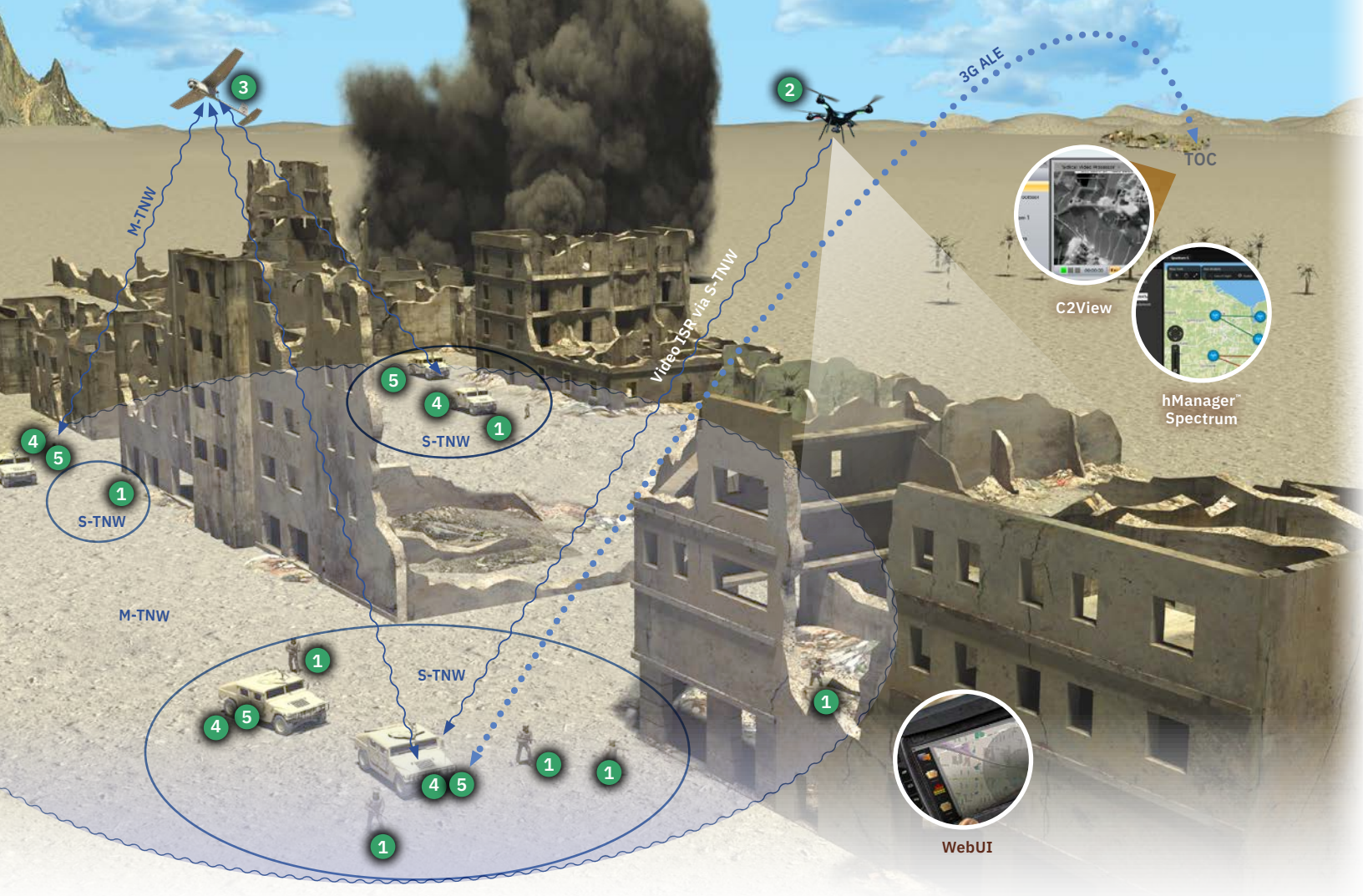
**Near real-time delivery of actionable information speeds more informed decision making.**

- > Battle Management System processes raw battlefield data, delivering a shared Common Operational Picture
- > Network design, deployment and monitoring are faster and more accurate
- > Chat and messaging applications provide up-to-the moment mission status and Position Location Information

#### **SERVICES**

**Customized system design, deployment and operational services optimize battlefield performance.**

- > Proven hardware, software and applications now in 50+ countries
- > Seamless connectivity by land, sea, air and space, through a single system
- > Scales with missions—active battle, border surveillance, peacekeeping and disasters



## MOBILE FORCES LOCATE AND EXTRACT: BIG DATA

An adversarial threat has been identified in an urban area. Tactical edge soldiers are deployed to pinpoint location and apprehend enemy forces. In absence of adversarial jamming, forces employ robust, multiband networking. Edge soldiers launch a drone to relay ISR video of target to command. A UAV is deployed by mobile commanders to extend communications range.

### FALCON RADIOS

- 1 **RF-7850S-SPR™**  
Wideband and narrowband capabilities for edge forces
- 2 **RF-7850A-ER** Low-SWaP airborne solution for video ISR and range extension
- 3 **RF-7850A-UA** Seamless UAV integration with superior ISR and range extension capabilities
- 4 **RF-7850M** Provides robust wideband networking between vehicular forces
- 5 **RF-7800H-MP** Beyond-Line-Of-Sight (BLOS) connectivity in absence of SATCOM

### WAVEFORMS

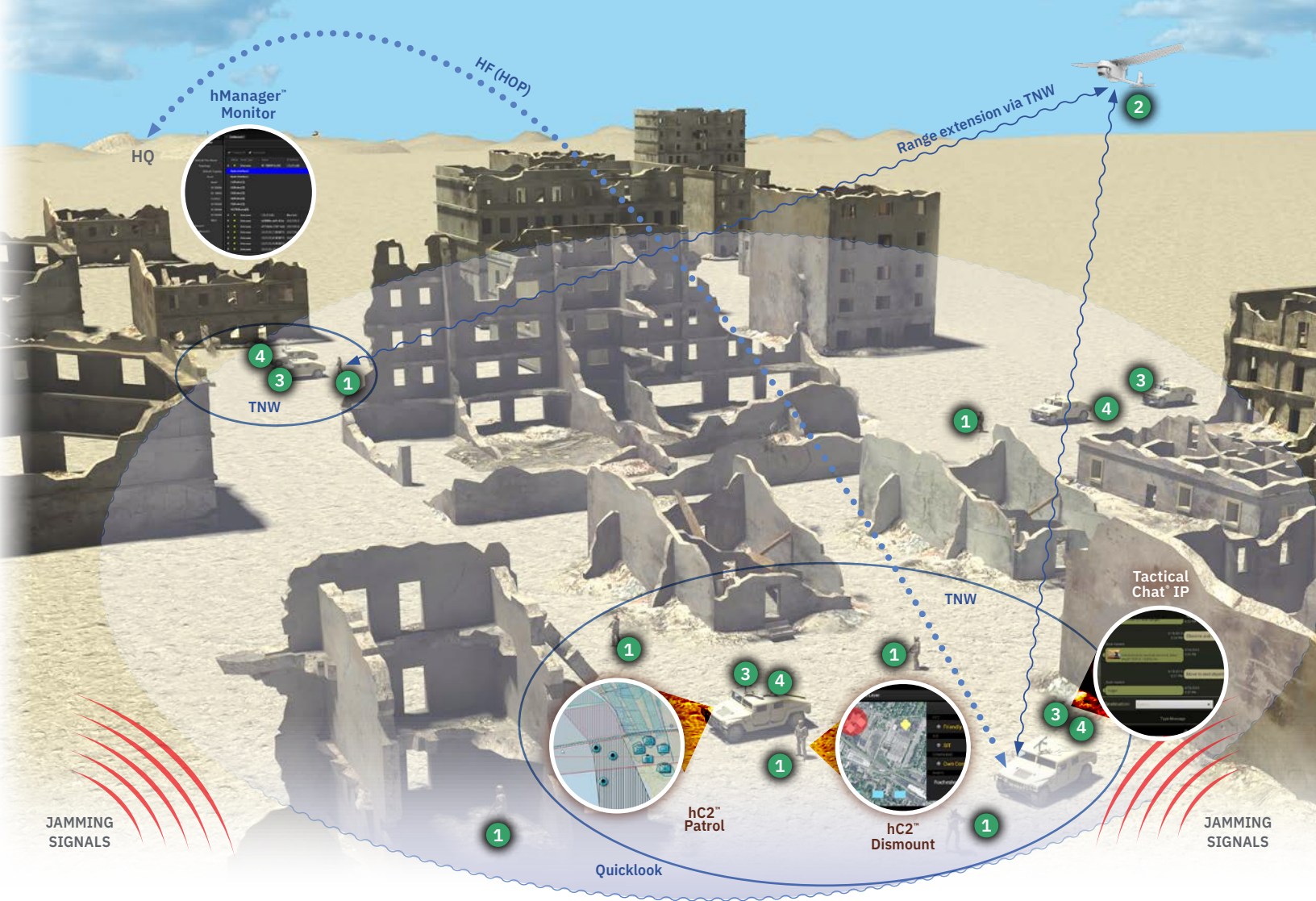
- S-TNW** Self-forming, self-healing networking, wideband ISR, Friendly Force identification for tactical edge forces
- M-TNW** Mid-tier, scalable MANET and wide-area battlespace management for tactical leaders
- 3G Automatic Link Establishment (ALE)**  
Robust, reliable voice, SA and PLI despite congested HF channel conditions or reception interference

### TACTICAL APPLICATIONS

- Tactical Chat® IP** Allows command and edge to exchange text messages and multi-media Situational Awareness (SA)
- C2View** Supports management of multiple video streams
- hC2™ Patrol** Simplifies battle management complexities for frontline commanders
- hC2™ Dismount** Provides dismount commanders with a real-time, shared operational picture
- hManager™** Delivers highly predictive testing, deployment and monitoring of all networked tactical assets
- WebUI** Applications including friendly force tracking, video streaming, and remote control for all levels of the battlefield

### SERVICES

- Technical Customer Support**  
Set up tactical radio network infrastructure including design, configuration, installation commissioning and training
- RF-7801 Test System**  
Cost-effective, in-field radio test and repair solution
- Premier** Online product technical assistance, downloads, training and product demos



## MOBILE FORCES LOCATE AND EXTRACT: RESILIENT COMMUNICATIONS

As edge forces close in on target area, the environment becomes contested with adversarial jamming impacting communications. Resiliency takes priority over big data. Forces employ the same radios as in previous scenario but use different waveforms to maintain Push-to-Talk voice communications. Commanders launch a UAV for range extension.

### FALCON RADIOS

- 1 **RF-7850S-SPR™**  
Wideband and narrowband capabilities for edge forces
- 2 **RF-7850A-UA** Seamless UAV integration with range extension capabilities
- 3 **RF-7850M** Provides robust wideband networking between vehicular forces
- 4 **RF-7800H-MP**  
Beyond-Line-Of-Sight (BLOS) connectivity in absence of SATCOM

### WAVEFORMS

- ECCM Frequency Hopping**  
Fast, anti-jamming frequency hopping across a wide spectrum enhances information security and reliability
- > TNW
  - > Quicklook
  - > HF Hop

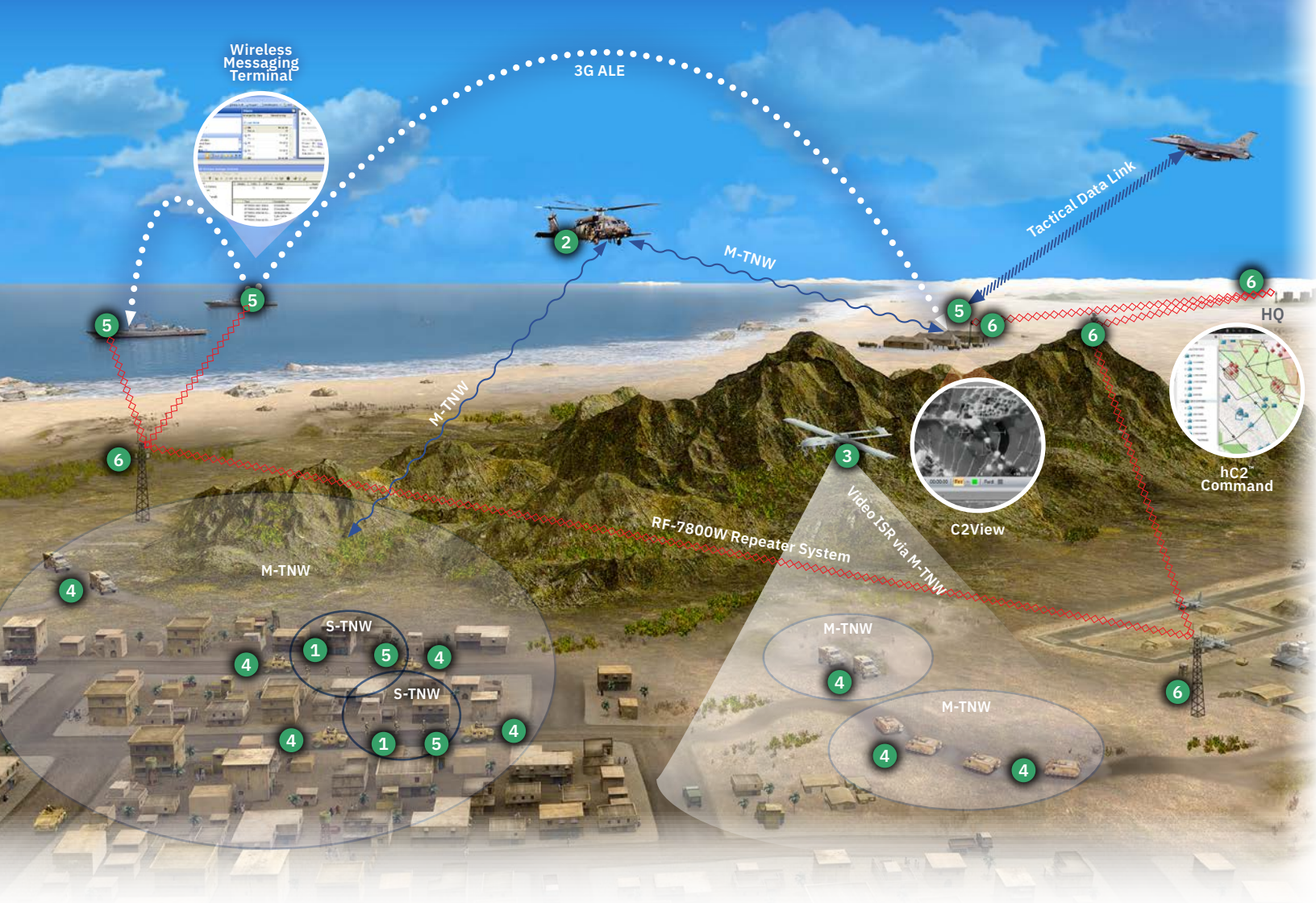
### TACTICAL APPLICATIONS

- Tactical Chat® IP
- hC2™ Patrol
- hC2™ Dismount
- hManager™

### SERVICES

- Technical Customer Support
- RF-7801 Test System
- Premier

**FALCON NET ECOSYSTEM™ TECHNOLOGIES POWER TACTICAL VERSATILITY, ALLOWING MISSIONS TO USE A SINGLE PORTFOLIO OF RADIOS RUNNING A BROAD RANGE OF WAVEFORMS TO ANSWER A VARIETY OF BATTLESPACE CHALLENGES.**



## MULTI-DOMAIN BORDER OPERATIONS

A geographically diverse nation needs continuous monitoring of border areas for potential threats. Robust, reliable communications are key for forces deployed by land, air and sea. A HCLOS-based strategic backbone system links C4I across domains from command to edge.

### FALCON RADIOS

- 1 **RF-7850S-SPR™** Wideband and narrowband capabilities for edge forces
- 2 **RF-7850A-MR** Dual-channel, high-speed IP networked data and Full Motion Video
- 3 **RF-7850A-UA** Seamless UAV integration with superior ISR and range extension
- 4 **RF-7850M-V51X** Long-range voice and data for vehicular forces
- 5 **RF-7800H-MP** BLOS connectivity in absence of SATCOM
- 6 **RF-7800W/RF-7850W** Strategic backbone with quick-to-deploy, big-data wireless broadband connectivity over great distances

### WAVEFORMS

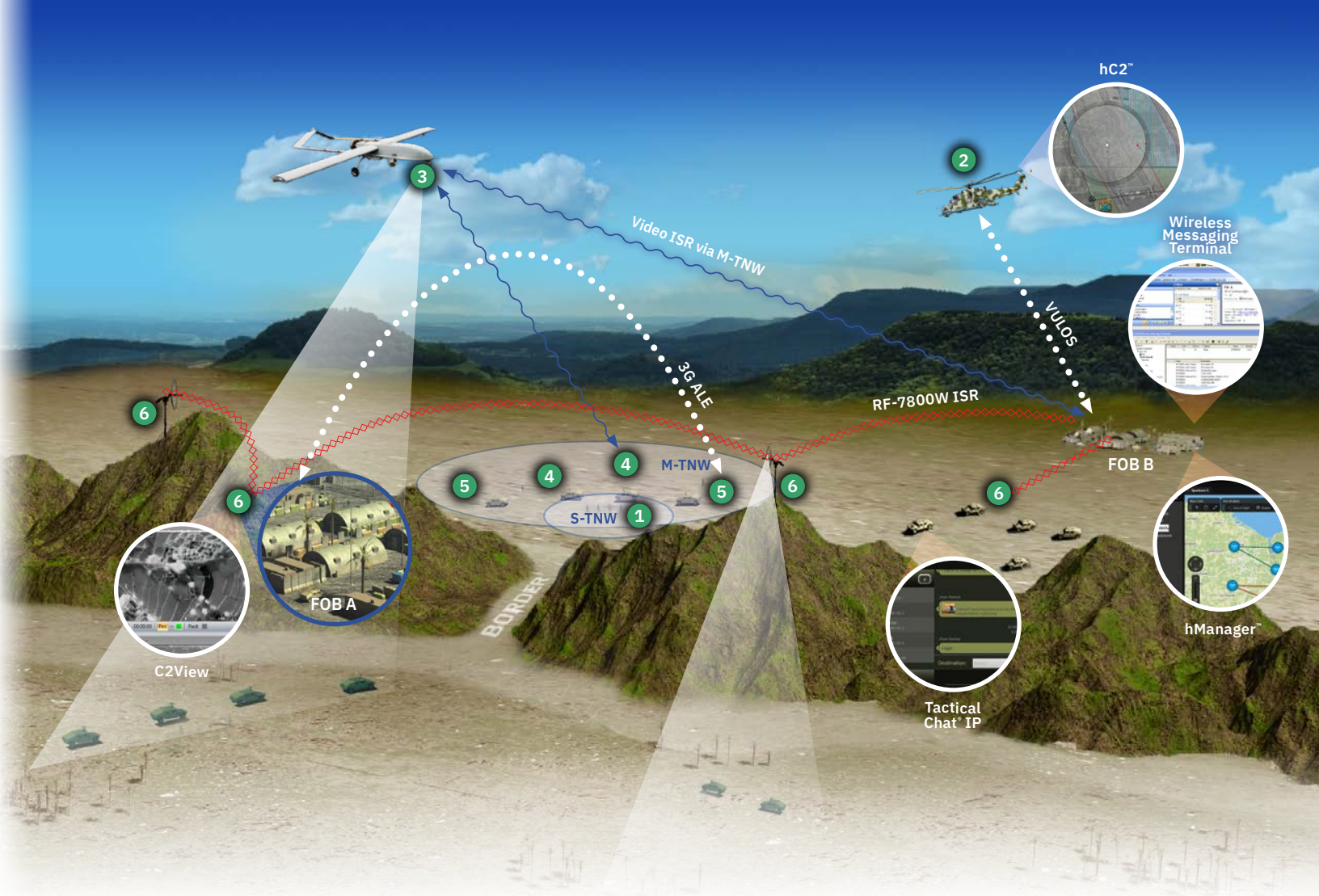
- S-TNW** Self-forming, self-healing networking, wideband ISR, Friendly Force identification for tactical edge forces
- M-TNW** Mid-tier, scalable MANET and wide-area battlespace management for vehicular forces
- 3G Automatic Link Establishment (ALE)** Robust, reliable comms despite congested HF channel conditions or reception interference

### TACTICAL APPLICATIONS

- Tactical Chat® IP** Allows command and edge to exchange text messages and multi-media Situational Awareness
- C2View** Supports management of multiple video streams
- hC2™ Software Suite** Complete C2 solution providing a real-time Common Operational Picture for more-informed decision making. Available Tactical Data Link radio-agnostic module supports interfacing with airborne assets
- hManager™** Delivers highly predictive testing, deployment and monitoring of all networked tactical assets
- Wireless Messaging Terminal** Wideband text, file and image delivery across HF networks

### SERVICES

- Engineering Design Services** Design, verification and commissioning of communication solutions including radios, OEM components and applications
- Technical Customer Support** Installation, configuration and full integration of strategic backbone including full network services, components and applications
- In-Country System Support** Comprehensive, scheduled updates, troubleshooting and repairs for all tactical network components
- RF-7801 Test System** Cost-effective, in-field radio test and repair solution
- Premier** Online product technical assistance, downloads, training and product demos



## MULTI-NATIONAL SENSING AND RESPONSE

Terrorists threaten the peace and security of multiple nations. The broad-scale, multi-national response is collaborative, involving command, vehicular and edge forces tracking targets over extreme terrain and great distances. Speed and accuracy of locating threats are powered by shared data from numerous ground and airborne assets, delivered by broadband radio technologies.

### FALCON RADIOS

- 1 **RF-7850S-SPR™** Wideband and narrowband capabilities for edge forces
- 2 **RF-7850A-MR** Dual-channel, high-speed IP networked data and Full Motion Video
- 3 **RF-7850A-UA** Seamless UAV integration with superior ISR and range extension capabilities
- 4 **RF-7850M** Advanced ECCM technologies, supporting reliable voice communications
- 5 **RF-7800H-MP** BLOS connectivity in absence of SATCOM
- 6 **RF-7800W/RF-7850W** Big-data wireless broadband provide high-definition ISR from mobile forces and sensing sites deployed over great distances

### WAVEFORMS

- S-TNW** Self-forming, self-healing networking, wideband ISR, Friendly Force identification for tactical edge forces
- M-TNW** Mid-tier, scalable MANET and wide-area battlespace management for tactical leaders
- VULOS** VHF/UHF Line-Of-Sight encrypted voice and Position Location Information
- 3G Automatic Link Establishment (ALE)** Robust, reliable comms despite congested HF channel conditions or reception interference

### TACTICAL APPLICATIONS

- Tactical Chat® IP** Allows command and edge to exchange text messages and multi-media Situational Awareness
- C2View** Supports management of multiple video streams
- hC2™ Software Suite** Complete C2 solution providing a real-time Common Operational Picture for more-informed decision making. The Multilateral Interoperability Programme (MIP) baseline provides net-centric interoperability
- hManager™** Delivers highly predictive testing, deployment and monitoring of all networked tactical assets
- Wireless Messaging Terminal** Wideband text, file and image delivery across HF networks

### SERVICES

- Engineering Design Services** Design, verification and commissioning of communication solutions including radios, OEM components and applications
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**Redefining the Connected Battlespace: Falcon Net Ecosystem™**

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L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.



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