



C-130 Real-Time Information in the Cockpit

Certified on-board situational awareness for the warfighter

Northrop Grumman provides Real-Time Information in the Cockpit (RTIC) capability for the Air National Guard and Air Force Reserve Command C-130H aircraft. These enhancements integrate a situational awareness (SA) capability that allows aircrews to communicate with ground crews during airlift, airdrop, and other operations.

With the increased complexity of combat operations, aircrews need to process and respond to incoming information rapidly to meet mission goals. With SA and airspace management in the battle area, mission failures and fratricide can be sharply reduced.

The Air National Guard and Air Force Reserve Command have identified RTIC among their top priorities.

How It Works

C-130 RTIC leverages the technology developed on the BACN (Battlefield Airborne Communications Node) and ROBE (Roll-on Beyond Line-of-Sight Enhancement) programs to provide a low-cost, certified tactical network capability to ensure SA in the cockpit.

Northrop Grumman is integrating the software and hardware that will enable real-time tactical information to be displayed in the C-130H cockpit and at the navigator station.

The displays provide information obtained from Joint Range Extension Applications Protocol (JREAP) and Situational Awareness Data Link (SADL) communications, allowing the C-130 crew to not only see the theater tactical picture, but also electronically

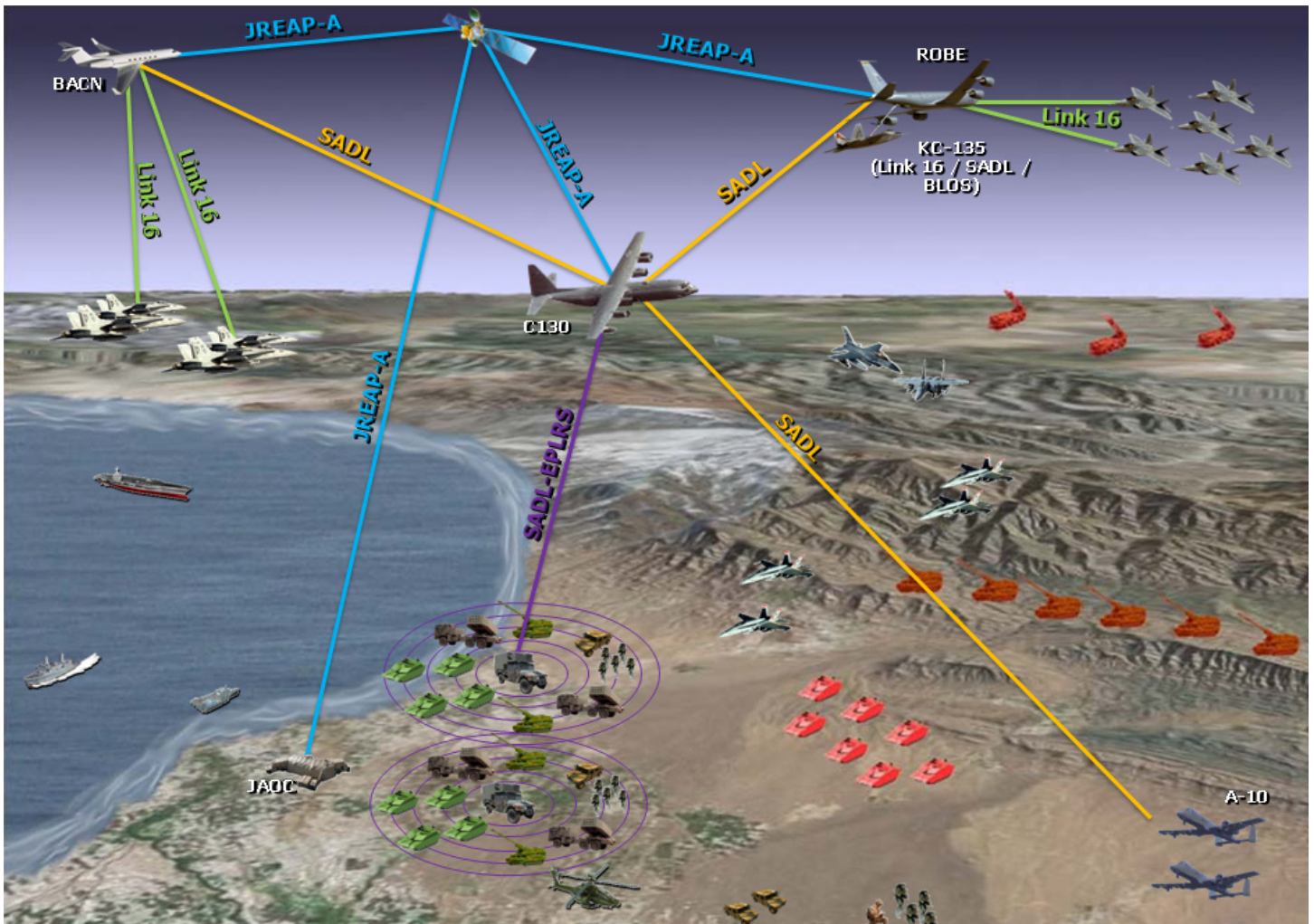
The Task

Design, develop and integrate tactical situational awareness capability for C-130H aircrew:

- ✓ SADL/EPLRS (Enhanced Position Locating Reporting System) and ARC-210 communications capability
- ✓ Integrate cockpit SA displays
- ✓ Integrate data with navigator station

identify its position to others within the theater.

The SADL uses an EPLRS radio to provide secure information transfer. Northrop Grumman is installing the ARC-210 airborne military radio, which provides two-way satellite voice and data communications and is software operated.



RTIC adds SADL and JREAP-A and enables Link 16 forwarding to JREAP-A.

RTIC Features

- **On-board SA**
(pilot, co-pilot and navigator)
 - Moving Map
 - Electronic Flight Bag
 - Text Messaging
 - Multiple concurrent users
 - SCNS Bus monitoring
 - Productivity Enhancements
 - Microsoft Office, Joint Precision Airdrop System (JPADS), Joint Mission Planning System (JMPS)

RTIC Highlights

- ✓ Instant, accurate, certified coordination with ground troops
- ✓ Continuous communications with Command and Control nodes
- ✓ Ability to dynamically re-task aircraft mid-mission
- ✓ Rapid avoidance of threats
- ✓ Airspace deconfliction without radar
- ✓ 10-fold reduction in voice communications workload
- ✓ Reduced fratricide

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