SINCGARS Radio Based Situation Awareness (RBSA)

Provides Situation Awareness tracking information for vehicles and dismounted Soldiers.

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Radio Based Situational Awareness (RBSA) is a software capability within the SINCGARS RT-1523 radios and Radio Based Combat ID (RBCI) Boxes that enable them to automatically broadcast Position Location Information (PLI) to other radios when connected to a Global Positioning System (GPS) device. Each radio acts as a beacon and can send Situational Awareness (SA) periodically based on time, distances traveled with each Push-To-Talk (PTT) transmission.

On many mounted platforms, RBSA can be captured directly on the Force XXI Battle Command Brigade and Below (FBCB2) display through the Internet Controller (INC). RBSA beacons flow from the SINCGARS radios to the INC where they are directed to the FBCB2 computer. FBCB2 equipped units can now use these RBSA beacons to add SA from dismounted and non-FBCB2 equipped platforms that only have a SINCGARS radio.

On dismounted units, the Enhanced Control Display Unit (ECDU) can be attached to the radio or RBCI Box and can display the local RBSA from other radio/RBCI Box users in the network. This enables the dismount to achieve local squad/team member and platoon level visibility through their voice net.

RBSA was demonstrated and proven at the 2007 Advanced Concept Technology Demonstration (ACTD) Military Utility Assessment (MUA) Bold Quest. At this exercise, local FBCB2 displays on company and platoon level tanks were populated with RBSA beacons from SINCGARS radios on dismounted units and non-FBCB2 equipped platforms. The beacons were then rolled up inside FBCB2 and rebroadcast over the Enhanced Position Location Reporting System (EPLRS) for entire network dissemination. This gave the Tactical Operations Center (TOC) a complete blue picture down to the platoon.

Features:

- SINCGARS RT-1523 radios with GPS can automatically send SA position information for display on FBCB2 and other C2 systems
- SA information can flow from dismount to TOC and vice versa
- Demonstrated at 2007 Bold Quest to allow disadvantaged units to provide PLI without any additional equipment
  - SINCGARS C, E and F models all have capability, so in essence there are potentially 300,000 fielded SA beacons that can be used to meet the force tracking mission
- Aids in meeting JBC-P Beacon Device Objective from the JBC-P JROC CDD
  - "Every effort should be made to use existing SINCGARS RT-1523 radios to fulfill the Beacon requirement."

Key Operational Benefits:

- Increased battle space visibility and adds to a more complete "blue" picture
- Assists with battlefield fratricide avoidance and clearance of fires when used with RBCI
- No user intervention is required to beacon the position
- Uses current fielded SINCGARS RT-1523 equipment
- RBCI Box supports RBSA and can be handed to coalition forces

Upper TI   RBSA icons
PLT LDR WGM
PLT LDR WGM   PLT LDR WGM
RBSA icons
Voice Net A
Platoon

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