

"In the heat of battle, recovery is a race against time. SIVAS (ARV-SAS) ensures that your EME crews don't just see the mission—they master the environment."

ARV-SAS

Armoured Recovery Vehicle – Situational Awareness System

OPERATIONAL PROBLEM

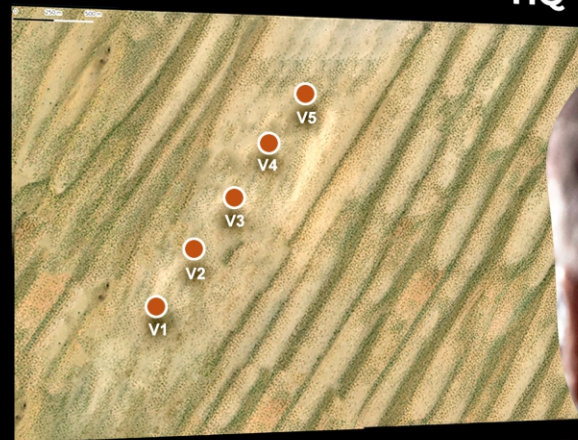
- Closed-Down Blindness
- Asset Location Delays, no real time coordinates/dust/smoke
- Communication Silos, no cross domain network/radio
- No Safe Path, Mines, blockades, enemy etc
- EW - Jamming blocking Comms/Radios
- No COP (Common Operation Pic) at Command Level
- Long OODA Loop
- Manual Logging of Assets

ARV – SAS Solution

- Digitised Tact Visualisation, 360-degree awareness on a single tab screen.
- Real Time Blue Force Tracking irrespective of smoke, storm, day or night. IFF solved.
- Radio Comm InterOperated with Armoured/Para/Heli.
- Safe Path Marking: Commander/other ARV can mark safe paths for exit. Total Radio InterOperability.
- Jamming Proof :Enemy EW - Jamming in-effective.
- COP (Common Operation Pic) at Command and Across Hierarchy
- OODA Loop Eliminated. Real Time Decisions.
- Digital logging of assets. Real Time.

CLASS

HQ View



HQ 50-1500 Km

CORE CAPABILITIES

- Real-time tracking of tanks and armoured vehicles
- Command instruction transmission
- Geofencing alerts
- Vehicle health status dropdown:
 - Fuel
 - Ammunition
 - Gas
 - Radio
 - Injury status
 - Battery
 - Food & water levels

OPERATIONAL ADVANTAGE

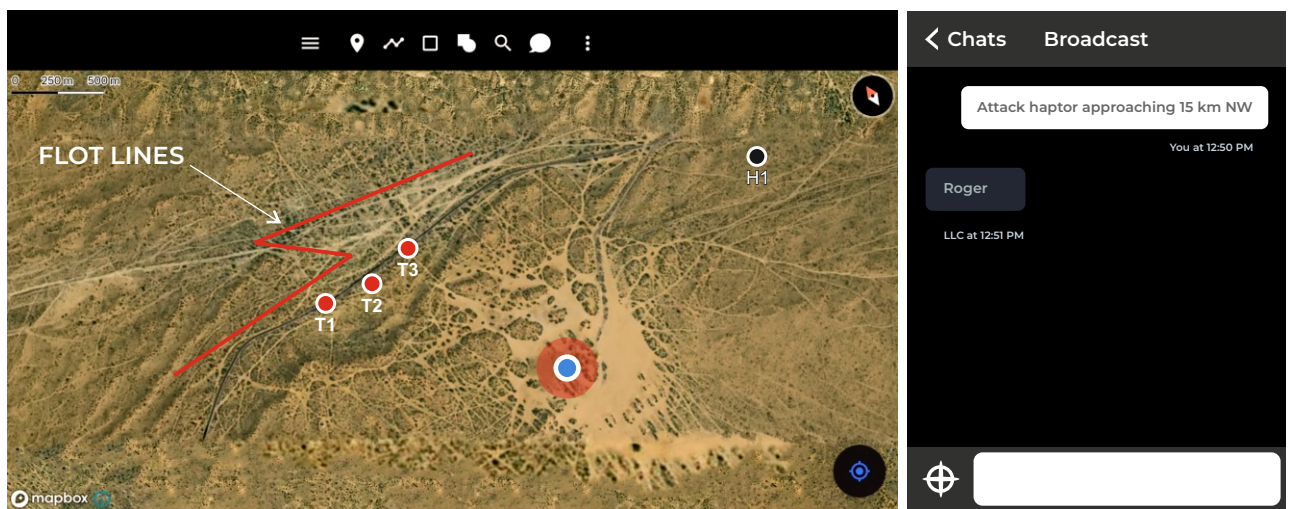
- Enhanced formation integrity
- Faster maneuver synchronization
- Improved logistical visibility
- Reduced response time to vehicle distress
- Command-level battlefield visualization



HOW THE SYSTEM WORKS

- Situational Communication System
 - Digital Radio Device + Android display + App
 - See live location of each other
 - Text to All OR 1 to 1
 - Send Tact symbols/Markers in Group / 1 to 1
 - Users: Armed forces, NSG, Spl Forces

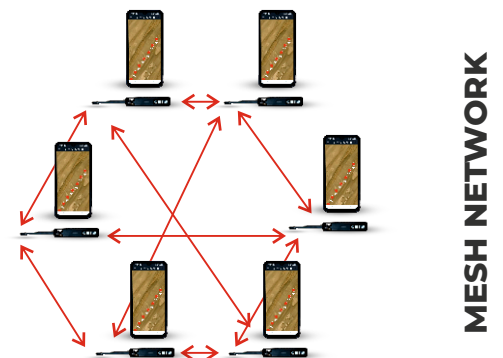
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INDUCTED IN

- Northern Command • Western Command • Eastern Command • Special Forces (Para SF)
- Central Command • Cobra, CRPF • ARTRAC

1. Physical Characteristics

Connection with PDA: Situational Awareness App
Security: AES256 or higher
Data Transfer: Information overlay exchange for line diagrams, circles, symbols, and messaging within app
Map: Satellite map and map download
Protocol: Mesh Networking
Hop Limit: 6

Bluetooth Connectivity: BLE 4.0+ or higher
Weight (including battery): ≤ 100 gm
USB Port: Micro USB 2.0 or higher
Ingress Protection: IP68 or better

2. Tech Specification

A) Receiver

Frequency:

UHF 445 to 480 MHz (User selectable)

Channel Spacing:

7.28 KHz, 11.8 KHz (User selectable)

Frequency Stability (-30°C to +60°C):

2.5 ppm or better

Digital Sensitivity (1% BER, 6.25 KHz):

-116 dBm or better

Sensitivity (1% BER, 25 KHz):

-107 dBm or better

(B) Transmitter

Power Output: 0.5W to 5W (27dBm, 30dBm, 37dBm) – User selectable

Digital Modulation: 4GFSK or better

(C) Environmental Specification

Operating Temperature: -20°C to +35°C

(D) Battery

Type: Lithium Based

Backup (Standby): 30 hours or higher

Backup: Up to 9 hours or higher

Capacity: 450 mAh, 3.51 Whr or higher

Charging Time: Minimum 3.5 hours

Battery Bank: Minimum 20000 mAh

(E) SAS-PDA

Display: 1080 × 2408 pixels (6.6 inches), PLS LCD

RAM: Minimum 4 GB

Weight: Less than 200 gm

Battery: Minimum 4000 mAh

OS: Android 12 or above

CPU: Octa-core

Internal Memory: Minimum 64 GB

Camera: Minimum 50 MP

Connectivity Support: WiFi, Bluetooth & LE

Charger: Type-C & Micro USB support

Additional Sensors: Accelerometer & Compass

(F) Deployment Box

Weight (Empty): Maximum 12 kg

Function: Storage & charging of 30 radio sets

Battery

Backup: Minimum 1.5 hours

(20 fully discharged radio sets)

Charging Time: Max 10 hours

Type: Lithium based

Power Input: 110/220V AC

Auxiliary Input: 10–18V DC (Car charger port)

Additional Features

Display: Minimum 7" (Touchscreen)

Resolution: 1280 × 720 or better

Capabilities:

- Config & issue of soft frequencies
- Encryption key generation
- Team location tracking
- Messaging
- Device status
- Distance tracking (commander to team member)
- Overlay lines/objects sharing

USB Ports: Minimum 3

Internal Storage: Minimum 32 GB

External Storage: Micro SD slot

Connectivity: WiFi

(G) Additional Specification

Mesh Networking Protocol: Aspen Grove

Hop Limit: Minimum 6 or higher

Jamming Resistance: Highly resistant within its band

Spectrum: Built-in spectrum

Graphical UI: Displays graphical image on PDA

GPS: PDA has GPS information

SW Color Coding: Color coding for users (IFF identification)

Compatibility: Compatible with Indian Army radios (Harris, StarsV, etc.) for data transmission & screen recreation

OUR OTHER PRODUCTS

Expanding the Tactical Ecosystem

INFANTRY : SIVAS (Situational Intelligence Visualization & Awareness System)

A secure, infrastructure-independent battlefield communication and awareness platform. Designed for real-time asset tracking, encrypted team coordination, and tactical visualization, it delivers resilient performance in contested, remote, and GPS-denied environments.

INTELLIGENCE : NETRA (Networked Electronic Tactical Reconnaissance & Awareness)

A covert, infrastructure-independent communication and tracking system designed for intelligence and surveillance operations. NETRA enables secure team coordination, real-time asset visibility, and low-signature data exchange through resilient mesh networking, ensuring reliable performance in denied, urban, and high-risk environments.

SPL FORCES : NISAN (Networked Intelligence Situational Awareness & Navigation)

A low-signature tactical coordination system for special operations forces. NISAN delivers real-time team tracking, encrypted communication, and structured threat awareness in denied and high-risk environments, ensuring secure mission execution without infrastructure dependence.

ENGINEERS : LEGS (Logistics & Engineering Geo-navigation System)

A terrain intelligence and logistics-support system designed for combat engineering units. LEGS enables real-time hazard marking, route validation, material tracking, and stores management, improving safety, efficiency, and operational control in complex environments.

ARTILLARY/AAD : RANN (Real-time Artillery Network & Navigation)

A digitized fire coordination and artillery networking solution that connects OPs, CPs, and gun systems into a unified operational picture. RANN enhances precision targeting, fire correction workflows, secure messaging, and real-time friendly-force awareness.

ARMOURED/MECH : RANA (Real-time Armoured Navigation & Awareness)

An integrated mobility and vehicle-status platform built for armoured and mechanized formations. RANA provides real-time fleet tracking, geofencing alerts, command synchronization, and vehicle health visibility, ensuring coordinated manoeuvre and operational readiness.

SPECIAL SOLUTIONS

CONVOY : CLASS (Convoy Loc Awareness & Situation Status)

A hybrid convoy intelligence and resilient communication system designed to eliminate dead-zone vulnerabilities. Class ensures continuous fleet visibility, formation integrity, and long-range HQ connectivity through infrastructure-independent deployment.

