AT SA - Situational Awareness System

AT SA is a situational awareness system that can be integrated with sensors, radios, GSM and data terminals used by security forces, military, emergency services and other agencies involved in coordinated activities for operations such as drug trafficking, terrorism, border control, defence and emergency support situations.

The AT SA system provides the tools necessary to alert, locate, communicate and provide messaging and file transfer functionality to users using tactical terminal devices. The AT SA terminal uses an internal GPS receiver or be connected to external navigation receivers to provide visual depiction of assets, sensor information and mission instructions overlayed on a map.

As the system is based on the Android platform it provides flexible deployment options from commonly available devices such as tablets and mobile devices. For example, squad leaders can use a tablet terminal to coordinate activities with deployed crew using handheld, chest or backpack mounted mobile devices.

Due to its deployment versatility, the AT SA system is ideally suited to applications where multi-agency coordination is required; for example, a coordinated effort between civil security forces and military forces.
The AT SA terminal can be supplied in hardware and software configurations for fixed and temporary bases, air, ground vehicles and mobile deployment. By using in-built radio modems, the AT SA software and hardware provides control and connectivity with radio communication systems such as HF, VHF, and satellite communication systems. With the radio integration, the AT SA system provides a fully integrated solution for Command, Control, and Communicate.

Supported Radio Platforms

- Harris RF-5800 (Falcon 2) Series Radios
- Harris RF-7800 (Falcon 3) Series Radios
- TrellisWare TW (MANET) Series Radios
- Persistent MPU5 (MANET) Series Radios
- Motorola DMR Series Radios
- Hytera DMR Series Radios
- Codan 2110M Series Radios
- Codan NGT Series Radios
- Codan Envoy Series Radios
- Codan Sentry Series Radios

AT Communication can develop new interfaces for most radio communication systems.

Command Situational Awareness

The AT SA system integrates sensor information from remotely deployed devices and displays status information and alerts overlaid with other mission data and communications. This provides field users relevant real-time information similar to that available to coordinators in command bases stations. The combination of position, sensor, data, and communications information from multiple sources combined on the one screen provides significant efficiency to make rapid decisions in demanding operational scenarios.

Network Connectivity

The versatility of the AT SA terminal allows connectivity to the communication device via Ethernet or serial protocols and with the ability to modify for changed operational equipment as well receive charging power from the radio device. The Echelon SA software provides additional customisation flexibility to create custom applications. For example, signals officers may wish to create specialised radio system screens to display frequency, signal level, coordinates, channel change control, battery status, operational duration as well as create macros.

The AT SA system allows the exchange of short messages, file transfers, videos, maps, mission objectives, photographs, and other information required for tactical users to coordinate a security mission or perhaps coordinate around a natural disaster.
The AT SA field terminal can receive mission instructions from top level command that can then be assigned onwards to members of deployed team. The deployed units can then display a practical visual status of the situation on a map of the area. The map shows position relative to the group. The system software provides the tools to generate, transmit and receive information about the location of various objects, areas that may be under distress (e.g. homes in natural disasters) or enemy positions and transmit these to remote units as well as communications via voice messages and system alerts. The AT SA provides the ultimate planning tool to coordinate missions and plan transit routes for unit members whilst providing real-time visual situational awareness.

The AT SA terminal can be expanded to offers a range of network connectivity options using a combination of ground and air radio, cellular and satellite system connected to regional nodes and interconnected data servers. Using secure and optimised data streaming protocols, deployment of rich visual data can now extend much further than has traditionally been possible.

In order to meet the demand for rugged field conditions, AT SA is available in various Terminal configurations in tablet and hand held form factors each with able to comply with MIL-STD and IP 67 environmental ratings.

AT Communication is able to provide a comprehensive design and configuration service to comply with client operational requirements.

Video - Demonstration of AT Situational Awareness
Demonstration of Situational Awareness with Motorola Radios