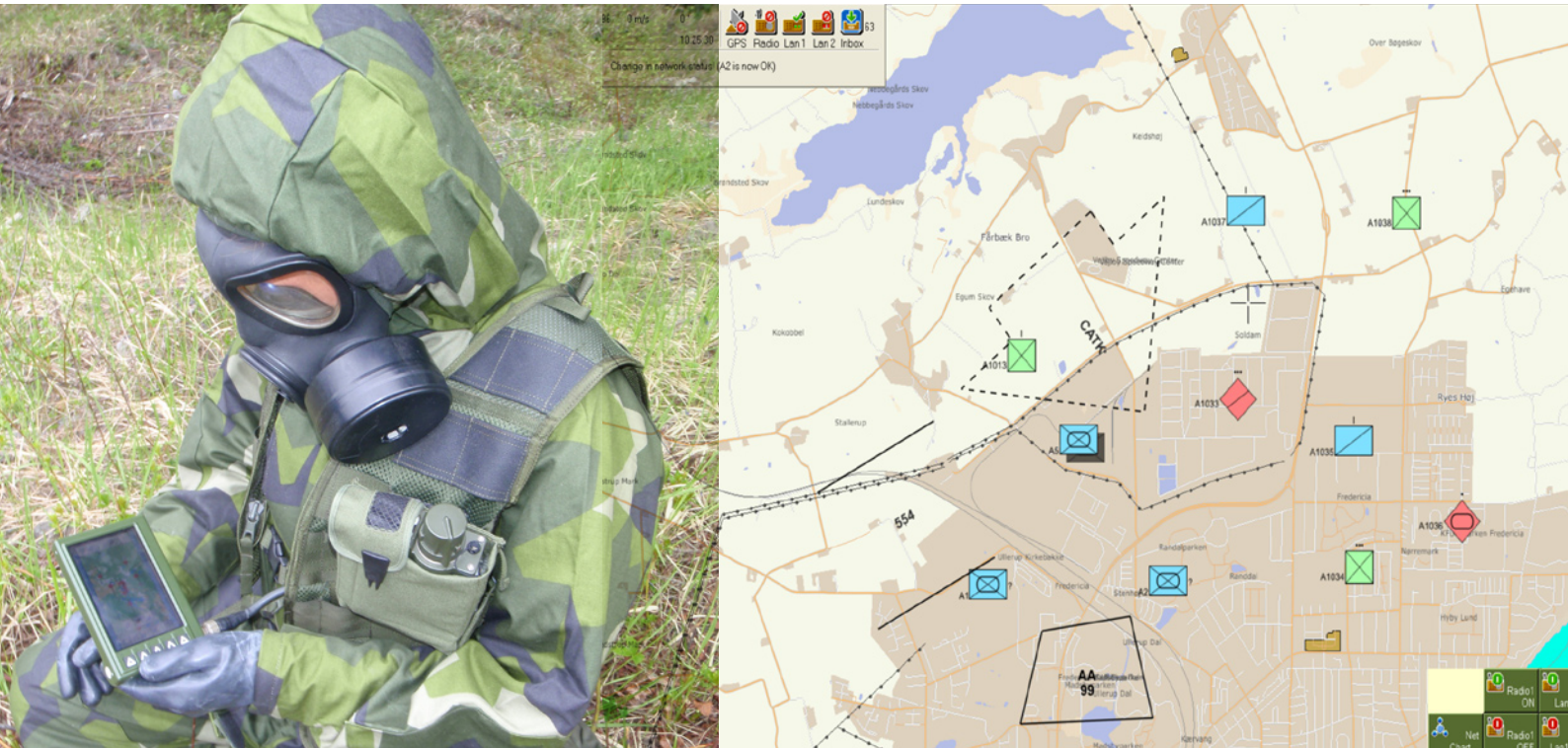




SAAB

CBRN AWR SYSTEM AUTOMATIC WARNING AND REPORTING

The Saab Automatic Warning and Reporting System, which consist of both hardware and software, is designed to provide early warnings to units and personnel on the battlefield. The decision support module helps the operator make fast and accurate decisions, which is a key factor in limiting the effects of CBRN threats.



SYSTEM

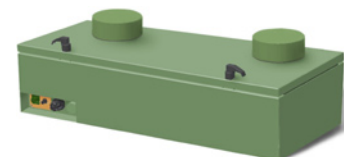
The system consists of AWR nodes, alarm units and sensor nodes. The sensor nodes are hardware connection points for sensor devices. The alarm units are devices for issuing sound and visual warnings. The AWR node is a software for monitoring, displaying, controlling and analyzing the AWR information. The AWR node software can be installed at headquarters, camps, vehicles and hand-held computers that require the ability to receive warnings and reports regarding the existence of dangerous substances in the area.

AWR SENSOR NODES

The AWR sensor nodes are hardware connection points for sensor devices; meteorological, chemical, biological, radiological, positioning, video etc. The AWR sensor nodes are modular, allowing users to change the sensor configuration over time depending on current threats. It also prolongs the lifetime of the system allowing future sensors to be integrated.

AWR sensor nodes can be stand-alone, mounted onto vehicles or buildings, or

integrated in soldier systems. The alarm units can be stand-alone or deployed together with the sensor nodes. The sensor nodes and alarm units are designed for military use in harsh environments, being robust, weather protected, EMC protected and protected against HPM.



RUGGEDIZED COMPUTER HARDWARE

The AWR software is independent of the computer platform and can be installed on COTS computers. However, if the system is to be used in a tough environment we recommend using ruggedized hardware such as the computer systems offered by Saab.



CBRN SITUATION PICTURE

The Saab AWR software, which supports international standards like ADatP-3 and JC3IEDM in order to exchange warnings and reports with other coalition forces, includes applications for:

- Joint planning and decision support
- Real time sensor monitoring and tracking
- Control, configuration and test of nodes and sensors
- Warnings and reports management
- Establishing geographical fences to protect and warn personnel in and near dangerous areas
- Calculation of warning areas according to ATP-45 and AEP-45
- Decision support to be able to establish early local warnings

RELIABLE AND CONSISTENT INFORMATION

Internally, independent of communication medium, Saab AWR information exchange mechanism uses a variety of techniques and functions to maintain the best possible information consistency at varying bandwidths and intermittent connectivity.

- Automatic data replication – updates are automatically sent to all neighbors
- No single point of failure – data available at all AWR nodes
- Information filtering – control what is sent over the air
- Handles loss of communication – AWR nodes automatically synchronize
- Bandwidth optimization – minimizes what is sent over the air

OPEN SOURCE SENSOR INTEGRATION

The Saab AWR System has a reliable, modular and scalable architecture built on an open generic software platform, enabling easy integration of sensors from all vendors. Saab's AWR software platform is based on Safir BMS, which is designed to meet the communications requirements of today's battlefield. Parts of the Safir platform (www.safirsdk.com) are Open Source under the GNU/GPL license agreement, which enables greater independence for the customer.

Integrating a new sensor (sensors and software) to a system can easily be achieved using the open interface towards external data sources. Internally within the system the sensor data is mapped into the information model and automatically made available to all consumers of the information, regardless of their location.

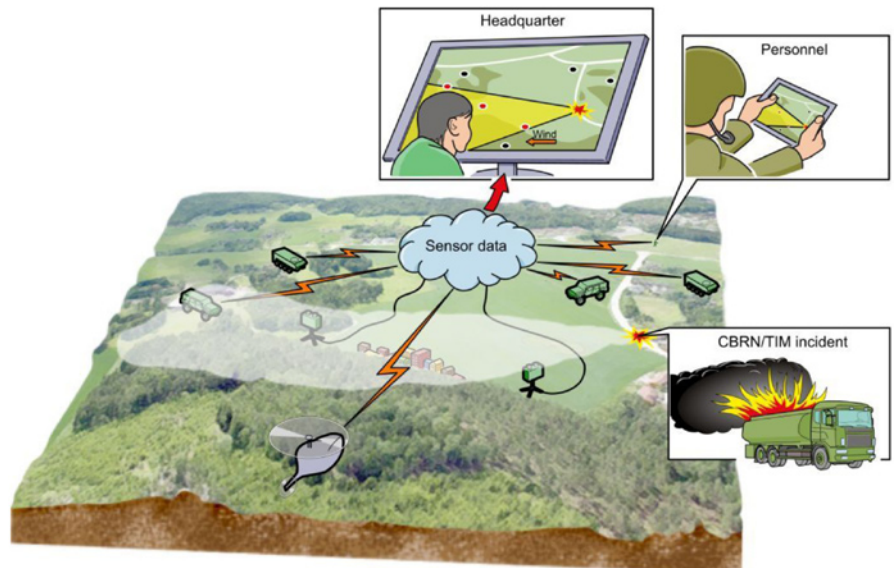
APPLICATION STANDARDS

The following standards apply to the Saab AWR system:

- TIM-warning in accordance with STANAG 2229
- Information structured according to JC3IEDM
- Applicable versions of ATP-45 (STANAG 2103) and AEP-45 (STANAG 2497) are used for warning and reporting
- Reports are sent in ADatP-3 format (STANAG 5500)
- The software is designed to be part of other C2 system, which means that a service oriented architecture (SOA) is used
- The system handles information that is classified as secret/restricted

ILS

Saab can offer a variety of ILS solutions, from handling the total AWR ILS solutions to handle parts of an ILS solution.



Specifications subject to change without notice