carmenta
superior situational awareness

Carmenta Search and Rescue

Information and Control Tool for Search and Rescue

Carmenta Search and Rescue is a multi-user emergency response system designed for JRCCs (Joint Rescue Coordination Centres) that can handle both maritime and aeronautical incidents and accidents. The system has been designed to meet all the requirements of demanding search and rescue operations, and its combination of user friendliness and hi-tech features ensures that operators are able to locate incidents and direct resources quickly and accurately.

- Map centred for user-friendliness and easy situation overview

- Designed for mission-critical use

- Based on a reliable and proven platform used by many emergency response services around the world

- Excellent map performance that generates great looking maps

- Easy integration with other systems, due to a large number of proven and well documented interfaces

The system provides SAR (Search and Rescue) coordinators with an accurate, easy-to-interpret common operational picture including maps, resources, cases, weather forecasts, drift calculations, findings and search areas, etc. – thereby helping operators to make better, faster and more informed decisions. In addition, Carmenta Search and Rescue improves overall communication, as all new data is instantly shared with the other operators and can be easily distributed to any relevant organisation or resource.

Carmenta Search and Rescue has an advanced search planning function, including support for probability calculations and IAMSAR procedures, for example, calculation of POC, POD and POS. It also has support for large touch screens, which means that several people can interact and work together at the same time, resulting in efficient teamwork and effective operator cooperation.

Carmenta Search and Rescue has been developed in close cooperation with the MONALISA project and from December 2015, the new system is in operation by the Swedish Maritime Administration.

FUNCTIONS

- Map-based decision support system for SAR operations.
- Supports multiple maps and nautical charts, including S57, aeronautical maps, satellite images, etc.
- Integrated vessel and aircraft tracking, using AIS & ADS-B transponders (live and recorded), Air traffic radar data and Flight plans shown on map display.
- Information sharing with 112 authorities, law enforcement and other government-run organisations.
- Positioning of incoming telephone calls utilising the standardised Advanced Mobile Location (AML) and Mobile Location Protocol (MLP) methods.
- Integrated all IP voice and media communication for telephony and digital radio supporting standardised communication protocols such as ISDN, ISUP(SS7), SIP-T, Motorola TETRA and Airbus TETRA.
- High availability configurations for mission critical operations with up to 99,9999 % availability plus zero service downtime capability.
- Generation and dispatch of mission description to relevant units.
- Search planning and search area support functions including POC, POD and POS calculations based on IAMSAR.
- Integrated leeway drift calculations.
- The Record & Replay mechanism enables all case journal entries to be replayed on the map, in synch with transponder and resource movements.
- An evolutionary Knowledge Database provides operational insight, by systematically collecting and evaluating intelligence from past events.
- Integrated with Mona Lisa Routes and the Sea Traffic Management concept.
- Integrated weather observations and forecasts, from various meteorology agencies.
- Supports OGC standards such as WMS, WFS, CSW, etc.

- Vessel and aircraft search function, including images, for internal databases and online services.
- Case reporting function for the export and use of information in, for example, press releases or publication on websites, social media, etc.

ABOUT MONALISA

MONALISA 2.0 is a European-wide Maritime project, including 39 partners from 10 countries. The partnership is a collaboration between the private, public and academic sectors and is co-financed by the European Union. The total project budget is EUR 24 million. The project was formally approved and signed on November 5, 2013 and will operate until the end of 2015. For more information please visit stmvalidation.eu.

ABOUT THE SWEDISH MARITIME ADMINISTRATION

The Swedish Maritime Administration (SMA) offers modern and safe shipping routes with 24 hour service. We take responsibility for the future of shipping. SMA is a governmental agency and enterprise within the transport sector and is responsible for maritime safety and availability. For more information please visit sjofartsverket.se.

ABOUT CARMENTA

Carmenta has been supplying world-class software for mission-critical systems for more than 30 years – systems in which superior situational awareness is the key to success. We provide high performance software products, develop client-specific solutions and offer a wide range of services that help some of the world's most technologically-advanced customers optimise their operations using real-time geospatial information.

Whether you run an emergency response centre, plan and lead military operations or manage a traffic control centre – Carmenta is your trusted global partner.

For more information please visit carmenta.com.