

365 days 24/7

Search and rescue requires full situational awareness day and night to save lives



Search and rescue control centres are online 60,480 hours a year, ready to start a new mission whenever needed.

This requires a reliable IT infrastructure which must remain state-of-the-art to save as many lives as possible in individual crisis scenarios.

To meet this special requirement, Frequentis has updated a client's installed systems for future readiness so that they - already operating since 1959 - can run for another 60 years.

SAR for this client means search and rescue missions in different areas: air, sea and land, in any weather conditions.

These challenging missions demand harmonised coordination through reliable incident management and a common operational picture to ensure a fast situational overview and accelerated alerts, responses and communication processes.

Following the Frequentis upgrade of the existing SAR infrastructure, the client can use its two redundant control centres to maintain nationwide cross-agency collaboration between its own and joint forces for their specific mission tasks.

Client profile

The organisation is a large, Central European Navy and Army organisation, responsible for the country's SAR agenda, including COSPAS-SARSAT SPOC.

The organisation's name cannot be stated for legal reasons.

Business situation

The existing IT environment required an update to meet the demands of cross-agency coordination, as well as cope with the increased number of SAR missions. The client operates two geo-redundant centres, each with five operator positions. Both centres operate 24/7/365 across 32 remote sites (radio locations).

Solution

Both SAR centres are equipped with identical systems and are connected to each other to provide geo-redundancy. The regeneration of the SAR radio network was also carried out as part of the project.

Impact

Introducing the SAR solution, the client is now able to handle SAR activities in alignment with all involved agencies. Since the Frequentis solutions has gone operational, the following number of alerts and missions have been dealt with:

- Distress alerts: >1500
- SAR missions: >330
- Saved lives: >104

"Our control centres are equipped with modern and future-proof technology, covering digital communication equipment and a special SAR mission-specific coordination system ensuring quick validation and interactions after distress alerts."

Colonel at general army flight operations

Enhanced cross-agency collaboration for SAR mission success

Nearly two alerts each day

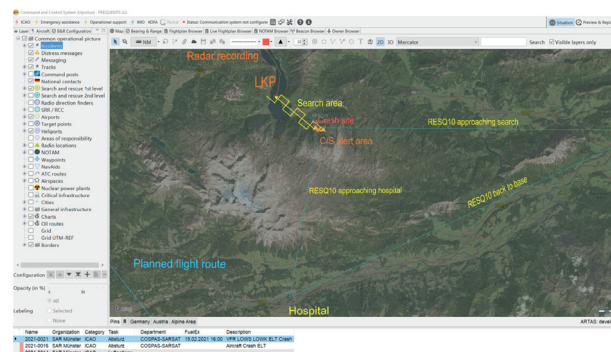
Some 760 alarms in 2018 and 24/7 operations for soldiers and responsible controllers from fire departments, air traffic control and the national air policing centre demanded redundant connection through the Frequentis incident and crisis management solution. The number stated above does not include additional incidents such as natural disasters – for example, flooding or bush fires – which require cross-agency collaboration as well as further coordination steps. SAR centres only react to alerts from civil agencies on request. If the command centre starts a mission, involved helicopter staff need to be in the air in less than 15 minutes to ensure mission success. This requires a high degree of interconnectivity to achieve such a rapid resource deployment and to coordinate all involved parties.

The need for change

The regeneration of the country's SAR control centre was necessary due to numerous obsolescence issues with the existing systems. In addition to the basic technical upgrade needs, geo-redundancy was a vital requirement to fulfil. The SAR centres are now equipped with identical systems and are connected to each other to provide geo-redundancy. The renewal of the radio SAR network was another essential milestone in this project.

Much information, one operational picture

Both SAR control centres were equipped with a modern, integrated incident management system. This was customised and developed based on the operational procedures of the customer. Integrated data management features enable the collection and alignment of data from a large range of external sources (e.g. geo data, aircraft positions, COSPASSARSAT, weather information, flight information, schedules and alert messages). Due to the high complexity of each individual information set, all data is merged into the system in a combined data model and displayed in the common operational



picture, ensuring an immediate overview on the situation. The incident management functionality consequently supports rapid resource planning and guides the user through approved management procedures. The tool determines and communicates the responsibilities of the required individuals and organisations in a matter of seconds.

The key to mission success

The Frequentis Incident and Crisis Management Solution (ICM) ensures efficient and timely incident handling, enhancing it with the individual know-how and processes of the customer's control centres. All actions performed by users are automatically recorded in the activity stream module. The full record of communications and deployment measures is a vital resource for subsequent investigations, performance analysis, or legal proceedings.

“The real-time air situation display with data connectivity and search/filtering opportunities is an outstanding feature, as well as the parallel coordination capability and the redundant set-up to ensure mission success if one operation centre loses connectivity.”

Colonel at general army flight operations

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