I4® SAFE

OPERATIONAL SYSTEM FOR SEARCH AND RESCUE AT SEA

SEARCH AND RESCUE (SAR) SYSTEM

I4® SAFE is an IAMSAR-standard system used by the French MRCCs (Maritime Rescue Coordination Centres) coming under the control of the Directorate of Maritime Affairs at the Ministry for Ecology, Sustainable Development and Energy.

The main role of I4® SAFE is to manage distress alerts coming from the SAR regions of responsibility (SRRs), planning and coordination of search operations with the aim of optimising the rescue assets involved.

To achieve this objective, I4® SAFE uses all the resources available in the MRCCs:

- local sensors (AIS, radar, DSC, RDF),
- communication systems (fax, telephones, SMS, satellite alerts and radio alerts),
- information gathered from local or remote systems (port and travel information, ship registries, VTS, FMC/VMS).

- **SYSTEM DEPLOYED IN FRANCE AND ITS OVERSEAS TERRITORIES**

- **INTEGRATED INFORMATION SYSTEM**

- **PROCESSING AND MANAGEMENT OF ALL TYPES OF SAR ALERT**

- **ADVANCED CAPABILITIES FOR DRIFT-ENABLED OPTIMISED SEARCHES**

- **GLOBAL SUPPORT AND LONG-TERM PARTNERSHIPS**

NAVAL GROUP

POWER AT SEA

I4® SAFE

KEY POINTS

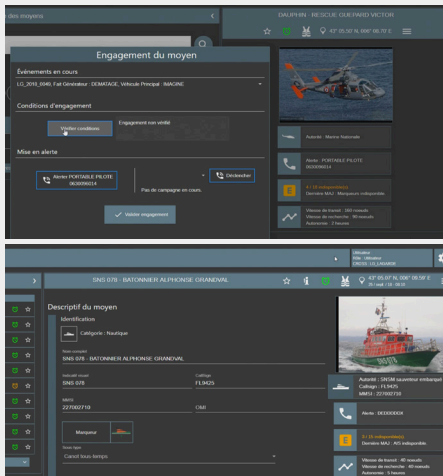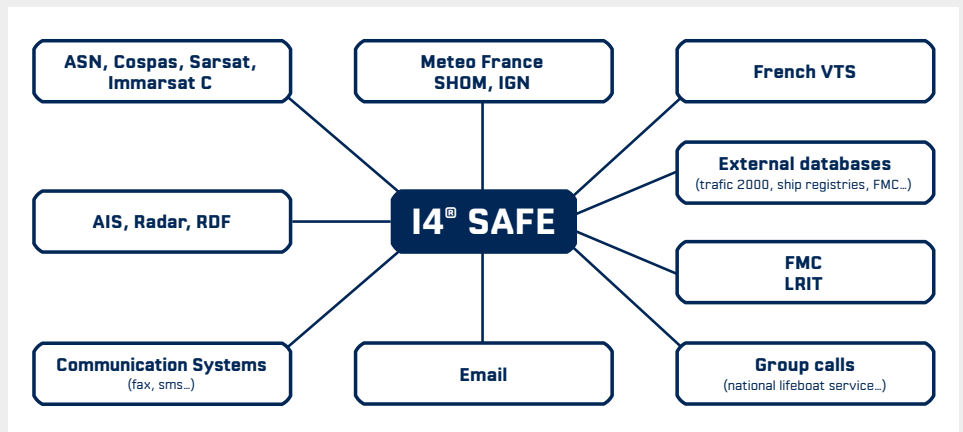### A system deployed in France and its overseas territories

I4® SAFE is used with all the MRCCs and MRSCs (CROSS) in France (MRCC Étel, MRCC/SPOC Gris-Nez, MRCC Corsen, MRCC Jobourg, MRCC La Garde and MRSC Corsica), as well as those located in the overseas territories (Polynesia, New Caledonia, West Indies, French Guiana, Reunion Island).

The system covers all the SAR regions of responsibility (SRRs) for which France is in charge.

An integrated information system

Integrated into the global information system of the MRCC, SAR system offers a high performance service available 24/7.

To cover its missions, the system is interfaced with numerous databases and other external sources of information (LRIT, Trafic 2000, ship registries, French VTS, data environment) and can interact with other information systems, thanks to a flexible and modular architecture.

- ASN, Cospas, Sarsat, Immarsat C
- Meteo France SHOM, IGN
- French VTS
- AIS, Radar, RDF
- **I4® SAFE**
- External databases (trafic 2000, ship registries, FMC…)
- FMC LRIT
- Communication Systems (fax, sms…)
- Email
- Group calls (national lifeboat service…)

Processing and management of all types of SAR alerts

I4® SAFE can manage all types of SAR distress alerts:

- satellite-based beacons: COSPAS-SARSAT and Inmarsat-C alerts,
- radio-based distresses: DSC alerts, AIS alerts.

The system can get SAR assets assigned at any moment in the SAR regions of responsibility (SRRs).

I4® SAFE has all the necessary options to plan a search mission and to optimise it for the assigned assets.

Advanced capabilities for drift-enabled optimised searches

From the last known position (LKP) of the object to be located, the models used in I4® SAFE can create a probability matrix for the presence of the object within a defined search area. The modelling of the drift takes into account essentially the characteristics of the object and assets, as well as the environmental conditions (meteorological and hydrographical data). I4® SAFE uses several drift models including MOTHY® of Météo France.

Global support and long-term partnerships

I4® SAFE was also designed from the outset to become the support system for the management of pollution surveillance missions. The system will be maintained operational in the context of a policy for global support over several years and so guaranteeing a long-lasting access to the service.

References

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