ROHDE&SCHWARZ
Make ideas real

NH90 SEA LION ROARS WITH THE SOVERON® AIRBORNE FAMILY

SOVERON
True independence is a choice

AT A GLANCE

- **Customer**: Airbus Helicopters
- **Task**: Development of secure rotorcraft communications particularly for naval application
- **Challenge**: As part of the NH90 Sea Lion program, the airborne transceivers needed to provide interfaces for connecting external devices such as ADF, Link 11 DTS, IDM or an external encryption device and guards the naval distress frequency
- **Solution**: A unique transceiver from the SOVERON® airborne software defined radio family was developed to be interoperable within a network centric environment and to provide reliable radio links that are protected against eavesdropping and/or jamming and meet civil standards
- **Key benefits**: This transceiver of the SOVERON® airborne family has been SECAN and BSI certified to allow secure communications up to NATO secret

Secure rotorcraft communications for naval application

The platform

Airbus Helicopters' NH90 Sea Lion naval multi-role helicopters are able to take on a wide range of roles including search and rescue (SAR), maritime reconnaissance, Special Forces, and personnel and material transportation missions. The German Navy has ordered 18 rotorcraft with deliveries expected to be completed in 2022.

Customer situation and requirement

Airbus Helicopters delivered the first eight NH90 Sea Lion naval multi-role helicopters to the Federal Office of Bundeswehr Equipment, Information Technology and In-Service Support (BAAINBw), with the first going operational in June 2020. The selection of the Sea Lion as the successor to the Sea King was made in March 2013 and the corresponding contract was signed in June 2015.

Rohde&Schwarz solution

Rohde&Schwarz equips the NH90 Sea Lion with software defined airborne radios (SDR) of the SOVERON® airborne family including NATO cryptology. Each helicopter is fitted with three VHF/UHF transceivers of the SOVERON® family. The communications equipment is interoperable within a network centric environment and provides reliable radio links that are protected against eavesdropping and/or jamming and meet civil standards, e.g. for communications with civil air traffic control.

For further information visit
www.rohde-schwarz.com/defense

The five pillars of true independence.

1. Meets both civil and military avionic standards.
2. Designed for ease of integration.
3. Assured command & control (C2) superiority.
4. Customized national data link solutions.
5. Independent privately owned manufacturer.

Results and achievements

Rohde&Schwarz provides an airborne transceiver, which uses state-of-the-art communications methods that were standardized throughout NATO, including frequency-hopping techniques and NATO cryptology. This unique transceiver transceiver from the SOVERON® airborne software defined radio family has been SECAN and BSI certified to allow secure communications up to NATO secret. By means of software downloads, the transceivers can already implement important functions required during a mission. Almost 8,000 SDRs from the SOVERON® family are in use worldwide on over 70 different airborne platforms.

Product

The R&S®MR6000A airborne transceiver of the SOVERON® family uses state-of-the-art communications methods that were standardized throughout NATO, including the fast frequency-hopping technique SATURN (Second Generation of Anti-Jam Tactical UHF Radio for NATO), as well as embedded NATO cryptology. The airborne SDR has been SECAN and BSI certified to allow secure communications up to NATO SECRET.

Particularly for naval applications, the R&S®MR6000A provides interfaces for connecting external devices such as an automatic direction finder (ADF), a Link 11 data terminal set (DTS), an improved data modem (IDM) or an external encryption device and guards the naval distress frequency.

„The NH90 Sea LION carries improved communications equipment that gives the helicopter the ability to operate in naval air space. It can be used in international air space under all conditions. The transceiver meets our most demanding requirements and is well suited for use in naval applications."

Stefan Pleyer,
Vice President
Market Segment Avionics