

10 000 ATC radios in 54 countries: R&S®Series 4200

February 2006: Rohde & Schwarz presented its new radio for civil and military air traffic control at ATC Global in Maastricht. Seven years later, R&S®Series 4200 radios are being used by air navigation service providers (ANSP) in 54 countries. The 10 000th unit is coming off the production line. A reason to celebrate.

Flying high – ATC with Rohde & Schwarz

Numerous air navigation service providers worldwide have been relying on Rohde & Schwarz radios and service for decades. The R&S®Series 4200 radios for air traffic control are part of this success story. (Figs. 1 and 2). They cover practically all ATC radiocommunications requirements with different models and different frequency ranges. They are continuously being enhanced to keep up with technological progress. For example, over the years, they were equipped with additional interfaces to the voice communications systems (VCS) via which air traffic controllers communicate with pilots. Today, they support both voice communications and the controller-pilot data link communications (CPDLC) service, which

is currently being introduced in Europe and the USA. Thanks to its consistent enhancement, the R&S®Series 4200 has been able to maintain its market position and is currently being used in 54 countries.

And the demand is unbroken. In August 2011, Rohde & Schwarz won the tender for a contract with DFS Deutsche Flugsicherung GmbH (Germany's national ANSP) for their project RASUM 8.33 – radio site upgrade and modernization with 8.33 kHz conversion (see box). In addition to delivering R&S®Series 4200 radios, the contract included the technical and organizational planning and coordination plus responsibility for the overall integration of the radio

Fig. 1: The R&S®XU 4200 VHF transceiver from the R&S®Series 4200 radio family.



Fig. 2: The photo shows a radio of the R&S®Series 4200 and one of its predecessors from the 1970s. It can be seen how immensely the technical advances in the last decades have contributed to minimizing radio size. The state-of-the-art R&S®Series 4200 radios are not only space-saving. They also significantly reduce a radio site's power consumption.



Photo: Hans-Jürgen Koch, DFS

sites. Within the framework of contract performance, the 10000th unit came off the production line of the Rohde&Schwarz Vimperk plant in February 2013. This was an occasion for DFS and Rohde&Schwarz to celebrate. During the celebration, the 10000th ATC radio was ceremoniously presented to Hermann Mehringer, responsible for radiocommunications at DFS, and Thomas Dehnhardt, RASUM project manager, at the DFS company headquarters in Langen near Frankfurt/Main (Fig. 3). The radio is being used at the transmitter site on Feldberg mountain.

In the meantime, approximately 1250 R&S®Series 4200 radios are in use by DFS. Has there ever been better proof of customer satisfaction?

Bernhard Maier



Photo: Hans-Jürgen Koch, DFS

Fig. 3: The teams of DFS and Rohde & Schwarz during the ceremonial presentation of the 10000th radio.

RASUM 8.33 project of DFS (Germany's national ANSP)

DFS operates approximately 160 radio sites in Germany. EU Regulation 1079/2012 obliges all ANSPs in Europe to convert their radio systems to support the new 8.33 kHz

channel spacing by 2018. This measure triples the number of available ATC radio channels in the limited spectrum from 118 MHz to 137 MHz. Under the EU regulation, a large number of old radios that do not support the 8.33 kHz channel spacing must be

replaced. While complying with this obligation, DFS took the opportunity to modernize many of its radio sites. DFS not only exchanged radios, but also set up new radio sites, replaced antennas, renovated buildings and updated technical infrastructures.