

**ROHDE & SCHWARZ**

Make ideas real



# CERTIUM LOCATE – DIRECTION FINDERS AT GERMAN AIRPORTS

## AT A GLANCE

DFS Deutsche Flugsicherung GmbH, the German air navigation service provider, ensures air traffic safety with Rohde & Schwarz direction finders. At six DFS locations, controllers rely on information from the R&S®DF-ATC direction finding systems. The systems increase the controllers' situational awareness and help them safely guide aircraft through their sectors, particularly in crowded airspace.



**DFS** Deutsche Flugsicherung

## The customer

DFS is responsible for air traffic control in Germany and is headquartered in the town of Langen, close to Frankfurt. It is a company organized under private law and fully owned by the Federal Republic of Germany.

## Customer requirements

Since 2019, DFS has operated the new direction finders at the DFS center in Langen and in the towers at Nuremberg, Hamburg, Münster/Osnabrück, Stuttgart and Hanover. At these six sites, the new systems replaced a legacy generation of direction finders from Rohde & Schwarz that had been in use since the early 1990s. Despite their operational status, the introduction of the 8.33 kHz channel spacing in aero-nautical communications made it necessary to replace the legacy equipment.

# OVERVIEW TO OUR SOLUTION



## CERTIUM

- ▶ CERTIUM is an advanced ATC communications suite that surpasses existing safety, security and efficiency standards.
- ▶ The R&S®DF-ATC direction finder is a component of CERTIUM LOCATE and is harmonized and extensively tested within the CERTIUM universe for maximum operational safety and security.

## KEY FEATURES OF CERTIUM LOCATE

The new R&S®DF-ATC direction finding systems are compact and suitable for outdoor installation. Their high sensitivity and DF accuracy provide wide coverage and precise bearings of calling aircraft. Open standard interfaces allow simple integration and system monitoring. Moreover, the new systems are powerful, process signals digitally and can take bearings on up to 32 ATC frequencies simultaneously. Various configuration types are in operation: the R&S®DF-ATC-S2, for example, takes bearings on 4 channels in parallel and the R&S®DF-ATC-S3 on up to 32 channels.

### Rohde & Schwarz solution

Direction finders are not mandatory for air traffic safety, but they greatly facilitate the work of air traffic controllers. The systems help controllers instantaneously identify calling aircraft and prevent misunderstandings. The direction finders reduce the risks associated with similar-sounding call signs and noisy radio communications, especially in areas with increasingly dense air traffic and, consequently, busier communications channels. The R&S®DF-ATC direction finding systems ensure convenience for controllers and, more importantly, air traffic safety.

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