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WORLD ATM CONGRESS 2022 Join the ATC expert talks at WATMC

June 21 to 23, 2022

Madrid, Spain IFEMA, Feria de Madrid **Hall 9, Booth 571**

Leading the ATC transformation: voice communication as a service

Tue, Jun 21, 2022 at 11:40 AM, Spotlight Stage

Speaker Alexandru Negulescu

Managing Director Rohde&Schwarz Center of Competence for VCS

Bio:

Alexandru Negulescu is a business professional with Telecommunication engineering background and more than 20 years' experience in critical communication infrastructure business.

After holding several leading positions within the Rohde&Schwarz group of companies, he joined the Rohde & Schwarz Center of Competence for VCS in 2010, as Managing Director.

In his position he played a key role in promoting the innovative VoIP technologies towards worldwide customers and establishing R&S[®]Certium VCS as a state of the art solution for leading ANSPs.

Abstract:

In an ever-complex operating environment and having to deal with persistent post-COVID challenges, ANSPs all over the world are looking for innovative solutions and business models to provide their customers sustainable air navigation services.

To address the paramount customer's safety, security and efficiency requirements, industry is nowadays expected to deliver both field proven technologies for architecting more resilient infrastructures, and to find partnership business models to sustain them throughout their lifecycle.



LDACS paves the way to ATM digitalization: a cornerstone for efficient deployment of upcoming ATM operational concepts and enabling CNS Integration

Tue, Jun 21, 2022 at 2:10 PM, Spotlight Stage

r Francesco Gualtieri

Product Manager for ATC radio communications, Rohde&Schwarz

Bio:

Francesco Gualtieri is an electronic engineer with focus on Telecommunication with more than 20-year experience in aeronautical radio communication.

After holding several positions in different companies, he joined Rohde&Schwarz in 2011. where he played a key role in the development of the breakthrough R&S®Series5200 VHF and UHF ATC radios.

With a wide experience ranging from product development to the active participation to international standardization groups, he will highlight the active contribution of Rohde&Schwarz in the development of the LDACS technology.

Abstract:

Aviation is currently experiencing a significant digital transformation to ensure sustainability and efficiency. New multilink-based communication models are now being implemented to support the deployment of upcoming ATM operational concepts, like Sectorless Flying, 4D-Trajectories and integration of CNS services.

The L-Band communcation datalink LDACS is a significant pillar of this future scenario. Leveraging on its strong experience in ATC communication and on its advanced technological know-how, Rohde&Schwarz is deeply involved in supporting the definition and the validation of this new technology.

The R&S LDACS demonstrators for both avionic and ground installations are the cornerstones to achieve the necessary maturity level for this new technology.



Increasing air traffic safety through effective drone detection

Wed, Jun 22, 2022 at 11:40 AM, Spotlight Stage

beaker Goetz Mayser

Director of C-UAS Solutions

Bio:

Goetz Mayser is a graduate of University of Karlsruhe, Germany. During his studies, he focused on System Engineering and graduated as master of electrical engineering. In 2003 he started his career at Rohde & Schwarz GmbH Co. KG in Munich Germany. He held several positions as project and product manager in secure communication division. Since 2017, he is responsible for the international business for commercial UAV detection and counter solutions.

Abstract:

Drones that fly above prohibited areas are an increasing security risk. Remotely controlled drones repeatedly violate personal privacy, the boundaries of protected areas and air traffic safety.

Regardless of the drone pilot's intention, drones pose a serious safety risk. A multisensor approach is imperative in nearly all counter-drone scenarios, but is particularly important in the vicinity of airports. Radar technology is used especially to locate drones in the airspace. However, to locate the pilot, which is the only means to minimize costly downtimes, other technologies are needed. Learn more about remote control signal detections and in particular how to address the challenges encountered in the airport environment



Increasing air traffic safety through accurate and fast aircraft identification

Wed, Jun 22, 2022 at 2:10 PM, Spotlight Stage

aker Erwin Hainzinger

Product Manager SPM and ATC DF, Rohde&Schwarz

Bio:

Erwin Hainzinger studied at Technical University of Munich, Germany. He graduated as a master of computer science with the emphasis on network and system management. In 1996 he started his career at Siemens AG in Munich Germany. Initially as software developer for telecommunication network infrastructure products, later several positions as project and product manager for high-available telecommunication products. In 2012 he joined Rohde & Schwarz GmbH & Co KG as product manager for COMINT solutions. Since 2017, responsible for ATC direction finder solutions as well.

Abstract:

The rapidly growing air traffic is increasing the workload on air traffic controllers. Rohde&Schwarz supports air traffic controllers by providing direction finders and turnkey solutions for radiolocation of calling aircraft. Providing controllers with automatic aircraft identification and immediate display on the radar screen helps them identify the calling aircraft quickly and securely. Call-sign confusions are significantly reduced and readback errors can be detected more easily. Besides small-scale solutions for airports, Rohde&Schwarz also provides nationwide solutions for upper area control. Learn more about the architecture of a nationwide solution and integration into the existing ATM system.



Drone measurements of terrestrial navigation signals

Wed, Jun 22, 2022 at 3:40 PM, Spotlight Stage

Thomas Friedrich

Speaker Peter Breuer

Project Leader for Spectrum- and Air Navigation- Analyzers

Bio:

Born in 1972, Peter Breuer completed an apprenticeship and studies in communication technology, leading to a degree as engineer ("Dipl.Ing") at the university of applied sciences in Cologne in the year 2000. In the same year, he joined Rohde&Schwarz as a software developer to design test solution for the company's airborne radios. In 2005, he took responsibility of project leadership for the EVS300 ILS/VOR analyzer's software, followed by the EDS/EDST300 DME analyzer and the EVS300 successor, the EVSG1000 and EVSF1000.He is now working as Project Leader for Spectrum- and Air Navigation-Analyzers.

Speaker

Project Leader for Spectrum-, Network- and Air-Navigation-Analyzer

Bio:

Thomas Friedrich obtained his Electrical Engineering Master degree from the University of Applied Sciences Aachen, Germany in 2013. In the same year he started his career as FPGA and Signal Processing Development Engineer at Rohde&Schwarz, Germany. He was part of the development teams for different types of Spectrum- and Network-Analyzers and the Air-Navigation-Analyzers R&S°EVSG1000 and R&S°EVSF1000. From 2018 onwards, he changed his focus to project management and worked on Network-Analyzers and the ATC Radio R&S°Series5200. Since 2021, he is the project leader for the new drone-based Air-Navigation-Analyzer R&S°EVSD1000.

Abstract:

For over 20 years Rohde&Schwarz has used their unrivaled experience with RF receivers to provide state-of-the-art testing solutions for ground-based navigation installations. Rohde&Schwarz customers around the world use the R&S®EVSG1000 and R&S®EVSF1000 for fast, accurate and ICAO compliant measurements of ground and flight inspection applications

As they become ever more powerful, interest has for drone-based measurement systems with professional receivers. ICAO DOC 8071 Volume I - Testing of Ground-based Radio Navigation Systems Fifth Edition, 2018 - mentions RPAS and UAVs. Drone based measurements have clear advantages and can be done from any position and at higher altitudes than traditional ground based ones. A drone solution makes it easy to perform far-field GP measurements with better reproducibility and improved correlation with flight inspections. Drone measurement systems are very cost competitive relative to traditional mast solutions.

Drone inspection requires more than just Navaids-measurement expertise: a small and light antenna, a permanent data link to the ground, very precise and lightweight GNSS and robust immunity to RF interferers inside and outside the drone are also needed, along with light weight and a reasonable battery life...

Based on experience with the R&S[®]EVSG1000/R&S[®]EVSF1000, Rohde&Schwarz is introducing a receiver for drone based measurements: the new R&S[®]EVSD1000. Even though it is much lighter, it still offers the same performance as the ground and flight inspection models for ILS, VOR and GBAS analysis. Integrated data and IQ recording enable even more detailed analysis, revealing more than just level and DDM values. GNSS and datalink solutions are also available, together with a drone-dedicated antenna and guidelines for smooth integration.



