



Dear Reader,

Welcome to the first edition of the Frequentis Defence Newsletter. At the beginning of 2014 I took over the responsibility for the Strategic Business Unit (SBU) Defence and I'm proud to kick off the next decade of successful Defence business together with you, our military customers around the world. I would like to take this opportunity to thank my predecessor Anton Martha, who has built up the SBU Defence, and established excellent customer relations. Our goals for strategic growth are regional expansion and solution development. Accordingly, in this issue of "On Mission" we introduce one of our new customers, the Royal Netherlands Air Force. Furthermore, we update you on the Hybrid Control Centre Solution, which efficiently combines our highly reliable Voice Communication System iSecCOM with off-the-shelf Unified Communication Services. Being in close contact with our customers is of utmost importance to Frequentis. That's why in the first half of 2014 we showed strong presence at many Defence exhibitions, including Singapore Air Show, WATMC Madrid, as well as AFCEA Germany and TECHNET Europe. Together with the Defence Team at Frequentis I hope to continue our trustful relationship and support you in moving to the next level of military capabilities. We care for your mission effectiveness!

Oliver Dörre

**Director Strategic Business Unit
Defence**



FREQUENTIS'S FIRST NAVY SHIPBOARD AIR TRAFFIC CONTROL COMMUNICATION (SATCC) SYSTEM

Frequentis is known for its expertise in developing communication and information systems for safety-critical environments, especially for Air Traffic Control (ATC) and Air Defence (AD). However, this specific domain know-how not only enables Frequentis to support Air Forces all over the world, but also goes beyond this purpose. The Space and Naval Warfare Systems Command (SPAWAR) entrusted Frequentis with the delivery of a Shipboard Air Traffic Control Communication (SATCC) system currently installed on four aircraft and helicopter carrier vessels of the US Navy. The need for a tailored system design and the production of suitable operator positions, the VCS hardware and software was accompanied by unusual frame conditions – the system environment of a warship.

The lifetime of major military naval vessels often lasts for several decades. It typically outlasts several generations of technical board equipment such as the voice communication infrastructure, having considerable effects on the subsystems as well as their networked embedment (legacy integration, system distribution, cabling, interfacing, etc.). Furthermore, operations at sea hold specific requirements which pose risks for the operation of electronic equipment due to the harsh environment (temperature, humidity, driving rain, salinity, vibration, shock, etc.).

Frequentis embraced the risk to cover those warships standards of the US Navy in a very challenging time schedule. Being successful at the end, Frequentis once more attested its claim to provide tailored solutions for networked communication.



PRODUCTS AND SOLUTIONS

HYBRID CONTROL CENTRE SOLUTION: THE FUTURE OF MILITARY COMMAND AND CONTROL CENTRES!

In the age of IP solutions and service-oriented architectures, “unified communication” approaches almost always meet with wide acceptance in standardised (business-critical) communication domains. However, these solutions have so far been unable to find acceptance in niche applications, as evidenced by their absence in the highly specialised and safety-critical communication domains of military air traffic control and military command and control centres with operational (mission-critical) elements, a prime example of which can be seen in air defence control and reporting centres (CRCs).

The Frequentis Hybrid Control Centre Solution consists of an innovative architecture that combines the advantages of standardised and operational communication domains. Its purpose is to expand the areas of application for high-availability, specific communication systems in the world of standardised IP communication by integrating communication solutions already available on the market, such as Microsoft LYNC®, Adobe CONNECT®, or Twisted Pair WAVE®. With this communication solution, Frequentis is able to provide a wide range of command and control centres with an easily scalable and particularly cost-effective solution. At the heart of the solution is a high-availability communication system, that retains its specific characteristics (conformity to standards, high availability and reliability, minimised latencies, custom hardware, etc.) while making it possible to seamlessly integrate the standardised features of products already available on the market (low costs, standardised communication, familiar user interfaces, mobile device frequency bands, etc.). As a worldwide leader in the field of safety- and mission-critical voice communication, Frequentis

can rely on its comprehensive know-how when going beyond this highly-specific communication domain, being fully aware that doing things the other way around would be much more complex and difficult.

Communication Solutions for the Future

Based on the concept of unified communication, Frequentis’s Hybrid Control Centre Solution relies on a pioneering approach that combines standardised and operational communication domains with a high quality of service. In fact, it already features the availability of a modular and easily scalable communication platform for today’s military command and control centres, both for stationary and mobile operational scenarios. Moreover, the Hybrid Control Centre Solution not only makes it possible to customise the system as required for different missions and individual needs, but also increases efficiency by allowing for the use of components already available on the market while simultaneously using tried-and-tested high tech.

MEET THE TEAM



Rupert Fuchsgruber

joined Frequentis in 1997. He started as a system engineer and was responsible for various military and civil projects. When the Strategic Business Unit Defence was launched in April 2004, he joined the team as a system architect and has now taken over general responsibility for all solutions and products.



Dirk Hecker

joined Frequentis in March 2014. In his role at Frequentis as system engineer, he will be responsible for carrying out projects on-site for our customer the German Armed Forces. His work as a technical leader focuses on integration tests of Air Traffic Management and crash systems, system installations and finally acceptance tests on the premises of the German Armed Forces.



Wolfgang Preimesberger

joined Frequentis more than two decades ago. He managed projects and programs in Air Traffic Control, Defence, Digital Radio TETRA and Public Safety before. From June on he will act as a program manager for all projects within the frame of the German Armed Forces.



AIR TRAFFIC CONTROL RECORDING SYSTEM REPLACEMENT FOR ROYAL AUSTRALIAN AIR FORCE (RAAF)

In late 2013, Raytheon awarded the contract for 15 DIVOS 3 log Air Traffic Control recording systems for the RAAF Bases to Frequentis Australasia Pty. Ltd. The contract includes the delivery of two test systems and the integration with the existing Australian Defence Air Traffic System (ADATS). The Frequentis recording solution was chosen to provide state-of-the-art recording of mission-critical audio data.

Delivery starts in the first quarter of 2014, followed by the rollout of 15 systems. This contract is the second project for which Frequentis will deliver its ‘DIVOS 3 log’ recording system to the RAAF, after previously delivering it to the Transportable Air Operations Tower (TAOT). DIVOS 3 log is more than just an ordinary recording system. It has been principally developed to respond to the needs of mission-critical environments. DIVOS 3 log provides a base for synchronised recording, analysis and playback of all relevant information (voice, screen, radar and any other data of interest). Virtualisation capabilities and the integration with the Frequentis communication and automation portfolio further increases availability and functionality while reducing the total cost of ownership by shared hardware components, as well as lowering installation and maintenance costs.



COMMUNICATION NETWORK FOR THE ROYAL NETHERLANDS AIR FORCE

Frequentis Defence is implementing a modern communication network for the Royal Netherlands Air Force (RNLAf). Selected military airfields of the RNLAf will be equipped with a newest-generation IPv6-based communication system in order to support operational and logistical combat processes in air defence.

The F16 aircraft and their pilots will be embedded in the communication network using special interfaces in order to guarantee the reception of last-minute updates on the ground shortly before leaving the aircraft shelter.

The procurement of this integrated communication network marks the first success on the Dutch military market and supports the mission fulfilment of military task forces in terms of an efficient air base architecture in a division- and process-overarching manner.

Using the NATO Architecture Framework, Frequentis has developed a homogeneous system concept for air-

field communications. The scalable solution is therefore ready to be extended flexibly on current and further Dutch airfields and will constitute a proof of concept for further use cases in other countries around the world.

Frequentis’s strong customer orientation and its aim to provide communication solutions with excellent performance has once again been proved with the gain of this foothold in the Dutch military market. This success is the first step in realising a unified, comprehensive air base communication solution on the military airfields in the Netherlands.

FREQUENTIS AT AFCEA 2014

The AFCEA trade show opened its doors for the 28th time on May 7, 2014 at 9:00 AM, with roughly 1,500 visitors attending. 111 defence companies participated in the renowned information and communication technology event, which this year revolved around the slogan "Interoperability – indispensable for multinational and cross-departmental operations!".

As an international provider of individual solutions for network-enabled operations, Frequentis participated once again in the event and showcased its solutions in the small hall. In line with its slogan, „Tailored Solutions for Networked Communication,“ Frequentis highlighted its penchant for innovation, which for many years has made the company stand out among the competition. In fact, this is what has long established Frequentis as a provider that guarantees absolute customer satisfaction as a result of its unmatched reliability, innovative solutions, and tried-and-tested technologies for military air traffic control and command and control operations.

The Frequentis booth proved to be extremely popular with the event's attendees, who kept visiting well into the late hours of the second day. Many of them were long-time customers who were quick to show how excited they were by the versatile capabilities and solutions that were being showcased for the defence and security markets. Within this context, Frequentis presented two new solutions as a proof of concept, using fully functional system demos for this purpose. One was its Hybrid Control Centre Solution, an expansion for the iSecCOM red/black communication system that enables it to use off-the-shelf IP components in a scalable system architecture and paves the way for the integral and service-based communication of the future. The other was its National Air Policing Centre demo, which addresses the needs involved in cross-departmental air traffic control cooperation between the German Air Force, police, and ANSPs when it comes to guaranteeing German airspace safety and security. Frequentis staff showcased these solutions extensively, thoroughly discussed them with visitors, and went over the added value that they can contribute to users.



These exchanges continued in a casual and relaxed atmosphere at the event's traditional happy hour on the first day. True to the motto "Frequentis as ambassador of Austrian joie de vivre", visitors enjoyed extraordinary wines, cheese, bread, and typical Austrian cured meat known as speck, whilst talking about the products and solutions of the future, for which Frequentis can provide support as a strong and reliable partner.

SEE YOU THERE

16 - 20 JUNE
PARIS, FRANCE
Booth: 5H397

2014
EUROSATORY

