



Press Release February 2018

DFS confirms FREQUENTIS Remote Tower Solution

DFS Deutsche Flugsicherung (DFS), the German air navigation service provider (ANSP), has successfully completed onsite testing of the Frequentis Remote Virtual Tower (RVT) solution for Saarbücken Airport, with control services to be carried out from the Remote Tower Centre in Leipzig, 400 kilometers away.

Saarbrücken Airport has approximately 15,000 aircraft movements per year. In October 2017, DFS conducted rigorous testing of the remote tower solution developed by Frequentis. The two-week testing phase included formal test verifications as well as free tests with a multi-day flight programme in various weather conditions. A number of air traffic controllers tested the image quality, the performance of automatic object detection as well as camera tracking during the day and at night. The Frequentis solution consists of high-performance infrared and visual cameras, a newly designed controller working position in the Remote Tower Centre in Leipzig, developed in close cooperation with air traffic controllers, and a secure network connection ensuring safe and reliable communications. This is an important milestone on the way towards the go-live of the solution.

DFS and Frequentis have been working on the implementation of a remote tower concept since 2015, with plans for the Remote Tower Centre at Leipzig Airport, Germany. In the future, this centre will provide aerodrome control services for the international airports of Saarbrücken, Erfurt and Dresden.

"Significant cost savings and increased efficiency"

"Remotely controlled towers are a hot topic in air traffic management – both the concept of providing aerodrome control services from any location and the ability to control several airports from a centralised location. This solution promises significant cost savings and increased efficiency while utilising advanced technologies that provide an enhanced view of the airfield in all weather conditions. Thanks to the commitment and motivation of the DFS and Frequentis smartVISION teams, we have been able to successfully verify the quality and functionality of this forward-thinking, innovative solution. We are now ready to take the next steps with the airports in Erfurt and Dresden," said Robert Schickling, Managing Director Operations at DFS.

Live operations (active shadowing) were successfully conducted for Saarbrücken Airport in August 2016 under the umbrella of the Single European Sky ATM Research (SESAR) programme. The latest phase of site testing has demonstrated the system's performance and reliability. This will allow the



launch of live operations by the end of 2018 after the German Federal Supervisory Authority for Air Navigation Services (BAF) has given its approval.

"Important reference in the remote tower market"

"The Remote Virtual Tower solution will allow DFS to digitalise air traffic control solutions. The potential for increased efficiency and reduced costs in the industry are driving the implementation around the world. Saarbrücken will be an important reference in the Remote Tower market, we will be the first manufacturer to provide remote tower ATC services at a complex, medium-sized airport. The planned additions of Erfurt and Dresden airports, to come under remote control from Leipzig, demonstrate the confidence DFS has in our solution and the expansion of it," says Hannu Juurakko, Vice President ATM, Frequentis AG.

DFS and Frequentis are using advanced camera and tracking technology in close cooperation with Rheinmetall Electronics and provide a scalable 360° visual and infrared presentation with automatic object detection functions and a capability to highlight all relevant traffic in the control zone. It is supported by a high-performance pan tilt zoom (PTZ) camera with tracking capability.

This successful cooperation between DFS and Frequentis, with its innovative and trend-setting solution, lays the groundwork for further development. DFS and Frequentis will strengthen their cooperation to provide turnkey solutions for remote tower control on the global market.

About DFS Deutsche Flugsicherung GmbH

The German air navigation service provider, is a State-owned company under private law with 5,400 employees as at 31 December 2017. DFS ensures the safe and punctual flow of air traffic over Germany. Around 2,000 air traffic controllers guide up to 10,000 flights in German airspace every day, about three million movements every year. This makes Germany the country with the highest traffic volume in Europe. The company operates control centres in Langen, Bremen, Karlsruhe and Munich as well as control towers at 16 international airports in Germany. The subsidiary, DFS Aviation Services GmbH, markets and sells products and services related to air navigation services, and provides air traffic control at nine regional airports in Germany and at London Gatwick Airport in the UK.

For more information visit: www.dfs.de

Stefan Jaekel, DFS Deutsche Flugsicherung stefan.jaekel@dfs.de, phone: +49 (0) 30 74306-130

About FREQUENTIS

Frequentis is an international supplier of communication and information systems for control centres with safety-critical tasks. These control centre solutions are developed and distributed by Frequentis in the business segments Air Traffic Management (civil and military air traffic control, and air defence) and Public Safety & Transport (police, fire and rescue services, emergency medical services, vessel traffic and railways). Frequentis maintains a worldwide network of subsidiaries and local representatives in more than fifty countries. The company's products and solutions are behind more than 25,000 operator positions in over 130 countries. With this extensive portfolio, Frequentis is the leading provider of voice communication systems... all making our world a safer place every day!

For more information, please visit www.frequentis.com

Jennifer McLellan, Public Relations, Frequentis AG, Jennifer.mclellan@frequentis.com, phone: Tel: +44 208 843 7375

