*As Frequentis commences implementation of the first military remote digital air traffic control towers for the US DoD, the company's Vice President Defence, **Peter Skiczuk**, explains the appeal*

Military embrace remote digital tower

In the civil domain, remote air traffic control tower (RT) and digital tower solutions have already been tested and put into operation at airports around the world, safely managing instrument flight rules (IFR) and visual flight rules (VFR) from bespoke facilities with additional digital tools. But there is even greater potential to add value in military scenarios.

"ATC operations can suffer from poor visibility due to bad weather," says Peter Skiczuk, Frequentis Vice President Defence. "When military forces are participating in combat operations, or providing humanitarian relief after natural disasters, the success of their mission's hinge on access to reliable, responsive air traffic services (ATS).

Remote and digital towers enhance all ATS by incorporating state-of-the-art sensors that enable operators to mitigate these effects." Frequentis has four remote tower solutions in operation in the civil domain: Germany, Austria, Iceland and Jersey in the British Isles. The solution for Saarbrucken, Germany, is the largest operational system, managing 15,000 flight movements per year for German Air Navigation Service Provider (ANSP) Deutsche Flugsicherung (DFS). This is managed from a remote

Pictured: Tinker Airbase in Oklahoma where a traditional ATC tower still exists. Meanwhile, at Homestead Air Reserve base in Florida, testing for the mobile digital tower has already begun.

tower centre some 450km away in Leipzig. Additionally, the Frequentis system in Jersey is the first operational RT in the British Isles and a solution for Santa Cruz airfield in Brazil is the first in South America. The Company is also working on further ongoing civil projects in Argentina and New Zealand as well as the military RT for the US DoD.

"With a remote tower solution, we place cameras in certain locations, monitor the airspace, and then send that picture somewhere else, either in the same building or miles away in a bespoke RT facility. Enhanced features including object detection and infrared cameras, deliver even more advantages." says Skiczuk.

The US DoD was the first to see the benefit of such a solution, selecting

Frequentis for two fixed and two deployable systems to support the Air Force and other DoD agencies in October 2018. Testing for the mobile version of the remote digital tower has already begun at Homestead Air Reserve base in Florida and testing for the fixed version will start in March 2020.

Ed Wright, Executive Director USAF Flight Standards Agency, noted at the time that the solution could "reduce the risk to controllers and infrastructure, while reducing capital investments and allowing for the optimisation of resources."

Traditional ATC towers could be an attractive target for attack, placing controllers at risk, as well as potentially denying ATS. A significant operational benefit of RT is that the

remote element of the system enables operators to continually maintain ATS services at a distance from potential threats.

"In one of RTs most simple configurations you can take some deployable cameras in the back of a Humvee, put the cameras up and sit miles away in a shelter. For austere runways with little infrastructure, a basic system could be operational within hours," added Skiczuk.

The clear benefits of remote and digital tower operations have already been acknowledged worldwide. This is no longer just a concept but a fully operational solution which has certainly opened doors for discussion with further military organisations.

Frequentis is at Dubai Airshow, stand 1358.