



FREQUENTIS technology successfully connects ATM to UTM in real-life drone integration trial at Manchester Airport

Frequentis' electronic flight strips prove capability in real-life drone trial livestreamed from Manchester Airport to the Royal Aeronautical Society in London

Staged at Manchester Airport in the UK, the comprehensive "Operation Zenith" demonstration consisted of eight complete scenarios where potential drone usage could occur around an airport. Altitude Angel's GuardianUTM Airspace Management Operating System was fully integrated into the air traffic control tower at Manchester Airport, along with Frequentis' smartSTRIPS.

Operation Zenith, was successfully and collectively staged by Altitude Angel, along with UK Air Navigation Service Provider NATS, Manchester Airport and a number of delivery partners, including Frequentis. An exclusive delegation of over 120 influential people saw first-hand how the Frequentis and Altitude Angel converged ATM/UTM solution enables a wide range of commercial and recreational drone operations to be safely integrated into everyday operations, including the runway of a major international airport. The event was live-streamed to the Royal Aeronautical Society in London's Mayfair.

Frequentis smartSTRIPS played a vital part in two scenarios in the trial providing situational awareness for controllers to see all planned movements at a glance. The first was on-airfield delivery, demonstrating the safe use of unmanned aerial vehicles (UAVs) to deliver parts or equipment without causing disruption in a busy, complex and dynamic airfield environment. CADAS information management system and message handling system AIDA-NG from Frequentis Comsoft enabled both the GuardianUTM and the ATM world to connect using safe and secure ATM technologies and standards, managing the area as one unified airspace. The second scenario was the use of an UAV for runway threshold inspection, demonstrating its use for providing improved detail and, over time, a clearer picture of the wear and tear profile of the runway surface.

"Interoperability is key for the future success of ATM and UTM integration, and Altitude Angel is pioneering this concept through its GuardianUTM O/S. Frequentis is pleased to be part of such a powerful real-life demonstration, underlining how existing and proven ATM-grade solutions converge into a unified traffic management concept", said Jan Ziegler, Head of New Business Development UTM at Frequentis.

What makes this demonstration all the more impressive was the fact that it took place in a fully operational airspace, side-by-side with regular traffic movements and not a segregated or closed airspace.

GuardianUTM O/S provided a real-time moving map of the airport and surrounding area giving air traffic controllers a detailed view of all approved and unapproved – via drone surveillance sensors - aerial activity. The solution also allowed advance warnings to be sent to nearby automated drones or to the pilots in charge of them, allowing them to safely operate in close proximity or take action accordingly.

"Our ability to utilise existing ATM networks and systems, and blend those with the ultra-modern and emerging drone industry, coupled with our automated 'air traffic control for drones' technologies means that more of the skies can be opened up for commercial exploitation," said Richard Parker, Founder & Chief Executive of Altitude Angel.

To see what happened at the event visit the microsite, www.operationzenith.com

About Altitude Angel:

Altitude Angel is an aviation technology company delivering solutions that enable the safer integration and use of fully automated drones into airspace. Through its Airspace Management platform, GuardianUTM O/S, they deliver the essential software platform that enable national deployments of U-Space compatible services, safely unlocking the potential of drones and helping national aviation authorities and air navigation service providers to establish new services to support the growth in the drone industry.

The foundation components of GuardianUTM O/S are also available to enable third-party UTM developers to incorporate enterprise-grade data and services into their UTM solutions.

Altitude Angel was founded by Richard Parker in 2014 and is headquartered in Reading, UK.

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 almost 140 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

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