
Drones support Estonian emergency services during pandemic

Estonian Air Navigation Services, Frequentis and Threed Systems support Estonia with COVID-19 drone operations

Estonian Air Navigation Services, (EANS) has enlisted the support of unmanned aerial systems (UAS) manufacturer, Threed Systems and safety-critical technology provider, Frequentis, to support Estonian blue-light forces with a series of essential drone operations during the COVID-19 lockdown. The operations are supporting Estonian emergency services with medical transport and information gathering.

Threed Systems, an innovative Estonian UAS manufacturer, was approached by Estonian public health organisations and the Police and Border Guard Board. Frequentis, a renowned air traffic management (ATM) and unmanned traffic management (UTM) systems provider, who worked with EANS on its SESAR Gulf of Finland (GOF) unmanned airspace (U-space) trial in 2018 and 2019, was contacted to again provide its flight information management system (FIMS) which provides the Common Information Services (CIS) function to the operation.

In several regions of the country, the Police, together with the Estonian Academy of Security Sciences, have used drones to inform the public of the lockdown rules and to monitor activity. Local authorities also require support with transporting medical supplies to remote or island locations.

“Severe movement restrictions were implemented for Hiiumaa with the mainland of Estonia, among other islands, during the lockdown to stop any virus spread.”, explained Mikk Murumäe, Co-Founder and Lead Software Engineer at Threed Systems. “Threed Systems set out to support local authorities with medical and other urgent transport to the mainland, including forwarding COVID-19 test samples. This served as a very successful proof of concept to provide an alternative and relief to manned emergency air lifting services, which are urgently required elsewhere during these types of situation.”

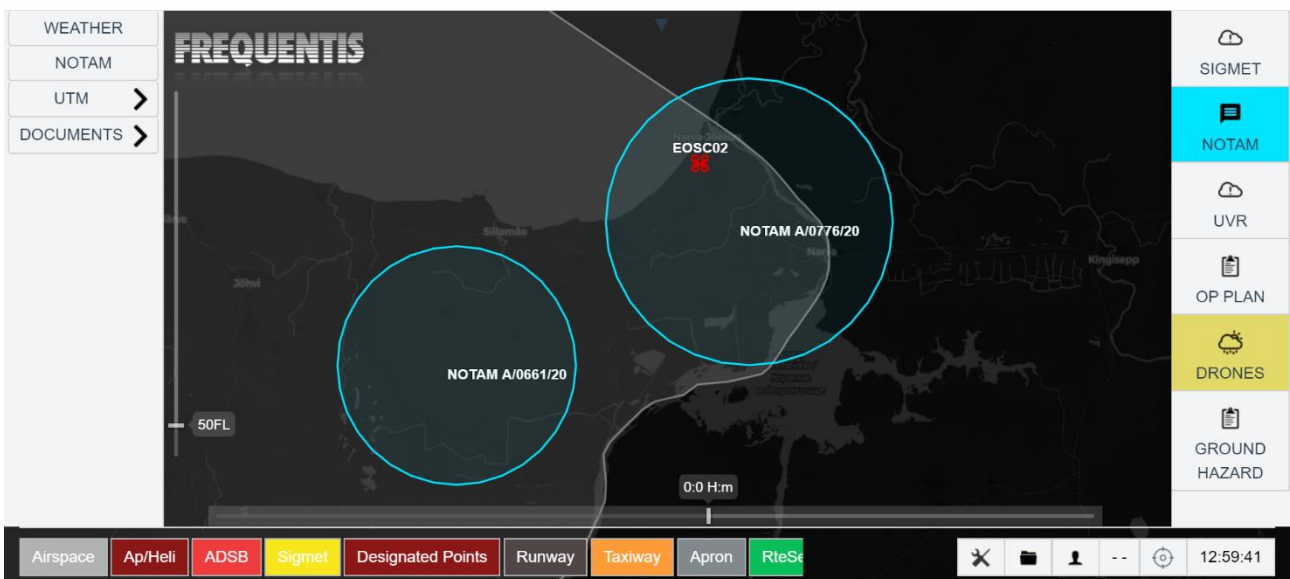
One airspace for all users

EANS continues to safely and reliably operate Estonian airspace, providing services to manned flights and international manned COVID-19 relief flights, but the need to safely integrate drones for this special mission meant reactivating the Frequentis FIMS from the previous drone trials. The FIMS provides real-time situational awareness to air traffic controllers, enabling both manned flights and Threed drones to safely share the same airspace, providing controllers with the complete air situation picture.

“We gained extremely positive experience from all parties during the SESAR GOF U-space trials during 2018 and 2019 and therefore feel very well-prepared to appropriately respond to the challenges during COVID-19 times,” noted Maria Tamm, GOF Project Manager for EANS and now UTM development lead in Estonia. “In order to enable the safe and secure integration of unmanned and manned aviation, all parties who use the airspace, must be aware of each other.”

EANS is currently developing the concept of operations for accelerating the roll-out of Estonian U-space. These drone operations supporting public safety during lockdown were another step closer outline the roadmap for enabling safe and secure integration of unmanned and manned aviation into Estonian airspace.

“We had experienced the professionalism of EANS and Thred Systems during the GOF demonstration and were pleased to provide enhanced situational awareness for this operation and allow these essential drone flights to take place.”, says Hannu Juurakko, Frequentis Vice President ATM Civil and Chairman of the ATM Executive Team. “The Frequentis FIMS infrastructure uses the Frequentis integration platform MosaiX, and several modules of field proven ATM-Grade Products, all hosted virtually using a cloud infrastructure in Vienna, Austria.”



Caption: The Frequentis FIMS provides the Common Information Services (CIS) function to the operation, allowing Thred drones to operate safely in Estonian Airspace and support the emergency services with Covid-19 missions.

About EANS

EANS (business name Lennuliiklusteeninduse Aktsiaselts) is a modern and dynamically developing Public Limited Company operating under the auspices of the Ministry of Economic Affairs and Communications of the Republic of Estonia. Company has long and fruitful experience in the modernization of Air Traffic Management (ATM) and Aeronautical Information Management (AIM) systems, airspace organization, and procedures design and implementation. EANS strategy sets up a major challenge for the near future: integration of the air traffic management and different supporting processes into a single comprehensive management system covering quality, safety, information, security, crisis, healthcare and environmental management.

About Threod Systems

Threod Systems, a privately-owned Estonian company, that specializes in developing, producing, and operating Unmanned Aircraft Systems (UAS) that are designed for information collection and exploitation in military, governmental and civil applications.

About Estonian Academy of Security Sciences

The Estonian Academy of Security Sciences (EASS) is a state institution, whose objective is through internal security related academic education, research and development activities, and also through the training of honest and competent public servants, to create a secure state and conditions for stable development across the state of Estonia and therewith contribute to the security of the entire European Union (EU). EASS drone center is focusing on collaboration between state internal security and safety agencies and developing knowledge and drone services among internal security and safety students and governmental entities.

About FREQUENTIS

Frequentis, headquartered in Vienna, is an international supplier of communication and information systems for control centres with safety-critical tasks. Such 'control centre solutions' are developed and marketed by Frequentis in the business sectors Air Traffic Management (civil and military air traffic control, air defence) and Public Safety & Transport (police, fire brigade, ambulance services, shipping, railways). As a global player, Frequentis operates a worldwide network of branches, subsidiaries and local representatives in more than 50 countries. Products and solutions from Frequentis can be found in over 30,000 operator working positions and in approximately 140 countries. Founded in 1947, Frequentis considers itself to be the global market leader in voice communication systems for air traffic control with a market share of around 30%. In addition, the Frequentis Group's AIM (aeronautical information management) and AMHS (aeronautical message handling) systems, as well as GSM-R systems for Public Transport are industry leading global solutions. The shares of Frequentis AG are traded on the Vienna and Frankfurt Stock Exchange under the ticker symbol FQT (ISIN: ATFREQUENT09). In 2019, the Frequentis Group had about 1,850 employees worldwide and generated revenues of EUR 303.6 million and EBIT of EUR 17.2 million.

For more information, please visit www.frequentis.com

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