Skyguide & AirMap Partner to Develop Europe's First National Drone Traffic Management System

Skyguide, the Swiss air navigation service provider, and AirMap, the leading global airspace management platform for drones, have joined forces to develop a national drone traffic management system for Switzerland. The system will be the first national deployment of U-space, Europe's vision for the digital infrastructure that will support safe and secure access to European skies for millions of drones.

A Roadmap for Unmanned Flight in Switzerland

In a pilot phase starting in June 2018, skyguide and AirMap will integrate the AirMap UTM (UAS Traffic Management) platform with skyguide's infrastructure and introduce automated flight authorization in a single airspace environment.

Skyguide and AirMap will also work together to develop a roadmap for Swiss U-space that will set the stage for the deployment of a fully operational drone traffic management system in 2019 and beyond.

This integrated airspace infrastructure will support the commercial drone economy at scale through AirMap UTM and the Microsoft Azure cloud computing platform.

Features of Swiss U-space:

- Blockchain-based registration for users and drones.

- Dynamic geofencing and instant digital airspace authorization.

- Real-time traffic alerts for drone pilots and live drone telemetry for airspace managers

- Connectivity and communication between drone pilots and airspace administrators.

- Other services to enable simultaneous flights in shared airspace

Accelerating Switzerland's Drone Economy

Swiss U-space will be a powerful catalyst for Switzerland's drone economy. Since 2013, drone flight requests at skyguide have multiplied tenfold. Switzerland is already home to a thriving community of drone companies and the world's first autonomous drone delivery network, located in Zürich. Swiss U-space will support this innovation ecosystem and ensure that the skies are safer for all.

Investing in Innovation

The partnership follows the success of skyguide's 2017 Swiss U-space trial, the first live demonstration of sophisticated Uspace services in Europe. Together, skyguide, AirMap, and SITAONAIR exhibited fully operational U-space capabilities - including registration and identification, geofencing, and flight authorization - during live drone missions performed by senseFly and PX4 in Geneva.

Powered by AirMap UTM

AirMap UTM is the leading platform of airspace services for UAS Traffic Management. AirMap UTM offers up-to-date airspace information for every country in the world, national airspace rules for more than 20 countries, and a robust network that reaches more than 85% of the world's drones. With deployments in Switzerland, Japan, New Zealand, and the United States, AirMap UTM is the most comprehensive and connected platform of its kind.

U-SPACE WILL UTILIZE THE FOLLOWING AIRMAP UTM COMPONENTS:

Registry Engine
Ability to authenticate and verify pilots and aircraft

Geo Engine
Ability to publish airspace rules and advisories directly to drone operators
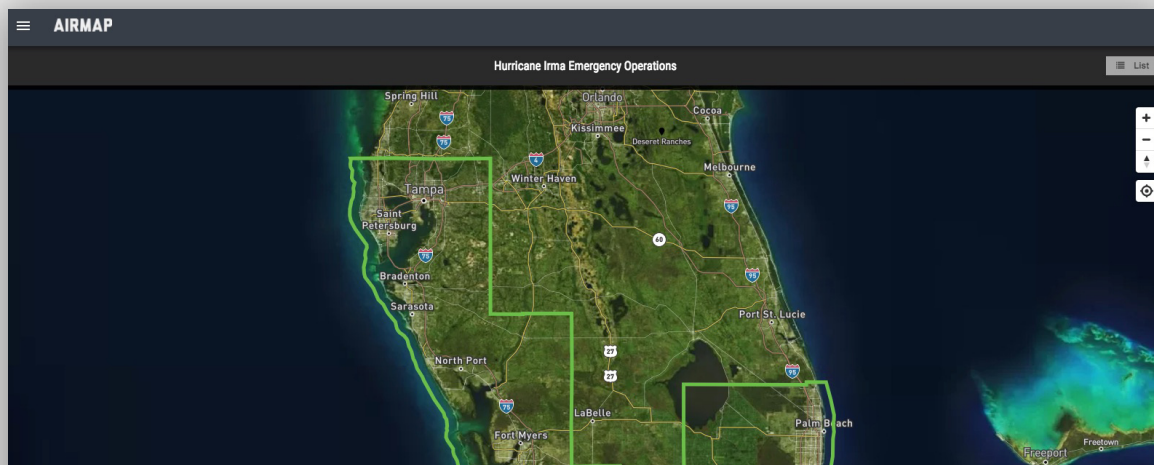
.Flight Engine
Ability to communicate with drone operators with notification and digital authorization capabilities.

Traffic Engine
Ability to coordinate real-time air traffic deconfliction with live drone telemetry and real-time traffic alerts for drone operators

CASE STUDY

AirMap Deploys UAS Traffic Management (UTM) in Texas and Florida to Support Hurricanes Harvey and Irma Relief Efforts

In 2017, the United States experienced one of the most devastating hurricane seasons on record. Hurricanes Harvey and Irma were category four storms that left destruction across communities in both Texas and Florida. Unmanned aircraft systems (UAS), or drones, were critical tools in post-disaster recovery.

In the aftermath of Hurricane Harvey in Houston, Texas, the FAA issued a disaster TFR (temporary flight restriction), charging the Texas Emergency Operations Center (EOC) with managing the local airspace during post-disaster recovery efforts. Both manned and unmanned aircraft became essential components in damage assessment, flood monitoring, bridge inspection, and public information control.

AirMap supported 119 independent drone operations by providing a cloud-based dashboard that allowed incident commanders to visualize and manage their airspace and coordinate manned and unmanned flight operations.

AirMap's safety-critical airspace intelligence services includes including weather data, infrastructure boundaries, and manned traffic alerts, visualized on a cloud-based dashboard at the EOC base.

When Hurricane Irma touched down on the Florida coast a month later, AirMap worked with the same team of emergency operators deployed on behalf of the State of Florida with the same UAS Traffic Management (UTM) services. For 247 independent drone operations, AirMap ensured emergency operators' manned and unmanned assets remained safe while conducting search-and-rescue and surveying efforts.

AirMap's UTM technology provided Texas- and Florida-based EOCs with the information required to manage emergency response missions in low-altitude airspace, deconflict manned and unmanned air assets, and communicate directly with their teams on the ground and in the sky.

AirMap's out-of-the-box technology provides a streamlined UTM experience for emergency responders.

How did AirMap help?

AirMap provided the Texas and Florida teams with an airspace management dashboard and airspace intelligence services that allowed them to:

- Create flights and provide notice of intended flight to command centers

- Accept flight notices by relief operators active in disaster TFR areas

- Visualize and monitor hundreds of flights being conducted by the EOC to support relief efforts

- Remain abreast of manned aircraft traffic and unmanned flights submitted through AirMap within the TFR

- Notify drone operators logging flights with AirMap that they had entered airspace covered by a disaster TFR managed by the EOC

- Contact drone operators who were flying in violation of the TFR and urge them to keep their UAS grounded until the TFR was lifted

"Essentially, every drone that flew meant that a traditional aircraft was not putting an additional strain on an already fragile system. I don't think it's an exaggeration to say that the hurricane response will be looked back upon as a landmark in the evolution of drone usage in this country."

FAA Administrator Michael Huerta
"InterDrone" Speech, Las Vegas, NV
September 6, 2017

By providing the EOCs with a suite of tools and and an airspace management dashboard, AirMap helps support safe and efficient relief efforts in public safety use cases across the country.

View more AirMap UTM case studies at www.airmap.com/case-studies