



TRAFFIC INFORMATION SERVICE

Unlocking Safe Skies for U-space

As the skies become increasingly crowded with both crewed and uncrewed aircraft, the need for solutions that safely integrate drones in the lower airspace is real. SkeyDrone's cutting-edge **Traffic Information Service (TIS)**, tailored specifically for U-space environments, empowers drone operators with real-time insights into airspace dynamics. Designed to enhance situational awareness and mitigate potential conflicts, our TIS offers comprehensive data on aircraft positions, altitudes, velocities, and other crucial flight parameters.

Data Sources

SkeyDrone has deployed its own dedicated surveillance system with a **private network of air traffic data receivers**. This network is optimised for coverage at low altitude and is further complemented by integrating other surveillance sources.

Crewed

- skeyes' surveillance radar data (Mode-S)
- SkeyDrone's network, detecting crewed aircraft (through ADS-B and FLARM)
- ADS-L API integration with SafeSky, itself integrating 15 different sources

Uncrewed

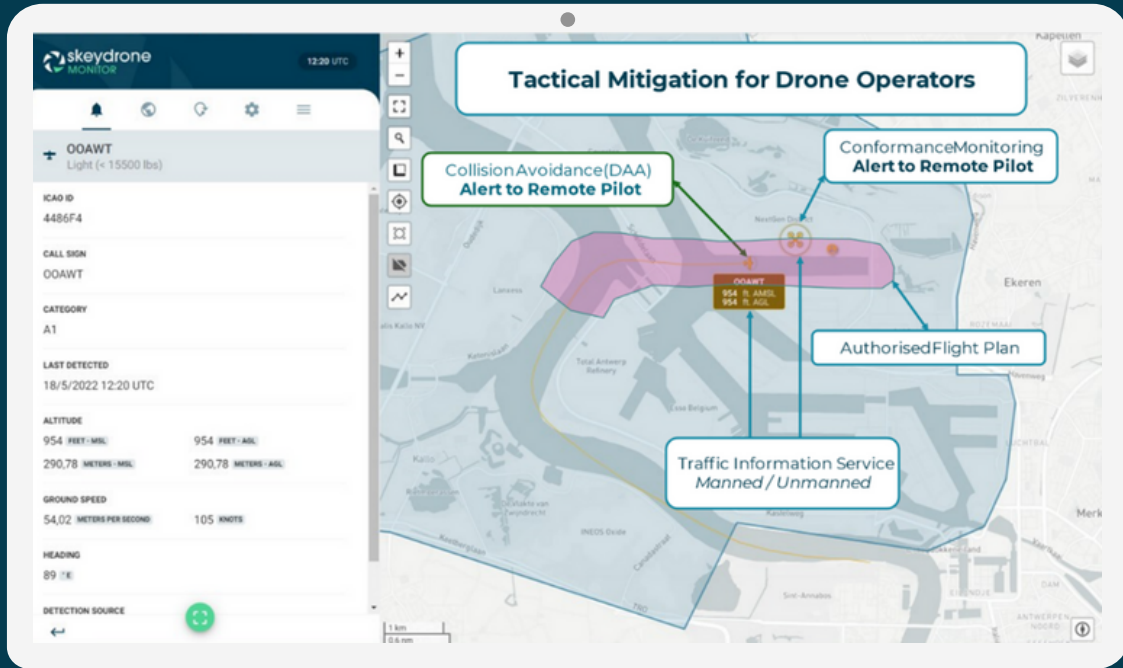
- SkeyDrone's network, detecting cooperative (Direct Remote ID) and non-cooperative drones (RF detection)
- Network Remote ID API integration supporting multiple NRID devices
- Telemetry API integration (GNSS positioning data)

Data from the different sources is fused to generate an aviation-grade air situation picture.

Altitude conversions

SkeyDrone's TIS is unique in the way it applies altitude corrections for pressure and temperature, **transforming the barometric altitude** from the aircraft transponder into the true altitude (Above Mean Sea Level) and height (Above Ground Level). This conversion allows drone pilots to determine the vertical separation between their drone and crewed aircraft without the need for a manual conversion.

Additionally, SkeyDrone's TIS applies pressure and temperature corrections using the METAR reports of 17 airports located in Belgium or close to the Belgian border.



The TIS provides alerts for intrusion detection and loss of separation through the SkeyDrone Monitor interface.

Operational Authorisation

Drone operations in the 'specific' category require an operational authorisation and a risk assessment, based upon the **Specific Operation Risk Assessment (SORA)** methodology or by using one of the **Predefined Risk Assessments (PDRA)**.

In both cases the drone operator needs to demonstrate that the residual air risk class is adequately mitigated to the required robustness level.

SkeyDrone's TIS mitigates this risk by detecting the surrounding air traffic, supporting the operator to evaluate the air risk situation in flight and to make the correct decisions.

Monitoring and Alerting

Through the SkeyDrone Monitor interface, the TIS provides both **intrusion detection alerting** and **loss of separation detection alerting**. Alerts are visualised via dedicated notifications to the user and are configured via 3D customisable geographical areas, taking into account adequate safety buffers.

Coverage

Dedicated infrastructure deployments are currently available in Belgium at the coastal region, Port of Antwerp-Bruges and Brussels CTR. Detailed information is available in our online platform. Additional regions can be supported on demand.

*SkeyDrone's TIS detects **90%** of all aircraft in the detection volume.*