Belgian flying federations join hands to make air traffic safer

Since the beginning of this year, 3 air sports federations in Belgium have started rolling out a network of ground stations to make non-commercial air traffic electronically 'visible' (EC : 'eConspicuous') to all pilots in the air.

A European first

It is the first time that flying sports federations of various disciplines are building their network to exchange real-time flight data of all air sports. That project is running simultaneously and coordinated in Belgium and Spain.

EASA (the European Aviation Safety Agency) has already announced its intention to call on other countries for similar initiatives to make air travel safer by making it 'visible'-'Conspicuous' in European jargon.

The Belgian ULM Federation, the Motor Flying Clubs Association and the Glider Federation (via the Flemish Cluster Air Sports) have jointly invested 15,000 euros in this project. This will allow 21 stations (ground receivers/antennas) to be installed at Belgian airports. The aim is to cover the entire Belgian airspace at low altitudes.

Ground stations: affordable, state-of-the-art, and 'plug and play' ready

These receivers can capture 8 types of EC signals from all airspace user disciplines, including the latest EASA standards.

Previously, these signals were transmitted through disparate methods and incompatible devices, resulting in fragmented data exchange. As a result, existing devices only provided visibility into a fraction of air traffic, rendering them ineffective for numerous pilots, such as glider pilots or free flight pilots (totaling more than 250,000 in Europe).

With this project, all EC systems are becoming federated into one source and made available for free to more than a dozen in-flight software and hardware. Non-commercial pilots will no longer fly without awareness of other possible conflicting aircraft.

How does it work?

All signals collected by the project's ground stations are sent to a network.

That network processes this data according to a new European standard (ADS-L) and makes it usable and accessible to a whole range of devices, apps and applications that pilots can use.

This can be done via an ordinary smartphone or tablet. SafeSky, a Belgian company founded by six pilots, has developed a special app for this purpose that makes the data accessible in the air via a special internet protocol, using only a smartphone or tablet.

Pilots themselves can also contribute to safer air traffic

By using apps such as SafeSky, or compatible and cooperative software or devices (SKYTRAXX, Gaggle, Syride, EasyVFR, AirNavPro, XC Track), they can transmit their traffic data via the internet and thereby additionally feed the network.

That project was inspired by a network (OGN – Open Glider Network) built and used with success by the gliding community for 10 years. However, that was a closed system for gliders.

The new network, Aero Network, is an extension of the OGN, developed in collaboration with SafeSky and AVIONIX.

The devices themselves are developed by AVIONIX, in close cooperation also with SafeSky and OGN experts. They can receive all signals such as ADS-B, FLARM, OGN-Tracker, PilotAware, FANET, ADS-L, and even Remote ID from drones and send them to the network over the internet.

This project will give pilots an extra pair of - electronic - eyes

'Looking out' well and permanently to avoid collisions has been and remains the motto of all airspace users since the birth of flying.

But eyes have major limitations: they 'see' only a small part of everything flying around.

This project will make the latest technologies available to pilots of all air sports disciplines: gliders, sports pilots, Ultralight, paramotors, free flight (paragliding, hang gliding), balloons, and helicopters....

It makes airspace safer, especially in the lower layers where sport pilots operate.

It is a project by and for pilots!

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