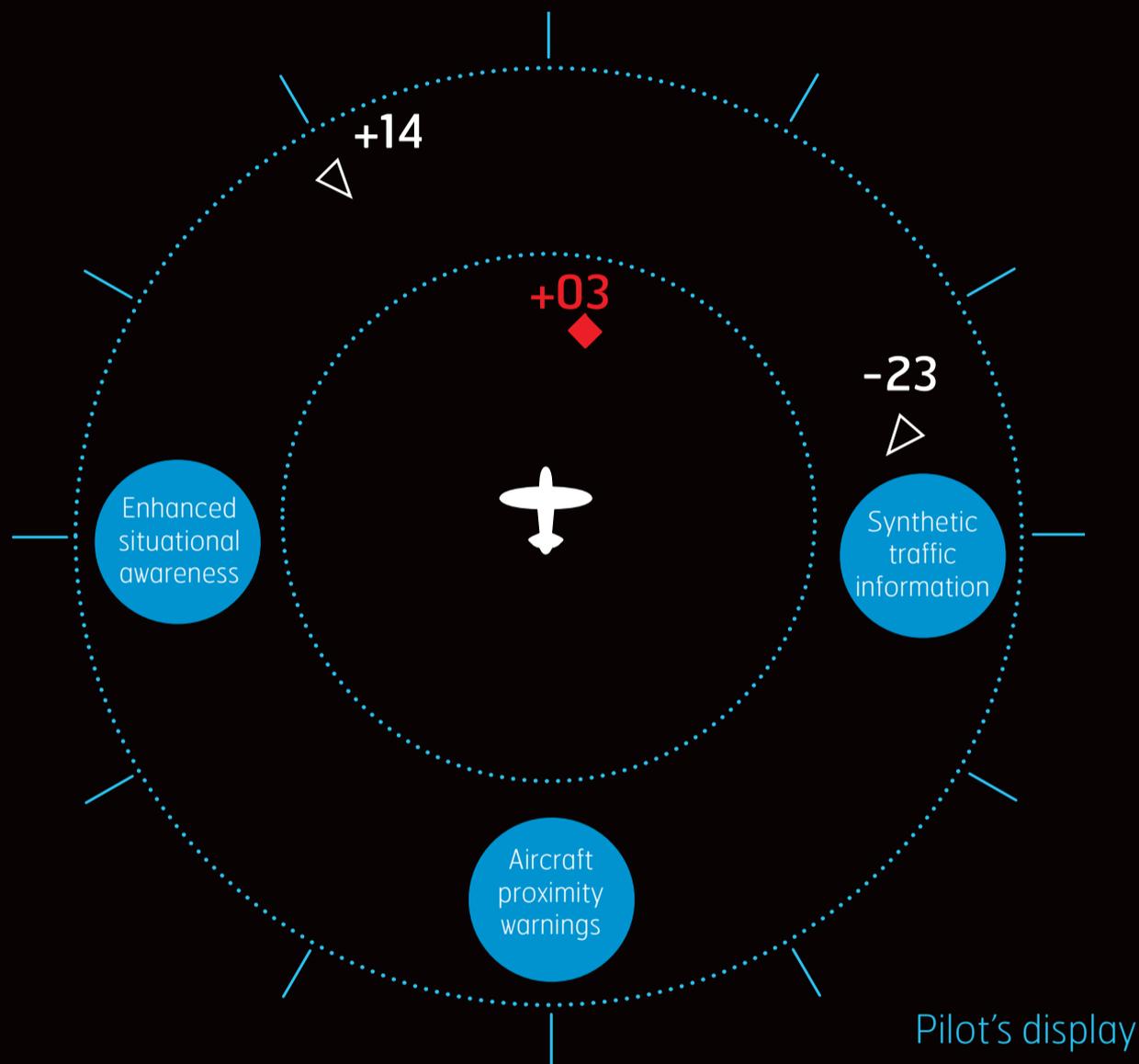


Making General Aviation stand out from the crowd

Project EVA (Electronic Visibility via ADS-B) aims to enhance flight safety by improving the visibility of general aviation pilots to each other and to air traffic control.

A NATS fact sheet – published April 2015



Project partners are developing innovative devices so pilots can be aware of each other's presence by transmitting and receiving ADS-B position information. The two way exchange of data will enhance real-time traffic awareness and proximity warnings to enhance safety. The devices will be tested in flight trials in the UK and across Europe.

The project is co-funded by the SESAR Joint Undertaking.

It aims to identify how the regulation and certification of these devices can be minimised, ensure they are affordable and produce guidance material for European aviation standards, to speed up the availability of this smart traffic technology.

NATS is currently conducting a trial with general aviation pilots to hook their Mode S transponders up to a non-certified GPS source in order to start broadcasting their position via ADS-B. Not only will this allow Project EVA partners to evaluate the quality of the data produced, it will help unlock the full value of a transponder for the general aviation community.

The devices and their benefits

The Project EVA partners are developing and testing several low powered, portable devices to help general aviation stand out from the crowd and enhance safety by making you visible to the traffic around you. Here is a breakdown of the devices:

LPAT

For pilots who fly aircraft not equipped with a transponder, LPAT is a low power ADS-B transceiver that provides the minimum functionality you need to see and be seen by other traffic. It's being developed by NATS and f.u.n.k.e. Avionics as a light-weight, battery powered carry-on device that is affordable and simple to use. NATS is currently trialling LPAT's compatibility with Mode S transponders.

TABS TT20 & TA60 Traffic Unit

The Traffic Awareness Beacon System (TABS) TT20 has been developed by Trig Avionics.

It is a compact device that is simple to install. It is visible to TCAS and provides the aircraft position via ADS-B Out.

When connected to a TA60 Traffic Unit device, which uses the latest Traffic Situational Awareness with Alerts System (TSAA), pilots can receive audio alerts about air traffic in their vicinity via ADS-B In. It has been designed to provide highly accurate information and suffer fewer false reports than other more expensive TCAS systems. It can also be hooked up to a wide range of displays for visual traffic information in the cockpit.

Mode-S

To gain the full safety benefits provided by these devices all aircraft would need to transmit ADS B.

Currently some existing Mode S transponders can provide ADS-B only if connected to a GPS source - but getting an aviation certified GPS source can be costly.

Project EVA will assess and prove the quality of data provided by affordable uncertified sources, which will speed up the availability of this smart technology.

