

MODERNISED LOWER AIRSPACE IN THE UK

The concepts set out here represent some key building blocks needed to deliver modern, future-ready airspace which can be used and enjoyed by everyone.

Our mission is to enable an airspace which delivers a SAFE, interoperable environment for all users, today and in the future. It's about retaining the 'freedom to roam' by encouraging users to be electronically conspicuous, and to take advantage of enhanced flight information services and a simplified air traffic service.

SIMPLIFYING AND DIGITISING UK FLIGHT INFORMATION SERVICES

The current UK Flight Information Services (Basic, Traffic & Deconfliction) will be replaced by a single International Civil Aviation Organization (ICAO) specified Flight Information Service (FIS) supported by surveillance data to enhance traffic information. Fractionalised Lower Airspace Radar Services will be replaced by a unified FIS service ensuring the seamless sharing of flight data between Flight Information Region sectors and other service providers.

KEY BENEFITS: A simplified, internationally recognisable service routinely enhanced with surveillance-based traffic information. Digitisation of flight and traffic information will enhance and begin to replace the manual transmission of information.

NB: While compliance with ICAO requirements means separation services cannot be provided in Class G airspace, deconfliction advice can still be delivered as part of a FIS. As today, service providers seeking to deliver separation services to Instrument Flight Rules (IFR) operations will have to apply for an appropriate airspace classification via an Airspace Change Proposal.

FLIGHT INFORMATION SERVICE – BROADCAST (FIS-B)

As part of digitised FIS, FIS-B will be a wide area broadcast of data products transmitted for the use of any air system within range of the broadcast. The data will include forecast meteorological products as well as near real-time airspace notifications. The broadcast will use internationally recognised formats and operate within the aviation spectrum, ensuring the widest possible range of reception equipment possibilities and will be free at the point of use.

KEY BENEFITS: Enhancement of in-flight situational awareness. The automatic update of airborne systems. An additional safety net supporting airspace switching and sharing.

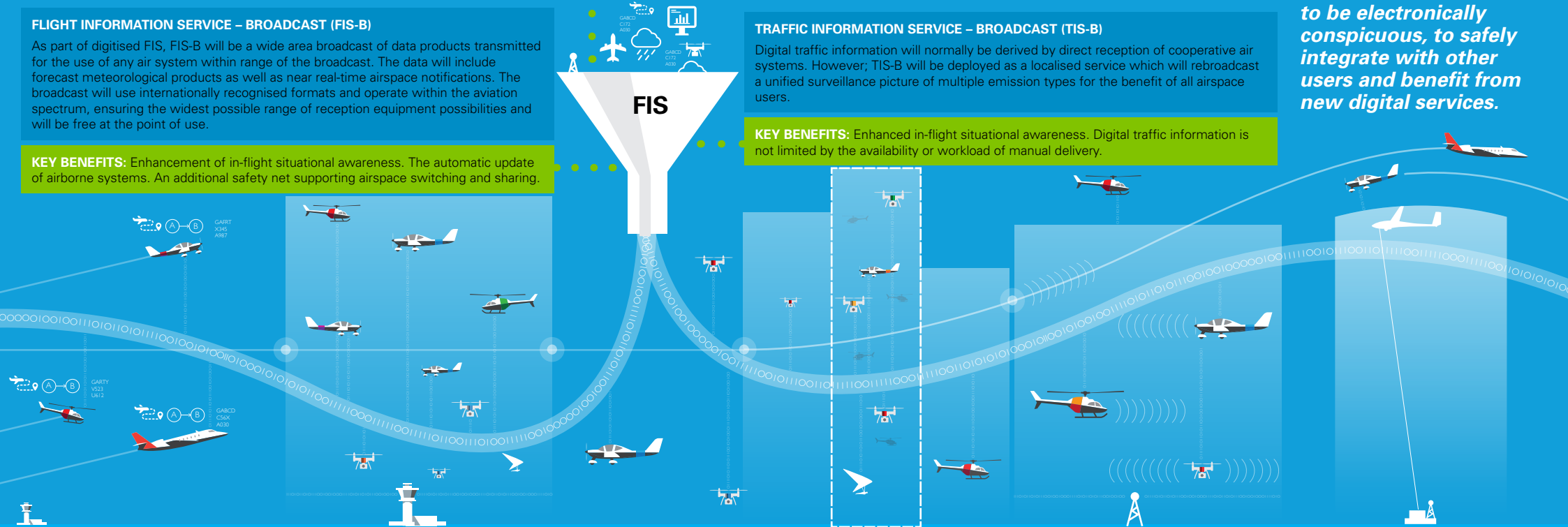
TRAFFIC INFORMATION SERVICE – BROADCAST (TIS-B)

Digital traffic information will normally be derived by direct reception of cooperative air systems. However, TIS-B will be deployed as a localised service which will rebroadcast a unified surveillance picture of multiple emission types for the benefit of all airspace users.

KEY BENEFITS: Enhanced in-flight situational awareness. Digital traffic information is not limited by the availability or workload of manual delivery.

OUR VISION:

In our modernised lower airspace, aircraft and other airspace users will choose to be electronically conspicuous, to safely integrate with other users and benefit from new digital services.



ENHANCED USE OF FLIGHT INTENT DATA

The voluntary submission of flight intent data for flights in the lower airspace will be processed and shared to and by appropriate service providers.

KEY BENEFITS: Route validation of Visual Flight Rules (VFR) plans will enable the proper dissemination of the flight intent data. Service providers will be required to receive and act upon shared flight data. Facilitate easier access to controlled airspace. The association of flight intention data with surveillance data via callsign will improve traffic management and coordination.

RADIO MANDATORY ZONES (RMZ)

Operators of unlicensed airfields supporting intense and/or complex operations will be able to choose to deploy a Radio Mandatory Zone around their airfield to generate a collaborative environment as a safety mitigation.

KEY BENEFITS: Enable the announcement of intentions without necessarily requiring interaction with a person on the ground. The participation of all air systems will improve situational awareness and, in turn, safety.

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ENHANCED AIRSPACE SHARING

The total or partial exclusion of air users from volumes of airspace will be minimised by switching of airspace volumes according to demand.

KEY BENEFITS: Enhanced integration of airspace users. Safe routine switching on and off of airspace volumes.

TRANSPONDER MANDATORY ZONES (TMZs)

Integration rather than segregation will increasingly be achieved using TMZs, within which all airspace users will transmit their position. Entry to TMZs may require different, affordable forms of cooperative surveillance other than a transponder, according to their application.

KEY BENEFITS: All air systems are detectable and transmitting to a required specification. Retaining the greatest possible freedom for airspace users.

ELECTRONIC OBSTRUCTION BEACONS

As part of digital FIS provision, ground-based obstruction beacons will electronically mark temporary obstructions in the airspace.

KEY BENEFITS: Electronic safety net to warn about switchable activities such as glider winch launching and hang glider launching sites. Replaces the need for individual electronic conspicuity on air systems operating in close proximity.