

Aircraft Tracking System

Rulemaking Background

Following several accidents where downed aircraft could not be located at all, or only after long and expensive search efforts, the Global Aeronautical Distress and Safety System (GADSS) recommendations were adopted by the International Civil Aviation Organization (ICAO) in March 2016.

Under the impulsion of the IATA ATTF - Aircraft Tracking Task Force, and Concept of Operations of ICAO GADSS - Global Aeronautical Distress and Safety System (including publication of SARPs – Standards And Recommended Practices), ICAO GADSS concept for Aircraft Tracking is based on the transmission to the ground of Aircraft 4D position (Latitude, Longitude, Altitude, Time) and Aircraft Identification at least every 15 minutes (Normal Tracking), and at least every 1 minute following the triggering of an abnormal event (Abnormal Tracking).

National Aviation Authorities (NAA) are defining their regulations according to ICAO recommendations.

European Commission published the "Commission Regulation (EU) 2015/2338" that amended the AIR-OPERATIONS (EU 965/2012) with new requirement CAT.GEN.MPA.205 mandating introduction of Aircraft Tracking System by 16 December 2018.

Solution Highlights

The solution ATL offers includes EASA Approved Supplemental Type Certificate for Installation of Blue Sky Network's HE7200A System.

Blue Sky Network's HawkEye 7200A provides autonomous satellite-based tracking and real-time alerting for rotorcraft and fixed-wing aircraft of all sizes. This system has been designed to meet and exceed the International Civil Aviation Organization's (ICAO) Global Aeronautical Distress Safety System (GADSS) requirements for flight tracking and automated distress event reporting.

The HawkEye 7200A works seamlessly with BlueSky Network SkyRouter platform by utilizing the GPS / GLONASS and Iridium satellite networks to help customers continuously improve the safety, communication, and operational efficiency of their flight operations.

As an option, system can be equipped with Telephone Adapter Panel, and in conjunction with the Bluetooth functionality on the HE100A add-on unit it enables two-way messaging, SATCOM dialling, custom forms, and short codes messages from a smartphone or tablet.

System Operations

For determination of the position of your aircraft signals from GPS/GLONASS Satellites are used.

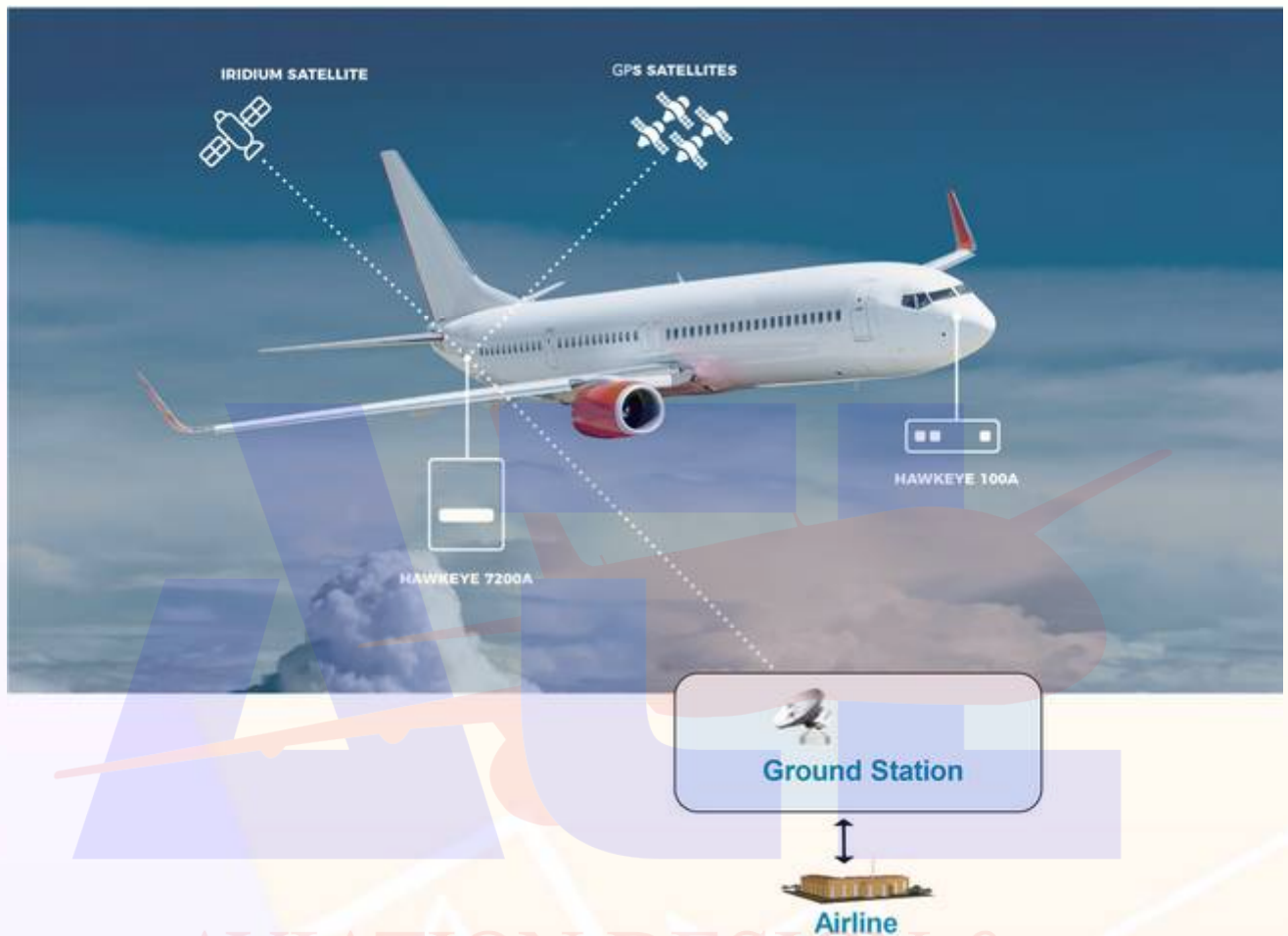
The basic tracking systems consist of an on-board GPS antenna for positioning, an IRIDIUM SATCOM antenna for communication, a small tracking computer that determines the tracking regime and an optional cockpit control panel.

Since the aircraft is out of reach for radio communication, the Iridium satellite network is used for satellite communication and real-time location updates.

The ground based satellite receivers receive the data from the satellites.

The tracking data is transmitted to the AOC, where the data is stored and can be used for operational improvement. In case of in-flight anomalies, the system will automatically report anomalies and increase the frequency of data transmission and location updates.

Images



AVIATION DESIGN &
CERTIFICATION SPECIALISTS