SB-S is the first global, secure, broadband-speed connection to the cockpit — delivering game-changing visibility into your global airline operations. Exchanging detailed real-time information between aircraft and the ground unlocks new levels of intelligence to drive decision-making and optimise fleet performance. This makes SB-S an asset that opens a new world of digital information, evolving the role of satellite communications from a safety utility to a key source of strategic value for airlines.

OPERATIONAL ADVANTAGES FOR AIRLINES

Fast, secure connectivity will transform operational efficiency and redefine the horizons of economy and profitability for airlines. SB-S also enables global ATM modernisation and automation of airspace management to deal with ever more congested skies.

Fuel and CO₂ savings
Flight route optimisation and trajectory-based operations save time and fuel. EFB apps, such as route manuals and real-time graphical weather, assist efficient flight paths.

Better asset utilisation
Pre-position parts for improved turnaround time through air to ground Tech Log notifications, and reduce medical diversions with the capability of real-time video enabled by telemedicine services.

Increased capacity
High frequency positional reporting enables reduced separation minima, whilst VoIP and ACARS over IP significantly improve ATC communications.

Secure, assured safety
Encrypted, segregated network. Better than 99.9% L-band availability gate-to-gate worldwide coverage to ICAO GOLD (Global Operational Data Link Document) standard.

UNLOCKING THE CONNECTED EFB

The SB-S platform now brings unprecedented amounts of data securely into the aircraft. Through our Certified Application Provider (CAP) Programme, we’re driving innovation of connected Electronic Flight Bag (EFB) apps to give pilots detailed, visualised information about aircraft performance, help avoid bad weather conditions and save fuel.

THE ECONOMIC BENEFITS OF A CONNECTED COCKPIT

According to a new study by the London School of Economics, connected airline operations could save the airline industry US$15bn a year* by 2035. With SB-S powering the cockpit, savings and efficiencies could emerge in the following key areas:

- $3 billion annual savings through the digitalisation of airspace management by 2035*
- $7.6 billion savings in reduced delays, cancellations and diversions every year by 2035*
- $2 billion saved on unplanned maintenance costs each year by 2035*

*Sky High Economics Chapter Two: Evaluating the Economic Benefits of Connected Airline Operations
A PROVEN SOLUTION THAT’S LIVE AND FLYING

SB-S works over Inmarsat’s robust and secure L-band network, and has been in use on commercial flights for nearly three years. Many global airlines are now flying with SB-S providing secure, real-time information.

DRIVING INDUSTRY INNOVATION

SB-S enables digital transformation and modernisation of the aviation industry, unlocking new capabilities like streaming the Black Box in the Cloud™ as part of ICAO’s GADSS requirement, and working with the European Space Agency (ESA) to deliver the Iris programme in Europe to facilitate 4D trajectory based airspace management.

THE IRIS PROGRAMME

A SECURE, SATELLITE-BASED DATA LINK TO RELIEVE CONGESTED RADIO FREQUENCIES

EUROPEAN AIRSPACE IS UNDER PRESSURE

- +50% Expected increase in the number of flights across European skies over the next 20 years
- 1.5B Approximate number of passengers that will pass through Europe’s 440+ airports in 2035
- +42KM Average distance an aircraft flies farther than necessary in Europe due to fragmentation of airspace

INTELLIGENT HANDLING OF ESSENTIAL DATA AND COMMUNICATIONS

The new generation of SB-S is the only cockpit service to provide three types of capabilities:

Traditional ACARS Communication

- Automatic Dependent Surveillance - Contract (ADS-C) global flight tracking and Controller Pilot Data Link Communications (CPDLC) applications

Prioritised IP

- A connection that provides additional availability and assurance on IP data throughput for Air Traffic Safety (ATS) Voice & Data Communications

IP Channel

- Voice and communication channel for Airline Operations Center AOC applications, i.e. EFB

LIGHTWEIGHT, LOW-DRAG EQUIPMENT

SB-S terminals are small, light, efficient and generate negligible drag compared with existing systems.

The SB-S kit comprises:
- Satellite Data Unit (SDU)
- Integrated Power and LNA/Diplexer (IPLD)
- Satcom Configuration Module (SCM)
- Antenna
- Weight: up to 7.5kg

AVAILABLE FROM OUR TRUSTED PARTNERS

Inmarsat SB-S terminals are available as line and retrofit options with major aircraft manufacturers. Our global network of distribution partners offers tailored service packages to meet varied bandwidth demands, as well as advanced cockpit applications and value-added services to help optimise benefit from your investment.

FOR FURTHER INFORMATION ABOUT SB-S, PLEASE CONTACT:

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For contact details of avionics manufacturers and service providers, see the ‘Partner search’ section at Inmarsat.com/aviation

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