



Applications of SB-S support:

- > Global Flight Tracking
- > Integrated weather applications
- > Electronic Flight Bag
- > New and reduced separation standards
- > Improved on-time performance and flight predictability
- > Efficient user preferred routing
- > Reduced flight times
- > Higher speed ADS position reporting

SwiftBroadband – Safety: The Next Generation of Aviation Safety Services

SwiftBroadband – Safety (SB-S) is the next generation safety communications system for the global aviation industry. Developed specifically for the flight deck, it has the speed and reliability to deliver high-quality, secure cockpit communications for airline operations and air traffic control, anywhere in the world.

Inmarsat has been the leading provider of air traffic control and airline safety services for over 25 years. We set the standard for satellite communications in speed, reliability and availability.

SB-S is our next evolution – a unique communication platform designed solely for the flight deck, providing airlines with cockpit communications fit for the digital age. SB-S is the new standard for high-speed broadband safety services, for airlines and air traffic controllers. It is designed to offer the highest system availability, shortest data message transaction time, and most reliable voice and data performance of any satellite-based communications service in the industry.

Building on the trusted and proven L-band based SwiftBroadband service and utilising cutting-edge avionics, SB-S enables a new world of flight deck applications to enhance aircraft safety and provide a more

efficient and streamlined service through an ‘always-on’ globally-available data connection for aircraft.

With SB-S, Inmarsat continues to demonstrate its longstanding commitment to innovation in aviation safety service.



A multi-channel platform

SB-S is a high-speed broadband delivery platform that provides high quality voice and data communications to an increasingly data-driven and information-hungry aviation industry.

Essential safety and communication services are provided over three types of connections:

- > Aircraft Communications Addressing and Reporting System (ACARS) – character based data protocol that provides prioritised data services
- > Prioritised IP channel – a connection that provides additional availability and assurance on IP data throughput for voice and data applications
- > IP channel – voice and data communication channel

New and innovative applications

Greater capacity communications open up opportunities for new applications to improve the safety of flights, allow an airline to provide a more efficient and streamlined service to its customers, and realise savings through continuous monitoring of aircraft performance and fuel.

ACARS applications

- > Automatic Dependent Surveillance – Contract (ADS-C)
- > Controller Pilot Data Link Communications (CPDLC)

Prioritised IP channel applications

- > Air Traffic Safety (ATS) and Airline Operations Centre (AOC) applications that demand high data rates:
 - Electronic Flight Bag uploads and downloads
 - Meteorological and environmental information
 - Aircraft performance data downloaded in real time to the airline maintenance department or to the aircraft or engine manufacturer
 - Support for real-time medical emergency applications such as remote diagnoses

IP channel applications

- > Airline Administrative Control (AAC) applications:
 - Providing passenger details to the destination
 - Exchange of passenger transfer information by the airline

Cost efficient system

SB-S uses next generation technology to provide higher throughput services and use the spectrum more efficiently, resulting in more cost-effective generation of capacity, provided by the ground network and satellites that support SwiftBroadband.

Global quality and security

Utilising spot beam technology over Inmarsat's I-4 constellation, SB-S dynamically allocates resources to the areas where it is most needed. This helps to ensure the speed, quality, and availability of safety critical messages for air traffic controllers, the cockpit, and the Airline Operations Centres anywhere in the world.

Guaranteed performance

The SB-S IP-based data communications network has been shown to function comparably to Very High Frequency (VHF) services. Messages and data can be compressed and optimised to create new flexibility, blending new high-performance broadband with Inmarsat's guarantee of reliability and leading edge encrypted security.

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