



# Services for Air Transport



# In-flight connectivity

## The intelligent way

➔ Inmarsat is the most experienced and widely used satellite communications operator in the air transport industry. We serve most of the world's airlines, providing in-flight safety, operational and passenger connectivity around the globe.

In today's 'always connected' world, the expectation to communicate just as well in the air as you can on the ground is growing. At the same time, airlines are under pressure to manage costs and environmental impact more rigorously than ever, while increasing passenger numbers and revenues.

Inmarsat has been providing reliable connectivity solutions to all types of aircraft for 20 years. With over 10,000 installations, our services have become the standard, enabling aircraft to fly safely and more efficiently, while also meeting the demand for enhanced in-flight connectivity from passengers.

Our services are delivered via the most advanced commercial communications satellites ever launched, which are expected to be in operation until around 2020, providing a stable platform for the future.

In the cabin, passengers can make calls, send and receive text messages, access email, the internet and corporate networks, and view in-flight news and entertainment updates.

In the cockpit, Inmarsat datalink allows pilots to communicate quickly and directly with air traffic controllers, receive real-time weather information and access the most fuel-efficient, oceanic flight paths. It can also be used to update the aircraft's position and maintenance status to ground staff.

And if the aircraft is diverted en route, the crew can use Inmarsat services to arrange surface travel and accommodation, minimising passenger inconvenience.

Delivering scalable, cost-efficient bandwidth, as and when you need it, Inmarsat delivers in-flight connectivity, the intelligent way.



## One installation, many applications

A single Inmarsat installation enables a wide range of applications for both cockpit and cabin, meeting the communications needs of both crew and passengers.

# Enabling safe and efficient

## Enhancing passenger connectivity



### Safe operations

The Inmarsat aeronautical satellite communications system is the only one to comply with the Standards and Recommended Practices of the International Civil Aviation Organization (ICAO). Today, our services support safety communications used by most of the world's leading airlines and in areas of the Pacific, the majority of long-haul airliners flying at any time rely on Inmarsat.

### Global coverage

Inmarsat's satellite network covers most air traffic routes, ensuring connectivity with air traffic control and ground-based networks. SwiftBroadband, our latest generation service, is accessible worldwide, except the extreme polar regions.

### Reliable communications

Inmarsat is the most experienced satellite communications operator in the air transport industry. Our global satellite system comprises 11 satellites, owned and operated by Inmarsat, which gives us control over service availability. It is testament to our service record that Inmarsat services have been installed on long-haul aircraft for two decades and are now a factory option on Airbus and Boeing aircraft.

# ent operations

## Total flexibility

Inmarsat offers in-flight connectivity options for a whole range of telephony and data applications. Our Swift services allow multiple users to share multiple high-speed data channels simultaneously, delivering bandwidth as and when they need it – providing a highly effective way of meeting the various communications needs of both crew and passengers. Our SwiftBroadband service supports both IP and circuit-switched services, with a choice of standard IP and data streaming on demand.



## High performance

SwiftBroadband offers a standard IP service up to 432kbps per channel, allowing more simultaneous users and more demanding applications. The service is delivered over the Inmarsat-4 satellites, with the ability to dynamically allocate capacity to meet peaks in demand. Data rates can be increased further by using data compression and parallel channels (Swift 64 only).



## Cost-effective

Inmarsat's SwiftBroadband service delivers scalable, cost-efficient bandwidth allowing users to choose between streaming or standard IP services to minimise costs.

## Easy installation and integration

Provision of a high-gain antenna for Inmarsat services is now common in most current-production airliners. Inmarsat solutions can be integrated with existing in-flight entertainment systems and with wired and wireless local area networks for passenger laptop access.

# Connectivity options

## For cabin and cockpit

### Key services

#### Aero H

Multi-channel voice, 10.5kbps data and fax, delivered via a high-gain antenna within the satellites' global beams. ICAO approved for safety services.

#### Aero H+

Multi-channel voice, 10.5kbps data and fax, delivered via a high-gain antenna within the spot beams of the I-3 satellites and, as of 2009, the full footprint of the I-4 satellites. ICAO approved for safety services.

#### Aero I

Multi-channel voice, 4.8kbps circuit-mode data and fax, delivered via an intermediate-gain antenna. Also supports low-speed packet data. Available in the spot beams of the I-3 satellites and Aero I data, in the full footprint of the I-4 satellites. ICAO approved for safety services.

#### Swift 64

Supports packet data and ISDN at 64kbps per channel. Data rates can be increased to 256kbps through channel bonding and further through data compression. Upgradable to SwiftBroadband. Available in the spot beams of the I-3 satellites.

#### SwiftBroadband

Offering simultaneous voice and standard IP data up to 432kbps per channel. Currently two channels per aircraft rising to four in 2012. IP data streaming on demand at 32, 64, 128kbps, which can be combined to achieve higher rates. Available through the narrow spot beams across the entire footprint of the I-4 satellites.

### Applications

#### Passengers

- ➔ Voice – cellular, in-seat
- ➔ Text messaging – cellular, WiFi, seatback IFE
- ➔ Corporate email and webmail – PDA / Blackberry devices, laptop PCs, seatback IFE
- ➔ Internet / intranet – live and managed access
- ➔ Instant messaging
- ➔ News and entertainment / IFE content updates
- ➔ Buy on board

#### Crew

- ➔ Safety services – Automatic Dependent Surveillance (ADS), Controller/Pilot Datalink Communications (CPDLC), and Future Air Navigation Services (FANS) applications, such as Dynamic Aircraft Route Planning (DARP)
- ➔ Voice communications
- ➔ Electronic Flight Bag (EFB) – flight plan, weather and chart updates
- ➔ Aircraft systems and engine performance monitoring
- ➔ Maintenance and BITE reporting
- ➔ Operational and administrative reporting
- ➔ CRM and service recovery



## Safety first

As the first operator to comply with the ICAO's standards over ten years ago, Inmarsat has the most experience in providing safety services.

## How to buy

### **Station 711**

Mobile Satellite Communications by RRsat

Customer Services & Operations

e-mail: [sales@station711.com](mailto:sales@station711.com)

Web: [www.station711.com](http://www.station711.com)

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