

Technical Specifications

Inmarsat is introducing 64kbit/s Mobile ISDN and Mobile Packet Data services - **Swift64** which will support the full range of Integrated Systems Digital Network (ISDN) compatible communications and TCP-IP Internet connectivity.

Swift64 services have been designed to meet the needs of aircraft passengers, corporate users and the flight deck and are based on technology developed by Inmarsat for land-based services. They are designed to take advantage of existing Inmarsat Aero H/H+ installations, making use of major components of these installations already to be found on a large number of airline and corporate jet aircraft.

Both services will be delivered through the spot beams of Inmarsat 3 satellites and will be available in all areas covered by these beams. Uniquely, the combination of the **Swift64** Mobile ISDN and **Swift64** Mobile Packet Data services gives access to both the high quality and speed of a full ISDN service and the cost-effective flexibility of a full IP service. For airline passengers and corporate users this combination offers unmatched access to modern communications through the Inmarsat system, offering immediate access to the Internet and to business-critical information virtually wherever it is needed.

Features

The **Swift64** Mobile ISDN service will offer:

- 64kbit/s ISDN two-way communications
- Alternatively, a 64kbit/s UDI (Unrestricted Digital Information) channel
- Multi-channel avionics
- Co-operative operation with other Inmarsat aero services provided by Aero H/H+ systems via the Aero H/H+ aircraft antenna

- Stand-alone installation is available
- Operation within the spot beam coverage of Inmarsat 3 satellites
- Affordable service charges based on per minute usage

The **Swift64** Mobile Packet Data service will offer:

- Service with Mobile Packet Data connection instead of Mobile ISDN connection
- Full TCP-IP connectivity
- Per-bit charging
- Always-on connectivity

Applications

The cost-effective extension of modern 64kbit/s per channel data communications, both circuit-mode and packet-mode, to aircraft based on the well-established Aero H/H+ technology allows access to a range of terrestrial communications facilities.

The ISDN access of **Swift64** provides direct and efficient error-free connection to terrestrial ISDN-compatible circuits and systems, allowing the easy integration of corporate and airline airborne platforms into ground-based private networks.

The **Swift64** Mobile Packet Data service allows unlimited Internet connectivity and efficient, cost-effective access to company intranet and global e-mail solutions.

Airborne Equipment

Inmarsat does not manufacture or sell satcoms equipment. At present, production of **Swift64** airborne terminal equipment is underway by all the leading manufacturers of Inmarsat aeronautical satcoms equipment, who should be contacted directly for more information.

Service Provision

To use Inmarsat **Swift64** services it is necessary to contract with an Inmarsat service provider. These service providers link the aircraft with the established terrestrial telecommunications networks, via Inmarsat communications satellites. Service providers compete for subscribers and are differentiated by price and service offerings.

Inmarsat Aeronautical Services

Inmarsat services for aircraft are supported by seven principal systems:

Aero L, low-speed (600 bit/s) real-time data communications, mainly for airline ATC, operational and administrative purposes.

Aero I, uses an intermediate-gain terminal exploiting the higher power of the Inmarsat 3 satellites. Aero I allows aircraft flying within spot beam coverage to receive multi-channel voice, fax and circuit mode data services through smaller, cheaper terminals. Packet data services are available virtually world-wide in the global beams.

Aero H, provides channel rates up to 10.5kbit/s supporting multichannel voice, fax and data communications anywhere in the global beam for passengers, operational, administrative and safety services applications.

Aero H+, an evolution of the Aero H service that uses the higher power of the Inmarsat 3 satellites when operating within the spot beam coverage area. When operating outside these areas, the terminal operates using the global beam as a standard Aero H system. Aero H+ supports the same services as Aero H.

Aero C, the aeronautical version of Inmarsat C low-rate data system, allows store and forward text or data messages, flight safety communications excluded, to be sent and received by aircraft operating almost anywhere in the world.

The **mini-M Aero** system is designed to provide a single-channel voice, fax or data service for small corporate aircraft and general aviation users.

Swift64, 64kbit/s Mobile ISDN and Mobile Packet Data services allows for the support of the full range of Integrated Systems Digital Network (ISDN) compatible communications and TCP-IP Internet connectivity.

For further information about Swift64, please contact:

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