



I-4 satellite repositioning

Impact on aeronautical users

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1 Inmarsat-4 F3 launch

The Inmarsat-4 (I-4) satellites are the most advanced commercial communications satellites ever launched. Part of a \$1.5 billion investment programme, they support IP data services at broadband speeds plus simultaneous voice.

The first two I-4 satellites were launched in 2005 and the third I-4 satellite was recently launched on 18 August 2008. This will bring global coverage for SwiftBroadband services.

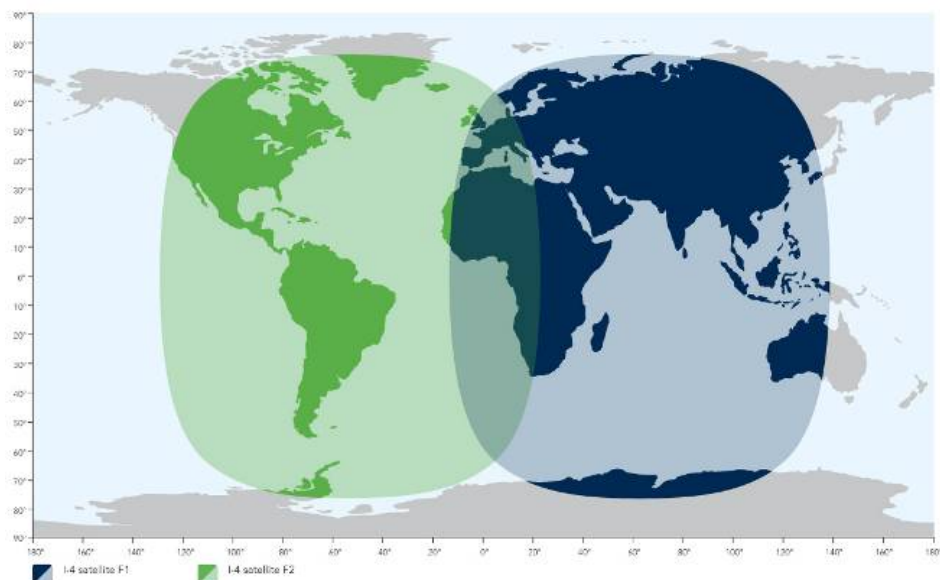
2 Overview of satellite repositioning

Now the I-4 launch programme is complete, Inmarsat will be repositioning its I-4 satellites in order to optimise its network.

This repositioning process is expected to be complete by late February 2009.

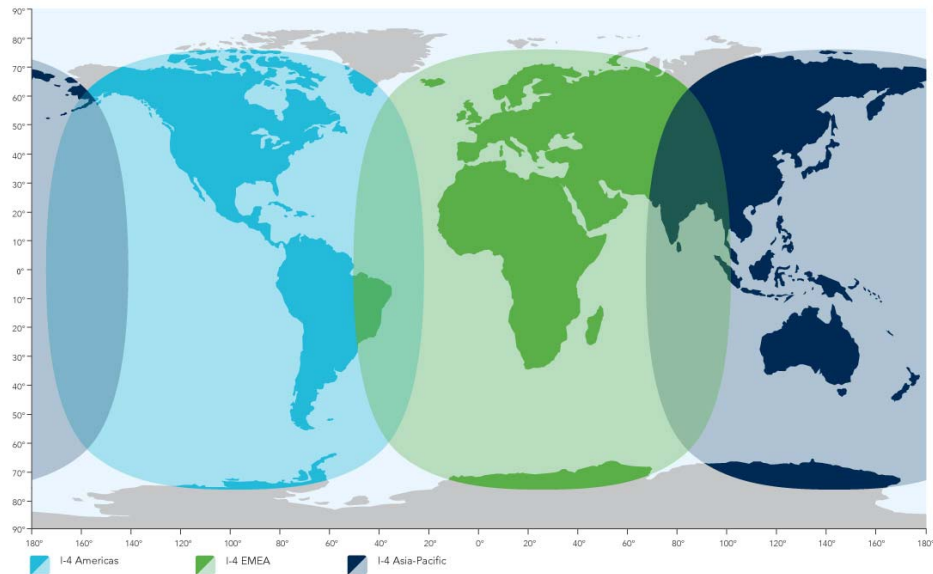
3 I-4 network coverage

The current coverage of the two in-orbit I-4 satellites is shown below. The positions are 53W (I-4 F2) and 64E (I-4 F1).



This map depicts Inmarsat's current levels of coverage, but does not represent a guarantee of service. The availability of service at the edge of coverage fluctuates depending on various conditions.

Once the I-4 F3 satellite is operational and the repositioning programme is complete, the expected coverage will be:



This map depicts Inmarsat's expectations of coverage post repositioning of its I-4 satellites. This map does not represent a guarantee of service. The availability of service at the edge of coverage fluctuates depending on various conditions.

To reflect the geographic locations covered by the satellites, Inmarsat will refer to its three I-4 satellite regions as:

- I-4 Americas
- I-4 EMEA (Europe, Middle East, Africa)
- I-4 Asia-Pacific

The former names of F1, F2 and F3 will no longer be used.

Once the repositioning process is complete, the respective positions of each I-4 satellite will be 98W (I-4 Americas), 25E (I-4 EMEA) and 143.5E (I-4 Asia-Pacific).

4 Repositioning sequence

The table below summarises the sequence of satellite developments that are relevant to aeronautical users, with the corresponding impact on the service. Further details of the service outages are described in the next section.

Date	Satellite developments	Service impacts
18 August 2008	Launch of I-4 F3	-
70 January 2009	Transfer of Swift 64 & Classic aero services traffic from I-4 F2 to I-3 F4	Reduced spot beam coverage in AOR-W
7 January 2009	Transfer of SwiftBroadband traffic from I-4 F2 to I-4 F3 (I-4 Americas)	Extended SwiftBroadband coverage over Pacific Ocean
7 January 2009	I-4 F2 moves from 53W to 25E	SwiftBroadband service outage over Atlantic strip for 25 days
2 February 2009	Specific spot beams on I-4 F2 illuminated	SwiftBroadband service restored over outage area
6 February 2009	Transfer of SwiftBroadband traffic from I-4 F1 to I-4 F2 (I-4 EMEA)	-
6 February 2009	I-4 F1 moves from 64E to 143.5E	SwiftBroadband service outage in area of Asia-Pacific for 19 days
24 February 2009	I-4 F1 is re-activated	SwiftBroadband is available globally

Timetable subject to change at Inmarsat's discretion

5 SwiftBroadband service outages

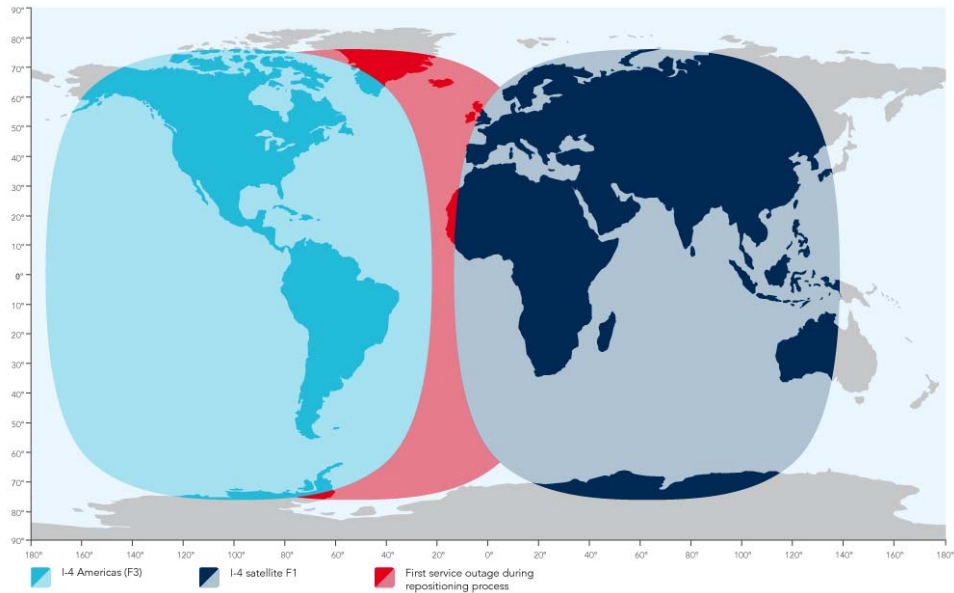
During the satellite repositioning process, there will be two short service outages. This will affect a small number of SwiftBroadband users transiting through specific locations for a short period. Other Inmarsat aeronautical services will continue to operate and there will be no impact on safety services.

5.1 First service outage

Once the I-4 F3 satellite is operational, SwiftBroadband traffic from I-4 F2 will be transferred on to the new I-4 F3 satellite, which will then assume the name of I-4 Americas, to reflect the land mass that it covers.

Once the I-4 F2 satellite has been vacated, it will then move from 53W to 25E, to assume its new position over EMEA. SwiftBroadband service will not be available on this satellite during the repositioning process, which is expected to take 25 days, from 7 January to 2 February 2009.

The map below shows the area where SwiftBroadband service will not be available on the I-4 F2 satellite, affecting users passing over a vertical strip of the Atlantic Ocean.



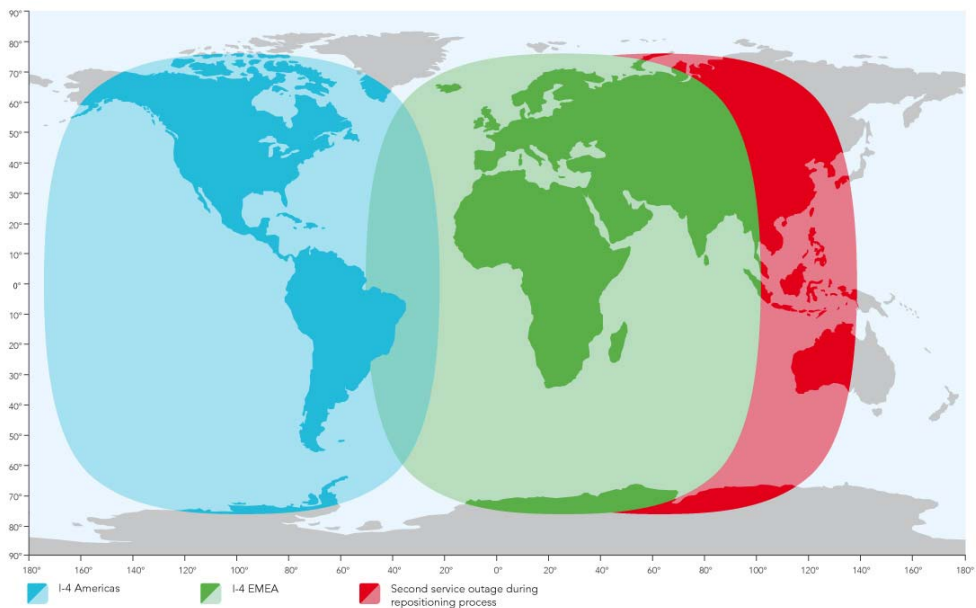
This map depicts Inmarsat's expectations of coverage during the first phase of repositioning of its I-4 satellites. The red area indicates where SwiftBroadband service will be temporarily unavailable. The repositioning process does not affect services on the I-3 satellites. This map does not represent a guarantee of service. The availability of service at the edge of coverage fluctuates depending on various conditions.

5.2 Second service outage

Once the I-4 F2 satellite is in its new position, SwiftBroadband traffic from I-4 F1 will be transferred on to the I-4 F2 satellite, which will then assume the name of I-4 EMEA, to reflect the landmass that it covers.

Once the I-4-F1 satellite has been vacated, it will then move from 64E to 143.5E, to assume its new position over Asia-Pacific. SwiftBroadband service will not be available on this satellite during the repositioning process, which is expected to take 19 days from 6 – 24 February 2009.

The map below shows the area where SwiftBroadband service will not be available on the I-4 F1 satellite, affecting users in parts of Asia-Pacific.



This map depicts Inmarsat's expectations of coverage during the second phase of repositioning of its I-4 satellites. The red area indicates where SwiftBroadband service will be temporarily unavailable. The repositioning process does not affect services on the I-3 satellites. This map does not represent a guarantee of service. The availability of service at the edge of coverage fluctuates depending on various conditions.

6. Swift 64 and Classic services in AOR-W

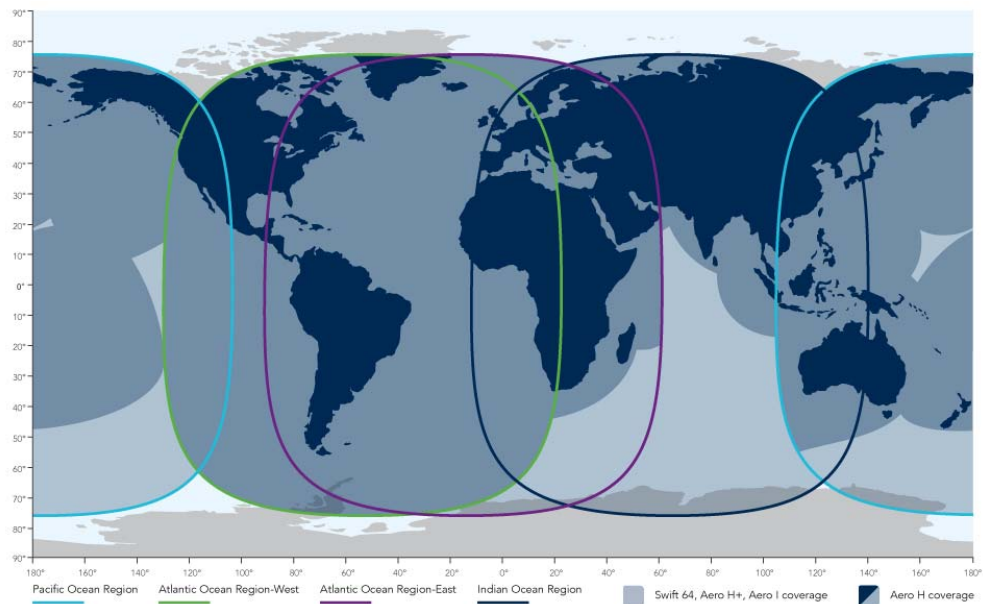
In the Atlantic Ocean Region-West (AOR-W), users of Swift 64 and Classic services are currently covered by the I-4 satellite. Once the I-4 satellite over the Americas is activated on 7 January 2009, traffic from these services in AOR-W will be transferred back to the I-3 satellite.

As a result, there will be reduced spot beam coverage in AOR-W than is currently the case, but Inmarsat will make best commercial efforts to increase the I-3 spot beam coverage so that it exceeds the original I-3 coverage. When the traffic is transferred from the I-4 to the I-3 satellite, there will be a brief service outage of around 30 minutes.

There will be reduced spot beam coverage for the following services:

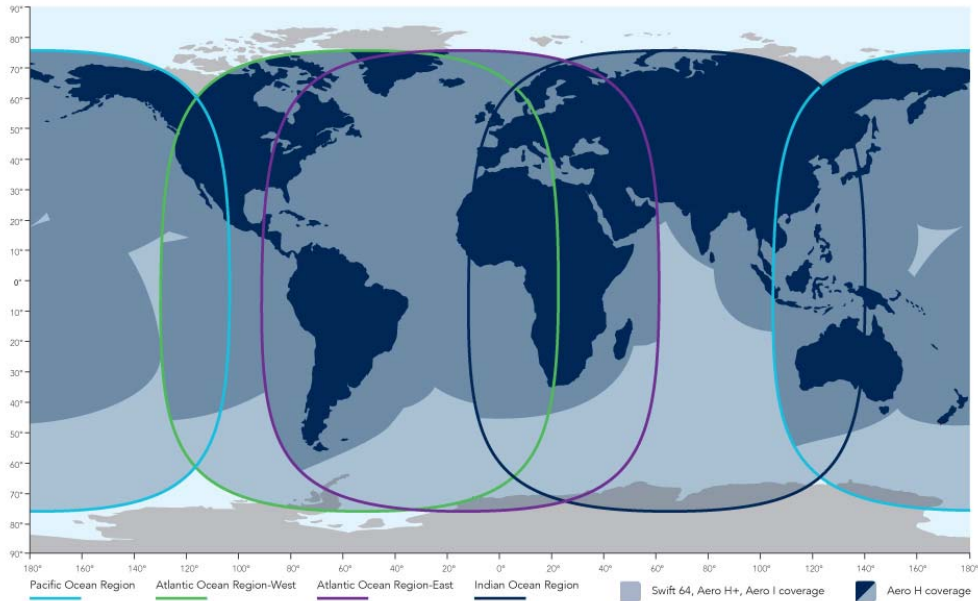
- Swift 64 – all services
- Aero I – voice, fax, 4.8kbps data
- Aero Mini M – voice, fax, 2.4kbps data

The following map depicts current coverage of Swift 64 and Classic aeronautical services:



The map depicts Inmarsat's current levels of coverage but does not represent a guarantee of service. The availability of service at the edge of coverage areas fluctuates depending upon a variety of conditions.

The following map shows Inmarsat's targeted level of coverage once the traffic has been transferred back to the I-3 satellite and spot beam coverage has been increased:



This map depicts Inmarsat's targeted area of coverage once services have been transferred from the I-4 satellite to the I-3 satellite in Atlantic Ocean Region-West. Actual coverage will be confirmed once services have been transferred and testing is complete. The map does not represent a guarantee of service. The availability of service at the edge of coverage areas fluctuates depending upon a variety of conditions.

7. Classic services on the I-4s

The transfer of Classic services back to the I-3 satellite in the AOR-W region is a temporary measure.

To reinforce our long-term commitment to safety services, Inmarsat plans to make Classic services available across all three of its I-4 satellites from mid 2009. This will enable access to SwiftBroadband and Classic services via one antenna per aircraft. It will also provide improved redundancy for Classic services.

Based on industry consultation, Inmarsat has determined that the appropriate service mix by satellite is as follows:

Service	I-3 satellites	I-4 satellites
Classic	✓	✓
Swift 64	✓	
SwiftBroadband		✓

8. Further information

Inmarsat has full details of its repositioning programme on its web site at Inmarsat.com/coverage. This includes background information on the overall process, the latest schedule for service outages and new coverage maps.

9. Completion of repositioning process

Once Inmarsat has completed the process of repositioning its I-4 satellites – currently planned for 24 February 2009 – SwiftBroadband will be available on a global basis. Inmarsat's global broadband network has an anticipated commercial life into the 2020's.