

**May, 2005**

AOS would like to take this opportunity to thank you for your business. We dedicate ourselves to the support and success of your endeavors, and look forward to our continued partnership.

This Service Bulletin is intended to make you aware of recent developments in the satellite communications industry, and changes in service that will shortly offer new capabilities and flexibility to your communications portfolio.

Specifically, the successful launch on March 11 of the first Inmarsat-4 satellite - the largest and most powerful communications satellites ever built – will offer significant new benefits to Inmarsat users, with new services such as Inmarsat's Broadband Global Area Network (BGAN), and upgrades to current services, including Regional BGAN.

On **April 28<sup>th</sup>**, as part of system testing, the first BGAN voice call was made over the new I-4 satellite using a prototype Nera terminal, marking another major milestone in the preparations for the launch of Inmarsat's new broadband services later this year. The call was connected via the satellite access station (SAS) managed by Xantic in Burum, The Netherlands - one of Inmarsat's two new BGAN terrestrial gateways.

BGAN voice capability will also support both traditional and Bluetooth handset technology, and can be used simultaneously with the high-speed data service, which will operate at rates of up to 492kbps.

### **Regional BGAN Upgrade**

Regional BGAN will be migrated to the new Inmarsat I-4 satellites in **mid 2005**. Users will benefit from extended geographic coverage. With first satellite launch, the service will extend to cover the rest of Africa and most of Asia and Oceania.

When the Regional BGAN service is transitioned onto the first I-4 satellite, currently planned for **July 9, 2005**, users will enjoy service continuity and extended geographic coverage, so please ensure you are familiar with the steps that need to be taken by the end user.

A simple three-step procedure will enable customers to use their existing Regional BGAN devices on the enhanced BGAN network. A detailed instruction sheet is attached. **DO NOT ATTEMPT THE UPGRADE UNTIL NOTIFIED TO DO SO** - this procedure needs to be executed only during the transition window.

Please contact AOS or visit our website ([www.aosusa.com](http://www.aosusa.com)) for more information. **Failure to perform this procedure during the transition window will result in end-users losing the Regional BGAN service.**

## Other Inmarsat Services and I-4

Inmarsat I-4 satellites support all existing Inmarsat services, with the single exception of Inmarsat A. Inmarsat A must transition to other satellites (I-2 and I-3) at 109E and 98W.

Inmarsat-A service users on the Indian Ocean Region (IOR) satellite (64E) will have to realign their antenna to the adjacent satellite located at Indian Ocean Region-East 109E in early 2005. The Inmarsat A service in the IOR was transitioned on **February 19, 2005** from the Indian Ocean Region (IOR) satellite, located at 64 East, to the Indian East satellite, located at the 109E.

As planned by Inmarsat, Inmarsat-A will cease operation at the end of 2007.

Users of Inmarsat maritime spot-beam services will enjoy extended coverage in the IOR when the new Inmarsat-4 (I-4) satellite enters commercial service. The time for the historic hand-over from I-3 to the new generation I-4 satellite has been set for **20:00 hours UTC on May 28**, subject to confirmation nearer the day. Existing users of maritime spot-beam services will benefit immediately from enhanced coverage right across the Indian Ocean Region (IOR) once transition is complete. The switch-on and handover of traffic to the I-4 is expected to be seamless – **at this time, no end-user action is anticipated.**

For the first time, subscribers to services such as Fleet F77 128kbit/s, Fleet F55 and F33, and maritime mini-M, will be able to enjoy the full capability their equipment in areas where previously Inmarsat-3 spot-beam coverage was incomplete.

To take full advantage, users select the IOR in the usual way when they log on with their terminals. When the I-4 goes live, these and other existing Inmarsat services will migrate to the 19 wide spot beams on the new spacecraft - providing unbroken coverage across the ocean region.

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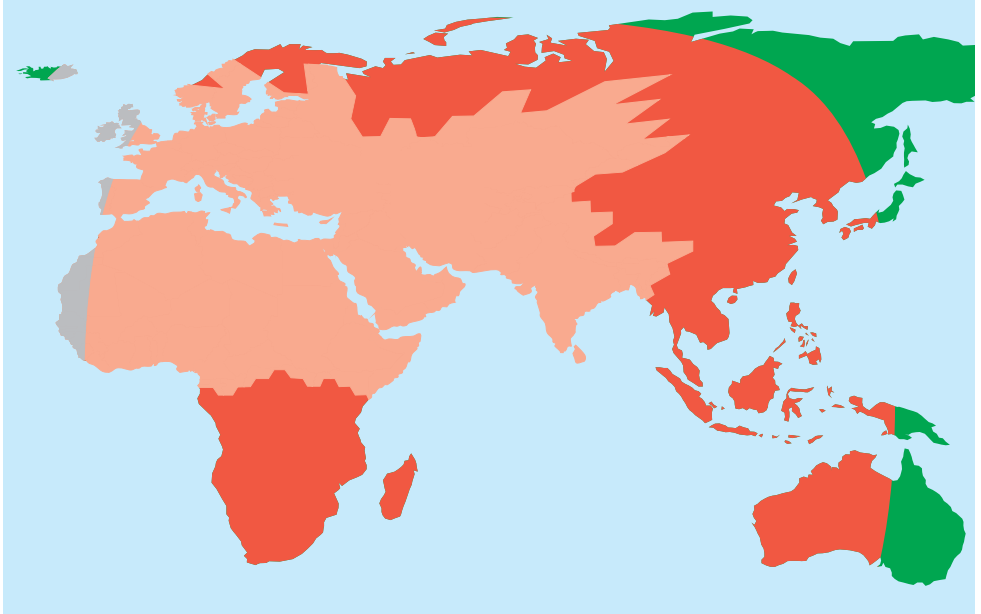
AOS will provide up-to-date information regarding service and equipment updates as they become available. Look for future Service Bulletins, as well as information in future issues of the AOS *Communicator* newsletter, and on our website, **[www.aosusa.com](http://www.aosusa.com)**.

# Inmarsat is launching a new generation of satellites


As a Regional BGAN user, you will soon come to enjoy significant benefits with Inmarsat's next generation satellites (I-4) - the largest and most powerful communications satellites ever built - the first of which is currently scheduled for launch in March 2005. When the Regional


BGAN service is transitioned onto the first I-4 satellite, currently planned for mid 2005, users will enjoy service continuity and extended geographic coverage so please ensure you are familiar with the steps needed to be taken (see facing page).

## Extended coverage after satellite launch-1

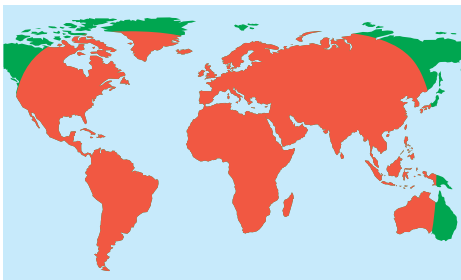



 **Increased Regional BGAN coverage**

 Existing Regional BGAN coverage

 Existing Regional BGAN coverage after the first satellite launch will be subject to geographic conditions and cannot be guaranteed for approximately three months

## Extended coverage after satellite launch-2



 The launch of the second Inmarsat-4 satellite will greatly extend the Inmarsat Regional BGAN coverage

## When instructed, Regional BGAN users must follow the following three step process to ensure service continuity

Please consult your service provider or visit <http://regionalbgan.inmarsat.com/latest> for information on when to execute the process.

Your Regional BGAN device is already designed to work with the I-4 satellites but in order to continue using the service and take advantage of the extended coverage, please follow these simple steps.

- 1 First, upload the new software into the Satellite IP device, using the '**Upgrade Satellite IP Modem**' button, located on the Regional BGAN launch pad control software. This process should be carried out in the same manner as the upgrade of any new software for the device. The new software will be released, free of charge, near the transition period.
- 2 Rotate the antenna switch (pictured right) from L to R to change polarisation. If using an external antenna, rotate the antenna switch to EXT and change antenna polarity as indicated in the external antenna manual.
- 3 Switch the terminal ON and follow the normal antenna pointing procedure, noting that at this time the maximum signal strength will require the antenna to be in a slightly different direction.



**Antenna terminal switch**



Please consult your service provider or visit <http://regionalbgan.inmarsat.com/latest> for information on coverage details and when to execute the process