



Outfitter Customer Notification

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INMARSAT INTERFERENCE PROBLEMS: There have been some Inmarsat Mini-M and Inmarsat M4 users in the Iraq area complaining that calls are not getting through and the error code 14C2 is appearing. This code is usually linked to a signaling issue (e.g. poor signal, interference or terminal problem) but can also appear when the Inmarsat network faces heavy congestion. Most 14C2 occurrences are currently due to congestion but it seems that a small amount of them could be due to an actual local interference with the Inmarsat signaling frequencies. With the amount of electronic warfare and electronic weaponry used in the area, it is possible to have some degree of conflict despite the well defined frequencies used by Inmarsat.

INMARSAT M4 CONGESTION ISSUE: There are signs of congestion in the IOR due to the intense activity in the Middle-East. Occasional congestion is reported on the satellite and more specifically on certain spot beams covering the region of interest. The service affected is mostly Global Area Network (GAN) High Speed Data (HSD). Inmarsat is working on increasing the capacity but the resources in orbit are limited. We do anticipate some congestion on the satellite level, especially in the opening hours of a potential conflict. Inmarsat can increase the capacity for GAN in specific spot beams by using channels normally assigned to other spot beams (even spare or test spots) or other standards. **If possible, switch to Atlantic Ocean Region – East (AORE) satellite.** The current situation is different than the Afghan Campaign in 2001 in which only one satellite and 2 spot beams were covering the region. The current region of interest is covered by the IOR (1 spot) and the AORE (2 spots). **If possible, transmit in times of lower activity.**

INMARSAT REGIONAL BGAN GPS ISSUE: In the last several days, some of our Regional BGAN Satellite IP Modem customers have contacted us with concern that the **military will revoke Inmarsat Regional BGAN Satellite IP Modem and Thuraya handheld satellite phone usage privileges for embedded media.** Communications with the Thuraya satellite phones are controlled through a Primary Gateway situated in the United Arab Emirates. **Both systems communicate through the Thuraya satellite and are capable of transmitting GPS positions** which are then used to determine the optimal Thuraya spot beam for communication. In the case of Thuraya satellite phones, the GPS information can also be stored for use in billing. **Please see the official statement below regarding Inmarsat Regional BGAN equipment.**

If it is determined that alternative satellite communication systems are needed for these embedded media, Outfitter Satellite offers Iridium phones and Inmarsat M4 equipment that can provide voice and data communications. Inmarsat M4 equipment provides both 64 kbps and 128 kbps data and internet access.

Sincerely,
Jim McKinley, President
Outfitter Satellite, Inc.

INMARSAT REGIONAL BGAN PARTNER MIDDLE EAST BRIEFING NOTE

April 2, 2003

The media have been widely reporting that the US Military in Iraq has requested that journalists embedded with US army units do not use or even carry Thuraya satellite phones due to the alleged possibility that the GPS receiver in them could be used in some way to track the movements of troops they are with.

As you know Inmarsat Regional BGAN satellite IP modem has a built in passive GPS receiver. At this stage we are not aware that Regional BGAN has been included with this military directive, but it is prudent to be prepared for just such an eventuality in order you can highlight this to your customers proactively.

Inmarsat Regional BGAN service uses location information derived from the Global Positioning System (GPS), however, crucially, the GPS receiver contained in the Satellite IP modem is a passive device that listens to the GPS broadcast information but does not make any transmissions whatsoever to the GPS network. Therefore no data is transmitted outside the Regional BGAN network itself.

Equally importantly, at the secure Inmarsat Regional BGAN Satellite Access Station (SAS) located in Fucino, Italy, any GPS latitude and longitude information that is needed for operational purposes is discarded and no record maintained.

In this exceptional circumstance to address the concerns of security of media and humanitarian organizations operating in this area, Inmarsat has implemented a network reconfiguration that will not require GPS position reporting. This is a temporary and localised measure for Iraq. In this unique case, this does not infringe national GMPCS regulations.

Michael Butler, Managing Director (Inmarsat Ltd)