

# Staying afloat?

## BGAN pricing and Inmarsat's future

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Though BGAN pricing may seem a relatively innocuous topic, the pricing adopted for BGAN could have significant (and potentially unforeseen) implications for Inmarsat's future direction. A recent article on the front page of Digital Ship magazine<sup>1</sup>, highlighted comments by Inmarsat management that BGAN pricing would be \$4 to \$7 per Mbyte compared to \$4 per Mbit (i.e. \$32 per Mbyte) for Inmarsat's current Fleet MPDS packet data service. In addition voice would be available at "under \$1 per minute to anywhere in the world" (compared to a price of \$2 to \$2.50 at peak times for current Inmarsat services).

This seems to be the BGAN price point in the land-based market<sup>2</sup>, but should it really be applied to the maritime sector as well? A price of \$4 to \$7 per Mbyte is in line with current R-BGAN pricing of around \$7 per Mbyte, but R-BGAN is a land-based service which cannot be used by maritime vessels. In contrast, BGAN will be a globally available service<sup>3</sup> (albeit using specially stabilized maritime antennas) and thus could ultimately replace existing Inmarsat B and Fleet services. Indeed the Digital Ship article indicated that "BGAN is not yet available for the maritime industry – this is because ships need special antennas which lock onto the satellite as the ship rocks, which have not yet been developed for BGAN – but they are expected by early 2007".

Historically, Inmarsat has applied very little pricing discrimination between comparable land, maritime and aeronautical services. New aeronautical service offerings, from Aeromobile (a Telenor/Arinc joint venture) and OnAir (a SITA/Airbus joint venture), will soon deploy in-cabin cellular pico-cells to permit the use of standard mobile phones. These providers claim that they will be able to offer "pricing aligned with current international GSM roaming rates", with OnAir claiming voice prices of \$2 per minute, reducing to \$1.25 in three years<sup>4</sup>, a promise which implicitly assumes

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<sup>1</sup> Digital Ship, Jan-Feb 2006

<sup>2</sup> See for example [http://searchmobilecomputing.techtarget.com/originalContent/0,289142,sid40\\_qci1157912,00.html](http://searchmobilecomputing.techtarget.com/originalContent/0,289142,sid40_qci1157912,00.html), which describes price packages ranging from \$60 per month plus \$6 per Mbyte up to \$550 per month for a bundle of 100Mbytes and 30 minutes of voice.

<sup>3</sup> If the third I4 satellite is launched, which has not yet been formally confirmed by Inmarsat, but is shown, for example, in Inmarsat's BGAN coverage maps, [http://broadband.inmarsat.com/resource/resource\\_collat\\_factsheets.aspx?language=EN&textonly=False](http://broadband.inmarsat.com/resource/resource_collat_factsheets.aspx?language=EN&textonly=False)

<sup>4</sup> See Washington Post, February 17, 2006 at <http://www.washingtonpost.com/wp-dyn/content/article/2006/02/17/AR2006021700802.html>

BGAN-like pricing levels, at least for voice services. Therefore it seems that Inmarsat will have a very difficult time enforcing significant price differentials for maritime services, if global aeronautical coverage is available at much lower costs.

At present, maritime MPDS usage is quite low, since ISDN is more efficient for bulk download of data (e.g. emails) and MPDS creates significant price uncertainty for users (since it is impossible to tell before clicking on a web page whether it is a few Kbytes or several Mbytes). In addition, various problems in running VPNs over MPDS have been reported by shipowners, so many maritime users have requested that MPDS be disabled on their vessels<sup>5</sup>. As a result, most Inmarsat data use is via high speed circuit switched data (HSCSD), which has an effective price (when used for bulk file transfer) of around \$20 per Mbyte.

It is not yet clear if maritime BGAN will be available via a simple upgrade to existing Fleet terminals, although this appears to be Inmarsat's intention<sup>6</sup>. In that case, assuming maritime BGAN is priced at around \$5-\$7 per Mbyte, then relatively rapid switching (over a period of perhaps 2-3 years) would be expected, amongst the 10,000 or so Fleet users expected by the end of 2006. By our estimate these ships will generate around \$100M of Inmarsat's maritime revenues in 2006. However, as highly cost-conscious users, we believe that most shipowners would be unlikely to increase their usage enough to compensate for these significant pricing reductions.

Inmarsat has stated that any retail price reductions on BGAN are expected to be offset by its increased share of end user revenues<sup>7</sup> (from around one third for traditional services to as much as two-thirds for BGAN), because distributors will no longer own and operate the Land Earth Stations used to terminate satellite traffic on terrestrial networks. However, even if we assume conservatively that the impact of BGAN price reductions is limited to around \$100M of Fleet revenues, and usage increases at 15% per year, Inmarsat will still suffer a reduction of at least \$10M in its maritime revenues at the end of the three year upgrade period (assuming an average 70% reduction from current retail prices), in a segment which has been its only source of consistent growth in recent years. This may not matter if rapid growth can be realized from land and/or aeronautical BGAN

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<sup>5</sup> Digital Ship magazine, June/July 2005, p17

<sup>6</sup> See <http://www.thedigitalship.com/powerpoints/norship05/ds2/robert%20johnson-%20inmarsat.pdf>

<sup>7</sup> Inmarsat 2005 third quarter results call, November 2005

revenues, but if these segments prove a disappointment, then Inmarsat's overall revenues may not be significantly higher in 2010 than they are today.

Inmarsat's distributors would see even more pain, since the price reductions would be amplified by the increased share of end user revenues captured by Inmarsat, and as much as an 80% reduction in their revenues from current Fleet customers might be expected. The question arises of why would a distributor want to sell BGAN in these circumstances? Perhaps only out of fear that competitors would get there first<sup>8</sup>.

On the other hand, it will also be harder for competitive products, such as maritime VSATs, to make an impact on the market and Iridium will need to reduce prices if it is to compete with Inmarsat's "less than \$1 per minute" voice pricing<sup>9</sup>. It seems plausible that Inmarsat may have deliberately introduced some element of price confusion into the maritime market, in order to limit the degree of switching to competitive products such as Connexion-by-Boeing, while it completes the product development for its maritime BGAN antennas and plans deployment of the third I4 satellite. However, Inmarsat may now be boxed into a corner on future maritime pricing. It appears that Inmarsat has decided to place its bets on substantial growth in land-based MSS markets and may be content with stabilization or even reductions in its existing maritime revenues. However, it should be recognized that this is a risky endeavor, as has been seen previously in the "disappointing" results from Inmarsat's R-BGAN product.

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<sup>8</sup> Inmarsat has the ability to sign up new distributors for BGAN services, which it is not permitted to do for traditional services

<sup>9</sup> Indeed Inmarsat stated on its November 2005 results call that Iridium and Globalstar were expected to "come out of the market" as their current competitive position was only supported by their "unnatural cost base" (resulting from bankruptcy)