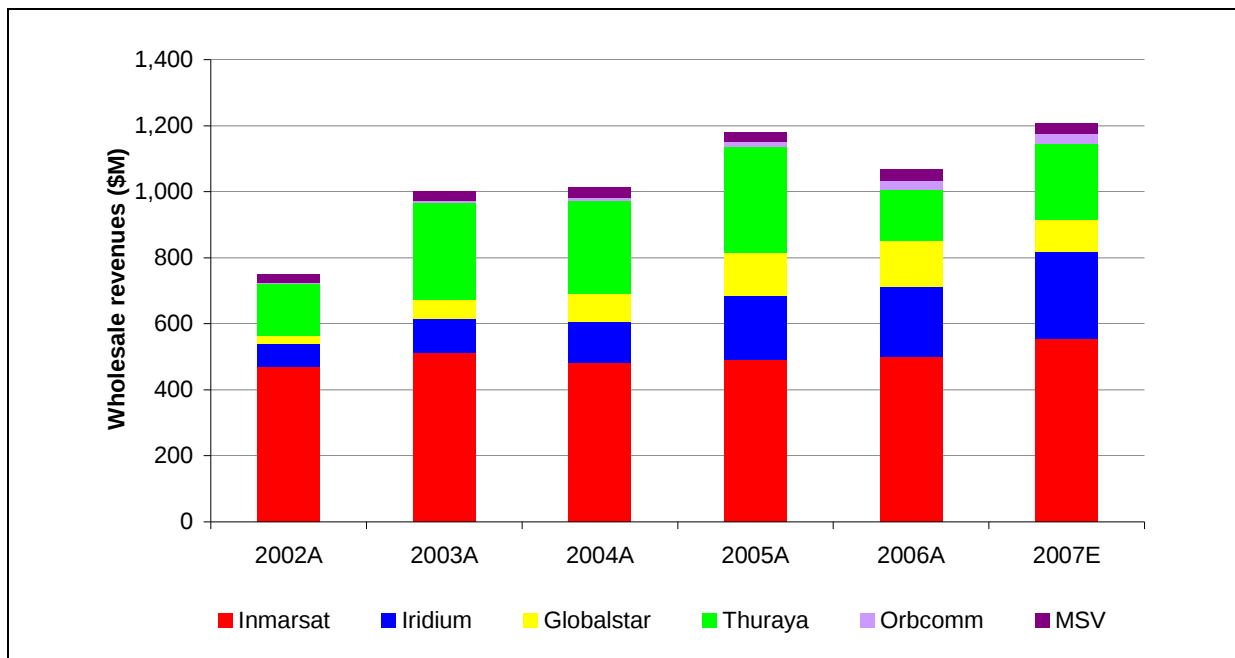


Mobile satellite services in 2007: a market of winners and losers

The MSS sector has split clearly into winners and losers in 2007. Inmarsat and Iridium have been the big winners, both seeing surging revenues and strong subscriber growth. Inmarsat's growth has been driven by continued demand for data services in the maritime and aeronautical market, accompanied by the renewed growth in land-based usage resulting from its new BGAN product. Iridium has seen strong growth in handheld services, gaining subscribers from Globalstar, as well as increased demand for its Short Burst Data services. On the other hand, Globalstar and Thuraya have suffered in 2007, with Globalstar experiencing satellite problems, which have led to a loss of high usage handheld subscribers and a resulting drop in ARPU. Thuraya experienced delays in availability of its new handsets and launch of its third satellite, and lower usage levels as terrestrial GSM networks continued to be built out in many of its key markets in the Middle East and Africa. However, Thuraya has at least seen its overall revenues bounce back somewhat from very depressed levels seen in 2006, when an overhang of prepaid cards and a lack of handsets led to a steep fall in its revenues (down 51% between 2005 and 2006). Amongst the smaller players, Orbcomm can be counted as a winner, with continued growth in its subscriber base and a clearer path established towards profitability (although it has seen a sharp drop in its stock price as certain contracts have been delayed and subscriber additions have therefore fallen short of expectations). MSV, TerreStar and ICO have been losers, with MSV seeing a dramatic drop in its stock price, as it looks to raise as much as \$500M in additional funding to complete its satellites, and TerreStar and ICO both suffering from lengthy delays in launching their first satellites.

Overall, we estimate that wholesale revenues for the six MSS operators with satellites in orbit (Inmarsat, Iridium, Globalstar, Thuraya, Orbcomm and MSV) grew from \$1067M in 2006 to approximately \$1207M in 2007, an increase of 13%, as shown in Figure 1. While this growth appears at first sight to be very healthy, and far exceeds the current rate of growth in FSS, in fact it is only 2% higher than the revenues of \$1182M seen in 2005). When we remove the distortions introduced by Thuraya's overhang of prepaid cards in 2006, wholesale revenues were roughly flat between 2005 and 2006 and grew by just under 8% in 2007, in line with the growth rates seen in the FSS business this year.

Figure 1: Revenue by MSS operator, 2002-07 [Source: TMF Associates estimates]

Turning to the individual MSS services themselves, data applications stand out as the dominant source of growth. The number of terminals used for low data rate MSS services such as Orbcomm, Iridium SBD, Inmarsat D+ and Globalstar's simplex tracking, is estimated to have grown by around 250K, reaching 950K by the end of 2007 and almost doubling since the end of 2005. Higher speed data services, including BGAN, Fleet and Swift64 generated roughly \$300M in wholesale revenues for Inmarsat in 2007, up 15% on 2006, from about 65,000 active terminals. In contrast, while the number of handheld MSS phones in use increased by around 50K to reach 600K at the end of 2007, we estimate that wholesale revenues from handheld services remained broadly flat during the year, at around \$350M, as declines in ARPU from Globalstar and Thuraya users, cancelled out Iridium's strong subscriber and revenue gains.

As we look forward to 2008, we expect the positive trends in data services to be maintained. Inmarsat has recently launched its Fleet and Swift Broadband services, offering BGAN-like speeds to the maritime and aeronautical sectors, which will sustain its strong momentum in these sectors. Equipment costs for asset tracking terminals continue to decline, while the network of value-added resellers is expanding, facilitating installation of these devices in a wider variety of heavy equipment, transportation and fixed asset monitoring applications.

The outlook for handheld services is more uncertain, as Globalstar's satellites are expected to continue to deteriorate and may stop providing any reliable two-way service by some time in 2008. If this happens, then there will be even greater subscriber churn over the next year, and some Globalstar subscribers in North America may prefer to wait for the lower cost handheld services being launched by Inmarsat and TerreStar in late 2008 or early 2009, rather than opting to take-up the more expensive Iridium services immediately. The move by Thuraya to offer its new, more attractive dual mode handset as a solution for low cost satellite roaming in certain African and Middle Eastern markets is also fraught with difficulties and potentially could undermine its existing higher value satellite business in some vertical markets. In addition, Inmarsat will progress the development work needed to offer satellite phone services over a wider footprint, and may begin to introduce further competition for current handheld MSS users.

Finally, during 2008 we should begin to see the impact of ATC on the North American market. Though ICO and TerreStar are not expected to offer commercial services on a large scale until 2009, they will need to strike distribution deals over the next 12 months and secure further investments to support the launch of commercial service. As a result, the degree to which ATC will change the MSS landscape should become much clearer. We look forward to interesting times for the MSS sector in the year ahead.

TMF Associates publishes the only research service focused on the MSS market, which includes analysis of new developments and revenue projections for all of the leading operators.

Contact Tim Farrar by phone on (650) 839 0376 or by email at tim.farrar@tmfassociates.com or visit www.tmfassociates.com/reports to find out more details about this research

