

Guest column: It was the best of times...

The Satellite 2009 conference was held at the Washington Convention Center from 24 to 27 March. Concurrently the Mobile Satellite User's Association provided MSUA-7. There were more than 9,000 attendees, an all time record. This is in marked contrast to reports from the consumer electronics show and National Association of Broadcasters conference that reported weaker turnouts.

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- The mood was almost uniformly upbeat. **FSS operators** are operating with high fill factors and revenue growth also is strong in Satellite Broadcasting and Mobile Satellite Service. Performance of all the operators has been excellent and there are no signs of economic recession. Although many recognize that this industry is a lagging indicator, the hopes and expectations are that it will not suffer a major downturn. FSS companies believe that large backlogs will protect them from the economic downturn as long as the recession does not extend into 2010.
- **INTELSAT** is attempting to de-lever its debt structure and has reduced debt by about \$61 million in 2008. Debt remains \$15.2 billion compared to annual revenues of \$2.365 billion in 2008. Backlog of revenues is almost \$9 billion and the business seems stable.
- **SES** is a somewhat more conservative operator with excellent financial performance. **Eutelsat** is somewhat more aggressive in pursuing broadband Ka-band services. Europe is expected to issue S-band licenses to Solaris (a JV of SES & Eutelsat) and to Inmarsat by mid-year. Some people have high expectations for consumer acceptance of mobile TV.
- Satellite operators and manufacturers are unhappy about **ITAR restrictions** that place American companies at a disadvantage. Operators would like to see the ITAR rules relaxed so that they can launch satellites on cheap Communist Chinese boosters. There is hope that the Obama administration will revise regulations to make it easier to export satellites. Telesat thinks that the underlying reason for

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US opposition to Chinese launches is to reduce the number of Chinese practice missile launches.

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- FSS operators are already looking beyond HDTV to Ultra-HDTV with 4096 by 2160 pixels. There is also great interest in 3D TV that would need about the same resolution and bandwidth.
- The biggest surprise of the conference was the **Globalstar Bailout** announcement. Thales Alenia Space had issued a stop-work order on the Globalstar 2 construction at the end of January and Globalstar told its subscribers that service could terminate as early as next month. Globalstar has secured \$574 million of guaranteed loans from the French COFACE export organization. The loan is subject to the condition that the equity holders contribute an additional \$100 million. The interest rate is only 6.3%, far lower than any of the other MSS companies can obtain or have obtained for loans. This is because of the French government guarantee. Now work will be restarted. The first launch of a Globalstar 2 satellite will be at the end of 2009, probably because of delays associated with restarting the program. The announcement did not mention loan collateral or recourse for the debt. Is Thales Alenia liable for any of the debt since it is the main beneficiary? What is the asset value of Globalstar satellites? The author believes the Globalstar bailout by the French banks was foolish and the lenders will pay a heavy price in the years to come.
- So it is clear that the French government has tilted the playing field in favor of Globalstar. Many of the MSS competitors were expecting that Globalstar would go bankrupt and reduce the number of competitors for the tiny MSS market. In a sense that would have been a better outcome for the industry. Now all of the competitors will divide that micro niche market and we expect that every MSS company will suffer from more limited income. FSS companies are not concerned that government stimulus money will be used to bolster marginal operators.
- This is not the first unexpected twist in the road of MSS industry. Inmarsat was created as a monopoly by about 45 nations 30 years ago. When Iridium filed for bankruptcy it was about to de-orbit its satellite when the US government

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intervened to provide anchor-tenant funding that provided the basis for a small investment in the failed company. Since that time **Iridium Satellite** has built up its business income to 50% of the Inmarsat revenues. It would be appropriate to remember that the MSS industry has never operated under free market conditions. It appears that it will be some time before it achieves anything like a level playing field.

- It is not clear if COFACE will extend the same financing to Iridium, even if Thales Alenia Space were awarded the contract for Iridium Next. The competition between Thales Alenia Space and Lockheed Martin is expected to be awarded by mid-year but may be slipping. It is not known if GHQ investors will complete the purchase of Iridium. The amount of funding in the deal might be renegotiated and end up being less than previously expected.
- **MSS capacity over North America** is increasing rapidly. ICO has launched a geostationary satellite, Terrastar expects to launch a satellite soon, and Skyterra is also funded to launch satellites within the next year. All are funded to provide space-segment capacity but none of these “wholesale capacity provider” companies have strategic partners that will lease capacity and provide the terrestrial component. This is a high-risk business model that reminds me of Worldspace.
- **Government stimulus packages** were another topic of interest. The current economic crisis is leading to a number of unexpected and unintended consequences of government intervention in the marketplace. A broadband initiative has been proposed that would favor terrestrial installations of fiber or wireless facilities. Almost every report on broadband delivery shows that the cost of satellite broadband is higher and that the quality of service is lower than terrestrial alternatives. Operators are working with the government to obtain a more level playing field and better sell satellite’s competitive advantages. FSS companies also are concerned that broadband stimulus funds (digital divide) will be given preferentially to terrestrial projects.
- **Economic conditions** were the major conference preoccupation. After absorbing numerous opinions, I think that it is clear that the satellite industry is NOT immune to the

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turndown. There will be impacts, but they will not be severe. Some operators, like DISH, will suffer more than others because its business depends on low-income consumers. The lower end of Mobile Satellite service, like Globalstar and Orbcomm's asset tracking business, will feel it too. Satellite manufacturers will see a dip in orders in 2009 and 2010. The larger FSS and MSS companies will see a decline in growth for a few years. There were fears that military spending under the Obama administration will be reduced in favor of civil spending. From our perspective as a consulting company (a leading indicator) we are seeing lower revenues and start-up activity is down. Some of the shaky prospective satellite operators will cancel satellite contracts.

- The latest new reports indicate that **Boeing Space Systems** will win a multiple satellite contract from INTELSAT worth \$400 to \$550 million. This is the first BSS win from Intelsat since 1982. This is good news for Boeing which has lost a number of government contracts to Lockheed Martin over the past few years. Space Systems/Loral and Orbital have been major suppliers in recent years. However, SS/L has a huge backlog due to aggressive pricing and has been delivering many satellites late. The INTELSAT decision to pick BSS would keep the supplier base alive. It would also avoid the congestion delays at SS/L. INTELSAT has 52 satellites in orbit, but 8 of these are out of fuel and maintained in inclined orbit. Furthermore, INTELSAT has a number of older satellites with anomalies and urgently needs to replace them to maintain high network reliability.
- IPTV is a new video service that is having some impact on the satellite transmission business. Viewers don't want to be bound by a TV set. There is a trend to watching TV on PC and other devices. Broadcast television is less than 50% of the business. In cable television every MSO lost customers in 2008. The new term is "cable-cutters" this is a term for customers leaving multi-channel television. The losses to traditional TV could eventually lead to a loss of satellite TV.
 - There are 23 million IPTV subscribers worldwide now.
 - Forecasts are for 89 million subscribers by 2012. The US would be only 17% of the subscribers but 45% of the revenue based on an MRG report dated October 2008.



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- The table below shows a financial comparison of the four largest FSS and two largest MSS companies. The relatively low margins for Iridium demonstrate the high cost of operations for LEO satellite constellations like Iridium and Globalstar.

Company	Satellites in service	Sats to be launched	Transponders	Utilization	Backlog	EBITDA	EBITDA Margin	2008 Revenues	Relative	Enterprise Value	EBITDA Multiple	Debt, M	Debt / EBITDA
Intelsat	52	10	2,125	78%	\$8,800	\$1,845	78.0%	\$2,364.9	up 8%			\$15,200	8.24X
SES	40	8	1084	79%	\$8,200	€1,100	67.5%	€1,630	up 6%	€11,550	10.5X	€3,476	3.2X
Eutelsat	24	5	501	93.4%	\$4,900	€357	79.3%	€450	up 7.9%	€5,930	8.2X	€2,413	3.5X
Telesat	13	1	501	83%	\$4,207	\$436	63.6%	\$685	up 6%			C\$3,536	8.1X
Inmarsat	11	0	N/A	N/A	N/A	\$432	69.0%	\$634.7	up 13.9%			\$1,444	2.6X
Iridium	65	0	N/A	N/A	N/A	\$86	27.0%	\$321	up 23%	\$590	6.8X	\$135	1.57X

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