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Boom Times for the Satellite Industry

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Once again the satellite industry is surging ahead with numerous satellite construction contracts. 2006 was an excellent year for the space manufacturing companies. Orders were placed for 25 to 29 satellites (depending on which orders are included in the tally). Several were powerful satellites with a large number of transponders on each satellite. More than 630 transponders were ordered for C and Ku-band Fixed Satellite Service (FSS) and Direct Broadcasting Satellite (DBS) operators. In addition, 80 Ka-band transponders were procured.

Many of these satellites are being built for anticipated growth or to replace older birds that have reached their end of life. Insurance companies tell us that the average satellite lifetime is 12 years. Although satellites are typically designed to last for 15 years, some have failed prematurely. Consequently, 300 to 400 transponders are leaving service each year.

Many of us have expected that the introduction of High Definition Television (HDTV) would significantly increase transponder demand since each HDTV signal needs at least twice as much transponder bandwidth. To date HDTV has had the most impact in North America. Although there has been growth in demand the growth rate has been a relatively modest 4% to 5% per year. Considering that there are only about 5,000 transponders that produce revenue today, a realistic estimate of the demand growth is 200 to 250 transponders per year.

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It is clear that the demand for satellite transponders has not been increasing nearly as fast as the prospective expansion in capacity. Most estimates suggest that 35% to 50% of the transponders in orbit (3,500 to as many as 5,000 transponders) are not producing revenue. It could be argued that the only satellites that can be justified are those that support tangible growth situations.

Neither of the US DBS companies has ordered a satellite in the past two years. It is notable that the largest FSS operator, INTELSAT, has acquired PanAmSat, but the merged company did not order any satellites in 2006. The second largest FSS operator, SES acquired New Skies Satellites and ordered only three satellites. Eutelsat ordered five satellites.

Clearly economic conditions have provided the funding to increase new and more speculative space infrastructure. Several of the 2006 satellites are intended for new services. MSV ordered four satellites for mobile satellite service (MSS) with the ancillary terrestrial component (ATC). Another four satellites were ordered for television broadcasting directly to home and mobile terminals outside of the US. Failed companies like



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Globalstar and Orbcomm have emerged from bankruptcy and are planning to replace satellites.

What does this tell us about the satellite industry?

- The US DBS operators have decided how to deal with HDTV, Local-into-local service, and broadband. The strategy does not appear to require buying or investing in more satellites.
- INTELSAT is assimilating PanAmSat and coping with a mountain of debt acquired in the process. It is wisely focused on developing new markets and using its existing assets effectively.
- Eutelsat is following an aggressive growth strategy.
- Space is a glamour industry. A new crop of entrepreneurial companies has emerged that are prepared to seize an opportunity. Capital markets that are overflowing with cash and fresh investors are willing to look at more speculative ventures again.
- Strong economic conditions support investments in infrastructure. If the capacity is excessive, economic forces will depress profits and capital spending will be reduced. It is a process with a time constant of several years.

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We have observed expansion and decline cycles in the space industry for the past 40 years. Based on those patterns, this cycle has several strong years ahead and there is no imminent cause for alarm. Most of the space companies will perform well over the next few years. Low interest rates and easy money have been the salvation of several speculative enterprises. Nonetheless, business fundamentals will prevail in the long run. Those companies that have taken a high-risk position are likely to run into problems when the cheap money dries up. But, why worry, that is far in the future.

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