



## Taking the risk

**It is often easy to for the majority** of us to forget the incredible risks involved in building and launching a satellite. The amount of work and time that goes into the manufacturing and then putting into orbit a satellite on-time, on-budget and with the minimum risk is an intense and challenging project. Those companies whose responsibility it is to launch the satellite take on a huge task and the professionals that make it happen on a very regular basis are extremely dedicated and work very hard to ensure that things run smoothly.

Sadly, International Launch Services suffered a launch failure recently when the Proton vehicle carrying the JSAT-11 satellite failed to inject it into orbit due to a second stage anomaly and in January 2007, Sea Launch experienced an unsuccessful launch that resulted in the loss of both the rocket and the payload. These are just two examples of the setbacks that launch services can suffer. However, they are just that -setbacks. Sea Launch's Mission Recovery is almost complete and launch operations will resume in October. ILS is establishing a Failure Review Oversight Board (FROB) to review the findings of the Russian State Commission that should be with them in approximately 30-45 days. Once the cause of the problem is discovered and corrected, launching can resume. However, it is a disappointing time for all those involved but is an inherent part of the business.

From the manufacturing perspective, the focus is most definitely on performance, quality and reliability and also constant liaison with the customers so that their precise requirements are met. Satellites take on average two to three years to construct. Getting the satellite to the customer on, or before, time reduces the risk factor for the manufacturers. Time to market is not so much a factor as ensuring that the customer is happy and gets exactly what they want.

In terms of development, the need for flexibility of the payload, increased efficiency and performance is key. In satellite manufacturing research and development the emphasis is more on evolution and not revolution, so changes are incremental. It seems that demand for flexible payloads will continue to drive the market in the future, giving edge and performance for customers.

Perhaps it is right to say that, in the satellite industry, for manufacturers and launch services, risk and reward are out of balance. At present, the reward is not as high as you would expect. The industry demands high skills and, for manufacturers, there is a desire to see the price of satellites reflect their true cost. Things can and will go wrong, especially in such a hazardous business, but it is important to remember that the vast majority of satellite launches go without a hitch and when things do go wrong, the determination of those involved to put things right keeps the satellite industry going from strength to strength. ●

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