



Back on track

Sea Launch has had an eventful year. From a launch failure in January to nine months of recovery and the resumption of launches in November 2007. Helen Jameson speaks to Rob Peckham about a difficult year with a positive ending.

Above: Thuraya 3 payload unit prepared and ready for integration. Below: Zenit3 rocket. Photos courtesy of Sea Launch.



Question: Many thanks for taking the time to speak to us today. Would you please introduce yourself to our readers?

Rob Peckham: As President and General Manager, I have the honour of leading a great company - Sea Launch. By way of background, I have been in the commercial space industry, primarily focused on launch vehicles, since the late 1980s. I was previously associated with the Delta programme and also with the Hughes Space and Communications Company.

Question: It is great to hear that Sea Launch will be back in action next month. As a company you have been through a great deal this year. What have been the most challenging aspects of getting Sea Launch back on track?

Rob Peckham: You are right. Sea Launch has been through a lot since January 30th. Nine months later we are ready to launch. I don't think there are many people in the industry who thought this would be possible, that Sea Launch could even think about launching again in 2007. We have come up with solutions to challenges that no one else has ever had to even think about and we've been able to do that as a team. This team includes our partners across the world and sub-contractors who have been asked to step up and do things that have never been done

before. This has been an unbelievable effort. We have worked with people who find a way when there seems to be no way. The challenge we stepped up to was picking ourselves up the very next day, focusing on what had to happen to get back to the place where we are right now, and determining how long it would take to do it. We have been able to execute because of the commitment and dedication of an amazingly professional team of people.

Question: It has not been the best of years for the launch industry what with two launch failures and a backlog of well over 100 satellites waiting to be launched. With two of the most important industry players recovering from and in the process of investigating launch failures, do you feel that the sector can keep up with demand?

Rob Peckham: I think the short answer is, 'yes.' I have been in this industry since the late 1980s, when commercial space really started in the United States and the Space Shuttle no longer launched communications satellites for commercial purposes. In those twenty years, I have never really seen equilibrium between launch supply and satellite demand. A few short years ago, the whole launch industry was waiting for satellites. There was significant over capacity of launch



services and an under supply of satellites. And a few short years later, we find ourselves completely on the flip side. I fully expect that we will reach equilibrium between supply and demand based on our forecast of this industry as we get into late 2009, early 2010. If new applications - currently unknown to us - come online, that's going to create more demand which will bring in more launch capability, perhaps from those who are not participating in the commercial industry right now.

There have been two failures this year. Failures are a natural risk that everyone in this industry, from end users to satellite manufacturers to launch providers to the insurance community, understands and undertakes in doing what we do. So it's unfortunate that this happened twice in one year.

Question: I believe that you are hoping to initiate your first land launch in the first quarter of 2008. Can you give us further details and tell us what Sea Launch's involvement will be?

Rob Peckham: We are definitely on track to launch the first three-stage Land Launch mission in the first quarter of next year. I would observe that, in June of this year, a two-stage Zenit was successfully launched from Baikonur, not only certifying a lot of the ground infrastructure that will be used for Land Launch going forward with the three-stage configuration, but also qualifying the return to flight of the Zenit and the RD-171M engine in particular. We are very much looking forward to the first three-stage Land Launch mission in the first quarter of next year.

What is Sea Launch's involvement in Land Launch? We are a partner in a relationship with Space International Services. Our role is to provide the sales and marketing, contracting and, to a certain degree, security and some of the other administrative tasks. Sea Launch is responsible for the business end of the operations.

Question: Despite the launch failure, Sea Launch won two new contracts, one with MSV and one still to be announced. What does Sea Launch offer to your customers that your competitors do not?

Rob Peckham: What do we offer that our competitors don't? I prefer to view that in this way - we are in this industry together. This industry includes satellite manufacturers, launch providers, the insurance community and, of course, the end-users and customers. Any one aspect that isn't strong will cause the whole to be weakened. What I am trying to say here is that our piece of the industry is to provide transportation of highly technological satellites from Earth to geosynchronous transfer orbit. We offer what our competitors offer in terms of providing that transportation.

"We are definitely on track to launch the first three-stage Land Launch mission in the first quarter of next year. I would observe that, in June of this year, a two-stage Zenit was successfully launched from Baikonur...."

What differentiates Sea Launch from our competitors, in my mind, is our ability to work with customers to forge uniquely focused business deals that each customer requires for their specific business to succeed. There are really no two customers who are alike in terms of what their needs are from a business relationship point of view. So we are very flexible in that arena. We provide a dedicated launch, so schedule assurance is greatly increased because we don't have to wait for co-passenger satellites. We provide a launch from the equator so we can directly place the satellite into a geosynchronous, or an optimized geosynchronous transfer orbit. We do not fly over land so we do not have any issues dropping stages over populated areas.

We fly an environmentally-friendly system and we are licensed by the United States Government, the Federal Aviation Administration in particular, and there are exhaustive safety reviews and approvals and financial responsibility requirements that are set forth in those licenses. We have a team of can-do people who are dedicated to our customers' needs and to framing a way to meet every unique need.

Question: There is a requirement for next generation, lower cost launch vehicles, especially for regions such as Asia and Africa. Does Sea Launch have any plans in place for the development of the next generation launchers?

Rob Peckham: Let me first say something about lower cost launch vehicles. The cost of building launch vehicles is understood, to a certain extent, because launch vehicle production has been going on for 50 years. When you are looking at costs to the customer, I would maintain that over the last ten years, the cost per kilogram from Earth to orbit has gone down. Satellites have got bigger and prices for launch services have been dropping or did drop from their highs in the late nineties. We are just now getting back to a place where prices for launch services are at the levels we saw in the late nineties. So taking inflation into account over ten years, one could make the case that even if we get to prices we saw in the late nineties, we're still lower cost because inflation hasn't been factored into our current price. There are other launch systems that are on the drawing board right now and, at some point,

I have every confidence that we are going to see some of them in the market. The question is, will those systems really be less expensive?

You can try to produce at a lower cost level but it remains to be seen whether that will happen in reality and whether or not it will be profitable. In the short term, I believe transporting satellites from Earth to orbit will not go down in price. In the long term, I have every confidence in the great minds of future scientists who are in school right now; someone will come up with a propulsion system that is much more economical than the propulsion systems we are using now. That is where the paradigm is really going to shift.

Question: What effect, if any, has the consolidation of the Russian space industry had on the launch industry?

Rob Peckham: In answering this question, I'd like to start with the micro as opposed to the macro. The effect of consolidation in the Russian space industry has been extremely positive relative to Sea Launch. It has brought a heightened level of discipline across the board to all of our partners and their suppliers. I want to make sure that I am clear when I use the word discipline. I don't mean discipline in terms of quality but in terms of how business is accomplished and how the partnership interacts. We highly value our relationship with our partners and with the Russian Space Agency. If I step back and take a look at the effect consolidation has had on the launch industry as a whole, I think it has been positive as well.

Question: Looking forward to the next 12 months, what are Sea Launch's principal objectives?

Rob Peckham: Our principal objective over the next twelve months will be to launch our customers' satellites successfully, when we say we're going to launch them.

I would ask you to put yourself in this company's shoes. On January 31st we faced significant challenges. The only way we could be where we are today is with a strong team and a robust system. Our system, as great as it is, is nothing without the people who make it work, by far the greatest team I have ever been associated with. I cannot say enough about the dedication, focus and professionalism of the Sea Launch team in getting us to where we are today. ■