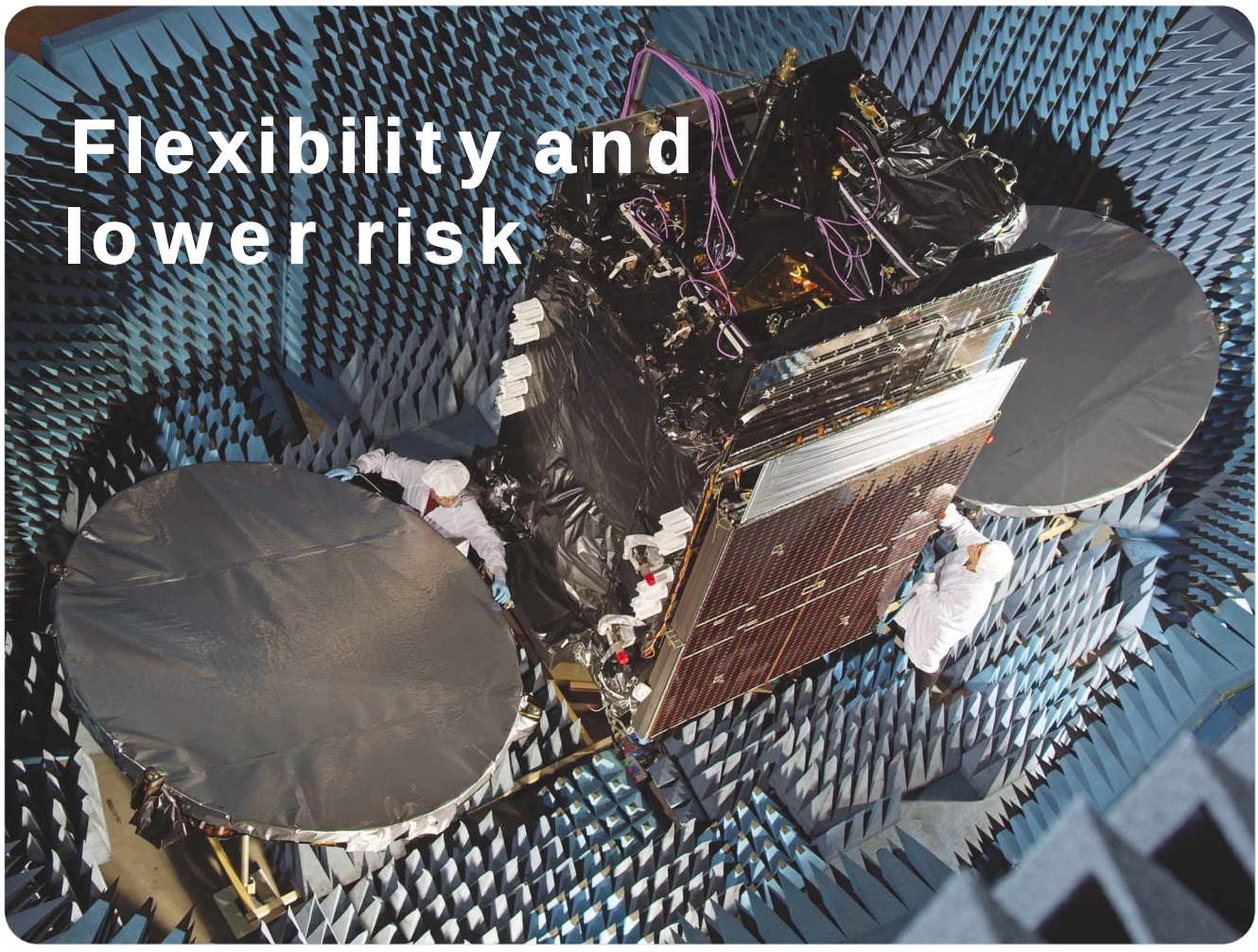
Flexibility and lower risk

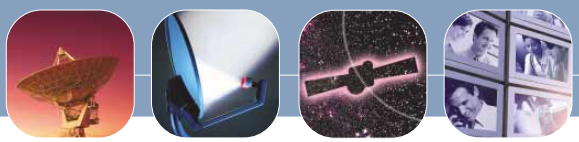


The Optus D-2 shown above undergoing testing, was successfully launched on October 5, aboard an Ariane 5 rocket. Photo courtesy of Orbital Sciences Corporation.

Amer Khouri, Vice President Marketing and Business Development, Orbital Sciences Corporation.

Orbital Sciences, the smaller sized satellite manufacturer, has seen significant growth and success over the past few years. Helen Jameson speaks to Amer Khouri, Vice President Marketing and Business Development and finds out what makes the company so successful, where demand for their satellites is coming from and what the future holds.

Question: Orbital focuses on developing and manufacturing smaller, more affordable space and rocket systems. What are the benefits of this business model?
Amer Khouri: The benefits of this model include overall flexibility, lower risk, speed-to-market and better overall economics. For example, a new business venture is usually very dependent on these factors. Launching a business with a small, affordable satellite that can be in service within approximately two years of order and complementing it with a second satellite once the market is proven and the business has taken-off puts new customers in a great position. This also applies to large operators as well because now a lot of operators are looking to add flexibility to their fleet and are also looking to start new



roles in order to test new markets so instead of launching a large satellite into an unproven market, it is always prudent and provides better overall economics if you launch smaller satellites that are not only cheaper to manufacture, but also to launch and to insure.

Then you can test the market and see how the market is doing and if you feel like the requirement is there for additional capacity then you can launch a second, smaller satellite. And by doing that not only do you reduce the overall risk of launch because you are now launching two satellites and not one, but also if there are anomalies, you have two satellites, one to act as backup for the other. So, the economics make a lot of sense for a wide range of situations (obviously not for every situation) but I think overall this makes sense. This has been proven by the recent orders we received from the two large Operators Intelsat and SES.

Question: Orbital has just received a significant order from SES Americom. This is in addition to the considerable growth that you have seen over the past few years. What are the drivers behind the increase in demand for your services and what sets Orbital apart from other satellite manufacturers?

Amer Khouri: I think, in general, that the satellite industry is re-bounding and has done well in the past two years overall. A lot of operators, small and large, are starting to look at their growth plans as well as at their replacement capacity.

What is unique to us, and the driver behind our success, is really that SES Americom as well as Intelsat have been great customers of ours and the small satellite model that I have described works very well for their fleet management plan. This makes a lot of sense for them. Our satellites can be designed for flexible coverage options whilst still being delivered in a short timeframe with very high reliability and very low overall capital expenditure. Also, for Orbital, our track record for delivering reliable satellites on time has earned us the trust of the two largest operators in the world and we take great pride in that. Intelsat was a customer before and now SES. I really think that the bottom line is the fact that both large operators understand the value of the Orbital design and the small satellite in complementing the large satellites that they have in their fleet, whether it is to expand their market or to replace some of their existing capacity.

Question: As a satellite manufacturer, what are the principal factors that you have to focus on when developing and building a satellite for a customer. What level of interface do you have with the customer?

Amer Khouri: Obviously the whole process is very complicated. We pride ourselves on having a strong customer relationship and that goes from the pre-sale to the initial development of the satellite all the way to the manufacturing and implementation through the programme office.

All our customers are co-located in the same section as the programme managers and engineers working on their satellite. So basically we have engineers from the customer company at our Orbital facility throughout the programme. We look upon the relationship as a partnership with transparency throughout the design and manufacturing phases of the satellite. And this enables the customer to not only monitor the programme very closely, but to be very satisfied with having the relationship with our engineers and programme managers and overall feel that they're in charge and know what's happening every step of the way. Delivering a satellite on schedule is always the ultimate goal and that's what keeps everyone happy at the end of the day. The transparency and the interaction between the team, whether it's the Orbital team or the customer's team on an ongoing basis, is very helpful to everybody. It's helpful to us because sometimes

Orbital-built Intelsat-11 and Optus D2 communications satellites successfully launched

Orbital Sciences Corporation, the world leader in smaller-sized geosynchronous (GEO) communications satellites, announced that two of its satellites were successfully launched into orbit during a mission that took place on Friday, October 5 2007. The two satellites, Intelsat-11 (IS-11) and Optus D2, were delivered into their initial orbit by an Ariane 5 rocket launched from the European space launch complex located near the Equator in French Guiana. Results from early tests of the spacecraft conducted over the days following the launch indicated that both satellites were operating as planned for this phase of their missions. The launch marked the first time that two of Orbital's GEO satellites were launched aboard the same rocket, an indication of the company's growing presence in the GEO satellite market.

"We are very pleased with the early results from the mission, including the picture-perfect flight aboard the Ariane launch vehicle and the state of health of both satellites early in their missions," stated Mr. Carl Marchetto, Executive Vice President and General Manager of Orbital's Space Systems Group.

Following the launch, both the IS-11 and Optus D2 spacecraft performed a series of orbit-raising burns using their onboard rocket engines to achieve a circular orbit approximately 22,300 miles (35,800 kilometers) above the Earth. For several weeks afterwards, each of the mission engineering teams will conduct a comprehensive series of tests to ensure the spacecraft is ready for final hand-over to the customer.

About Intelsat-11

The IS-11 satellite was built for Intelsat, Ltd. of Bermuda. Following its launch and checkout, IS-11 will join several other Orbital-built satellites in Intelsat's in-orbit fleet, including Galaxy 12, 14 and 15. The IS-11 spacecraft is a hybrid satellite that will provide both C-band and Ku-band services. It will deliver C-band services to Intelsat's customers in the continental United States and will also serve as DirecTV Latin America's Ku-band downlink for coverage of Brazil. In addition to IS-11, Intelsat has three other Orbital GEO spacecraft on order, including Horizons-2 (for a joint venture between Intelsat and JSAT of Japan), and Intelsat-15 and Intelsat-16.

About Optus D2

Built for Australia-based Optus Networks, Pty., Optus D2 is the second in a series of satellites that will provide Ku-band fixed communications and direct television broadcasting services to Australia and New Zealand. The Optus D2 is among the most powerful GEO communications satellites ever built by Orbital, designed to generate 5 kW of electrical power. Optus D2 will carry 24 active Ku-band transponders on a platform that is ideal for telephony, data and broadcasting applications. Earlier this year, Optus ordered its third satellite from Orbital for the D-series of spacecraft. Orbital is scheduled to deliver the Optus D3 satellite in 2009.

Orbital's commercial satellite business has experienced rapid growth over the past several years. Including the five new orders the company has booked so far this year, Orbital currently has 10 commercial GEO satellites and five science and defence spacecraft in various stages of design, production and testing at its Dulles, VA satellite manufacturing facility. To accommodate this rapid rate of growth, earlier this year Orbital completed an expansion of its manufacturing plant that, together with other facility improvements, has increased its manufacturing throughput capacity by over 30 percent as compared to one year ago.

we learn from the customers and they feel in control of a product that ultimately will be theirs. They are aware of everything that's happening, good or bad. It gives us more flexibility. Just like any two-year programme there is a lot that happens for the customer and sometimes they may have to make a change in the coverage, for example. So, for them, the flexibility of being part of the team and understanding how it's being built and how we're doing on the schedule along with all the design reviews and meetings that go along with it – in terms of real-time work is a true partnership. And everybody takes pride when that satellite is successfully launched and operating with no problems.

Question: Where does the majority of your business come from? Is it mostly government or commercial or a mixture of the two?

Amer Khouri: The commercial satellite business is the largest portion of Orbital's overall revenue and accounts for 31 percent of overall revenue. Orbital serves the commercial market and also specific scientific missions but the majority of the Space Systems Group business comes from the commercial sector and that is the division that has seen the most growth in the past two years.

Question: Where do you see most demand for satellites coming from at present? Is it for communications, for DTH, for science and technology or other purposes?

Amer Khouri: It's a combination – DTH and mobility continue to be the prime applications driving additional demands for capacity. Government applications, broadband and high definition TV are also significant drivers but the two primary ones are DTH and mobile as they are driving new applications and new capacity. There's a fair amount of expansion within Asia and DTH is a big driver there and also GSM backhaul – that seems to be driving a lot of new demand in Asia specifically.

Of course we see demand for satellite replacements and those are usually a combination of communications and general services whether it be voice, Internet or others as well as video applications. But in terms of new demand, definitely DTH, HDTV and mobile have been driving additional capacity.

Question: Can you tell me whether Asia is a big part of your business? Are you looking to expand further into Asia?

Amer Khouri: Yes, absolutely. I think that if we look back a little bit to when Orbital started, several of the first satellite orders came from Asia so Asia is where Orbital had started and we continue to see a lot of demand coming from Asia. Our focus on Asia is high. We feel that it is a very important market for everybody, but specifically for Orbital. We have great relationships with our existing clients: Optus, Measat, Telkom, JSAT and BSAT and we would like to expand beyond those customers whilst continuing to serve them. So we see Asia as a tremendous growth opportunity, not only in new applications but a lot of satellites in Asia need to be replaced within the next few years and that's a very good opportunity for us.

Question: It has been said that satellite manufacturers are not as well rewarded as they should be for the highly skilled and technical job that they do. As a manufacturer of lower cost satellites, do you agree with this view and, if so, what should be done to make the rewards richer?

Amer Khouri: I think that if you ask any business person, the rewards are never enough. But I do think that most satellite manufacturers would agree with this statement and of course we would like to change this. In general, the margins for this business are very much lower than what the satellite operators enjoy. But, at the end of the day we have to balance meeting the needs of those operators who are our customers whilst maintaining a profitable and sustainable overall business model.

We have to constantly strive to reduce our costs and find new ways to do things more efficiently while maintaining a high standard of reliability. I think that this is a very important equation. So for us, most of the time, it's really how do we innovate and how do we have a model that is more efficient so that we can continuously reduce costs to improve our margins? The market is very competitive and the overall business case has to work for the client so raising prices is not usually the right approach. It's really balancing that equation of high reliability whilst presenting a cost structure that is attractive enough to deliver those satellites with - enough margin to sustain the business. And of course, selling more satellites is always good! When you sell more you have scale and with scale comes better economics and that's another part of the equation that we hope to continue to be successful in.

Question: In terms of your satellite and launch business what are Orbital's objectives for the next 12 months?

Amer Khouri: I think it's continuing to do what we do best. 2007 has been a great year for Orbital with five contracts - two Intelsat satellites, two SES satellites and one Optus – a record year for us. Over the next two years we have plans for the launch of seven satellites. Including the two launched for Optus and Intelsat on 5 October, we have five more satellites and that is very good for us. It's going to be a busy year because we have five satellites at different stages of design. We plan on at least maintaining our market share with an average of maybe three to four satellites a year going forward. But in terms of strategy, we are going to focus on our market and delivering, very reliable satellites on schedule. That's what we believe will be very critical to us and a platform for additional growth plans. ■

Intelsat-11 undergoing testing. Photo courtesy of Orbital Sciences Corporation.