

Interview with CEO

David L. Ryan

President

Boeing Satellite Systems International

Boeing Satellite Systems



Biography

As President of Boeing Satellite International, David Ryan is responsible for general management of the world's largest manufacturer of commercial communications satellites. Ryan was most recently vice president and deputy general manager in the Space and Intelligent Systems Group within the Integrated Defense Systems. Prior to this assignment, he served as VP and deputy program manager for Future Imagery Architecture (FIA) Program headquartered in Seal Beach, CA. Before joining the FIA program in October 1999, Ryan was VP of Satellite Programs at Boeing including GPS-IIF, and P91-1 (ARGOS), as well as commercial satellite ventures such as Ellipso and Teledesic. Before coming to Seal Beach, Ryan was the Boeing program manager of Teledesic. In 1996, Ryan was program manager for Boeing Missiles and Space Division's Advanced Projects and area manager for Space Systems Technology Applications.

Ryan joined Boeing in 1990. Prior to that, he spent a 13 year career at TRW (now Northrop Grumman). Ryan received a BS in electrical engineering in 1976 from Rice University and Master of Electrical Engineering degree in 1977, also from Rice University.

—— *What are your new guidelines for BSS to stay as the world biggest and best satellite manufacturing company ?*

Ryan: Boeing Satellite Systems remains committed to leading the market for communications satellite systems now and in the future. Our strategies to achieve this goal have not changed fundamentally from those described to you last year.

First and foremost, BSS will continue an unwavering focus on first-time quality and on-orbit reliability in our products and technology. However, we are also increasing our emphasis on improving schedule performance at the same time. Other priorities include a constant effort to understand our customers' needs, and then to direct our R&D efforts toward offering the right mix of spacecraft platforms and capabilities to meet those needs.

Achieving such goals during a prolonged commercial market downturn is challenging, but overcoming challenges is something this business has done often throughout its more than 40-year history.



—— *How do you try to pursue both "quality/customer satisfaction" and "cost reduction/profit increase" to stay as the excellent satellite manufacturer?*

Ryan: We have approached these goals from a number of directions. We have improved manufacturing processes through the adoption of best practices that

were proven at other parts of Boeing and strengthened our system engineering capability making it more pervasive throughout the entire design, assembly and integration process. The goal of these steps was increased customer satisfaction due to improved quality. The four satellites we launched since this change have so far all performed extremely well in orbit, and we see their performance as a validation that our quality assurance efforts are working.

At the same time, ensuring high quality work with first-pass success also helps satisfy customers and eliminates costly and time-consuming rework and retest activities. This also improves our financial performance.

One other important step we take to maintain profitability is that we strive to promise only what we can deliver. So we will not make unrealistically low-priced bids or commit to impossible schedules for product delivery because doing so leads to dissatisfied customers.



— BSS has been the world leader for new satellite technology that can either expand the capability of satellite communications or improve the cost of satellite operators. Now that BSS has the tough lessons by some of the new technologies, will BSS change attitude to use only conservative technologies? Or will BSS continue to adopt evolutionary satellite technology?

Ryan: The marketplace – our customers themselves – will in large part determine the answer to this question. We will field the technologies that our

customers tell us they want, and offer technical solutions that are closely tailored to meeting the needs our customers face. The current climate in the marketplace, and among the financial and insurance communities, supports an emphasis primarily on proven technologies, and so we must offer what the market will buy.

However that does not mean we will abandon efforts to promote the evolution of our technology. We are proud of our expertise in developing flexible digital payloads and advanced, active antennas, and we see a continued demand for these and other leading-edge technologies from our government customers. This points out the real advantage we have because we serve both the commercial and government marketplaces, and we can leverage technology developed for one market to meet customer needs in the other market. As we prove that these technologies can offer real customer benefits, we are confident that these innovations will be attractive to commercial operators.



— *What is your insight for the world market situation of new satellites in the coming few years?*

Ryan: The commercial market downturn that we witnessed through 2002 and into the beginning of 2003 seems to be gradually improving. Any rebound that does occur will be fueled by the fact that a number of on-orbit satellites will start needing replacement as they reach their end-of-life. There is also pent up demand in the market that comes from planned procurements being delayed due to the economic downturn and industry consolidation.

Still, we believe that through 2007 it will remain difficult to grow the commercial side of the business. We expect to see greater strength in the military or government side of the business. I suspect that we won't return to the levels of 20-30 commercial satellite orders a year until at least 2008.

—How do you foresee the market demand for broadband communications via satellite? Will the era of satellite broadband really come in near future?

Ryan: Satellite broadband is coming. I can say this because BSS is building Ka-band payloads and satellites for multiple customers pursuing satellite broadband business models. As a spacecraft builder and technology provider, it is up to BSS to supply the advanced space infrastructure to support these customers. To the extent that we succeed – and I am fully confident that we will – I predict that the market demand will grow as consumers and businesses see that satellite broadband is a workable, cost-competitive solution, especially to provide last-mile broadband connectivity in areas not served by terrestrial fiber.



—How do you consider the future relations between BSS and Japan as both purchaser of and supplier for BSS satellites?

Ryan: As you know, BSS has been actively involved in space business in Japan since the early 1960s when our Syncom satellite broadcast the Tokyo Olympic

Games around the world. Since then, we have supplied 15 weather and communication satellites to Japan and have developed strategic relationships with NTSpace and MELCO in partnering for those satellite programs. Japan remains to be a significant market for communications satellites, and BSS intends to be a player in that market.

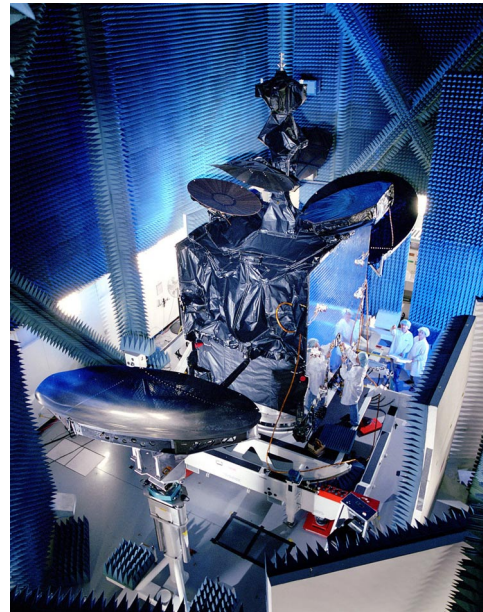
——*Lastly, how do you enjoy your personal life away from work?*

Ryan: My family is very important to me. My son and daughter are both busy with extracurricular sports in addition to their studies, so I do my best to be a part of these activities with them. We also enjoy active outdoor activities like skiing and bicycling. These are the kinds of things I try to pursue to maintain a balance in my life.

——*Thank you very much for the exciting interview.*



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(Interviewer: Takao Ueda, AIAA-JFSC)