Interview with CEO(28)

Dr. Ali E. Atia

President
Orbital Communications International

Biography

Dr.Atia is currently President of Orbital Communications International, responsible for the communications business area under Orbital Science Corporation.

He received BS. Degree from Ain Shams University, Cairo, Egypt in 1962, MS. And Ph.D. Degrees in Electrical Engineering from the University of California,Berkley, in 1966 and 1969, respectively.

He joined COMSAT Laboratories in 1969, where he participated in R&D of advanced micro-wave technologies for communications satellite transponders and antennas. Dr.Atia and co-workers invented the dual mode waveguide multiple coupled cavity filters. He managed system development and software activities for satellite programs and ground station projects. He held several positions at COMSAT including Vice President and Chief Engineer for COMSAT Technology Services and COMSAT Systems Division.

Dr.Atia is a Fellow of the IEEE, Fellow of the AIAA, and a member of the Sigma Xi Research Society.

— How do you assess the result of business strategy by Orbital to sell the "small GEO satellites", during the past few years of world recession for the satellite communications industry ? As expected or better ?

Atia: Over the past several years Orbital's strategic plan has been to capture an average of two GEO satellites per year. We have met the goals of our strategic plan for the past five years. We were fortunate that the slow down in the GEO satellites orders did not have any significant adverse effect on our plans, perhaps partly because our targets are modest, and also because the smaller satellites are more appealing to operators in a down market. So the results for Orbital business is as expected.

--- How is your latest overview for the recovery of the market in this and next year after the '04 second quarter has passed ? Is it still compatible with your original business plan for the years ?

Atia: We see the market for GEO satellites in general recovering in 2004, but not to the same levels of the 1998-2000 years. For smaller satellites, however, we think the recovery will be somewhat better than for the larger satellites. As we enter the 3rd quarter of 2004, there will be more orders in the second half of the year than there were in the first half. For some reason, many satellite operators tend to cluster their procurement cycles towards the end of the calendar year.

--- Some people say that as Orbital made success in the market not necessarily

categorized "niche", Orbital satellites should gradually become larger and may not be consistent with the original "small GEO" strategy. How do you think about that opinion ?

Atia: Since its inception in the early to mid 1990's the STAR satellite bus was designed to have modular architecture, accommodating payload power levels from about 1 K.W. to 4.7 K.W., and launch mass of up to 2500 kg. We have focused all our efforts in developing the technology for this bus, marketing it world wide, and serving our customers who have decided to take advantage of our reliable, high quality, efficient and economical satellites. We have not deviated form this plan, and have no intention of changing our direction. Rather, we feel that our efforts have essentially stimulated demand for the small satellites, and there will be sufficient growth in demand to maintain a healthy business in our niche.

--- Satellite operators more and more pursue reliable and safely operable satellites in the critical business environment. How does Orbital assure the reliability and quality of your products to the customers, under the circumstances that detailed design review and work monitor which are the most orthodox and surest way for the customers have been mostly prohibited by the U.S.Government ?

Atia: The quality, reliability and ease of operations of Orbital built satellites are inherently designed into the product, because we use simple design philosophy, heritage components and subsystems. We have in place definite detailed processes that are carefully followed and monitored by experienced engineering, quality assurance, manufacturing, integration

and test teams. We welcome customers participation in monitoring their satellites construction, attending all design reviews, witnessing critical tests and review relevant data. In all cases we have customer's representatives co-located with the program offices, to ease and maintain communications. We have always worked within the Government regulations, and found that almost always the processes for customers involvement, the data supplied and the levels of detail required were approved by the Government and was quite satisfactory to our customers.

--- Communications satellite operators have obviously had much difficulty to be competitive with the terrestrial carriers in broadband business with the higher frequencies. What new technologies do you think satellite hardware manufacturers can or should provide by their own development efforts to help satellite operators in overcoming the difficulty and buying more satellites ?

Atia: Broadband services using satellites in higher frequency bands (ka-band) have certainly lagged behind terrestrial broadband delivery systems. One of the main reasons for this difficulty is that the satellite user terminal costs is still too high compared with the terrestrial terminals. Another reason is that the cost of the space segment is also too high. In addition, rain attenuation at ka band frequencies is a serious problem. Technologies such as multiple narrow spot beams with high e.i.r.p can contribute to easing some of these issues. System architectures that can combat the rain fade problems need to be adopted to enhance the broadband access by satellites. Finally business ventures that target this

type of service need to have carefully structured business plans that can be executed with reasonably manageable risks. One possible element is using small satellites to start the business, rather than very large complex space systems whose prices can encumber the venture for a long time.

--- Orbital has been at good position in the Japanese government-oriented commercial satellite market. How do you consider you can maintain and expand the present position in Japan in the future ?

Atia: Orbital has been very fortunate in securing several Japanese satellite programs. We believe that this has been primarily because we have a high quality, good value, easy to operate product that matched the requirements, we listened and understood what the customer desires, we offer good long term support, and the customers had excellent visibility into the programs execution. As long as we maintain these characteristics our share of the market in Japan will continue to expand.

--- Lastly, how do you spend your time off the work ?

Atia: I like classical music, and I love to swim year round. In the weekends I enjoy spending some time with my grandchildren (ages 2 and half years and 1 year) who live nearby in Virginia. Finally I like to read a lot of different subjects, particularly science.

--- Thank you so much for the exciting interview.

(Interviewer: T.UEDA, AIAA-JFSC)