

Interview with CEO

Mr. John Keating CEO of COM DEV International

COM DEV is a World-leading provider of microwave equipment for satellite communications, space science and defense. Today COM DEV products are on-board more than 600 satellites launched or ordered worldwide. COM DEV is a public company listed as CDV on the Toronto Stock Exchange.

Mr. John Keating, CEO of COM DEV has introduced his strategy of establishing COM DEV as a dominant second tier supplier to satellite prime contractors; it is the key strategy for the company which supplies on-board equipments internationally.



Fig. 1: Mr. John Keating, CEO of COM DEV discussing his business strategy for addressing global markets.

Dr. Kitazume, SJR: Thank you very much for giving us some of your valuable time to "Interview with CEO" in *SJR Business Today*. Within the Satellite Communications Technical Committee of AIAA, the U.S. Aerospace Industry Association, the AIAA Satellite Communication Forum (AIAA Japan Forum on Satellite Communications) was established as a Sub Committee of AIAA ICSSC TC-Committee. SJR is published as a bulletin for technical communication. SJR was initially published in hard copy, but is now being distributed to subscribers as electronic publication distributed via the Internet. In this interview we ask the CEO of COM DEV to tell us more about his views, plans and strategy for dealing with current global satellite markets. Getting this perspective of one of the world's leading providers of on-board equipments for communications satellites will provide some valuable insights for AIAA members and SJR readers.

S.Kitazume, SJR: First of all, Mr. Keating, please introduce COM DEV and yourself as CEO to our readers.

Keating: COM DEV is the largest Canadian-based designer and manufacturer of space hardware subsystems, employing over 700 people. The Company was founded in

1974 and our space borne equipment is used for telecommunications, earth observation and the exploration of the cosmos. We count among our customers all the major prime contractors and government space agencies, which provide a healthy business-mix. Over 50% of our staff is made up of engineers, scientists, and technicians. They represent a large pool of talent, which can be drawn upon to support new programs. Additionally, as a space industry supplier with almost 30 years of heritage, COM DEV is a recognized leader in the satellite equipment design, fabrication, and test capabilities needed to support a program from concept to hardware implementation. As for my part, it has been my privilege to be with this organization since 1992, and I am thrilled to be charting our course for the future



Fig. 2:COM DEV Campus at Cambridge (outside photo)

S. Kitazume, SJR: What are the factors and trends that led to the successful founding of COM DEV and its development to become one of the world's largest producers of satellite payload subsystems?

Keating: I think that first and foremost, I have always felt that to be successful you have pick business areas where you can be dominant without directly competing with your customers. This is certainly true in the case of our multiplexer products where we probably build more multiplexer channels than any of our competition. In the case of our switch products, we have such a dominant market share that it very difficult for anyone to compete with us. Another key to our success is our agility as a small company – when an opportunity like Iridium came along we were able to reinvent our approach to building space hardware and built over 1000 gimbaled antennas in a focused factory.

S. Kitazume, SJR: On the road to becoming CEO what was your role in COM DEV's development?

Keating: I initially served as the Vice-President of Quality Assurance when I joined the COM DEV Space

Group. If there is one thing that you learn right away in this business, it is that quality cannot be sacrificed when it comes to space – this is a concept I have instilled throughout the organization. I actually left the Space division in 1997 to run our wireless division where I developed an appreciation for technologies that compete with satellites. This has given me valuable insight into how satellites fit into the terrestrial communications landscape. In 1999 I moved from the Wireless Division to our corporate headquarters as the Chief Operating Officer. Since that time I have pursued a strategy of focusing on our strong space roots and divesting ourselves of other businesses that were less profitable.

S.Kitazume, SJR: I understand that your company began by building products for the Canadian domestic communications satellites market but that even from the beginning you also were delivering products to international markets, and that today about 90 percent of COM DEV's business is exported? What do you think were the main factors in this success in international markets?

Keating: Well, first of all, let me say that the space industry, is an international business and that to be successful you have to be able to tap the international markets, even though it can initially take a great deal of time and effort. Though we still do the lion's share of our business in the U.S.A. and European markets, other sales, notably to India, Japan and China have been instrumental in helping us weather the current downturn in the commercial satellite market. As for why we have been successful internationally, the answer is fairly straightforward – with a dominant share of our niche markets we achieve economies of scale that allow us to offer our customers: lower prices, better delivery schedules and performance advantages compared to what they can obtain elsewhere. I have to admit though that most of our customers seem to want all three.



Fig. 3: Picture of Mr. Keating with Virendra Jar (Canadian Space Agency), Chandra Kudsia (Chief Scientist) and Tom Reed (Program Manager) at a company event

S.Kitazume, SJR: Please tell us more about COM DEV's major products and your growth strategy for the near future.

Keating: Our products range from microwave switches, multiplexers, surface acoustic wave (SAW) devices and lithium-ion batteries, to complete scientific instruments and intersatellite communications subsystems. COM DEV core technologies form the heart of communications satellite payloads by providing the critical transponder filtering and switching required by the satellite operator. Our strategy for growth is based on our idea that prime contractors, rather than wanting to "do it all", are more likely today to want to concentrate on key technology nuggets which are going to differentiate them from their competitors. As such, we see the prime contractors wanting to offload more integration work and subsystems. Additionally, we believe that there are still untapped opportunities with emerging Asian manufacturers so we are concentrating on developing working relationships with these companies. Lastly we are starting to tap into the military satellite market, which is enormous – the lead times for these projects are long but the payoff is large.

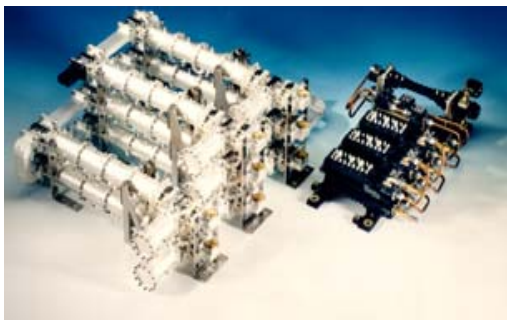


Fig.4-1: Ku-Band Input Multiplexers

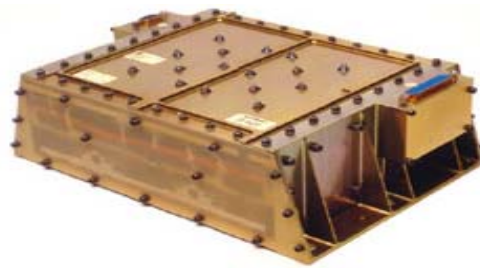


Fig 4-2: Battery



Fig 5-1: Waveguide SW Assembly



Fig. 5-2 : WR-28 Waveguide Switch

S.Kitazume, SJR: It was very difficult year for all satellite manufacturers in 2002. Only eight or nine commercial satellites were ordered worldwide compared to the 25 to 30 communications satellites ordered in 2000.

What is your view on prospects for the commercial communications market this year; and into the future?

What about the near-term communications satellite market in Asia including China, India, Vietnam, and Indonesia?

Keating: Realistically, it is very difficult to predict exactly when things will get better. We are seeing some signs of recovery in the telecoms sector, but we are not depending on that sector to quickly rebound back to the previous levels of 25-30 satellites per year. As I mentioned earlier, we have diversified our customer base to minimize the impact of any prolonged downturn. Certainly there are excellent opportunities in markets such as India and China; however there are some limitations such as export restrictions associated with these countries.

S. Kitazume, SJR: What are your thoughts on the opinions expressed by some space journalists that in countries like Japan and South Korea, where optical communications networks are well developed, there is little opportunity for the satellite communication systems to successfully provide broadband data communications, but that there is still room for broadband satellite data communications to succeed in areas not yet wired with optical networks?

Keating: As with any new service that is offered by satellite, there is a certain “wait and see” mentality that has established itself, especially after the well-publicized problems of the satellite telephony business. For broadcast, I think it has been proven that satellites have a natural fit. Concerning two-way data services, it would seem that satellite service offers an ideal manner to provide broadband services to areas lacking a good terrestrial infrastructure. However, it is not yet clear how many people in these areas need broadband and how much they are willing to pay. I think we are going to have to wait until some of the advanced systems such as Spaceway or Wildblue begin service before we will really find out the size of this opportunity. Both these new services claim that they will be cost competitive with terrestrial solutions. If these new services can reach a critical mass in terms of the number of subscribers, it could potentially spur many new projects, worldwide.

S. Kitazume, SJR: Last December 3 to 5, the Canada-Japan Space Cooperation meeting was held in Tokyo. Your company sent a delegation and made presentations at this important meeting. Did the meeting change any of your views on the state of space technology development in Japan?

Keating: Japan has a very impressive space program and a good domestic industrial base. It surprised me that unlike many Japanese products, which are mostly exported, the largest customer base for Japanese space technology is the domestic government market. This of course is changing and there are now excellent opportunities for Japanese satellite manufacturers to sell satellites in Asia, especially with current US technology export restrictions. Again, I think that Japanese satellite manufacturers are realizing that a key to being competitive is not building everything in-house – it just makes more sense to outsource certain those satellite subsystems that are available at much lower cost from specialty manufacturers like COM DEV.



Fig 6 : Mr. Val O'Donovan, COM DEV Founder of (left) and John Keating receiving the "Investor in People" Award

S.Kitazume, SJR: Subsequent to the meeting, COM DEV contracted the cloud profile radar development project (CLOUDSAT) and the digital on-board switch matrix project in Japan. Did your participation in the Canada-Japan cooperation meeting play a role in winning these contracts?

What are your views on the state space technology and space market opportunities for COM DEV

in Japan?

Keating: I think any opportunities where we can have close meetings with our Japanese customers help us win contracts, in the long run. Naturally there are certain cultural and language barriers for us in Japan and it takes a long time to establish a rapport and trust. We are very excited about emerging opportunities in Japan but we realize, especially with government projects, that sales have to be cultivated within the context of growing long-term relationships.

S. Kitazume, SJR: What has been the most important use of satellites in Canada?

What are your thoughts on the potential for future growth of the satellite market in Canada?

Keating: Given the size and relatively sparse population of Canada, one of the most important uses of satellite has been to provide universal telecommunications to all Canadians. This started initially with telephony, but now has spread to television broadcast and initial two-way Internet services. The Canadian government has a long established policy that all citizens should have more or less equal access to all the forms of telecommunications media enjoyed by people in cities like Toronto, including broadband services, at similar prices – for many rural locations satellites represent the best medium with which to fulfill this mandate. We have supplied a large amount of equipment for Canada's domestic supplier, Telesat, including some very advanced analogue processor equipment, which will be used to provide Ka-Band services.

S. Kitazume, SJR: What is your management secret that has allowed COM DEV to return from a very difficult period caused by COM DEV's diversification into the wireless business, to profitability in the midst of the most severe depression in the history of global space markets?

Keating: In the most simple terms, we have come to the realization that if you sell something for one dollar and it costs you more than a dollar to produce, it doesn't matter what kind of growth targets are projected, you will eventually go out of business. Our conscious decision to return to our space business and abandon the wireless business is testament to this. Space is an area where we have a solid understanding of the market and there is room to grow as other companies downsize or get out of the business. We haven't seen the current market situation as a downturn as much as we have seen it as an opportunity.



Fig. 7: Photograph of Com Dev's Exhibit Booth in Montreal taken by S. Kitazume, interviewer

S. Kitazume, SJR: As my last question, I would like to know what you think will emerge as the most important and critical technology in future satellite communications for such growing applications as internet, mobile communications, optical inter-satellite links, and even for basic satellite infrastructure?

Keating: Surprisingly, I believe the most important and critical technology will be in the development of affordable, convenient user terminals, if satellites are to play a role in those areas you mentioned. As we have seen time and time again, users do not necessarily care that they are receiving their services via satellite – as long as it is simple to install, easy to use and cost effective when compared with the alternatives. The satellite industry learned this lesson when satellite telephony tried to compete with cellular networks. It may be hard pill to swallow for an industry which has been largely technology driven but in the end it is the customer's needs that come first.



Fig. 8: John Keating with COM DEV Employees at Canada day celebration
Showing Complete view of COM DEV in Future

S. Kitazume, SJR: Along with SJR readers, I look forward to continuing to work with you and COM DEV in growing global satellite communication services. Thank you very much for your time today.

(Interviewer: Dr. S. Kitazume : Editorial committee member of SJR)