



For this month's Question and Answer (Q&A) article, Giovanni Verlini, Editor of *Satellite Evolution Asia (SEA)*, talked to Jeff Mathie, President of Patriot Antenna Systems.

Things are looking up



▶▶ **Giovanni Verlini: How would you introduce Patriot Antenna Systems to the readers of *Satellite Evolution Asia (SEA)*?**

Jeff Mathie: Patriot Antenna Systems as the 'one-stop-shop' for every type of satellite need. Patriot has the broadest line of antennas available in the market, consisting of 33 different antennas. These antennas cover the Direct-To-Home/Direct Video Broadcasting (DTH/DBS) market, as well as the broadcast, cable and educational markets.

The most dramatic growth Patriot has seen comes from our Very Small Aperture Terminal (VSAT) transmit/receive product line. In addition, Patriot has recently launched a full line of earth station antennas that range from 6.1 to 12 metres in size. These antennas will play a key role in major hubs, as well as teleports, and military use.

Q: How many employees do you have, and where are they based? Where are your Research and Development (R&D) centres and manufacturing plants? Do you see Asia becoming a centre of design and production for Patriot as well as a market for your products?

JM: Patriot currently employs 120 individuals, the majority of which are based at our corporate and manufacturing facility in Albion, Michigan, US. In addition, we hold five sales offices in Nebraska, Iowa, Wisconsin,

British Columbia, Canada and Buenos Aires, Argentina. In addition, we are in the midst of establishing distribution centres to service all of Europe, the Middle East, and Africa, as well as in Australia to service parts of Asia. We currently have distribution centres in India and Argentina where we package and redistribute to customers in these regions.

Our R&D centre is located in Albion, Michigan, where we have full design capabilities; we also have a full machine shop and near field anechoic chambers. We employ laser tracking to prove out surface accuracies and have Capability Maturity Model (CMM) capabilities.

The Asia-Pacific region is a market that we have not ventured into completely as of yet, however we are currently looking for distribution partners. We are also entertaining the idea of licensing some of our technology in the region. This will keep freight costs down and allow some local content to the products we manufacture, which in turn will allow lower import taxes ... savings that can then be passed on to the customer.

Q: Patriot seems to produce a huge variety of antennas and components: can you expound on your product range?

JM: Patriot currently produces antennas from 60cm broadband transmit systems, up to 12 metre earth stations. We have assembled this broad product line



Patriot's 1.2-metre Eutelsat type-approved antenna.





Mobile VSAT with aut-deploy controller. Photo courtesy of Patriot Antenna Systems

through our nine acquisitions over the past seven years. These acquisitions have primarily been competitors, but some are complimentary product lines such as ADL Feedhorns. We are positioning ourselves to become every company's one stop source for not only the antennas but also every component that makes up these systems.

Q: You seem to have a network of distributors in numerous countries all around the globe. Is Patriot also there as a company? How does it work? How can a customer buy a Patriot Radiofrequency (RF) component or antenna?

JM: Patriot currently has a number of distributors around the globe but is positioning itself to have two tiers of distributors so that we can allow better protection to our 'Master Distributors'. Our Master Distributors are those companies who are actively promoting Patriot at trade shows, investing in advertisements, and stocking our product in their territory. This allows Patriot to refer many foreign customers directly to a distributor near their region as they can offer better service, lower prices, and immediate product turn around which saves time and money for the end customer.

Q: In terms of business revenues, which are your main markets? How important is the Asia-Pacific region as market for you now? Is this going to change? If so, how?

JM: Patriot's main markets are still primarily in North and South America but we are beginning to see a shift in sales. In the past, 70 per cent of our sales were credited to US companies. Currently, sales are dis-

tributed evenly between the US and overseas. I expect that it will have turned 70/30 the other way by year's end.

Internationally, Patriot exports products into India, Dubai, Africa, South America, and we are beginning to receive some promising orders from the Asia-Pacific region as well. We hope to find some great partners in the Asia-Pacific region in the near future.

Q: What are the peculiarities of the Asian market? As a manufacturer of satellite antennas and RF components, what are the peculiar challenges you have come across in this market? (In terms of legislation as well as weather patterns, etc ...).

JM: I feel that there are some difficulties to get VSAT terminals approved in the Asia-Pacific region. This hinders the manufacturers of outdoor units as well as modem manufacturers.

Another disadvantage in the Asia-Pacific region is the amount of rainfall in some countries. This limits broadband penetration via Ka-band, as this frequency has such a high attenuation due to rainfall. Cloud cover and heavy rainfall make it very difficult to receive a clear signal.

Q: Commentators seem to agree that the satellite industry has changed significantly in recent years. Has your job changed? If so, how? What are your clients looking for these days?



A 1.8 metre C-Band flyaway antenna system.



Patriot's full line of RF components.

JM: We are seeing a major shift in the market with the advent of mobile and flyaway systems. Our customers prefer these systems because they are easily assembled by non-technical individuals, and point and shoot applications allow the dish to find the satellite automatically. Mobile and flyaway systems are transportable and are in great demand in the homeland security market, as well as military and broadcast applications.

Q: In particular, I would like to know whether you have found that in your sector, customers are increasingly demanding more financial services such as vendor-financing, leasing and upgrade services.

JM: We have not had many requests for leasing or financing services, and Patriot does not intend to offer these services anytime soon.

Q: Type approval is still a crucial stage in the commercialisation of an antenna type, though this is a fairly complicated process. Is the industry going to find a more effective way of marketing its products? I seem to remember that a while ago some industry bodies were trying to push for blanket licensing negotiations. Any update on that?

JM: There has been some very good coordination of type-approval processes through the Global VSAT Forum (GVF), in which Patriot and many other companies have benefited. The GVF has broken through many barriers to open up markets all across the globe, one example is the Mutual Recognition Arrangement (MRA) Working Group. This Group has helped manufacturers of ground systems by allowing the satellite operators to recognise type-approval data from authorised test entities, which allows blanket approvals by a number of operators.

Patriot has only been in the transmit VSAT business for three years and has already been awarded 26 type-approvals from a variety of satellite operators, thus giving Patriot the second highest number of type-approvals in the industry. The GVF has really helped this process by attempting to standardise witness test data. We at Patriot applaud the accomplishments of the GVF as they continue to benefit our industry.

Q: How do you see the market evolving in the next few years? Can we expect any exciting development such as new frequencies being used, etc?

JM: I see the market evolving in two areas. The first is



A 9.4 metre antenna for teleports and the military

broadband via small, low cost terminals at Ku-band and Ka-band frequencies. The second is the high demand for satellite communications in homeland security and military applications.

Q: Where will Patriot Antenna Systems be in five years time?

JM: I expect that Patriot's current growth will continue over the next five years, due to our very strong research and development schedule. Three years ago, Patriot staffed 35 employees. Today, we employ over 120 individuals and I expect to exceed 200 by the end of 2004.

The development of our large aperture earth station has landed Patriot a new contract with the National Aeronautics and Space Administration (NASA) to develop a 12-metre, fully-motorised earth station. This project will certainly help our growth but keeping our current customer base happy is the best tool to longevity. ■

Hispasat approves Patriot antennas

Hispasat, the Spain-based satellite communications operator, has type-approved three of Patriot's Ku-band antennas for use with its satellites. These approvals are the first for Patriot to receive from Hispasat. The approved antennas range from 1.0 metre to 1.8 metre in size.

With immediate effect, these antennas are approved for use with the Hispasat satellites throughout all coverage areas in Europe, Latin America, Northern Africa, and the US. ■

