

Meet Executive

~Interview with Mr. Halliwell, Director of SES Astra~
(September 12, 2001)

Takashi Iida, President of CRL
(Editorial Board, Space Japan Review)

-- It was able to interview Mr. Halliwell, Director of Communications Technology of SES Astra in Luxembourg on September 12, 2001, just the next day of the devastating terrorist attack to the U.S.A. on September 11, 2001. Mr. Halliwell told me about a technology strategy of SES Astra and satellite communications services in the near future.--



Snapshot of Luxembourg city as a World Heritage

Mr. Martin Halliwell

Director of Communications Technology
Member of the Management Committee
Societe Europeenne des Satellites

Joined SES in November 1987

Previous appointments:

- General Manager Global Multimedia Networks of SES
- Technical Director of SES Multimedia
- Operations Manager of SES
- Network Operations Manager of SES

Education:

- Higher Diploma Communications and Electronics (Cable and Wireless)
- BA in Mathematics and Mechanical Engineering, MBA specializing in the external environment and strategic management, Open University of London

Other:

- British national, born 20 April 1959
- Married and father of one daughter
- Leisure interests: Electric bass, Motorcycle racing, Football, Reading





Entrance of SES Astra

--Thank you very much for taking me on a tour of SES Astra facilities and for joining us for this Space Japan Review interview today, despite your tight schedule.

Not at all we are very happy to host your visit to our company.

--First of all, due to the recent devastating terrorist attack on the USA, I think that the demand for transponders on communication satellites will increase very much. How about SES Astra? Can your company readily meet such an increased demand?

Over the past years SES has followed a policy of keeping several transponders as a strategic reserve. This allows us to react quickly to unforeseen demands either from existing or new customers.

However as you know the majority of our traffic is broadcast and multicast related offering Direct to Home (DTH) and cable feed distribution for analogue and digital TV, radio and multimedia services. Therefore I do not expect a great increase in demand specifically related to the events in the USA.

Nevertheless I agree that demands for news feeds (SNG, occasional use, etc.) will increase SES is currently reviewing how it can offer competitive services in this marketplace.

We are assessing if we would be able to use our oldest satellite (Astra 1A) in inclined orbit to facilitate low cost point to point services for SNG type activities.

-- I have heard that the SES Astra is one of the world's most successful companies. Could you please introduce the outline of your company, including the type and size of its business?

Well that is a very kind remark! SES has enjoyed great success since its inception in 1985. Currently we employ approximately 370 people from 23 different countries. We are based in Betzdorf, Luxembourg where we centralize the majority of our technical and commercial activities.

The majority of our business is the transmission of TV, radio and multimedia services throughout Europe. We currently access approximately 31.78 Million homes via DTH and 57.25 Million homes via cable feed. Therefore one can say that SES Astra provides television services to around 356 Million people in Europe! We currently transmit a total of 650 TV channels (65 analogue and 595 digital), 400 radio channels and 200 data services. In terms of the overall SES group the key financial results in 2000 were 835.9MEuros revenue, Overall profit 244.5MEuros EBITDA (Earning Before Interest,

Taxes, Depreciation and Amortization) margin of 84.8%.

--There are many people who want to know why the SES Astra has succeeded so well. Could you let us in on your secret for such success?

That's a difficult question to answer as there is no single reason for the company's success. Rather there are a combination of technical, commercial and political issues that have been successfully addressed to allow the company to achieve success.

If I would point to the major points I would include the European Commission's "green paper" and the subsequent directive addressing the transmission of television throughout Europe without frontiers. This formed the fundamentals for the creation of the business.

From a technical point of view, the decision to use a 16 channel medium power satellite operating in the FSS band on a pan-European basis combined with a receive antenna size of 60cm was a far more attractive commercial proposition than the 5 channel BSS satellite operating on an individual country basis.

The decision to operate PAL services expedited the roll out of low cost receivers at a time when the competing DMAC receivers were still unavailable due to delays in the supply of suitable decoder integrated circuits.

As the services expanded the addition of extra space segment was achieved by co-locating satellites at the same orbital position. This was another major differentiator for SES Astra. This allowed us to develop our space segment whilst causing a minimum of disruption to the installed receiver population. Today we have 7 satellites co-located at our 19.2 degs East position and 3 satellites co-located at the 28.2 degs East position.

From the more commercial point of view the initial effort to provide a balanced set of programmes to address all language and themes coupled with the subsequent introduction of the more sophisticated bouquets of digital programming has allowed SES Astra to form by far the most valuable orbital locations.

--I think that the development of new services and new technologies are needed for the company's growth. How does your company undertake such developments?



SES-Astra's old castle site with Mr. Halliwell and unit leaders
(From left: Mr. Halliwell, myself, Mr. Ashford, Mr. Duplay, Mr. Lothian)

SES is fortunate to have many skilled and dedicated people to undertake the developments you speak of. In general we try to ensure that all of our developments have a direct link to a business requirement therefore the technical department works very closely with the commercial department to ensure that no effort is wasted.

We have several areas of development currently underway covering data terminal development, On Board Processed payloads frequency reuse multi-beam satellites, etc... We use both internal resources and we also work with ESA on specific programs.

--Bi-directional Ka-band services have been a focus of attention recently. What is the position of your company on two-way Ka-band?

Around a year to eighteen months ago SES issued an RFP to industry for a Ka-Ka multi beam satellite system under the name of Pioneer. Currently we have frozen this project whilst we continue the development of the associated business plan.

As you know such a system represents a very considerable investment and quite honestly at the moment it would be difficult to justify such expenditure to our shareholders. However we remain confident that in time this type of technology may form part of our next generation system possibly combined with a limited OBP capability. But as I mentioned earlier the design has to reflect the business opportunity so like many others we are awaiting an up-turn in the economy to stimulate communications requirements.

--New multibeam antennas are now under development. Would SES-Astra introduce such new technology in its satellites?

Quite possibly. However SES is a conservative organization that normally would not pioneer entirely new technologies. We rather attempt to keep the satellite bus and payload as simple as possible thus reducing failure probability. So the adoption of multi-beam active array technology would have to be carefully considered.



Multibeam antenna site with Mr. Halliwell

--SES Astra has now expanded to Asia and America. What is its strategy for continued geographical expansion?

With the completion of the GE Americom deal SES will concentrate on obtaining internal synergies. Subsequently once again we will look for external opportunities. At this time it would be premature to indicate where those may be.

--Would you describe to us what new satellite applications will be offered by SES Astra in the future?

This subject is generally driven by our customers. However the areas that we see change in are:

- Introduction of higher order modulation schemes
- Introduction of IP TV services instead of native MPEG 2 services
- Introduction of VoD services utilising storage devices on the receiver
- Expansion of Ku-Ka Multimedia 2-way services
- Introduction of point to point services
- Introduction of occasional use and SNG services
- Introduction of a global "one stop shop" service for satellite broadcasters

And this is just for 2002!!!

--Finally, would you tell me what role does a government or public organization like ESA play in the field of satellite communications?

We have an active relationship with ESA currently we are cooperating on seven different projects with them covering a wide range of subjects.

--Thank you very much for joining us today.

You are very welcome. Sayonara.



SES-Astra's antenna farms surrounded by farms

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(Acknowledgement)

*This interview was realized by my visit to the SES Astra following invitation by Mr. Edward W. Ashford, Corporate Development Unit Leader, SES Astra and I thank him heartily.*