"Interview with CEO"

Mrs. Pascale Sourisse President and CEO Alcatel Alenia Space



In this interview, Yoshiaki Suzuki, <u>Executive Director of the Wireless Communications</u> <u>Department</u> at the National Institute of Information and Communications Technology (NICT) and former Chair of the editing committee for this magazine, talks with Mrs. Pascale Sourisse, President and CEO of the Alcatel Alenia Space. Mrs. Pascale Sourisse, President and CEO of the Alcatel Alenia Space shares her thoughts on future space development strategies, the need for hybrid satellite networks and other issues.

SJR: Mrs. Pascale Sourisse, let me first thank you for taking time for our "Interview with CEO". I'd also like to say how much we appreciate your time for AIAA Japan Forum. We have enjoy joining Satellite 2006 conference and SSPI Gala and nice to meet you at Ariane reception with Dr. Kitazume Executive Advisor for editing Committee SJR.

As you know, SJR is an industry publication for technical communication created by AIAA Japan Forum Satellite Communications, a subcommittee under one of the American Institute of Aeronautics and Astronautics (AIAA)'s technical committees on satellite communications. Initially, we were published in hard copy, but now SJR is an electronic media distributed over the Internet. In this segment, we discuss the strategies and ambitions of those involved in the world of satellite communications, namely satellite communications operators and CEOs of communications satellite development companies, providing the idea of reference for AIAA members and SJR readers.

SJR: First of all, could you please provide us with key highlights about Alcatel Alenia Space.

Mrs. Pascale Sourisse, President & CEO : Alcatel Alenia Space is the European leader and number 3 worldwide for satellite systems and at the forefront of orbital infrastructures. Created on July 1st 2005, the company brings together the vast experience and know-how of Alcatel Space (Alcatel) and Alenia Spazio (Finmeccanica) and represents a worldwide standard for space development and capability ranges from navigation to telecommunications, from meteorology to environmental monitoring, from defense to science and observation. Today, Alcatel Alenia Space is at the heart of the most high-performance satellite-based technologies in both civil and defense sectors, with strong positions in satellite and ground systems.

SJR: Alcatel Alenia Space is the leading company in the area of communications satellite manufacturing and related technology in Europe, how did these accomplishments come about?

Mrs. Pascale Sourisse, President & CEO :Alcatel Alenia Space is the worldwide leader in terms of telecommunications satellites and payloads, with orders from the United States, Russia, Latin America, Africa and the Middle East, and growing business with Asian customers. In 2005, Alcatel Alenia Space has signed 4 telecommunications satellite contracts: Chinasat 6B and Chinasat 9 for ChinaSatcom, Thaicom V for Shin Satellite of Thailand, and Star One C2 for Embratel's satellite arm, Star One, the largest satellite solutions company in Latin America. Today, Alcatel Alenia Space's satellite awarded this year by Ciel Satellite of Canada) to the entry-level Spacebus 4000B2 (Turksat 3A satellite awarded this year by Turksat AS), enables telecom satellite operators to offer a large variety of broadband applications. The new satellite platform Alphabus will shortly join our range. Our constant objective is to improve our platform competitiveness and innovation in order to remain a major player in markets such as defense, security and commercial.



SJR: I'm sure there were a lot of challenges initially as the leading company in the field of communications satellite development. Can you please tell us more about the background to this and related issues?

Mrs. Pascale Sourisse, President & CEO: The key to success largely depends of our products and services quality, on meeting the commitments made to customers for programs under way, on improving our competitiveness and on pursuing aggressive policies in marketing and innovation. Alcatel Alenia Space has a unique advantage of being positioned against a worldwide telecommunication solutions provider, Alcatel. This advantage has enabled the company to develop close relationships with its telecommunication customers and provide them customized and future-proof solutions. Alcatel Alenia Space is ideally positioned to accompany its telecommunication customers in the development of new profitable businesses. For Broadband Mobile TV for instance, we are bearing on Alcatel strong competencies to coordinate with telecommunications operators for mass market applications.

SJR: Alcatel Alenia Space is involved in environmental monitoring and territorial management and seems to move quickly to support development of new services. What can you tell us about the current status and future of satellite monitoring services in Europe and worldwide?

Mrs. Pascale Sourisse, President & CEO: Alcatel Alenia Space is involved in many environmental projects would it be at regional, national, European and international level.

In particular Alcatel Alenia Space is very active in GMES (Global Monitoring for Environment and Security), a joint initiative from the European Commission and the European Space Agency to provide reliable and timely services related to environmental and security issues in support of public policy maker's needs. Alcatel Alenia Space has a strong position in Observation, Telecommunication and Navigation satellites, which are the three pillars for an efficient environment and security monitoring, information and management system.

Today, combining applications with information such as in situ sensors data or socio economic data allow to provide a great variety of services; this is one of the main points of GMES with the so-called sentinels observation satellites.

First Europe-wide services for GMES should be operational in 2008. This will be followed by a series of satellites, the Sentinels, which will guarantee the service operational continuity.



SJR: How do you create and market applied services, software and product for public administrations and industry?

Mrs. Pascale Sourisse, President & CEO: Potential growth factors come from e-government, telemedicine, distance learning and risk management services. Alcatel Alenia Space is working closely with Telespazio, our sister company which develops new satellite-based services and applications for these booming markets. In the telecommunication and Navigation areas for instance, we are developing applications such as Location Based Services (LBS) for wireless applications; we are also working on broadband internet in mobile environment such as trains and planes. Mobile TV emerges also as a major mobile market drive and satellite mobile TV is a real option to broadcast new services.

SJR: Satellite observation is one of the major satellite applications. What trends do you foresee in this market and what are your thoughts on the convergence of communications and monitoring?

Mrs. Pascale Sourisse, President & CEO: Environment monitoring is of strong interest as it does correspond to a worldwide preoccupation. As previously mentioned, Alcatel Alenia Space, as a leading actor worldwide in this market, is definitely deeply involved in environmental and security projects, such as GMES.



In addition the market benefits from the fact

that more and more countries are looking for observation capabilities in order to strengthen their independence.

SJR: As a satellite-based technologies provider, please outline any subsequent developments and your strategies.

Mrs. Pascale Sourisse, President & CEO: Alcatel Alenia Space is a global actor in the space sector. We are operating with strong positions in various space domains, such as satellite and ground segment. As a worldwide actor, we are eager to develop our activities at the international level, both in the telecommunication and the institutional market. Alcatel Alenia Space is a flexible company, capable of adapting its activities to its customer's needs. We have already signed partnership agreements with industry actors in various countries, depending of our customer requirements. As an example, we have just won an important contract (AMC-21) with the U.S operator SES AMERICOM, drawing on a U.S very small geostationary satellite provider, and so we did in Russia with a Russian satellite provider (NPO-PM). In the institutional sector, Alcatel Alenia Space is very active in the European environmental project based on earth observation, GMES.

SJR: Do you intend to expand the collaboration with satellite manufacturing companies in Europe and other regions?

Mrs. Pascale Sourisse, President & CEO: As mentioned previously, Alcatel Alenia Space is a flexible company. We collaborate with any other actor in the market when needed. Our successful collaboration in the U.S and in Russia illustrate how partnerships can be very positive. They pave the way into the entry-level small satellite market, for satellites with less capacity than our Spacebus B2.

SJR: Currently, space development activities in Asia are ambitious, China and India are vigorously pursuing their space development programs. What about your partnerships in Asia and what is your view on guiding the development of the satellite communications

business in the Asia-Pacific region?

Mrs. Pascale Sourisse, President & CEO: Alcatel Alenia Space is quite involved in the rapid development of the Chinese space industry. We have a long standing presence in China as we are present in Beijing for 10 years and have signed pure first contract more than 20 years ago. Across the years, we have developed co-operations on the whole range of our activities to accompany the evolution of the Chinese space programs. Indeed, our Spacebus satellite family is fully compatible with Long March launches. In the Telecom & TV broadcasting fields, we have delivered several Spacebus satellites and two additional high power satellites are currently in production. We have also setup co-operation at payload level with Chinese Academy of Space Technology (CAST) to address both the Chinese and export markets. Aside from these, we have established co-operations on scientific programs as well as navigation systems.

China is a leading edge market for both Alcatel and Alcatel Alenia Space. We have hence developed wide ranging co-operations with leading Chinese partners to realize 3G compatible mobile broadcasting systems.

SJR: The shift to hybrid networks combining satellite communications with other kinds of networks, including terrestrial lines, will be a key theme. What is Alcatel Alenia Space's strategy?

Mrs. Pascale Sourisse, President & CEO: Alcatel is coordinating a Mobile TV Broadcast project which aims to provide broadcast television for cell phones. To be a success, Mobile TV needs to provide a full coverage both indoor and outdoor, and must propose an unlimited number of channels. Mobile phone manufacturers are already interested in this technology. Alcatel Alenia Space is particularly involved in this project as a leading telecommunication satellite and payload provider and is willing to provide its expertise in this area. Cooperating with Alcatel in such project is a key success as we are the only satellite solutions provider with in-depth knowledge in telecommunication networks. Our hybrid solution is based on DVB-H standard and we propose to use this standard on S-Band as it is easier for our customers to leverage DVB-H. The full solution dedicated to satellite mobile operators, based on S-band spectrum and combining satellite and terrestrial networks, will be implemented before the end of this year.

SJR: At AIAA Japan Forum, we're striving to predict future developments in the satellite communications business, including competition between satellite Internet, mobile communications and fiber optics, as well as developments in satellite communications technology. As Japan's space development program moves forward, what kind of technological developments are you hoping will emerge?

Mrs. Pascale Sourisse, President & CEO: The growth of fixed or mobile Internet usage drives a strong demand for multimedia services through terrestrial telecom networks but has also stated to do so through satellites. Satellites offer valuable features (1). To play a major role in the user-centric ubiquitous broadband landscape, advanced satellites with innovative technologies are needed. Future communication satellites could benefit from most of the Information and Communication Technology domains: photonics, digital, micro and nano technologies...

The Japanese's space development program is certainly participating to the global effort of the world space business to keep and to increase the role of satellite in building a secure and prosperous society. For example, we are very impressed by the leading role of Japan in the management of emergency situations with satellite technologies. In several domains, Japan has world-class technological developments that contribute highly to the competitiveness of the world satellite industry. To mention few: microwave semiconductor technologies (HEMT and SSPA), free space optical communications (intersatellite link), batteries, solar arrays, large scale deployable antenna, robotic.

(1) it can cover wide areas, enables rapid service deployment, provides efficient and cost effective complement to terrestrial infrastructure, resists to natural disasters or human aggressions...

SJR: As a conclusion, AIAA Japan Forum was a full-fledged partner at AIAA ICSSC 2005. We have enjoyed the conference and definitively encourage the partnership with European companies and organization. And also, we have a plan to host AIAA ICSSC 2007 in Asia under the co-sponsorship with APSSC. Many Japanese member of AIAA JFSC enjoyed serving as session chair and paper present; I'd like to thank you for your cooperation.

I thank you again for your cooperation and dedication to the development of satellite communications and observations.

(Column editing: Dr. Susumu Kitazume: Executive advisor for Editorial committee of SJR)