Executive Comment

Taking the Satellite and Space Industry in Asia to the Next Level

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Dr. Koh has more than 30 years experience in the telecommunications industry. Currently, he is the President of ASA Technologies, a satellite/space and telecommunications consulting firm based in Singapore. In the past, he served as the Vice President for the Asia-Pacific region at New Skies Satellites N.V., a global satellite service provider. Prior to joining New Skies Satellites, he was Managing Director, Asia-Pacific, at Intelsat, one of the largest global satellite operators with shareholders from more than 140 countries. He was responsible for business development and marketing activities in the region. He held several senior technical positions in the Engineering Division and played a significant role in the design of future Intelsat satellite systems in the Systems Engineering and Planning Department.
Dr. Koh received his Bachelor's of Science Degree in Electrical Engineering from Hanyang University in Seoul, Korea and earned his Master of Science degree and PhD in Electrical Engineering at the Catholic University of America in Washington D.C.

Introduction to APSCC

The Asia-Pacific Satellite Communications Council (APSCC) is a non-profit, international, regional association representing all sectors of the satellite industry and other space-related industries. As a collective voice of

all sectors of the satellite and space-community in the Asia-Pacific region, APSCC has served the community in a myriad of capacities, by bringing together the various entities of the community for communication and cooperation, all for the betterment of the Asia-Pacific region. From its establishment in 1994, it has provided a focal point for its members, enabling them to participate in important debates and helping to establish technical standards that affect the region and the satellite/space industries.

APSCC has a diverse range of members, comprised of 64 companies/organizations from 22 countries based in Asia –including members from Japan, 29 in North America, and 12 from 7 countries in the EMEA region. This brings its membership to a total of 105 members from 31 countries.

Conferences, forums, workshops, summits, symposiums, and exhibitions are organized through regional coordination, for the purpose of discussing issues and promoting and accelerating the efficient introduction of outer space activities, new services and businesses via satellite. APSCC aims to exchange views and ideas on technologies, new services, applications, systems, and policies within the industry. Therefore, our association publishes a print satellite magazine (APSCC Quarterly Newsletter), a monthly electronic newsletter (APSCC E-Newsletter) and a reference industry guide-book (APSCC Yearbook) with a worldwide readership of members, professionals and people from outside the industry.

I started my first two-year term as the President of APSCC in 2003, and was re-elected for a second term in 2005. During the past 4 years as President, I have witnessed the satellite industry, as well as our association, come a long way out of the slump which followed the global economic crisis in the late 1990s. Now, the industry is expected to see steady growth due to technological development in communications satellites, increasing demand for satellites in areas such as emergency support services, the roll-out of integrated broadcasting solutions and DTH services, and the expansion of broadband service areas.

Technological Development in Communications Satellites

High-power and improved transponders have enabled the development of smaller sized and lighter weight earth stations, and satellite service areas have broadened due to satellite multi-spot beams.

Technological development in communications satellites allows the use of higher frequencies, such as Ka-band, beyond C and Ku-band for high-speed data and high-quality communication services. As a result, private network services equipped with VSATs are now available and interactive, and point to multipoint services are expanding.

Applications ranging from high-quality broadcasting, such as DTH, HDTV and DMB services to consumer two-way broadband services on land, vessel, and airplane are also being provided in a converged services domain due to the technological development.

Satellites for Disaster Reduction/Management Services

In the last few years, we have experienced an exceptionally high number of natural disasters, such as the tsunami in the Indian Ocean, earthquakes in Pakistan and the Philippines, and hurricane Katrina, to name but a few. These disasters caused a great loss of human life. While the Indonesian government was recovering from the tsunami in Bander Aceh in Dec 2004, another tsunami hit the Southern Java Island and almost another thousand lives were lost. After this fatal disaster, the Indonesian government decided to use the GPRS system to send information. Space technology is vital for early warning and early detection of natural disasters. We have seen that when a natural disaster happens, the terrestrial telecommunications infrastructure goes down with the disaster and the whole network is paralyzed.

Satellite in its many flavors, including FSS, MSS, DBS, and DARS have all had a hand in disaster recovery efforts. Satellites have not only connected emergency personnel and other first responders, but they have also restored communications across regions ravaged by natural disasters. The Asia-Pacific region needs urgent cooperation among nations to develop a disaster reduction policy and strategy using space technologies, as well as the implementation of early warning systems for all natural disasters.

HDTV Programming on DTH Platforms

The number of households watching High-Definition (HD) TV programming continues to rise rapidly. Households with HDTV service, which are defined as homes with HDTV sets that receive and watch HD programming, are projected to grow from 15 million in mid-2006, to 20.3 million by the end of 2006.

In the Asia-Pacific region, opportunities for direct-to-home (DTH) service providers are vastly growing, since there is more demand for DTH broadcasting in the region.

Australia, Japan, and South Korea are broadcasting HD programming on their DTH platforms, and viewer response has been very positive in these countries thus far. In South East Asia, Shin Satellite launched Thaicom 5 on the 27th of May, 2006, and through the satellite the company is now offering conventional broadcasting and telecommunications services, and introducing technology for broadcasting HDTV to the market for the first time in the Indochina region. For India, Insat-4B, identical to the Insat-4A that was launched in December 2005, carrying 12 Ku-band and 12 C-band transponders, mainly catering to DTH TV services, is planned for launch in the first quarter of 2007.

Satellite Broadband Services in Asia

It has long been hoped that broadband services provided by satellite would be a strong growth sector in Asia, and to some extent, much of that hope has been achieved for service providers in the region.

Thaicom's iPSTAR satellite broadband service entered the Asian market in August 2005, with the successful launch of the Thaicom-4/iPSTAR-1 satellite. Smart Digital Communications of Malaysia has won a contract to provide two-way satellite broadband to schools throughout the country. They are now opening up a new era, offering two-way broadband services by satellite.

However, regulatory barriers still need to be resolved, and the competition

with retail prices provided by terrestrial services stands in the way of growth.

Issues Remaining in the Satellite Community

As I mentioned previously, the satellite industry is expected to continue to grow due to the satellite-enabled application services and the increasing demand for satellites. However, to facilitate the growth and take the satellite community to the next level, we need to raise awareness among regulators in the Asia Pacific region, and get the region's regulators to work together on satellite liberalization, which has yet to be accomplished.

In the meantime, to ensure that satellites benefit from the appropriate political, industrial and regulatory environment to fulfill their roles in the delivery of communications, cooperation among the players is vital. In this regard, APSCC aims to exchange views and ideas on technologies, systems, and policies regarding satellite communications in the Asia-Pacific region.

APSCC will also keep performing the role of consensus development, advocacy and international coordination for the satellite/space industries. APSCC will also continue to develop international joint projects with links to other international and regional bodies for mutual cooperation within the region.

AIAA ICSSC 2007

In 2007, APSCC will be co-organizing the 25th AIAA International Communications Satellite Systems Conference (ICSSC 2007) with the American Institute of Aeronautics and Astronautics (AIAA) and the AIAA Japan Forum on Satellite Communications (AIAA JFSC).

ICSSC 2007, under the theme of "Evolution Toward a Ubiquitous Network Society", will offer a unique opportunity to discuss in depth not only technical issues, but also the economic, marketing and regulatory issues related to satellite systems,.

Through ISCCS 2007, which will be held from 10-13 April 2007 in Seoul, I

hope engineers and satellite professionals from all over the world will come to Seoul to exchange information on new technologies and developments in the communications satellite systems. I especially hope this conference will enhance cooperation among scientists and engineers between Japan and Korea.