

Interview with CEO(35)

Mr. Kenji Nagai

President and CEO,
Broadcasting Satellite System Corporation (B-SAT)



EXECUTIVE BIOGRAPHY

Mr. Kenji Nagai,
President and CEO, Broadcasting Satellite System Corporation (B-SAT)

Prior to joining B-SAT in 2006, Mr. Nagai served a total of thirty three years with NHK (Japan Broadcasting Corporation). He entered NHK in 1973.

He held positions as Director of the Transmission Engineering Center; and Director of the Planning Division, Engineering Administration Department. He was appointed Director-General of the Engineering Administration Department in April 2005.

Mr. Nagai earned a B.S and a M.S. in Electronics from Keio University.

(Interviewer: Takao Ueda, AIAA-JFSC)

(Background for reading interview

– Outline of satellite broadcasting in Japan -)

TV broadcasting in Japan can be broadly described as:

- (i) Terrestrial broadcasting which consists of 7 major national networks.*
- (ii) Satellite broadcasting in the BSS (Broadcasting Satellite Service) band (mostly free-to-air TV),*
- (iii) Satellite broadcasting in the FSS (Fixed Satellite Service) band (pay TV) and*
- (iv) cable TV.*

In this article, “satellite broadcasting” means “(ii) Satellite broadcasting in the BSS band.”

Analog satellite broadcasting was inaugurated in 1984, analog High Definition TV (HDTV) satellite broadcasting in 1989, and digital HDTV satellite broadcasting was started in 2000. Penetration of digital satellite broadcasting has been increasing and has reached approximately 20 million households, about half of Japanese households, by the end of 2006. One public broadcaster, NHK, 5 commercial broadcasters and 2 pay-TV services have provided programs to digital satellite broadcasting. The number of broadcasters is scheduled to increase in 2007 and 2011.

In Japan, the first-generation operational broadcasting satellite, BS-2a was launched in 1984, and BS-2b in 1986. The second generation, BS-3a was launched in 1990, and BS-3b in 1991. BS-2a, 2b and BS-3a, 3b were the joint projects of NASDA (the National Space Development Agency of Japan, now JAXA) and broadcasters (BS-2a, 2b: NHK, BS-3a, 3b: NHK and WOWOW) because there had been developmental problems to overcome in satellite broadcasting.

B-SAT (the Broadcasting Satellite System Corporation) was established in 1993 to take over the role of private sector procurement of satellite broadcasting. B-SAT procured and has operated the third generation broadcasting satellites, BSAT-1a and 1b since 1997 and 1998 respectively and the fourth generation broadcasting satellite, BSAT-2a and 2b that have been dedicated to digital broadcasting since 2001 and 2003 respectively.

—You worked for NHK for many years before assuming office as the president of the Broadcasting Satellite System Corporation (B-SAT), a private corporation. Would you explain your goals?

I have recently had many opportunities to meet and discuss with people working in various industries. Many of them tell me: "Satellite broadcasting is exciting" and "I watch satellite broadcasting programs at home." Along with the rapid spread of flat panel TVs and DVD recorders that support digital processing, nearly 20 million families have recently been watching satellite broadcasting programs. In other words, "I would say that the importance of satellite broadcasting is approaching to that of terrestrial broadcasting."

B-SAT is the only corporation offering satellite and uplink station infrastructures for all satellite broadcasters in Japan. This fact makes me to take my job responsibility very seriously. We at B-SAT would like to strive for the further development and popularity of satellite broadcasting that meet the expectations of viewers together with the continuing cooperation with the parties involved. Through these our efforts, we would like to make a significant contribution to the satellite business in Japan.



Mr.Nagai during interview

--The stable, accident-free operation of satellites has been a strong desire of satellite business operators for many years. What measures have you introduced to realize the desire?

At the beginning of my service in the broadcasting satellite business,

I encountered many difficult problems one after another--for example, the malfunction of the BS-2a transponders in 1984, the drop of generated power of BS-3a in 1990, and the launching failures of the supplementary satellites BS-2X in 1990 and BS-3H in 1991. To overcome them, our predecessors sweated blood to reinforce the terrestrial testing of satellites when they were being manufactured, to cooperate with BS-2b, and to purchase the supplementary satellite BS-3N, and so on. I remember those efforts as having contributed greatly to the establishment of the current stable operation of satellite broadcasting.

This is why I am proud of refusing to yield to all obstacles in the pursuit of the stable operation of satellite broadcasting, the primary role of B-SAT, and aware of the significance of my responsibility.



At present, B-SAT controls five satellites, namely BSAT-1a and -1b, BSAT-2a and -2c, and BS-3N. We have successfully set up of one control center to control three satellites or more within a range of plus to minus 0.1 degree longitude from the center. Besides B-SAT, this practical application is limited to SES Astra and Eutelsat in Europe.

Because we have operated those special satellites and satellite broadcasting plays an important role in all broadcast media, we have been trying to take all possible measures for stable satellite operation.

4 B-SAT satellites collocated at 110 E longitude

--- Improvement in the reliability of satellites is a major worldwide issue for a successful satellite business. What measures have you introduced to achieve reliability?

B-SAT benefits from the experience learned by our staff from BS-2a, 2b and -3a, 3b in NHK. The experiences have helped us in several satellite purchases. At present, B-SAT is moving ahead with the purchase of BSAT-3a (scheduled to launch in the spring of 2007), our sixth satellite. B-SAT has been applying its accumulated know-how to the process of purchasing satellites, especially in the selection of satellite manufacturers, design review, and tests during manufacturing so that the satellite can be operated with stability until the end of its life. In addition, we have stationed our

staff members at the satellite manufacturer to efficiently inform it of our opinions and requests.



Mr.Nagai at Lockheed Martin

---In Japan, full switching to terrestrial digital broadcasting by 2011 has been announced. Meanwhile, satellite broadcasting has provided high-quality broadcasting, such as HDTV. So, when you consider this background, what role do you forecast for satellite broadcasting? Along with the spread of terrestrial digital broadcasting, what new direction should satellite broadcasting take?

As I mentioned at the beginning of this interview, the number of viewers who are dissatisfied with terrestrial broadcasting programs and also watch satellite broadcasting programs have continued to increase. Satellite broadcasting has now progressed in popularity to the level of a major broadcasting network. This trend will continue even when terrestrial broadcasting is digitized and then becomes HDTV, as long as satellite broadcasting programs continue to interest viewers. The current analog simulcasting with digital programs on satellite broadcasting will end in 2011 when terrestrial analog broadcasting will be terminated. So, discussions are now underway on how to use the frequency site for analog programs after 2011. I am hoping for new content providers, who are qualified to manage satellite broadcasting as a major broadcasting network, and who can provide viewers with a variety of interesting, high quality programs.

Meanwhile, it seems impossible to "cover the entire nation" with terrestrial digital broadcasting alone, just as terrestrial analog broadcasting was

unable to in the past. Thus, I think the role of satellite broadcasting in covering the blind spots of the terrestrial broadcasting networks in Japan will continue for many years.



BSAT-3a (picture by Lockheed Martin)



Kawaguchi Satellite Operation Center

---What do you forecast for satellite broadcasting and satellite communication business in Japan and the world? In particular, competition and cooperation between satellites and broadband terrestrial networks are ongoing issues. What is your forecast for them?

As it has happened in Japan, the transition to HDTV on satellite broadcasting will progress further around the world. The transition to HDTV is underway in the United States. Meanwhile, European nations, where the transition to has been delayed, are required to move forward to broadcast HDTV programs because an increasing number of TV viewers in Europe are purchasing flat large-screen TV sets. Since satellite broadcasting can efficiently provide high quality (i.e. HDTV) and diverse TV programs for a large broadcasting area, the number of viewers will continue to increase around the world for the time being.

As for the relation with broadband, satellite broadcasting has been playing the role of a major broadcasting network that provides easy-to-enjoy entertainment, similar to terrestrial TV as I mentioned earlier. This role will continue for the time being.

Satellite broadcasting is also a very robust and reliable medium in disaster situations, especially earthquakes. Satellite broadcasting service can easily broadcast to stricken sites cover without laying fiber cables.

Thus, satellite broadcasting will continue to spread in the future in cooperation with broadband terrestrial networks. On one hand, satellite

broadcasting will focus on services that are different from those of broadband terrestrial networks. On the other hand, satellite broadcasting will cooperate with or supplement broadband terrestrial networks. For example, general broadcasting programs will be provided via satellite. In addition, more specialized information-related broadcasting programs will come through broadband networks.

Satellite broadcasting has contributed to the use and development of advanced media such as HDTV broadcasting. I think satellites will play an increasingly important role in the development of a new, essential media that targets all viewers. The study of new media that have larger information capacity and higher quality has been progressing. B-SAT has also been studying possible applications of satellite broadcasting in the 21GHz band. In the long-term, we will continue to work toward the preparation and development of new media, including the development of new frequency bands.

---You must be very busy on workdays. So how do you spend your holidays? You look like you're fit from training during your younger years, like an athlete.

I spend most of my workdays in the office. On holidays, I try to exercise vigorously. I have been playing tennis with people of my generation in my hometown. Since most of them have careers different from mine, conversations with them are intellectually stimulating, and, naturally, the tennis is good for my health.



Mr.Nagai and Mr.Ueda after interview