

# **Executive Comments**

**By Dr. Ichiro Taniguchi**

## **Message on the appointment as Chairman of the AIAA Satellite Communications Forum**



**Ichiro Taniguchi , Director Chairman  
Mitsubishi Electric Corporation**

### **Author outline of career**

**2002:Chairman, Mitsubishi Electric Corporation**

**1998:President & CEO, Mitsubishi Electric Corporation**

**1997:Executive Vice President, Member of the Board,  
Group President, Electronic Systems**

**1995:Corporate Senior Vice President,  
Member of the Board, Group President,  
Electronic Systems**

**1995:Corporate Vice President, Member of the Board,  
Group President, Electronic Systems**

**1991:Corporate Vice President, Member of the Board,  
Group Vice President, Electronic systems**

**1990:General Manager, Kamakura Works**

**1959:Joined Mitsubishi Electric Corporation,  
Central Research Laboratory**

**My name is Ichiro Taniguchi and I have been appointed Chairman of the AIAA Satellite Communications Forum last September. This forum is organized as a sub-committee of the AIAA TCCS (Technical Committee on Communications Systems) and named as JFSC (Japan Forum on Satellite Communications). It is a great honor for me to be given the opportunity to express my thoughts about Satellite Communication in the Space Japan Review .**

In the 21st century, the demand for satellite communication is predicted to rise tremendously, driven by the remarkable development of information and communications technologies, the diversification and advancement of the Internet, digital broadcasting, multimedia, broadband services and an ever increasing individualization. Also, as for the progress of recent digital technology, on a global scale the field of satellite communications and satellite broadcasting is rapidly moving from analogue to digital. In Japan BS digital broadcasting service commenced in December 2000, following CS digital broadcasting. The number of subscribers has reached more than sixteen million, including the number of BS analogue broadcasting subscribers. Moreover, satellite digital audio broadcasting service has started in the U.S. in September 2001 and the introduction in Japan and Europe is already being planned. On the other hand, as for satellite mobile communication services, international personal communication services using low or medium earth orbit satellites, are facing very severe business conditions. However, services using geo-stationary orbit satellites with a small mobile terminal will be realized as the next generation system, the introduction of which is currently also being studied in Japan.

Large capacity and high speed will be required for future satellite communications and an improvement of broadband services such as high-speed Internet or multimedia is expected. In terms of broadband services, systems using the existing Ku-Band communication satellites have already been established. High-speed communications using the planned Ka-Band or similar frequencies, on the other hand, are still awaiting their realization. At present more than 250 satellites have been assigned to these services in the world, already saturating geo-stationary orbit slots and frequency bands. So, for the effective utilization of the orbit and the reclamation of new frequency bands new approaches will be necessary.

Under these circumstances, the government and private sector companies will jointly undertake the study of quasi-zenith satellite systems in Japan. The quasi-zenith satellite system is suitable for the middle latitude area and its application is expected in various fields, not being limited to satellite communications, by utilizing the high elevation angle. Although there are various issues the realization of this new system is expected to contribute to the development of satellite communications in Japan, Asia, the Pacific Area and eventually all over the world. As we are living in a world of changes, not being tied to conventional ideas, sharing flexible thoughts, new ideas should be discussed with everyone concerned. I expect the AIAA Satellite Communications Forum to be utilized for this purpose. Furthermore, in April 2003, the 21st AIAA ICSSC (International Communications Satellite Systems Conference) will be held at Yokohama's Minato Mirai, international conferences being the

**perfect place to spreads one's idea and widen one's way of thinking.  
I count on your active and fruitful participation.**