

# *Satellite Communications and I*

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In the past, what came to my mind when hearing the word “space” was the *Space Warship Yamato* and *E.T.*, both bordering on fairy tales.

By a curious twist of fortune, though, I have been put in charge of the secretariat for the 21st American Institute of Aeronautics and Astronautics International Communications Satellite System Conference (AIAA-ICSSC 21), slated for 2003, and what promises to be a fascinating assignment led me to write this essay.

Aside from the Conference, I was stumped when asked to write an essay. “Why is it that I can’t get any ideas?” I asked myself. I tried to recall if there was any relationship between the universe and myself. Then I remembered something from my childhood, something in which I once saw almost every day: an observatory.

The Dodaira Observation Station stands on the summit of Mt. Dodaira, 876 meters above sea level, on the border between the town of Ogawa, Saitama Prefecture, where I was born, and two neighboring villages, Tokigawa and Higashi Chichibu. It was built in 1962 as the Tokyo Astronomical Observatory.

It featured an impressive array of equipment, like a night-sky observation room, polar telescope, Baker-Nunn-Schmidt camera, automated meteor tracker, 50-cm comet photographer, and moon/artificial satellite laser observation system. With all that, and being close to Tokyo and easily accessible, a host of observations using pioneering technology were made there. As a child I knew nothing about its inner workings and simply enjoyed sliding down the lawn around the observatory’s dome. Later, when in junior high school, I used the dome as my goal for mountain climbing. So most of my memories of the place have little to do with stars, comets and galaxies.



DODAIRA Observatory ( in 1980's )

Called “Dodaira no Tenmondai (Dodaira Observatory) ”by the local residents, including inattentive schoolgirls like me, it was closed last year in March. Increasingly disturbed by the lights of Tokyo and environs as the city spread seemingly without end, and with the Subaru telescope in Hawaii commencing operation in January 1999, nearly four decades of Dodaira came to an end. While my recollections of Dodaira were of sliding down its lawn rather than looking

up at the heavens when going there, now that it’s closed and a mere husk of what it once was, when gazing at it its shadowy dome from the window of my house on clear nights to appreciate the stars, I miss the place.

Later I heard Dodaira had been used for observing artificial satellites for quite some time. This made me realize that if I had foreknowledge of being handed this kind of job, I would have studied harder at the time. But it's all water over the proverbial dam.

The educational environment at Dodaira did wonders to pique the interest of children in the universe. But in my case, it fell flat. That means I must watch my step well -- tread on eggs, as they say -- so that I will not draw laughs from the specialists associated with the Conference by asking what they no doubt will view as nonsensical questions. Whatever, in spite of being a cosmological pauper, I must serve as a leader of sorts for AIAA-ICSSC 21 and will work hard to assure its going on record as a success.

Let me tell you about the Conference. As you may know, the American Institute of Aeronautics and Astronautics (AIAA) is the world's largest professional society in the realms of aeronautics, astronautics and defense, and enjoys a membership of more than 30,000 researchers and engineers. The International Communications Satellite System Conference (ICSSC) is held under AIAA sponsorship as a major undertaking attended by specialists from around the world with satellite communications as its main theme.

The 21<sup>st</sup> conference will convene in April 2003, and it will be the 2<sup>nd</sup> time to be held in Japan, following the 17th conference in February 1998, marking the first occasion for a city in Asia



In front of AIAA HQ ( Oct. 29, 2001 )

The 17<sup>th</sup> Conference adopted as its main theme "Asia and the World: Toward 21<sup>st</sup> Century Satellite Communications Systems," stressing the rapid progress Asia was making in the world technological scene.

Today, as we enter the 21st century, rafts of artificial satellites are in orbit for divers purposes - communications, broadcasting, meteorological observations.

In Japan too, the age of full-scale digital satellite broadcasting is arriving with the spread of communications services via satellite.

Thus the AIAA-ICSSC is once again schedule for Japan – We aim to find the way for greater progress in the new century and the meeting will provide the opportunity for all participants to discuss together under the theme of "The Impact by Communications Satellite to Information Infrastructure"

AIAA-ICSSC 21 will run four days 16 through 19 April 2003. The first day will feature the Opening Ceremony and the three Plenary Symposia that constitute the principal keynote sessions. The next three days will have thirty parallel sessions in six conference rooms, during which all of 180 papers will be presented.

The concurrent exhibition to be held for three days 17 through 19 April in Hall D, a large space newly

added to “Pacifico Yokohama”, the international convention and exhibition center located Yokohama-city where the big event will unfold. Plans call for opening the exhibition to the public. Naturally there will be social functions, like the Welcome Reception, the AIAA-sponsored Aerospace Communications Award Ceremony and Luncheon, and the Banquet toward the end of the Conference. The organizers hope these functions will promote active exchange among participants from the world over.

Right now secretariat staffs are teamed with members of the Organizing Committee and we’re already working overtime in planning to make sure everything will assure that the participants have a meaningful time during the Conference and view it as well worth attending.



With TC-CS Committee ( In Montreal, 2<sup>nd</sup> from left )

No thanks to the September 11 madness, many international conferences have been cancelled, and even those actually held saw declines in numbers of participants.

We have entered an age when it is possible to hold a conference via telephone and TV through communication satellites without leaving home.

Will this make international conferences obsolete? I, for one, don't think so. Even with technological progress in communications shrinking the world, nothing can beat face-to-face gatherings in pursuit of common objectives through discussion, sharing values, and mutual understanding.

The common, and distinctive, feature of recent space-related international conferences is that they do not merely address tech-

nology and development as in the past; they now also seek international cooperation from the aspect of how to utilize space technology to cope with the environment, disasters and other issues common to mankind, and as a communication tool and a means to reform economic and social infrastructure.

It is hoped that under the theme “The Role of Satellite Communications for Information Infrastructure Reorganization (tentative),” AIAA-ICSSC 21 will set a new direction for the role of communications satellites through presentations by researchers from around the globe plus a compelling exhibition.

Hoping that aerospace technologies and the space industry linking people with people will develop as a symbol of peace, I will do my best to make the 2003 Conference a memorable success.