

Report on AIAA 26th ICSSC2008 & TCCS

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Conference Site: Marriott Hotel & Marina (left), Opening Address of ICSSC2008 by General Chair, Dr. R. P. Frueholz, Aerospace Corp. (middle) and by Technical Chair, Ms. D. M. Johnson, Aerospace Corp. (right).

The AIAA 26th International Communications Satellite Systems Conference (ICSSC2008) was held at Marriott Hotel & Marina, San Diego, California, from Monday, June 9, 2008 to Thursday, June 12, 2008. The AIAA Technical Committee on Communication System (TCCS) Meeting and Lessons Learned Meeting were held during the same period of ICSSC2008. The summary of the conference and meetings are reported here.

A feature of this ICSSC2008 reflects that it is held with co-sponsorship of ISCe2008 (International Satellite & Communications exchange (ISCe) Conference and Expo, Hannover Fairs USA, Inc.) and 2nd Annual Navy SATCOM Users Workshop (the co-sponsorship with ISCe was performed in 2006 too*). Reflecting that at present, the United States Defense Forces depend on a private sector communications satellites for 80% of its communication demand, there were many panel discussions connected to private sector communications satellite use. The number of participants to the ICSSC2008 were 275. Total 400-500 people seemed to attend ICSSC2008 and ISCe2008.

ICSSC2008 Colloquium was performed under the program of Table shown at right with a theme entitled as "Dual-Use and Multi-Use Systems and Services", under chairmanship of Mr. N.R.Helm (Ret.), George Washington University (GWU) on June 9 of the first day of the conference. The number of attendees was not many, with a little over 20, but, this theme seemed that it was the precursor of panel discussions to be begun from the next day with themes including satellite communications system of military and civil uses of so-called dual-use because there were particularly many panel discussions with this theme in ISCe2008.

ICSSC2008 Colloquium June 9, 2008

"Dual-Use and Multi-Use Systems and Services"

- 9:00 Welcoming, General Introductions, Neil R. Helm, (Ret) ,Deputy Director, Space & Advanced Communications Research Institute, GWU
- 9:05 Dedication to Arthur C. Clarke, Joseph N. Pelton, Ph. D., Director, Arthur C. Clarke Foundation
- 9:15 Military Satellite Communications, William Harding, Col., Vice Commander, USAF MILSATCOM Systems Wing
- 10:00 Coffee Break
- 10:30 Advanced Satellite Concepts: Commercial & Dual-Use Systems, Joseph N. Pelton, Ph. D., Director, Space & Advanced Communications Research Institute, GWU
- 11:15 Dual/Multi-Use X-Band, Denis J. Curtin, Ph. D., Chief Operating Officer, XTAR, LLC
- 12:00 Lunch Break
- 1:30 Multi-Use Satellite Communications Research & Development in Japan, Takashi Iida, D. Eng. Invited Advisor, Distinguished Researcher, National Institute of Information and Communications Technology
- 2:15 Leveraging On-Board Processing, Thomas C. Butash, Ph. D., Engineering Fellow, BAE Systems
- 3:00 Coffee Break
- 3:30 Questions & Answers, Panel Session – All Speakers
- 4:30 Adjourn

*M. Takahashi: "Report on Participation in 24th AIAA ICSSC", Space Japan Review, No.47, Jun./Jul. 2006.



Mr. N.R.Helm, Chair of Colloquium and speakers (left) and Prof. J.N.Pelton giving his lecture (right).

The opening of the ICSSC2008 was declared on June 10 of its second day, and two panels were successively held along in Table below related to the theme of this ICSSC2008 entitled as "Responsive Communication Systems and Services" (see its whole technical program at URL: <http://www.aiaa.org/agenda.cfm?lumeetingid=1968&viewcon=agenda&pageview=2&programSeview=1&formatview=>). 127 papers were pre-registered, but 100 papers were presented in actual, including 40 from U.S.A., 11 France, 10 Italy, 10 Japan, 8 U.K. 7 Korea, France 7, 6 Netherlands (ESA), 4 Germany, 3 Spain, each one China, Poland, Turkey, Hungary, and Slovenia. On the other hand, all of ISCe2008 presentations were performed in a panel discussion (cf. list in the next page). The 6 keynote addresses (indicated with red color in the list) were performed by on-active duty military people.

Panels of Responsive Communications

- Technologies and Services Enabling Responsive Communications: The Industrial Perspective
Moderator: Dr. Prakash Chitre, Vice President and General Manager, Comsat Laboratories, ViaSat, Inc.
Panel Members:
Dr. Robert M. Sorbello, Vice President, Satellite Engineering and Programs, Mobile Satellite Ventures
Robert S. Day Jr., Senior Vice President, Space Systems, ICO Global Communications"
Thomas Moore, Senior Vice President and President of ViaSat-1 Ka-band Broadband Satellite
Dr. Alan Young, Senior Vice President and Chief Technical Officer, SES Americom
- Technologies and Services Enabling Responsive Communications: Government Perspective
Moderator: Lt. Col Daniel B. Gammell, USAF, MILSATCOM Systems Wing, Air Force Space and Missile Systems Center
Panel Members:
Richard D. Pino, Technical Director, Military Satellite Communications System Wing, Air Force Space and Missile Systems Center, SES (Invited)
Dr. Troy Meink, Director, Communications Office of the Assistant Secretary of Defense/Networks and Information Integration, SES (Invited)
Dr. W. Daniel Williams, Division Chief, Communications Division, NASA Glenn Research Center
Richard A. Williams, Vice Principal Director, Global Information Grid Enterprise Services Engineering Directorate, Defense Information Systems Agency, SES
Michael P. Regan, Senior Leader, Communication Systems Acquisition and Operation Directorate, National Reconnaissance Office, SES (Invited)

The ICSSC2008 Awards Luncheon is performed on June 11, and AIAA Aerospace Communications Award was conferred to Mr. M. Dankberg, CEO of ViaSat (right in left photo) by vice-chairperson, AIAA (left in left photo). In addition, 2008 ISCe International Awards Dinner Reception was performed in the night of the same day, and a lot of people concerned of Boeing won it. The AIAA Awards for Best Paper and Best Student Paper were announced in the afternoon of June 12 by Ms. E. Klein-Lebbink, Chairperson of TCCS (right photo). The paper by Prof. Tanaka, Nippon University won the former award.



ISCe Panel

Continuity of Government: Network Solutions in Peaces and Crisis

- Communications and Continuity of Government: An Overview
- Expecting the Worst: Emergency Management Communications in Uncertain Times
- **Keynote Speaker:** Lt. Gen. William L. Shelton, Commander- AFSC; Commander Joint Functional Component Command for Space, U.S. Strategic Command – Vandenberg AFB
- Disaster Communications: Rewriting the Rules, Setting the Parameters
- Communications and Border Security: It's More Than Just Building a Fence
- Energy Source and Infrastructure Protection

Military & Government Requirements Forum "Access to SATCOM for the Next Decade"

- **Keynote Address:** Colonel Thomas Shearer, Chief, National Security Space Plans and Program Division, National Security Space Office (NSSO), United States Air Force, Pentagon
- DoD's Double Imperative: Global Connectivity at Higher Speeds...in an Age of Cyber Threats
- **Keynote Address:** R DML (S) Elizabeth Young, Director, Low-Earth-Orbit System Program Office–National Reconnaissance Office (NRO)
- Coordinating The "Comms"; PACOM; STRATCOM; CENTGOM: NORTHCOM; EUCOM
- **Keynote Address:** Brig. Gen. Susan Mashiko, USAF, Vice Commander–Space and Missile Systems Center

2nd Annual Navy SATCOM Users workshop @ ISCe 2008

- **Keynote Address:** VADM Samuel J. Locklear, III, Commander, U.S. 3rd Fleet– U.S. Navy
- **Keynote Address:** CAPT John Pope, Program Manager, Communications Program Office- Program Executive Office, Command, Control, Communications, Computers, and Intelligence, (PEO C4I) PMW-170/A
- Broadband and IP Via Satellite for Navy Applications
- Satellite Applications to Support the Mobile Warfighter



Keynote address by Lt Gen Willie Shelton in June 10 (left) and a snapshot in a panel “Energy Source and Infrastructure Protection” (right).



A snapshot in a panel “Satellite Applications to Support the Mobile Warfighter” (left) and Closing by Mr. D.Bross, ISCe Chair (right in right photo) and Ms. Patricia Cooper, President of Satellite Industry Association (left in right photo).

Next ICSSC2009 will be held with a theme of “The Role of Satellite in the Next Decade” in Edinburgh, U.K. on June 1-4, 2009, and please note that the deadline of abstract submission is October 24, 2008.

Finally, on the TCCS held in the night on June 9, 2008, there was a large number of participants unlike usual committee meeting as shown in a photo below. At first a change of a chairperson is performed, and Ms. Elizabeth Klein-Lebbink (the second from left in front row in the photo) assumed a new chairperson as a successor of Mr. R. Houston. The preparations situation of ICSSC2008 was reported in this *Space Japan Review No. 56, June / July 2008*

TCCS, but a big thing for us was that the ICSSC2011 was approved to be held in Japan. The ICSSC is held in turn in Asia, Europe every other year in U.S.A. So the ICSSC2011 will be held in Asia, because ICSSC2009 is held in Europe. Our proposal of holding the ICSSC2011 in Japan was approved with unanimous applause when we proposed it according to the conclusion that we argued beforehand in the JFSC administration committee. There was a comment from a member of TCCS that holding it in the foreign countries is significant to increase the number of papers from foreigners as shown in this ICSSC2008. Another topic is that the TCCS chair approved for Prof. H. Fukuchi, Tokyo Metropolitan University, to join the TCCS as one of its members, who assumed Secretary General of JFSC newly in April this year. Furthermore, Lessons Learned Meeting took place in the night of June 12, 2008 after the ICSSC2008 finished. Here, it was concluded to hold ICSSC2010 in the U.S.A. in co-sponsorship with ISCe again.

We renewed our old friendship this time with various persons, and got to know new ones. We must push forward preparations for the ICSSC2011 held in Japan.



Attendees in the TCCS.