

SATELLITE AND SPACE COMMUNICATIONS

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**IEEE
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SSC

SSC Newsletter

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CONTENTS

SSC Committee Meetings.....	1
GC2011 SSC Activities	1
How to join SSC Committee and mailing list.....	2
Officers	2
Message from the Chair	2
Scanning the World.....	3
Forthcoming ICC and GLOBECOM Cosponsoring/Related Conferences and Workshops.....	5
Conference Calendar.....	6
Perspective Articles	7

The Satellite and Space Communications (SSC) Committee is a volunteer group actively involved in advancing satellite and space communication technologies within the IEEE. This committee is approved by the IEEE Communications Society and is governed by the constitution and bylaws of the IEEE as well as the other twenty-three Technical Committees in the Society. The committee belongs to the Technical Committee Clusters of Communication/Signal Processing (C/SP).

SATELLITE & SPACE

- JOIN US -

All conference attendees are welcome to join us in the SSC Committee meeting.

**Location: Sequoia D Room,
Grand Californian Hotel**

Date: Thur. 6 Dec., 2012

Time: 12:00 - 14:00

GC2012 SSC Committee Activities:

Symposium on Selected Areas in Communications:

- *Wednesday, 5 December 2012 • 16:00 – 18:00*

Location: Castle A

SAC-SSC01 Satellite and Space Networking

Chair: TBD

- *Thursday, 6 December 2012 • 10:00– 12:00*

Location: Monorail A

SAC-SSC02 Satellite and Space Communications

Chair: TBD

Future SSC Meetings

June 2013, Budapest, Hungary

Dec. 2013, Atlanta, USA

June 2014, Sydney, Australia

IEEE
GLOBECOM²⁰¹²
GLOBAL COMMUNICATIONS CONFERENCE,
EXHIBITION & INDUSTRY FORUM
3-7 DECEMBER • DISNEYLAND HOTEL
ANAHEIM, CALIFORNIA, USA

IEEE
IEEE COMMUNICATIONS SOCIETY
THE MAGIC OF GLOBAL CONNECTIVITY

SSC Newsletter

If you like to join SSC Technical Committee: Please send your name and e-mail address to the SSC Secretary, optionally include your mail address, telephone and fax numbers.

If you like to join SSC Mailing List: Instructions on how to subscribe/unsubscribe are available at <http://lists.scnl.dist.unige.it/listinfo/ssc>.

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MESSAGE FROM THE CHAIR

Prof. Igor Bisio

SCANNING THE WORLD

Dr. Hiromitsu Wakana

I thoroughly enjoy the opportunity of writing my first “Scanning the World” in the SSC Newsletter as the new vice chair and the new editor of this letter. I would like to take this opportunity to express my deepest gratitude to the SSC TC Officer Selection and Nomination Committee and the SSC members for placing me at the privileged position.

Instead of introducing some news about the latest communication satellites and satellite related services, please allow me to introduce my activities as chief editor of an online magazine called “Space Japan Review”, which has been published bimonthly both in English and Japanese for 14 years, after making switch from print publishing to digital publishing on URL of <http://satcom.jp/English/> from May

2001 Issue No. 16, by the Japan Forum on Satellite Communications (JFSC), which is a sub-committee of the Communications Systems Technical Committee (CMSTC) of the American Institute of Aeronautics and Astronautics (AIAA).

The magazine has articles for introducing satcom industry and research activities as well as personal and group achievements. “Executive Comment” is written by specialists and professionals in fields of telecommunications as well as satellite communications. Chairman of Japan’s Space Activities Commission, government directors, presidents of national research institutes and university professors have provided ongoing and forth-coming space policy review and perspective on various technological challenges. In “Interview with CEO”, CEOs of satellite communication and broadcasting enterprises in the world are interviewed: Alcatel, Arianespace, ASBC, AsiaSat, Astrium, Boeing Satellite Systems, B-SAT, COMDEV, ILS, Inmarsat, JSAT, MBCO, Mitsubishi, MSS, NEC, NEC/Toshiba, Orbital, SCC, SLL, Turksat, ViaSat and XTAR LCC. Due to intense M&A of these enterprises, interesting perspective was obtained for different strategy of satellite business.

“Special Reports” on new satellite communication related technologies, services and business reveals experimental satellites such as WINDS, ETS-VIII, QZSS, GCOM-W1 and a series of small satellites, Small Optical Transponder (SOTA), large deployable on-board antennas, updated commercial services like Inmarsat’s BGAN, Connexion by Boeing and MobaHo!, and national projects like AsiaBroadband, J-ALERT, ubiquitous Space-Net program and Stratospheric Platform, although some projects and services were already terminated. Moreover, space debris, Ka-band and broadband satcom, IP-based satcom, satellite-based Body Area Network (BAN), satcom using Ultra Wideband (UWB) signals, wireless

revolution, advanced on-board processors, multicarrier/multi-rate modems, JAXA’s i-Space Project, Millennium Village Project and optical satellite communications were reviewed as “Selected Papers”. These articles are not too technical but are legible for general readers.

Space and satellite related activities are owed to a lot of people's discontinuing efforts. More than 50 persons, who sweat for developing satellite communications technologies, services and business, including persons in various fields of manufactures, vendors, operators, service providers, research institutes, universities, and NPOs, have been introduced in the magazine. These articles will engage readers interested in humanity expressed behind their experiences, actions and behaviors. In 2008 the Space Basic Law was concluded in Japan, the importance of satellite communication technologies for national security and how to lead space R&D have been discussed. At the Editing Committee Meeting, we often discussed proposals to progress Japanese space R&D, demands and problems that should be solved or improved. Topics concerning the ideal situation of space-related R&D process and utilizations, the evolution of commercial communications satellite industries, US space policy and strategy, manned space development, and strategic industries and economic security as well as national security issues. Active opinions such as criticism and/or agreement are expected from readers. Space Japan Review offers information on various other aspects related to satellite communications. The “Conference Report” describes technical presentations on advanced satellite communication technologies appeared in conferences such as Ka and Broadband Communications, Navigation and Earth Observation Conference, AIAA ICSSC, ICSOS, IAC, ISTS, JUSTSAP, MILCOM, PTC, etc. The “Capital Products and Review” informs new products and services for

communications satellites together with editor's review. The "Education Corner" introduces space-related activities in universities. The "Satellite Commentary" provides brief histories of satellite communications and comments on recent situations. These various corners of Space Japan Review will give you a whole perspective on satellite communication technologies, services and business. It is difficult to discuss satellite communication R&D only in terms of technologies without commercial and practical usages. Information delivery and exchange concerning ideas of enterprise and government on market trends and political demands in practical systems will be important. The magazine has been published to play such roles.

At first the print edition of the magazine was delivered to subscribers by postal mail with an annual subscription fee. For periodicals it is necessary to meet strictly the deadline of submission to a printing office. After shifting to on-line publishing, though it was still few in 2001, we found a lot of advantages such as no printing cost, no time-consuming printing and editing process, no postage cost, more flexible deadline of manuscript submissions, and easy retrieval and

archives of issues. It became possible to update events and articles in a timelier manner with audio or video, and know how many readers have accessed it using a website hit counter. The subscription fee is not necessary to be collected due to all voluntary based publications. Space Japan Review has been published both in Japanese and English. We sometimes feel difficulty in translation from 'native' Japanese to English. As a result, the number of English articles is still less than Japanese articles. Now, the editors try to make their best efforts to translate Japanese articles into English as much as possible.

In this issue of the SSC Newsletter, I promoted the on-line magazine published by the different society. Next, I would like to introduce the SSC activities in Space Japan Review for promoting SSC members and increasing paper submissions for IEEE ICC and GLOBECOM.

*Dr. Hiromitsu Wakana, Vice Chair
Satellite and Space Communications
Technical Committee*

**FORTHCOMING
GLOBECOM AND
ICC CONFERENCES**

**COSPONSORING / RELATED
CONFERENCES AND WORKSHOPS**

ICC 2013

June 9-13, 2013, Budapest, Hungary.

<http://www.ieee-icc.org/2013/>

The International Conference on Communications (ICC) is one of the two flagship conferences of the IEEE Communications Society, together with IEEE GLOBECOM. The IEEE ICC is one of the most significant scientific events of the networking and communications community, a must-attend forum for both industrials and academics working in this area.

The ICC conference is a five-day event, three days being dedicated to the technical symposia and two days to tutorials and workshops. The theme is "Bridging the Broadband Divide". The program of the technical symposia includes oral or poster presentations of about 1,000 scientific papers, grouped into 12 thematic tracks, and 18 to 20 parallel sessions. In addition, the conference program includes workshops, tutorials, keynote talks from industrial leaders and renowned academics, panel discussions, a large exposition, business and industrial forums. In 2013 the IEEE ICC conference will be held for the first time in Eastern Europe.

MILCOM 2013

November 17-20, 2013, San Diego, CA, USA

<http://www.milcom.org/>

MILCOM 2013 is soliciting unclassified and classified (DoD Secret) technical papers and proposals for tutorials and panels on current topics of interest applicable to military

communications networking, timing, services, and applications. Professionals in industry, academia, and government worldwide are encouraged to contribute and participate. Technical tracks will include waveforms and signal processing, networking protocols and performance, cyber security and trusted computing, system perspectives, services and applications, selected topics in communications, international perspectives on communications and more.

GLOBECOM 2013

December 9-13, 2013, Atlanta, GA, USA

<http://www.ieee-globecom.org/2013>

The IEEE GLOBECOM 2013 will feature a comprehensive technical program including 13 technical symposia and a number of tutorials and workshops. IEEE GLOBECOM 2013 will also include an attractive industrial and forum program featuring keynote speakers, various business, technology and industry fora, and vendor exhibits. Prospective authors are invited to submit original technical papers for presentation at the conference and publication in the proceedings. Proposals for tutorials and workshops are also invited. Visit the IEEE GLOBECOM 2013 website, <http://www.ieee-globecom.org/2013>, for details and submission information. Deadline of paper submissions is 15 March 2013.

CONFERENCES CALENDAR

CONFERENCE	DATE & LOCATION	INFORMATION
IEEE Aerospace Conference 2012	Mar. 2-9, 2013 Big Sky, MT, USA	http://www.aeroconf.org/
WCNC 2013 IEEE Wireless Communications & Networking Conference	April 7-10, 2013 Shanghai, China	http://www.ieee-wcnc.org/2013/
CITS 2013 2013 International Conference on Computer, Information and Telecommunication Systems	May 7-10, 2013, Piraeus- Athens, Greece	http://congreso.us.es/cits2013/
ASMS/SPSC2014 7 th Advanced Satellite Multimedia Systems Conference & 13 th Signal Processing for Space Communications Workshop	TBD Livorno, Italy	http://www.asms2014.org/
International Conference on Localization and GNSS	June 25-27, 2013 Torino, Italy	http://www.icl-gnss.org/2013
SPECTS 2013 International Symposium on Performance Evaluation of Computer and Telecommunication Systems	July 7-10, 2013, Toronto, Canada	http://atc.udg.edu/SPECTS2013
19th Ka and Broadband Communications Conference 2013	TBD	http://www.kaconf.org
ICSSC 2013 International Conference on Satellite and Space Communications	TBD	
ITST-2013 12 th International Conference on Telecommunications for Intelligent Transport Systems	Oct. 16-18, 2013, Tampere, Finland	http://www.itst2013.org

To all SSC members: If your postal address, telephone or fax numbers have changed, please update them with the committee secretary. You can review our current records on our web page at <http://committees.comsoc.org/ssc/>.

