

**INTERNATIONAL UNION OF RADIO SCIENCE****COMMISSION B BUSINESS MEETINGS****Pisa, 24, 26 and 27 May 2004*****MINUTES***

Attendance :

Prof. Makoto Ando, Commission B, Chair
Prof. Lotfollah Shafai, Commission B, Vice-Chair
About 50 members of Commission B

Schedule:

Business meeting I: 18:00-19:00, 24 May 2004

Business meeting II: 18:00-19:00, 26 May 2004

Closing ceremony: 18:20-18:45, 27 May 2004

The Commission B Chair, Makoto Ando opens the meeting at 18:00 p.m. on Monday 24 May 2004 and welcomes all members who are interested in and supporting Commission B activities.

1 Request for Proposals of Venue for the 2010 EMTS

The procedure of request for proposal of Venue 2010 EMTS was announced which had been suggested by the e-mail to national representatives. A formal request for proposals concerning the venue for the 2010 EMTS will be sent out during the **fall of 2004**. The recently established Comm. B procedure for handling the choice of the venue will be followed. Thus, a small group (2-3 people) will be formed to go through the proposals and then to select two of them which will then be voted upon by the Comm. B representatives. The winner will be determined by a simple majority of the votes received. The request for venue proposals will contain a list of aspects that the proposers should address. The vote is expected to take place in **late 2004 or early 2005 (Commission B Business meeting in 2005 GA, at the latest)**.

2 Proposals and vote for new Comm. B vice-chair for 2005-2008

The procedure for Proposals and vote for new Comm. B vice-chair for 2005-2008 was explained by Makoto Ando. **At the next URSI GA in New Delhi, India, October 2005**, Comm. B will make the final vote concerning the new vice-chair for 2005-2008. The URSI requirements are that all Comm. B representatives shall have an opportunity to nominate candidates and that Comm. B shall present (at least) two names and the order of preference between them. Each Comm. B representative has one vote.

Comm. B takes **a two-step procedure**. In the first round all the nominated candidates participate and each Comm. B representative votes for two candidates. Each representative's first choice will receive 2 points and their second choice will receive 1 point. **The two (or**

possibly three) candidates who get the largest number of points will advance to the second round of voting. In the second round, the representatives similarly give two points to their first choice and 1 point to their second choice.

Comm. B wants to encourage that a sufficient number of candidates are nominated and, therefore, the meeting recommended that a Comm. B **Search Committee (CBSC)** consisting of three Comm. B last chairs should be formed with the task of making sure that enough candidates are nominated. Past chairs Chalmers Butler and Staffan Strom will be invited to form CBSC with the current chair Makoto Ando.

The request for nominations will be sent out during the **fall of 2004** and the second round of voting should take place **early in 2005**. Formally the votes are counted **at the GA** and the Comm. B representatives then have a possibility to change their votes concerning the second round at the GA if they wish to do so.

3 Special Section of 2004 PISA EMT-S in Radio Science published in Fall 2005

A special issue of 2004 Pisa EMT-S in Radio Science will be edited by Akira Ishimaru of Washington university and by Makoto Ando. (For 2001, about 25 papers were accepted and appeared in the Nov.-Dec. issue of Radio Science.) Invitation letters will be sent for papers selected based upon the review results by Symposium TPC and the recommendations by Session Chairs. The historical review talks in the plenary sessions are welcome for the Radio Science Bulletin. (Dr. R. Stone)

4 Presentation of the preparations for the 2007 EMTS in Alexandria, Egypt

Said .E. El-Khami, chair of the Local Organising Committee reported the progress of the preparations for the 2007 EMTS in Alexandria, Egypt. He also mentioned that Comm. B scientists of Egyptian origin who now work abroad could form an international advisory group with the goal of providing the LOC in Alexandria with support concerning different aspects

of the symposium preparations. Several suggestions for local organization of the symposium were provided from the floor based upon the experiences in Pisa.

5 Preparation for 2005 URSI General Assembly in New Delhi, India

Makoto Ando reported the latest results of the discussions in the Coordinating Committee meeting in Gent on 14-16 May. It included the "GA Preliminary Schedule" and "Scientific Session Timetable ". In the 2002 GA, text only abstracts were submitted for review and the final version of the manuscript with a maximum of 4 pages plus a 100 word abstract was requested for each accepted paper. In the 2005 GA, **4-page manuscripts** are submitted **once** for both review and the proceedings.

Commission B will have 11 oral sessions (10 papers x 5 + 7 papers x 5 + 4 papers x 1 =89 oral presentations) and 1 tutorial session(60 minutes = 2 x 30 minutes or 1 x 60minutes). For general lectures, three lectures were selected. "Metamaterials and plasmonic structures" was in the fourth position and was defined as the "Reserve for the top three".

The commission B session should be coordinated by the end of June. The status of topics were reported by Lot Shafai, Commission B Vice Chair. The latest one as of June 25 is as follows (still subject to change).

Commission B sessions for GA 2005 (as on 25/06/2004)

Blue ones are jointed with and lead by other Commissions

Commission B Oral Sessions

5 x 10 papers (L), 5 x 7 papers (M), 1 x 4 papers (S)

24 AM

B[01] Electromagnetic theory (I, C, P / 10)

DB[2] CAD techniques for accelerated design of electronic and electromagnetic structures

EB EM modeling for EMC

24 PM1

B-Tutorial (Total 1hour = 2 x 30 min)

BT (a) Computational Electromagnetics and antenna applications

BT (b) Metamaterials and plasmonic Structures

24 PM2

B[08]: Educational issues in Electromagnetic Theory and Applications (I / 4)

25 AM

BCD Metamaterials, plasmonic structures and their applications (I, C, P / 10)

C[02] Analog smart antennas (I, C, P / 10)

25 PM

B[07]: Guided waves, radiation and interference in open structures (I,C, P / 7)

JB[1] Progress in mm/sub-mm telescopes and receivers

HX[1] Solar Power Satellite

26 AM

B[03] Inverse scattering and imaging (I, C, P / 10)

26 PM

BCF: Propagation models, MAXWELLIAN approach to smart antennas (I,C, P / 7)

JB[2] Mm/sub-mm techniques and science (I, C, P)

27 AM

B[02] Scattering and diffraction (I, C, P / 10)

27 PM

B[05]: Numerical, asymptotic and hybrid methods (I,C,P / 7)

KB: Modeling of biological systems

28 AM

B[04]: Antennas and arrays (I,C, P / 10)

CBA Measurement of wireless channels (I, C / 7-10 / L or M)

 28 PM

BC: Antennas for wireless systems and mobile 1(I,C,P / 7)

29 AM

B[06] Transient fields and ultra wide band radio systems (I, C, P / 7)

CB: Antennas for wireless systems and mobile 2 (I,C,P / 7)

DB[1] Near-field characterization for optics and microwaves

Commission B Poster Sessions

General Poster Coordinator: (not defined)

BP[1] General

BP[2] Non linear inverse scattering

BP[3] Ground penetrating radars: EM modeling, antennas, imaging and inversion

BP[4] Artificial and complex materials and surfaces for antenna

BP[5] RF aspects of smart antenna and MIMO antenna systems

BP[6] (Joint B&K) Interaction of EM waves with biological tissues

BP[7] (Joint BF) Random media and rough surfaces

BP[8] Multiphysics evaluation of RF systems and components (combined thermal, RF and mechanical modeling)

General Lecture

1. Solar power satellite
2. Impact of external solar disturbances on earth's environment
3. UWB systems and spectrum management

6 Requests for Comments on PISA EMT-S and the future of the EMTS

Several new attempts were introduced in Pisa. / Technical Program (One-time 3-page submission, Plenary sessions, 6 room parallel, Posters with short presentation, Time tables, CD publication) / Lunch-every day / Local organization (Concert in domo) etc. Comments about the Pisa EMT-Symposium as well as future symposia were requested and discussed freely.

/A large number of submissions (>450) and registrations (400) were announced. Low no-show rate are emphasized.(20 Oral, 10 Poster -final)

/Number of parallel rooms may be too many for EMT- Symp., some suggestions to mitigate this problem were (1) to limit the presentations per registration to less than 2 or 3, (2) to reduce the time for the oral presentation (in two categories; 10minutes + 20 minutes), (3) to increase the symposium period.

/Hard-copy digest, CD and Final program

The hard-copy digest may be replaced completely by CDs in the near future. Instead, **abstracts in a few lines** for each paper in the **Final program** would be useful and informative.

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- /Lunch every day in the venue included in the registration turned out to be very effective both in enhancing communications between attendees and punctual operation of technical program.
 - / Registration fee: in addition to the current two categories of "Regular" and "Student", a new one "Retired" may be prepared. This received substantial support from the floor.
 - / Commission B appreciates the B-TAB members' hard work. B-TAB supported the Pisa TPC and worked very well and is requested to continue long-term planning for EMT-S and GA as well.
 - / Venue selection: assessing the registration fee more than 5 or 6 years before the events may be **too early** due to the rapid changing of the political situation and the harmonization with the location of General assembly which is finalized only three years before. This should be studied by the Commission Chair and Vice-chair.

7 Any Other Business

Following announcements are reminded.

- / Nominations to 5 major awards in URSI GA <http://www.ursi.org/>
- / INTERNATIONAL ELECTROMAGNETICS PRIZE

The business meeting was closed by confirming "See you again in Alexandria".