

## **Commission F – Wave Propagation and remote sensing**

2002-2005 Chair: Prof. Martti Hallikainen (Finland)

2002-2005 Vice-chair: Prof. Piotr Sobieski (Belgium)

### **Report on the Open Commission Business meetings held during URSI GA 22-29 October 2005, Delhi, India.**

The Commission held three Open Business Meetings respectively on 24, 26 and 28 October 2005 all chaired by Prof. M Hallikainen.

#### **Meeting A.**

1. The proposed agenda is approved by the attendees as is.
2. Credentials. 14 members representing Commission F National Committees are present or represented at the meeting.
3. Election of Vice-chair for 2005-2008.

Four candidates have proposed to act as incoming Commission F Vice Chair: alphabetically:

- Prof M. Chandra (Germany),
- Prof Inggs (South Africa),
- J-J. Isnard (France)
- Prof Mazanek (Czechia).

After verification of the validity of the credentials, the ballots already received by mail before the deadline are checked and reconfirmed by the voting representatives. Ballot forms are distributed to members who have not yet expressed their vote by mail. Each voting member has to attribute points to the candidates following their preference: 2 points for the first one, 1 point for the second one, 0 points for the next ones.

The results of the ballot are:

19 voters have expressed their vote as follows

Prof Chandra : 24 points

Prof Inggs : 12 points

J.J Isnard : 5 points

Milos Mazanek: 16 points.

The Commission confirmed its wish that Prof. Piotr Sobieski would become Chairman at the conclusion of the General Assembly. {The URSI Council subsequently confirmed the appointment of Prof. M. Chandra as vice-chair}.

#### **4. Commission F 2005 General Assembly Program**

- a. Commission F organised ten oral sessions of invited and contributed papers as follows:
  - F01 - Satellite and terrestrial propagation (10 announced papers - 0 no-show = 10)
  - F02 - Propagation and scattering in vegetation (10 announced papers – 1 no-show = 9)
  - F03 - Mobile and personal access radio propagation (7 announced papers – 1 no-show= 6)
  - F04 - Mobile and indoor propagation (7 announced papers- 1 no-show 6)

F05 - Scattering and diffraction effects in remote sensing (7 announced papers- 4 no-show = 3)  
 F06 - Global Remote Sensing (7 announced papers)  
 F07 - Urban Remote Sensing (7 announced papers- 2 no-show ; 2 moved to F08= 5)  
 F08 - Novel sensors and data fusion (10 announced papers - 2 no-show = 8)  
 F09 - Microwave remote sensing of the cryosphere (7 announced papers- 1 no-show = 6)  
 F10 - Remote sensing of atmosphere and ocean (10 announced papers- 2 no-show +1added= 9)  
 as well as the three Inter-commission sessions :  
 FG - Signal degradation by ionosphere and troposphere (7 announced papers- 1 no-show = 6)  
 BCF - Propagation models and Maxwellian approach to smart antennas  
 GF1 - Atmosphere-ionosphere sounding by using global navigation satellite systems.

The tutorial FT had to be changed in last minute due to the unavailability of C. Schmuilius. This tutorial has been given by P. Pampaloni and S. Paloscia. The Commission F community is very thankful to them for this rush replacement.

Also a large poster session totalling 48 Commission F announced papers and 9 intercommission announced papers has been spread by the LOC over two days with discussion periods of two hours. In this poster session 17 of the accepted poster papers did no-show.

b. The chairman summarises the guidelines, that were given to the convenors before the GA, and those he distributed to all sessions chairman at the GA. He reminded to stick with the announced schedule: no anticipation if earlier or no-show, shorten coffee-breaks if later.

The chairman also prepared forms with a short questionnaire handed to all session chairman who have been requested to fill in their reports immediately at the end of the session. The attendance statistics showed that commission F sessions were followed in average by around 30 to 50 persons with higher numbers for inter-commission sessions (around 50) and the tutorial (around 60).

1. Requests from Coordinating Committee and Council and response to co-ordination committee and the publication committee.

Prof. Hallikainen first expresses his thanks to those having contributed to Commissions F contributions to RRS. Incoming Vice-Chair Dr. M Chandra is appointed as RRS/RSB editor for Commission F. For the future, the following suggestions for topics are mentioned: polarimetric interferometric radar and/or radiometric techniques; propagation problems related to the use of higher frequencies; articles in relationship with the International Polar Year to be held in 2007; similarly as in July 2006 ISPRS (Photogrammetry) is organised, scientists concerned by this field could be requested to write an article in RSB; dynamic properties of the troposphere with implications on telecommunications systems.

Also, following a request to have representatives of commission F to the URSI publication committee: Steve Reising and Ian Glover accept to volunteer join this committee head by Ross Stone.

### **Meeting B.**

2. Discussion of terms of reference.

After a short discussion it is approved to clarify sub item (a,ii) by changing it as follows:  
*(a)(ii) wave interaction with the planetary atmospheres, surfaces (including land, ocean and ice), and subsurfaces,*

3. Inter-assembly meetings

Sponsorship modes: A (no financial support), B (financial support), C (loan , very rarely)

a. Meetings since last GA

- i. List of “A” meetings: about 20 meetings (moral sponsorship) see triennium report
- ii. List of “B” meetings: 6 meetings (see triennium report)

### **Meeting C.**

a. Proposed meetings for next triennium: 2006-2007

Commission F Open symposia:

Volunteers for organising: during the discussion up to four proposals to organize one of the two open symposia are made, well distributed geographically. The chair reminds the tradition to turn from country to country, and displays the list of all previous open symposia organised in the last three decades. He thanks very much the four candidates asking them their preferences:

- i. Garmisch Germany: preference for open symposium;
- ii. Brazil may 2007: preference for open symposium;
- iii. India: preference for open symposium, either remote sensing;
- iv. South Africa in Cape Town: preference for remote sensing.

Decision:

Commission F Open Symposium: after presentation by the candidates of the possibilities and advantages of their respective proposals, a vote is made as follows: 13 for Brazil; 4 for Germany.

Commission F specialist Meeting on remote sensing: after presentation by the candidates of the possibilities and advantages of their respective proposals, a vote is made as follows: 14 for Cape Town; 1 for India.

Other anticipated supported (type A) meetings

- MicroRAD2006 28 feb-03 Mar, San Juan Puerto Rico
- 36<sup>th</sup> COSPAR
- IGARSS2006
- IGARSS2007
- AP-RASC2007
- ISMOT-2007
- ISAP'2007 20-24-Aug Niigata Japan
- IGARSS'2008 Boston 7-11 July 2008
- MicroRAD 2008 dates (??)
- COMITE 2007 Prague ?Sept 2007
- EUSAR 2006 Jan 22-27 ; Lihue, Hawaii, USA

Other anticipated supported (type B) meetings

- Commission F Open Symposium (see above)
- Commission F specialist Meeting on remote sensing (see above)
- AP-RASC07 (in addition for sponsorship "A")
- ClimDiff 2007

1. Commission F proposals for sessions and organisation at 2008 URSI GA-Chicago.

The commission was content with the organisation of the sessions in 2005, as well as by the chosen topics. For the next GA several new topics are proposed: sub-millimetric and terahertz propagation (Mazanek+Chandra as possible co-convenors), Cryosphere (Marco Tedesco + Richard Kelly as possible co-convenors; polarimetric methods in radar and remote sensing (Chandra), data fusion from different satellites; special scaling issues in remote sensing; dynamic effects in the troposphere and mitigation techniques (B. Arbesser as possible convenor); interference problems and mitigation techniques.

The members wish to keep a full 4 page paper on CD (with some flexibility on the number of pages) plus a short abstract to be included in the program.

A proposal for a tutorial in the field of wave propagation should be proposed in 2008 as the tutorial in 2005 related to remote sensing of the vegetation. Alos a public lecture for members of other commissions should be proposed at the mid-term co-ordinating committee to be held in spring 2007.

2. Inter-commission working groups.

- a. The WG automatically end at the GA and must be renewed by resolution
  - i. FG Ionosphere/Atmosphere RS using satellite systems: continues
  - ii. GF Middle atmosphere
  - iii. as several members express their concern about the problems related to the solar power satellite (SPS) project, commission F will continue to participate to the

WG, if such a WG will continue to exist, and S Reising is appointed as commission F representative. Note there is a chance this will be a WG from all commissions and a White Paper would be produced.

- iv. Commission F agrees also to participate to inter-commission sessions related to the previous topic (on SPS) at GA2008 : by getting at least 1 commission F paper voicing the opinion of the commission.

- a. SCT  
suspended

1. Representatives to other organisations

- a. SCOR  
Commission F interests will be looked after by the vice-chair M. Chandra

- b. IUCAF  
2005-2008 S Reising is appointed to represent Commission F interests.

- c. COSPAR  
2005-2008: B Arbesser is appointed to represent Commission F interests.

1. Publications and publicity

- a. Radio Science Bulletin (see above)

- b. Information dissemination

- i. The chairman mentions that the Commission F Home page was established in 2002 in connection of URSI Home Page
- ii. Some problems of email mailing lists are reported and the vice chair will take care of having a reliable data base.
- iii. The important to get email list from other colleagues addresses (outside URSI Comm F) is also mentioned
- iv. Some specific list for Young Scientists should be welcomed either

1. Any other business

The commission expresses by means of applause its warm thanks to Prof. M Hallikainen for the work done for the past 3 years as the Chair of the commission.