



USNC-URSI
Business Meeting Minutes
8 January 2019
Boulder Marriott Hotel
Boulder, CO



1) Call to Order and Introductions (Sembiam Rengarajan)

Sembiam Rengarajan, the Chair of USNC-URSI, called the meeting to order at 5:10 pm MST. The following members of USNC were present at the USNC-URSI Business Meeting.

USNC Officers

Sembiam Rengarajan (Chair)
Michael Newkirk (Secretary and Chair-Elect)
David R. Jackson (Immediate Past Chair)
Gary Brown (Accounts Manager)

National Academies Staff (non-voting)

Ana Ferreras

Commission Chairs and Vice-Chairs

Jamesina Simpson (Commission B Chair)
Branislav Notaros (Commission B Vice-Chair)
Eric L. Mokole (Commission C Chair)
Jonathan Chisum (Commission D Vice-Chair)
Tom Hanley (Commission F Vice-Chair)
Attila Komjathy (Commission G Chair)
Thomas Gaussiran (Commission G Vice-Chair)
Robert Moore (Commission H Chair)
Mark Golkowski (Commission H Vice-Chair)
Jeff Mangum (Commission J Chair)
Majid Manteghi (Commission K Chair)

Society Representatives

Fabiano Rodrigues (AGU representative)
Danilo Erricolo (IEEE AP-S representative)

Members-at-Large

Reyhan Baktur
Wayne Scales

U.S. Officers of URSI

Ross Stone (Assistant Secretary General - Publications)
George Uslenghi (URSI Vice-President and Assistant Secretary General – AT-RASC)
John Volakis (Vice-Chair, Commission B)

Government Liaisons (non-voting)

Not present

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Also in attendance:

Koichi Ito (IEEE AP-S President)

David Michelson (CNC-URSI Chair)

Yahya Rahmat-Samii (USNC Chair 2009-2011 and IEEE-APS/USNC-URSI JMC member)

Erdem Topsakal (Coordinator for Student Travel Program and Student Paper Competition)

2) Approval of the Agenda (Rengarajan)

The agenda for the meeting was approved (M: Stone; S: Brown).

3) Approval of Minutes (Rengarajan)

The minutes of the January 2018 USNC-URSI Business Meeting in Boulder, CO were approved (M: Stone; S: Brown).

4) Report by the Chair (Rengarajan)

- The Chair recognized two special guests in attendance: Koichi Ito, IEEE AP-S President, and David Michelson, CNC-URSI Chair.
- The Chair reviewed the URSI and USNC-URSI organizations. The USNC-URSI Committee (the “Committee”) was reminded that the voting membership of the Committee consists of 4 officers, 6 Members-at-Large, 10 Commission Chairs, 8 U.S. officers of International URSI, 6 Society Representatives, and one National Academies Representative (Jack Welch). The Chair reviewed the USNC-URSI Leadership (Officers and National Academy Representatives), Commission Chairs, Vice Chairs, Society Representatives, Government Liaisons, Honorary Members, USNC-URSI members holding URSI positions, and USNC-URSI representatives in the Joint Meetings Committee.
- Ross Stone serves as the Publications Coordinator in charge of the USNC-URSI Archive. Ross will oversee all issues pertaining to USNC-URSI publications and also interact with the IEEE AP-S on publication issues.
- Erdem Topsakal, Student Coordinator, is in charge of the Ernest K. Smith Student Paper Competition and the Student Travel Grant awards.
- The NRSM Conference Coordinator Christina Patarino was thanked for all her work to make the NRSM successful.
- The Chair recognized the NAS staff members Pamela Gamble and Chelsea Bock; Pam was recognized for her support of USNC-URSI and Chelsea was recognized for her service as the USNC-URSI webmaster.
- Important events at the 2019 NRSM were reviewed: a Special Historical Lecture on January 9 at 12:15 pm, Reception on January 9 at 6:30 p.m., Student Paper Competition and Plenary on January 10 from 8:20 a.m. to 12:00 noon, Student Travel Grant and Mentoring Lunch on January 10 from 12:00 noon to 1:00 pm, Hans Liebe Lecture on January 11 from 12:15 p.m. to 1:15 p.m., Dinner with Mrs. Liebe on January 11 (by invitation) and Executive Council Meeting on January 12 from 8:00 to 11:00 a.m.

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Commission Business Meetings were scheduled on January 9 and 10 from 5:00 to 6:00 p.m. and 6:00 to 7:00 p.m.

- The Chair reminded the Committee about the nomination process for new members. All Commissions should use the application process through the “Membership” link on the USNC-URSI website.
- The Chair asked the Committee to pause for a moment of silence to honor recently deceased members.
- The Chair reviewed the status of the Commission websites, as this was an item of discussion at the past two meetings. Some Commissions still do not have their websites in the USNC-URSI website. Some of the Commissions do not have the complete membership information. Some of them do not have minutes of their recent meetings or current information for officers. Chelsea Bock, the USNC-URSI webmaster will help Commissions to update their websites. It is suggested that all Commissions have their members’ names and affiliations in their websites. Commission Chairs were given the action to update their pages on the site as soon as possible.
- The Chair reminded the Committee that the 2019 AP-RASC will be held in New Delhi, India from March 1-5, and encouraged Chairs to highlight this at their Business meetings.
- The Chair reminded the Committee that the 2020 URSI GASS will be held in Rome, Italy, August 29 – September 5. Travel support will be available for regular members and early career scientists. All Commission Chairs and past Chairs were encouraged to be nominated for URSI Commission Vice-Chair positions. There will also be calls for Early Career Representatives for each Commission and URSI awards.

Discussion Items:

- There will be no 2020 NRSM in Boulder, since there will be a North American Radio Science Meeting (NARSM) in Montreal, Canada in July 2020. The dates for the 2021 NRSM are January 6-9 (Wednesday-Saturday), with Saturday used for sessions only if the number of papers requires. The Business meeting will be held on Tuesday evening, January 5, and the Executive Council Meeting on Saturday morning, January 9 (if overflow sessions are not needed)
- The Chair asked how USNC-URSI could better engage students at the Business Meetings. Reyhan Baktur recommended that personal invitations be made by professors/advisors.
- The Chair asked whether the Committee wished to continue holding the USNC Business and Executive Meetings at the Boulder Marriott, now for the third year. All members were in favor of remaining at the Marriott for future meetings. It was felt that the Boulder Marriott is a better facility. One request was made to have the dinner break a bit earlier in the agenda.
- The Chair showed the results of the 2018 NRSM Survey. It was noted that half of the respondents were students (this was 48% in 2017), attendees were generally satisfied with the scientific content, and 74% attended sessions from two or more Commissions.

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- A draft copy of the 2019 NRSM Survey was distributed. Suggestions on survey questions were sought from the Committee.
- The Chair noted that for the first time, the contents of the conference USB drive were made available prior to the start of the conference, to address issues that government workers have with use of USB drives. In addition, a single PDF file containing all abstracts and summaries was made available. The Commissions were asked to provide feedback from attendees.
- The Chair pointed out that there was an increase in the NRSM registration cost combined with a registration discount for members. The increase was to counter increasing prices for services, while the discount was intended to encourage non-member attendees to become members.
- The Chair asked the Commissions to provide feedback on whether their Commission would participate in the IEEE AP-S/USNC-URSI RSMs being held in Singapore (July 2021) and Denver (July 2022).
- The issue on how to deal with inactive members was again discussed. The concept of creating an “Inactive” list within each Commission’s membership list was discussed. Commission Chairs were asked to discuss this at their Business Meetings.
- The Chair noted that USNC-URSI has only one award, the Booker Fellowship and asked the Committee if there should be more. The general consensus was yes, but no concrete ideas were identified. Additional feedback on this is sought from the Commissions.

5) Report by the Secretary (Newkirk)

- As agreed upon at the 2018 Executive Committee Meeting, the NRSM abstracts and summaries were provided in two formats for advance download by attendees approximately one week before the meeting started. An email was sent to Commissions notifying them and asking them to inform their members, but this did not reach all attendees. It was suggested that Christina also send an email to those registered for the conference in the future. The Committee was also asked whether there was still a need for the physical USB drive, if the material is available to download, since not producing this would reduce costs. Feedback on how well this worked for attendees and whether the USB drive is still desired was sought from the Commissions.
- The consolidated membership database is nearly complete, lacking only the inputs of Commissions C and E. Commission Chairs were asked to update their individual membership lists and send to Mike Newkirk after they elect new members during the coming week. The website managed by NAS will be able to provide a Listserv capability to send mass emails to members using this consolidated membership list.
- The Committee was asked whether USNC-URSI should set up a Social Media Committee to maintain a presence on different social media platforms in order to publicize USNC-URSI meetings and activities. This generated lively discussion, but did not settle on a position. Commissions were asked to get feedback on this from their members.

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6) Report by the Immediate Past Chair (Jackson)

- David Jackson proposed a reduced registration fee for post-doctoral members (post-docs), as presently they would pay the regular registration fee (member or non-member), which is considerably more than students. Some on the Committee felt that it would be good to expand this to members who are early in their careers. Feedback was sought from the Commission members.
- At the 2018 Business and Executive Council Meetings, the idea of holding tutorials associated with the NRSM was discussed. No progress had been made on that concept, so an exploratory committee was suggested whose charter would be to determine the level of interest in various ideas (tutorials, workshops, training). The exploratory committee will be led by Jeff Mangum, supported by Mark Golkowski and Jonathan Chisum.

7) Report by the Accounts Manager (Brown)

- USNC-URSI's financial situation was updated.
- Our major expenses continue to be student travel grants, awards and prizes. The revenue sources are the Boulder meetings and the joint summer meetings with IEEE AP-S. This year several overdue payments from AP-S came in from past meetings, boosting the private account balance to approximately \$349K.
- Commission Chairs were reminded that each gets \$3K to spend on their Commission during their three-year term, which can be used for travel or any other purpose to benefit the Commission. Any requests must first be cleared through Gary Brown, who will then inform NAS that an expense is approved.
- Of the current \$349K in our private account, about \$43K is restricted to specific uses, leaving about \$306K available for use. Gary mentioned that the income from the Boulder meeting and the summer joint meeting with AP-S is about \$30K and \$60K respectively, based on a conservative estimate. Our normal annual expenses are \$100K (including the student travel support). The account is in good shape given the recent GASS and travel expenses and expected Boston AP-S meeting proceeds. The delay in receiving past AP-S funds was due to changes in IRS rules that the IEEE has finally worked through.

8) Report by URSI Vice-President and Assistant Secretary General of AT-RASC (Uslenghi)

- The 2018 URSI AT-RASC was very successful and larger than the last AT-RASC. The Early Career Representative chose the invited lecturers. Anthea Coster's presentation (the same being given as the Special Historical Talk at this NRSM) was very well received.
- The next AT-RASC will again be held in Gran Canaria during May 2021. George stated that he would not be the General Chair for that meeting.
- The upcoming 2019 AP-RASC in New Delhi had about 900 submissions at the time of the report, mostly from India.
- The 2020 GASS will be in Rome and is on track. George made a motion to have USNC-URSI provide \$5K for Student Paper Competition Awards (M: Uslenghi; S: Stone). The motion passed unanimously.

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- George will be the Editor in Chief for the new online journal, Radio Science Letters (RSL), controlled by URSI. This is meant to complement Radio Science, which is controlled by AGU. The site should soon be open for submissions.
- George will also be collecting USNC-URSI inputs for the URSI Centennial Book, which celebrates the 100th anniversary of URSI.

9) Remarks from IEEE AP-S President (Ito)

- Professor Ito reviewed the leadership, status and activities of IEEE AP-S. He also highlighted the long and mutually beneficial relationship between AP-S and USNC-URSI, noting the upcoming July 2019 meeting in Atlanta and future summer meetings.

10) Report by URSI Assistant Secretary General (Publications) (Stone)

- The RSB has been on IEEE Xplore since July 2017, and is seeking submissions. The new online RSL, as previously described by George Uslenghi, will soon be seeking submissions.
- The 2020 URSI GASS will be in Rome, Italy. Sessions will be formed at the AP-RASC in March, so members are encouraged to reach out to their respective international URSI Commission Chairs and/or Vice-Chairs if there is interest in forming a session.
- Ross also reminded the Committee about the availability of Individual Membership in URSI, and urged Commissions to encourage members to join. Individual memberships are free and allow reduced registration at URSI meetings, notification in the RSB issues and reduced page charges for the RSL.

11) Report by USNC-URSI Publications Coordinator (Stone)

- Ross provided an update on the status of the USNC-URSI Archive on the National Academies (NA) website. The NA will soon change its website content management software which will make it difficult to manage the archive. After some discussion with USNC-URSI leadership, a suitable site that is separate from the NA will be pursued to host the archive.
- Ross provided additional information about the advance posting of NRSM abstracts and summaries for download to attendees. The server USNC-URSI leases for managing the paper review and session formation process was used to host the two downloadable files. The server is managed by Bo Yu for USNC-URSI and will be appropriate for the same purpose in the future.

12) Report by the JMC USNC-URSI Coordinator (Stone)

- The statistics for the 2018 joint symposium in Boston were presented. There were 1422 AP-S papers and 409 URSI papers submitted. The accepted papers by AP-S and URSI were 1312 and 397 respectively, for a total of 1709. There were 1411 oral and 298 poster papers. The USNC-URSI's share of the surplus is about 23%, which will be about \$95K.
- Roberto Graglia is the JMC Chair, with AP-S members Wei Hong, Andy Peterson, Christian Pichot, George Uslenghi and Parveen Wahid (AP-S Meetings Coordinator).

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The USNC-URSI members are Gary Brown, Susan Hagness, Yahya Rahmat-Samii and Ross Stone (USNC-URSI Meetings Coordinator).

- AP-S has decided that no more often than every three years, the joint summer symposium will be held outside North America. USNC-URSI has committed to continuing to join with AP-S outside of North America. AP-S is now considering holding a new topical meeting inside North America in years when the summer joint symposium is held outside North America, but the details are not yet known. There will be a strong desire for USNC-URSI to join in those meetings.
- The dates, venue, and chairs of the future joint symposia are:
 - July 7-12, 2019, Atlanta, GA, John Papapolymerou; the paper submission deadline is January 15, 2019;
 - July 19-24, 2020, Montreal, Canada, Ahmed Kishk;
 - July 10-16, 2021, Singapore, Zhi Ning Chen.
- For the 2022 joint meeting, it has just been announced that it will be held July 10-15, 2022, in Denver, with Branislav Notaros as General Chair. A motion was made to have USNC-URSI participate (M: Stone; S: Uslenghi). The motion passed unanimously.
- For the 2021 Singapore meeting there will be two professional conference organizers (PCOs). A local company (CMA) will coordinate hotels, food and beverage, and social programs while CMS will take care of paper handling, registration, financials and IEEE audited items, as they have done in the past.
- The Joint Meetings Committee is actively seeking proposals for 2023 and later. Contact Ross or Roberto Graglia for information on how to propose.
- Future URSI meetings include:
 - AP-RASC 2019: March 9-15, 2019, India Habitat Centre, New Delhi, India.
 - URSI Commission B EM Theory Symposium, May 28-31, 2019, Westin San Diego.
 - URSI GASS 2020: August 29 – September 5, 2020 Sapienza University, Rome, Italy
 - URSI AT-RASC 2021: May 23-28, 2021, Gran Canaria, Spain
 - URSI GASS 2023: Sapporo Convention Center, Sapporo, Japan, most probably in August 2023
- In 2020 the joint AP-S/USNC-URSI symposium will be held at Fairmont Queen Elizabeth Hotel in Montreal. It will be a North American Radio Science Meeting, and thus joint with CNC-URSI.

13) Report from the National Academies (Ferrerias)

- Ana reviewed the mission, organization and priorities of the Board on International Scientific Organizations (BISO), its relationship to the International Council for Science (ICSU) and the organization and roles of the 17 USNCs that it oversees.

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- During the 2019 NRSMS, 109 travel fellowships (award letters) were offered. Three students declined for various reasons. The students receiving fellowships are expected to attend the Plenary Session, Student Paper Competition, Student Luncheon, and fill out a survey afterwards. Certificates are provided only upon request.
- Based on the success of last year, another Mentoring Panel will be held this year as part of the Student Luncheon. Changes this year include having only two panelists and leaving more time for student questions. Commission Chairs were strongly encouraged to attend and become mentors.
- The Women's Reception will be held on Thursday from 7:00 to 9:00 pm, with special Guest Anthea Coster (Special Historical Lecturer).
- The International Visitors Office (IVO) provides an institution-wide service in monitoring the international visa situation. The IVO assists international scientists/engineers and students by bringing their pending visa cases to the attention of the Department of State. Members are encouraged to take advantage of this assistance should they need help with international visitors, as they have been very successful in helping visitors. Details are accessible through a link on the USNC-URSI home page.

14) Report from Student Coordinator (Topsakal)

- There were 109 student travel fellowship applicants; all have their registration fee waived.
- Erdem mentioned that there were 17 student papers and the top seven were ranked by the Commission Chairs to select the top 3 finalists. The three finalists are Jordan Budhu (B), William Longley (G) and Poorya Hosseini (H). The finalists will compete Thursday morning prior to the Plenary Session.
- Erdem Topsakal thanked all the Commission Chairs for their work in ranking the papers.

15) Nomination of USNC-URSI Members to International URSI President and Vice-President (Rengarajan)

- Sembiam discussed the need for USNC-URSI to make nominations for these very prestigious positions in URSI. Only one nomination had been received: George Uslenghi for the position of URSI President. After some discussion on the advantages and disadvantages of nominating candidates for both President and Vice-President positions, it was decided to focus USNC-URSI efforts on a single nomination of George for URSI President. A motion was made to nominate George for the position of URSI President (M: Stone; S: Brown). The motion passed unanimously.
- Sembiam reviewed George's accomplishments and suggested that he would be an excellent candidate for honorary USNC-URSI member, noting that the Constitution allows for up to four and there currently is just one (Chalmers Butler). It was recognized that George has had a distinguished and dedicated involvement for 57 years. A motion was made to nominate George for Honorary USNC-URSI Member (M: Stone; S: Brown). The motion passed unanimously and enthusiastically.

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16) Formation of a Chapter of Women in Radio Science (Rengarajan)

- Sembiam reported that AT-RASC 2018 had a successful session on Women in Radio Science with Anthea Coster as the featured speaker, and that representation of Women in URSI, especially in leadership roles, is very low.
- USNC-URSI and the National Academies would like to start a chapter of Women in Radio Science with activities to involve more women in technical and leadership roles. The Wednesday Special Historical Lecture by Anthea Coster and the Women's reception with Anthea are considered to be initial steps.
- After some discussion, the Committee supported the idea, and Commission Chairs were asked to gather feedback at their Business Meetings on interest and participation in this first ever such chapter in any National Committee of URSI.

17) Student Paper Competition and Student Travel Support at 2020 NARSM (Rengarajan)

- With the next USNC-URSI meeting being the 2020 NARSM, Sembiam reminded the Committee that student travel support at the previous NARSM (Vancouver 2015) was \$800. Also, the Student Paper Competition in Vancouver was organized jointly by USNC and CNC-URSI. Cash prizes of \$1000, \$750, \$500, \$250 and \$150 were awarded to the top 5 candidates.
- After a short discussion, the Committee agreed to have USNC-URSI fund the 2020 NARSM SPC and student travel support. The amount of student support and number of students supported would be decided by available funds.

18) Comments by CNC Chair (Michelson)

- Dave Michelson provided an overview of the Canadian National Committee (CNC) organization and leadership, as well as several initiatives being undertaken in the current triennium.
- Dave also highlighted the upcoming 2020 NARSM in Montreal and looks forward to close collaboration with USNC-URSI in planning for that meeting. He also proposed that Canada host a NARSM every five years, based on past history. To that end he is proposing that the next NARSM be held in 2025.

19) Report by National Academies Representative, Members-at-Large, Society Representatives, Government Liaisons

- No comments were given; however, it was noted that the partial government shutdown prevented some Committee members and planned conference attendees from traveling to Boulder for this meeting.

20) Preliminary Report on the 2019 NRSMS statistics (Newkirk and Rengarajan)

- Total number of pre-registrants: 312.
- Total abstracts and summaries submitted: 342.
- Total abstracts and summaries accepted: 341.
- Total number of sessions: 46.
- Total number of Student Travel Grant award applications: 109.
- Expecting another 20-50 on-site registrations, based on the last few years.

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- As with last year, about 6% of the papers (20) came from outside the US, but from fewer countries. Canada had the vast majority (16)

21) Plenary and Special Sessions for the 2021 NRSM in Boulder (Rengarajan)

- Sembiam Rengarajan stated that the 2021 Plenary theme should be decided this week, even though the next NRSM is two years away; he asked that this be discussed at the Commission Business Meetings.
- Past themes of the Plenary session were provided, along with past suggestions that were not used. Two ideas that surfaced in the discussion included “Big Data” application and 5G technologies.
- Special sessions for the NRSM 2021 need to be decided by May 1, 2020.
- Commission Chairs should start from the special sessions proposed for the 2019 NRSM that did not materialize.
- A final list of the special sessions from each Commission needs to be prepared, including names and emails for at least two organizers for each session.

22) Action Items for Commission Business Meetings (Newkirk)

- Mike will email the Commission Business Report form with these actions:
 1. This year USNC-URSI provided advance download of NRSM Abstracts and Summaries. Please provide feedback.
 2. Now that the USB contents are available for download, is there any interest in still getting the USB drive with registration? USNC-URSI would save money if those are no longer provided.
 3. Will your commission participate in the 2021 Singapore and 2022 Denver summer joint meetings with AP-S?
 4. Is there interest in using a conference app instead of the traditional printed program, or as a supplement to the printed program, for future meetings?
 5. USNC currently has only one award (Booker Fellowship) given every three years. Does your Commission have any suggestions for USNC-URSI to institute annual awards?
 6. USNC-URSI has formed an exploratory committee to develop recommendations for short courses, tutorials and/or workshops. Is anyone interested in participating on the committee, being a presenter or have ideas for topics?
 7. USNC-URSI is considering the formation of a Social Media Committee to help publicize NRSM topics, events, awards and announcements (through Twitter, for example). Is there any interest in participation?
 8. USNC-URSI would like to form a Chapter of Women in Radio Science. Please provide contact info for those interested in serving as officers of the chapter.
 9. Please provide Plenary Session topic ideas for NRSM 2021
 10. USNC-URSI is considering a reduced registration rate for post-doctoral attendees. Does your commission support this idea?

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23) Old Business (Rengarajan)

- None.

24) New Business (Rengarajan)

- None.

25) Adjournment

The meeting adjourned at 9:15 pm MST.