

Minutes

IAA SETI Permanent Committee

Saturday, September 29, 2001

9:30 AM, Room Ariane 2, Centre des Congrès Pierre Baudis
Toulouse, France

1. Attendance:

Chairman: Claudio Maccone (acting)

Co-Chair: Claudio Maccone

Secretary: Doug Vakoch (acting)

Officers Not Present: Jill Tarter (Chair), Tom Pierson (Co-Chair), and Guillermo Lemarchand (Secretary)

Members: Maccone, C., DeBiase, R., Malina, R., Shostak, S., Oliver, C., Almar, I., Tough, A., Shuch, P., Ollongren, A., Vakoch, D., Morison, I., Fasan, E.

Guests: Elliot, J., Ascheri, V., Musso, P., Schlumberger, M., Piotelat, E.

2. Adoption of the Agenda of the Meeting

The acting Chair, Claudio Maccone, opened the meeting at 9:30 a.m. at the Centre des Congrès Pierre Baudis. Maccone expressed his regrets over the absence of a number of members of the SETI Committee due to the events of September 11th. The agenda was approved as presented.

3. Approval of the Report on the Last Meeting

The minutes of the committee and subcommittees were approved as presented.

4. IAA Conferences and Symposia

There were no IAA Conferences or Symposia sponsored by the SETI Committee.

4.1. Academy participation in the International Astronautical Congress

4.1.1. Status of 2001 Sessions in Toulouse

Session 1

- paper IAA-01-IAA.9.1.01 is withdrawn
- paper IAA-01-IAA.9.1.04 is withdrawn
- paper IAA-01-IAA.9.1.08 is withdrawn
- paper IAA-01-IAA.9.1.03 will be read by co-author, Claudio Maccone
- paper IAA-01-IAA.9.1.10 will be read by co-author, Claudio Maccone
- Claudio Maccone will substitute as Co-Chair for Session 1

Session 2

- paper IAA-01-IAA.9.2.01 is withdrawn
- paper IAA-01-IAA.9.2.02 is withdrawn
- paper IAA-01-IAA.9.2.05 is withdrawn
- paper IAA-01-IAA.9.2.06 is withdrawn
- paper IAA-01-IAA.9.2.12 is withdrawn
- paper IAA-01-IAA.9.2.08 will be read by co-author, John Elliott
- Paul Shuch will substitute as Rapporteur for Session 2

4.1.2. Status of Preparation of the 2002 Sessions in Houston

Session 1

SETI Science and Technology: New SETI Facilities Enlarge the Search (Joint with COSPAR)

Coordinators:

- J. Tarter (USA)
- D. Vakoch (USA)
- F. Raulin (France)

Chairs:

- J. Tarter (USA)
- C. Maccone (Italy - COSPAR)
- Rapporteur: A. Tough (Canada)

Session 2

SETI Interdisciplinary Connections: Who Will Speak for Earth? What Will They Say? When Will They Say It? (Joint with COSPAR)

Coordinators:

- J. Tarter (USA)
- D. Vakoch (USA)
- F. Raulin (France)

Chairs:

- D. Vakoch (USA)
- J. Rummel (USA - COSPAR)
- Rapporteur: P. Sterns (USA)

4.1.3. Status of Preparation of the 2003 Sessions in Bremen

Two SETI Sessions are planned, as in past IACs, however it is not clear given the upcoming restructuring whether the Program Committee associated with the SETI Permanent Committee will be able to sponsor both of these sessions, or whether another Program Committee will need to be created to sponsor a second SETI session. Coordinators, Chairs, and Rapporteurs have not yet been selected for the Bremen IAC.

4.2. Stand Alone Symposium 2001-2002

There will be no stand-alone symposia during 2001-2002

5. Committee Membership

5.1. Current Members proposed as members of the SETI Permanent Study Group:

All current members of the SETI Committee whose terms would extend into 2003 or beyond are recommended to the Chair of the new SETI Permanent Committee as members of that group. In addition, present members of the SETI Committee encouraged the Chair to consider inviting Salvatore Santoli, Paul Davies, and Aldo Cocca, whose terms on the SETI Committee ended in 2001, to become members of the SETI Permanent Study Group. Five members of the SETI Committee (Robert DeBiase, Roger Malina, Ian Morison, Carol Oliver, and Douglas Vakoch) abstained from voting on this final recommendation due to lack of specific information about past contributions of Santoli, Davies, and Cocca to the SETI Committee.

5.2. Proposed members of the SETI Permanent Committee not previously members of the SETI Committee:

The following people were recommended to the Chair to be members of the SETI Permanent Study Group:

Valeria Ascheri was recommended by Allen Tough.

Richard Clar was recommended by Douglas Vakoch.

John Elliott was self-recommended.

After the business meeting, Paolo Musso was recommended by Douglas Vakoch.

Due to the absence of the SETI Committee Chair and one Co-Chair due to the events of September 11, final membership decisions will be made by the Chair in consultation with the Co-Chairs after the business meeting.

5.3. Withdrawal

Because the SETI Committee will be eliminated in the restructuring of the IAA, all current members of the SETI Committee can expect to receive a letter from the IAA thanking them for past service on the SETI Committee.

6. Committee Publication Activity Review

6.1. Publications

None during the past year.

6.2. Position Paper or Cosmic Study

Under the leadership of Maccone, the Cosmic Study on a Lunar Farside Radio Observatory is progressing well. Because of the change of leadership from Jean Heidmann to Maccone after the former passed away, and due to an expansion of the Cosmic Study in focus, the study is now due to be completed in time for a report at the Houston IAC in October 2002. This widened scope of the Cosmic Study includes protection of the farside of the Moon from RFI for examination of all radio frequencies lower than 15 MHz, which has previously not been possible via Earth-based radio astronomy, due to the Earth's ionosphere. In addition, the Cosmic Study has been improved by increased involvement of scientists from the Jet Propulsion Laboratory, who have previously studied related topics. Maccone points out that this cooperation with JPL was facilitated by the Cosmic Study's Deputy, Mike Davis.

6.3. Report to the U.N.

None provided in the past year.

7. Nominations for Academy 2000 Book Awards

No book award nominations were made.

8. Schedule Conflicts to be avoided at the next Astronautical Congress

8.1. List of recommended sequence of meetings

SETI I and II sessions should be on the same day or successive days, as early in the Congress as possible.

8.2. List of Committee Meetings or Technical Sessions that should not be in parallel

A list of conflict to be avoided was prepared and given to Lubos Perek during the IPC meeting.

9. Committee Contribution to the IAA World Wide Web Site

Seth Shostak noted that the SETI Institute has maintained a website for the IAA SETI Committee for several years, although not much effort has been put into this because it has not been clear how much interest this would generate. Morison noted that there has been increasing interest in web sites related to astrobiology, as exemplified by <www.lifeinuniverse.org>. Maccone noted that he would like information from the Lunar Farside Radioastronomy Laboratory Study Group added to the IAA SETI Permanent Study Guide site. Ivan Almar suggested adding the Rio Scale to the web site to allow Study Group members to contribute their comments.

Allen Tough suggested rotating the hosting of the SETI Study Group's web site, so that different groups would have an opportunity to host it. Shuch has noted that he would be glad to reserve the URL <iaaseti.org> if the Study Group would like to use that web address, and moved that he should do so. Tough seconded this motion, which passed unanimously. Tough then moved to thank the SETI Institute for its hosting of the web site, and to have the hosting of the web site change every three years, with the SETI League to be the next host, beginning immediately. This motion was seconded by Shuch, and passed unanimously.

10. Other Business

A. IAA Restructuring

In reviewing the status of reorganization within the Academy, when the IAA SETI Committee is being transformed into the IAA SETI Permanent Committee, Maccone noted that preparations are underway to ensure that the goals of the SETI Committee remain intact within the new structure. Ernst Fasan and Ivan Almar asked members of the SETI Committee in attendance to be precise when speaking about the activities of the Committee, specifically noting that the SETI Committee will officially end after the meeting ends, and a new SETI Permanent Committee will begin. Thus, officially, the SETI Committee has no power to make decisions that will affect a Study Group that does not yet formally exist. As Maccone noted, because of the absence of the SETI Committee Chair (Jill Tarter) and the other Co-Chair (Tom Pierson), business conducted at the current meeting will focus on providing recommendations for the new leadership of the SETI Permanent Committee to consider when making future plans.

Maccone noted that because of the multidisciplinary nature of SETI, the new Study Group could potentially be placed in more than one Commission. The current plan is to place the SETI Permanent Committee in Commission 1, dealing with Space Physical Sciences. Almar noted that SETI is different from other groups and does not fit well into the new organization because SETI is a long-term enterprise. Thus, the SETI Study Group will be specifically recognized as permanent, although it will still need to identify concrete short-term goals.

B. Alternatives to Affiliation with the IAA

Roger Malina noted that there is sufficient flexibility within the structure of the IAA to allow our group to do what we want, as long as we meet the formalities of the IAA's new requirements. However, Malina said that the more critical question is whether this SETI group should remain within the IAA at all. Since the SETI Committee was formed, exobiology has grown considerably, and there may now be other more appropriate conferences at which to meet. Alternatively, Malina noted that the SETI Committee could do what the IISL did-to break off into a separate organization, but to remain affiliated with the IAA.

Fasan advocated extreme care about withdrawing the SETI Committee from the IAA. He noted that the IAA has recognition in certain areas, especially policy issues involving the United Nations, that SETI may not have independently.

Paul Shuch noted that one downside of affiliation with the IAA is the large registration fees. He offered as an alternative to host the SETI Committee as part of the SETI Leagues' annual SETICon Technical Conference.

Carol Oliver agreed that the high cost of attending IAA meetings has a large impact on many potential paper presenters. She offered yet another alternative: affiliation with Bioastronomy Conferences. This would offer the advantage of allowing publications via the IAU. Although Oliver noted this conference occurs only every three years, she added that one might have a meeting on the West Coast of the United States between these triennial meetings.

Shuch favored Oliver's proposal of a West Coast meeting alternating with the IAU Bioastronomy meeting, and suggested that there might also be an East Coast meeting added as well, to be hosted by the SETI League.

Malina objected to Shuch's proposal of an East Coast, West Coast, rest of the world trichotomy, noting that SETI is a truly international enterprise, and that its meetings should not be held so predominantly in the United States.

To put the issue of the number of people who are able to attend IAA meetings in context, Almar noted the SETI Committee has never had a problem with having too few papers. The problem has always been one of selecting from among papers, and that attendance at SETI Committee meetings is good compared to many other IAA committees. Almar also noted that there is no prohibition on having stand-alone conferences that occur under the auspices of the IAA, but for which there is no registration fee. Almar also noted that the SETI II session does not fit well with the IAU's emphasis. Vakoch agreed, though noting that IAU does provide a connection for discussing the history of SETI.

Oliver, Malina, and Tough encouraged additional discussion of these alternatives outside the annual meeting, especially in terms of facilitating the multidisciplinary focus of the current SETI Committee.

C. SETI Subcommittees: Situation and Reports

As noted in 6.2 above, Maccone reported on the status of the work of the Lunar SETI Subcommittee, which has as its primary task the completion of the Cosmic Study on a Lunar Farside Radio Observatory.

Oliver reported on the work of the Subcommittee on Media, Education, and Outreach, which she and Malina co-chair. This subcommittee had scheduled a media roundtable to be held in conjunction with the Toulouse IAC, with journalists attending from significant magazines and newspapers. With Jill Tarter and Frank Drake not being able to attend the Toulouse IAC, however, this roundtable has been put on hold until the upcoming Bioastronomy Conference in Australia in July 2002.

The second event planned in conjunction with the Toulouse IAC by the Subcommittee on Media, Education, and Outreach, a public talk at the Cite de l'Espace, will continue as scheduled. Seth Shostak will be the speaker for this event, with simultaneous translation into French provided.

Oliver noted that attempts to coordinate these events with the IAA and IAF were highly problematic due to poor communication within the IAA and IAF. Oliver and Malina will meet with people responsible for media and outreach in the IAA and IAF during the Toulouse Congress to attempt to alleviate some of these problems in the future.

Oliver stressed the importance of informing the media about SETI because many journalists are of the opinion that SETI is not a real science. Morison's experience in dealing with the media had been more positive. He noted that since the SETI Institute's Project Phoenix began operations at Jodrell Bank, there have been approximately 50 television crews there to report on the project, and that all of these have yielded positive outcomes.

Malina stressed the value of having scientist-journalist roundtables to facilitate discussions of media issues in SETI, and he noted that one of the reasons the press has a bad impression of the IAA is because of obstacles to ready access when covering stories at IACs, e.g., not providing free copies of presented papers to journalists, who may not have budgets to buy copies.

Almar noted that outreach may be difficult in Houston because it will be a very large meeting, with many events competing for attention.

Fasan reviewed the progress of the Subcommittee on Issues of Policy Concerning Communication with Extraterrestrial Intelligence. He reviewed the status of the Subcommittee's work as reported at the Rio IAF Congress, at which time it was noted that Fasan and Tarter had briefed the United Nations Committee on the Peaceful Uses of Space about the second SETI protocol. This briefing was noted in the official record, along with favorable comments by Dr. Vladimir Kopal, and protocol documents are now in the archives of the United Nations. Fasan noted that in the event of a signal detection by SETI, the United Nations General Assembly can be alerted to the fact that these documents are on file at the United Nations for consideration.

D. Book Award Nominations

Maccone noted that there were no book award nominations last year, and he asked members to think about books that might be nominated, either for this year or in future years.

E. Review of Astrobiology and Planetary Detection Activities around the World

Oliver reviewed plans for the next Bioastronomy Conference, to be held on Hamilton Island, Australia in July 2002. Currently 400 hotel rooms are on hold, and she expects to fill all of them. Oliver also noted that a new Australian Centre for Astrobiology is being established at Macquarie University in Sydney, and that it will be an affiliate member of the NASA Astrobiology Institute.

Maccone announced that the First European Workshop on Exo/Astrobiology in May 2001 at ESA/ESRIN, the European Space Agency establishment in Italy. It was organized by the European Exobiology Network and ESA. The goal of the meeting was to identify opportunities for European scientists to contribute to astrobiology and to develop new avenues for cooperation in the field. Maccone noted that the meeting was well-attended. Maccone said that SETI was not included in this meeting because of questions about whether SETI is "respectable." Oliver noted that there was concern at the Australian Centre for Astrobiology about including SETI for the same reason. Maccone put this concern about the status of SETI in historical and political context by reminding people at the meeting that when the U.S. Congress stopped funding SETI, NASA was faced with the challenge of studying the possibility of life beyond Earth without reference to SETI. Shostak noted that recently Chris Chyba of the SETI Institute had testified before Congress and received a sympathetic hearing. Morison noted that, in contrast to political difficulties SETI has faced, SETI has gained much respect from radio astronomers.

F. Review of SETI Activities around the World

Shostak provided a summary of the SETI Institute's progress on the Allen Telescope Array, which will be composed of approximately 350 dishes 6 meters in diameter. Shostak also noted the Institute's optical SETI experiment being conducted at Lick Observatory using three photomultipliers. Vakoch added that the SETI Institute will be sponsoring a 2-1/2 day international workshop on Interstellar Message Composition during the Toulouse IAC, with participants bringing expertise from a range of disciplines and coming from several countries: Australia, Canada, France, Italy, The Netherlands, the United Kingdom, and the United States.

Shuch reported on the status of the SETI League's programs. The SETI League currently consists of 1280 members in 60 countries, primarily amateur astronomers. Its three major initiatives are Project Argus, which now has 107 radio telescopes around the world; testing a calibration beacon, which provided some success if allowing calibration in absence of Pioneer 10; and testing new concepts for arraying dishes, using both software and hardware. The SETI League held its first SETI conference, with 30 people in attendance, and the next meeting will be even larger and will be held April 26-28, 2002.

Reporting on SETI in Australia, Oliver noted that data from Parkes are being analyzed, and will be presented at the July Bioastronomy Conference. Instruments at Parkes have been converted to do high resolution spectroscopy in addition to SETI, allowing additional astronomical research to be conducted simultaneously with SETI. SETI Australia is involved organizing the Bioastronomy Conference, with Oliver serving as Local Organizing Chair. SETI Australia is also involved in a traveling Bioastronomy museum that will tour several Australian museums.

Maccone noted that SETI research in Italy continues, using the radio telescope outside of Bologna, which was originally built for pulsar research. Recently work has been done on using KLT for signal processing.

Tough noted that his Invitation to ETI group had two opportunities to test its hoax detection system. Two claims from email respondents to the group were sufficiently sophisticated to be judged worthy of asking the respondents for proof that they were ETI. In both cases, upon being presented with challenges beyond the respondents' abilities, the respondents admitted to being human.

John Elliott noted that he continues his work in decoding signals.

G. Nomination Process for Membership in the International Academy of Astronautics

Maccone reviewed the process for becoming a member of the IAA. In the initial stage of membership, consisting of the first 5 years upon election, one is classified as a Corresponding Member. Membership requires nomination by one Full Member of the IAA, and endorsement by two other Full Members. The nominating Full Member summarizes the nominee's qualifications, which is sent to IAA headquarters. Nomination materials are distributed to all IAA members, with no more than approximately 100 new members being elected each year. If nominees are not elected the first time, there are provisions for the nomination to be considered in the following year. Corresponding Members have five years to prove their activity, at which time they are either elected as Full Members or they lose their Corresponding Membership.

11. Next Meeting

The next meeting will take place on the Saturday prior to the Houston IAC.