

# Minutes

**IAA SETI Permanent Committee**  
**Saturday, October 12, 2002**  
**4:00 - 7:00 PM, Room A3**  
**George R. Brown Convention Center**  
**Houston TX USA**

## **Attendees:**

- Jill Tarter (US) - Chair
- Tom Pierson (US) - Vice Chair
- Claudio Maccone (IT) - Vice Chair
- Ernst Fasan (Austria)
- Carol Oliver (AUS)
- Seth Shostak (US)
- Robert DeBiase (US)
- Allen Tough (CN)
- Paul Shuch (US)
- Steven Dick (US)
- Patricia Sterns (US)
- Les Tennen (US)
- Ivan Almar (HUN)

## **Guests:**

- Elisabeth Back (IT)
- John Elliott (UK)
- Stan Gorgolewski (PL)

**1.** Minutes of the Toulouse meeting were approved.

**2.** SETI I & II Sessions for the WSC were summarized: Papers IAC-02-IAA.9.1.07, 9.02.08, 9.2.09 have been withdrawn. All other papers will be presented, and copies were available in the preprint room.

**3.** There will be a media briefing on the Rio Scale at 11:00 on Wednesday in the media center briefing area. A press release has been prepared by Carol Oliver. Seth will present a public lecture on SETI at the Houston Museum on Thursday night. Jill will present a public lecture on SETI in the presentation theater of the Exhibition Hall on Saturday morning. The SETI Institute has a booth in the Exhibit Hall and study members are welcome to use that as a rendezvous point.

**4.** There will be a SETI Symposium with two sessions at the Bremen IAC. At the moment, that symposium is advertised under the Science and Society heading. The chair will suggest to the International Program Committee that the SETI Symposium might be better placed under the Science and Exploration heading. This is one of the awkward aspects of the reorganization within the Academy because SETI in fact spans all these topics.

The program for Bremen is:

Coordinators: Jill Tarter (US) and Roger Malina (FR)

SETI I : Science and Technology

Chairs: Seth Shostak (US), Claudio Maccone (IT)

Rapporteur: Tom Pierson (US)

SETI II : Interdisciplinary Connections

Chairs: Carol Oliver (AUS), Roger Malina (FR)

Rapporteur: Paolo Musso (IT)

**5.** The SETI Permanent Committee is currently listed as belonging to Commission 6 (Society, Culture, Education). However, when the forms to establish this study group were submitted, the request was to have the primary affiliation be with Commission 1 (Space Physical Sciences), and Commission 6 as the other involved commission. NOTE: By the end of the Congress, this realignment had been approved by the Board of Trustees.

**6.** Claudio Maccone reported on his Lunar Radio SETI study. It was presented to the Board of Trustees last spring, and subsequently edited to incorporate their comments. The antipodal crater Daedalus is a more radio quiet and protected location than the Saha crater previously proposed by Jean Heidman. Maccone would like to expand this study to make it more generally applicable to radio science. The rules for Academy Cosmic Studies have been evolving over the past two years, and Ed Stone, the new Vice President for Science has now established procedures that all such studies must comply with. By the end of the Congress, Maccone had spoken with Stone, and received permission to expand his lunar study. It will be presented to Commission 1 in Paris during the spring 2003 meeting. If they approve, it will be sent out for peer review by Ed Stone, and only after this review has been concluded will the study be put forward to the Board of Trustees to be accepted as an Academy Cosmic Study. During the meeting of Commission 1, it was suggested that Claudio Maccone should undertake to form a Program Committee for the Vancouver meeting (perhaps in conjunction with members of Commission 3) dealing with space missions and the possible infrastructure/architecture of a lunar farside radio lab, including an analysis of the impact of transmissions from orbital missions located at Sun-Earth and Earth-moon Lagrange points. Note: Claudio Maccone was not present at the Commission 1 meeting, and thus no action had been taken on proposing this program committee prior to the end of the congress. This action must be completed within the next month.

**7.** Ernst Fasan's task force on replying to the detection of an extraterrestrial signal will cease to function with this meeting. In its place a new Study Group will be proposed under Commission 6 to deal with interstellar message construction. This study group will be chaired by Jill Tarter, and the bulk of the work will be performed by Doug Vakoch, with the assistance of Fasan. It would be good if this activity could generate an action/reason to brief the UNCOPUOS in 2005. NOTE: By the end of the Congress the paper work proposing this Study Group had been submitted. If approved, this study group will have a lifetime of 3 years, with a report or book available in 2005-6.

**8.** Carol Oliver reported on the work of the Education/Outreach committee, including the events listed under item 3. At the subsequent meeting of this group, it was decided that since the work had been managed almost entirely by one person (Carol Oliver), it might be most reasonable to dispense with a formalized group and appoint Carol Oliver the Media and Outreach officer of the SETI Permanent Study Group. This action was ratified by those

present and will be proposed through Commission 1 to the Academy Board for ratification in the spring. Carol has already made initial plans for interacting with the student population that will be attending the Congress in Bremen.

**9.** Ray Norris was unable to attend the meeting, but Tarter chaired a session of his former sub-committee. Norris was eager to have some action for this group, rather than waiting around for a signal that may or may not be detected. It was decided that this group should become a Task Force of the permanent SETI study group, with specific actions and investigations to be completed each year. For the coming year, it is desirable to assess the robustness of the current version of the Rio Scale, and calibrate its inherent dispersion. Towards that end Norris will be charged with selecting 2 movies and 4 stories (or two books) that should be viewed/read by all members of this task force, and rated on the Rio Scale at three distinct epochs: immediately post-detection, after more information becomes available, and at the conclusion of the piece. Results of this activity will demonstrate a) whether this group can function adequately, and b) how well the Rio Scale is likely to work, and how reliable any assigned value is likely to be. Another activity for this task force would be to set up a method of testing an "instant alert" system for communication/coordination/action. Paul Shuch took detailed notes on this meeting and has published them at <http://www.setileague.org/iaaseti/postdt02.htm>.

**10.** Tarter reported on the NAI Astrobiology meeting at Ames Research Center in March 2002, and the "Astrophysics of Life" symposium at the Space Telescope Science Institute in May 2002. Oliver reported on the IAU Commission 51 Bioastronomy meeting "Life Among the Stars", held in conjunction with a Fulbright Symposium on "Science Education in Partnership" at Hamilton Island on the Great Barrier Reef in July 2002. Paul Shuch reported on SETICon02 the SETI League Technical Symposium and Annual Membership Meeting, in April 2002. He also advertised the availability of a SETI hypertext book with songs on CD, "Tune in the Universe," and the start up of a new SETI journal published online by the SETI League "Contact in Context" edited by Prof. Robert Lodder and Prof. Emeritus Allen Tough, available at <http://cic.setileague.org>.

**11.** Maccone reported that SETI Italia was making progress getting on the air with a SERENDIP-like observing program, and had been concentrating on implementing signal detection with KLTs rather than the more common FFTs, claiming that the former is more resistant to RFI. It would be appropriate to invite a paper from Stelio Montebugnoli for the Bremen meeting. Tarter reported that a searchable archive of known SETI projects is on the SETI Institute web site at <http://www.seti.org/science/searches-list.html>, the archive has been published in Volume 39 of Annual Reviews of Astronomy and Astrophysics (2001). Oliver noted that she has moved from University of Sydney Western MacArthur to the Australian Centre for Astrobiology at Macquarie University. She carries her IAA SETI media portfolio with her, and it may be possible that SETI Australia may also make this move sometime in the future.

**12.** Shuch has secured a domain and implemented a full set of web pages (<http://iaaseti.org>) for the SETI Permanent Study Group (including a calculator for the Rio Scale) and had previously asked that they be linked to by the IAA web site. This request has once again been repeated, and it is hoped that these pages will soon be visible from the IAA Commission 1 web site. Members wishing to have items included in these pages should send them to Shuch, with a copy to the chair.

**13.** Paperwork requesting new study groups and program committees has been completed (or will soon be completed) for the following activities:

- **Program Committee** - Vancouver 2004: Joint with Commission 6, "Managing Communication of Dramatic Extraterrestrial Discoveries" - C. Oliver & L. Laidet
- **Program Committee** - Vancouver 2004: Commission 1, "Technical and Cultural Aspects of the Search for Extraterrestrial Intelligence" - S. Shostak & I. Almar
- **Program Committee** - Vancouver 2004: Joint with Commission 3, "Lunar Farside Radio Lab" - C. Maccone
- **Study Group** - Lunar Farside Radio Lab - C. Maccone: on its way to producing a Cosmic Study that will be reported in Vancouver.
- **Study Group** - Interstellar Message Construction - J. Tarter
- **Task Force** - Post Detection Science and Technology - R. Norris - Actions for the coming year:
  1. test robustness and variance of Rio Scale,
  2. devise mechanism for testing response plan for signal detection.

**14.** The following individuals were elected as new members of the SETI Permanent Study Group:

- Valeria Ascheri
- Elisabeth Back
- Richard Clar
- John Elliott
- Michael Michaud
- Paolo Muss

It will be important to work this year to get both Doug Vakoch and Kent Cullers elected as Corresponding Members of the IAA. Last year we elected Seth Shostak and Carol Oliver, but Cullers and Vakoch did not receive enough votes within their sections.

**15.** In the interest of time, the Chair was empowered to search the list of current members of the SETI Permanent Committee and remove those members who have not participated in any of the committee meetings for the past four years. A polite letter should be sent to each one thanking them for their service. Subsequent to the meeting 14 members were removed from active membership. The current list of members is [attached](#) to the end of these minutes.

**16.** Other business:

Book award nominations - the Chair was asked to nominate either "Life in the Universe" or "Cosmic Company" by Seth Shostak, depending upon which book most closely conforms to the nomination requirements.

Change of venue? There was considerable discussion about whether the IAA remains the most appropriate venue for this SETI committee, given the increased activity surrounding the field of Astrobiology within other international bodies, the very high cost of attending IAC meetings, and our somewhat awkward structuring needed to conform to the new Academy Commissions. In the end, the positive aspects of co-association with art and culture in Commission 6, the aerospace industry, NASA, ESA for advocacy, the ISSL for UNCOPUOS, and the long history and backing by the Academy, and more recently a large contingent of international university student participants carried the arguments. We shall continue to press

program committees to permit one-day registration fees, and re-examine the question at the end of the terms for each of our study groups and task forces.

Tarter announced that she had recently assumed the Chair of the International Square Kilometer Array Steering Committee (ISSC), and would be required to do more travel, advocacy, and administration for this proposed facility (one that could eventually provide SETI radio searches with a factor of 100 improvement in sensitivity). Therefore, she needs to resign her chairmanship of the SETI Permanent Study Group. She recommended Seth Shostak from the SETI Institute replace her. The members present approved this suggestion and the IAA Board will be asked for their formal approval of this change. Tarter would remain a member of Commission 1, but Shostak would also become a member as the new chair (along with Maccone, and Oliver in their roles as Study Group and Program Committee leaders - I need clarification on Norris and Task Force leaders).