

Proposal for Forming an IAA Study Group SG 6.14

Title of Study: Communication with Extraterrestrial Intelligence: Scientific, Technical, Societal, and Legal Dimensions of Active SETI

Proposer(s): Douglas Vakoch and Geoffrey Langedoc
(Must be member(s) of the Academy M or CM)

Primary IAA Commission Preference: 6

(From Commission 1 to Commission 6)

Commissions: 1 Space Physical Sciences, 2 Space Life Sciences, 3 Space Technology & Systems Development, 4 Space Systems Operations & Utilization, 5 Space Policy, Law & Economics, 6 Space and Society: Culture and Education

Secondary IAA Commission Interests: 1, 5

(From Commission 1 to Commission 6)

Members of Study Team

Chair: Douglas Vakoch

Co-Chair: Geoffrey Langedoc

(Must be member(s) of the Academy, M or CM)

Secretary: James Benford

Other Members:

(Open to members and non- members of the Academy)

Tentative, to be approached: Ivan Almar, Jacques Arnould, John Billingham, Samantha Blair, David Brin, Lowry Burgess, Florence Raulin Cerceau, Richard Clar, Yvonne Clearwater, Kathryn Denning, Martin Dominik, Frans von der Dunk, Ernst Fasan, John Gertz, Gerry Harp, Elisabeth Back Impallomeni, Vladimir Kopal, Dominique Lestel, Timothy Lower, Mark Lupisella, Francis Lyall, Claudio Maccone, David Messerschmidt, Michael Michaud, Alexander Ollongren, Thomas Pierson, Lord Martin Rees, Louis Scheffer, Pierre Schwob, Seth Shostak, Patricia Sterns, Jill Tarter, Les Tennen, John Traphagan, Steve Trimmer, Arthur Woods, Alexander Zaitsev, John Zarnecki

Short Description of Scope of Study

Overall Goal:

(Expected scientific or practical benefit of the study group's efforts)

1) Assess the feasibility and desirability of complementing the traditional Passive Search for Extraterrestrial Intelligence (Passive SETI) with Active SETI, in which intentional signals are transmitted from Earth to possible extraterrestrial intelligence.

- a. Identify and evaluate scientific rationale for Active SETI.
- b. Identify and evaluate transmission technologies available now and in near future for Active SETI.
- c. Identify and evaluate societal dimensions of Active SETI, e.g., representing humankind in transmissions from Earth.
- d. Identify and evaluate legal dimensions of Active SETI.

Intermediate Goals:

- 1) Facilitate discussions as part of or in parallel with relevant conferences and workshops.
- 2) Produce recommendations for the Academy for future studies and activities to support the development of Active SETI.

Methodology:

(Email works, workshops, stand alone conferences, interim publications, etc.)

Facilitate discussions of interdisciplinary, international group of experts in conjunction with other conferences and meetings, through stand alone workshop, and through ongoing email communication as outlined in "Time Line" below. In addition to activities identified in "Time Line" below, members of the Study Group will seek additional opportunities for consultation and collaboration with other organizations, e.g., through future Royal Society meetings, through an IAA/IISL Scientific/Legal Roundtable at an upcoming IAC, or in conjunction with the Astrobiology Science Conference to be held in 2012.

Time Line: *(Cannot exceed three years)*

- March 2010: Seek approval for Study Group, IAA Spring Meeting, Paris
April 2010: Organizational meeting to identify preliminary Study Group priorities; held in parallel with Astrobiology Science Conference, Houston, TX
June 2010: Two-day workshop to examine technical aspects of beacon design and modulation schemes, and to refine Study Group priorities addressing scientific and technical dimensions of Active SETI; held at SETI Institute, Mountain View, CA
October 2010: Consultations to refine Study Group priorities addressing societal and legal dimensions of Active SETI; held in parallel with IAA/Royal Society SETI Symposia, London
March 2011: Report on Study Group priorities addressing scientific, technical, societal, and legal dimensions of Active SETI, IAA Spring Meeting, Paris
October 2011: 62nd IAC, Cape Town; invited papers for two SETI sessions will include papers supporting priorities of this Study Group
March 2012: Report on draft findings of Study Group, IAA Spring Meeting, Paris
October 2012: Final report ready for peer review, 63rd IAC, Naples
March 2013: Final peer-reviewed report submitted to Commission VI, IAA Spring Meeting, Paris

Final Product (Report, Publication, etc.):

Academy publication that assesses current status of and future recommendations for Active SETI, covering scientific, technical, societal, and legal dimensions.

Target Community:

Scientists engaged in or contemplating Active SETI research.

Support Needed:

None needed.

Potential Sponsors:

None needed. Possible collaborations with the Royal Society, IISL, and NASA Astrobiology Science Institute.

To be returned to the IAA Secretary General Paris

by fax: 33 1 47 23 82 16 or

by email: sgeneral@iaamail.org

Date: 22 March 2010

(No Signature required if document authenticated).

Follow-up Section for IAA use only

Initial Phase

Application received:

Commission Approved:

SAC Approved:

Web Site Section opened:

Members Formally Appointed by IAA:

Final Phase

Peer Review by Commission Completed:

Recommended by the Commission:

Final Report Received:

SAC Approved:

BOT Accepted:

Publisher Selected:

Study Published: