



# Introduction

## Report on:

### **A SEMINAR ON THE CULTURAL IMPACT OF EXTRATERRESTRIAL CONTACT**

July 31–August 1, 1999  
Kamuela, Hawaii USA

***The Foundation For the Future is dedicated to the increase and diffusion of knowledge concerning the long-term future of humanity. In view of the likelihood that a key element of our future in the next thousand years will be contact with extraterrestrial intelligence, the Foundation—through the Knowledge Workshops of its Humanity 3000 program—sponsored a seminar in summer 1999 that brought together 16 participants with scholarly perspectives on the Search for Extraterrestrial Intelligence (SETI).***

The seminar was organized and coordinated by Dr. Allen Tough, who has dedicated the past 20 years to research on ETI and the future of human civilization. Focused on long-range ramifications, the seminar

emphasized the cultural impact several decades or centuries after dialogue between humankind and an extraterrestrial civilization commences. The seminar was held in conjunction with *Bioastronomy '99: A New Era in the Search for Life in the Universe*.

This report is called *When SETI Succeeds: The Impact of High-Information Contact*. It presents a comprehensive review of the potential impact that contact with a highly advanced intelligence will have on human civilization.

This report is rather unique in its format as well as its content. It is based partly on the ideas that emerged during the two-day seminar, and it includes brief written position statements that each participant brought to the seminar. But it also includes several powerful insights in additional in-depth papers written by several of the participants and by others.

This report, then, is neither a traditional seminar proceedings nor a traditional collection of papers. Instead, it combines the best features of both forms. In this way it provides fresh, lively insights into the long-term impact when SETI succeeds.





# The Topics

*Humanity's interaction with other civilizations in our galaxy is likely to have a greater impact for the long-term future of human civilization than virtually any other event in the current millennium.*

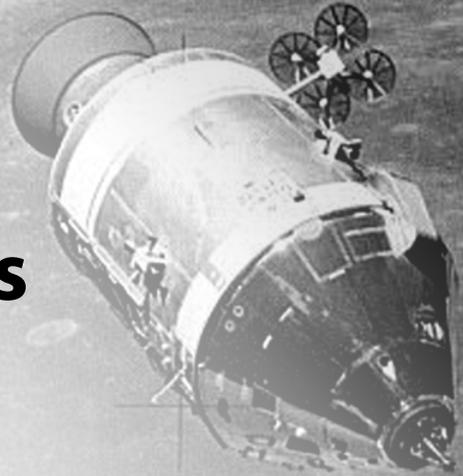
*This Humanity 3000 Knowledge Workshop focused on the potential impact of high-information contact with extraterrestrial intelligence in the following topic areas:*

- 1. Practical Information**
- 2. Answers to Major Questions**
- 3. Changes in Our View of Ourselves**
- 4. Cooperation in Joint Galactic Projects**
- 5. Significant Long-Term Effects That Are Primarily Negative**
- 6. What Should Humanity Do Now to Maximize Positive Long-Term Impacts?**





# The Participants



**Ragbir Bhathal**

University of Western Sydney

**John Billingham**

SETI Institute

**Eric J. Chaisson**

Tufts University

**Bob Citron**

Foundation For the Future

**Kathleen Connell**

NASA Astrobiology Institute

**Paul Davies**

Burnside, Australia

**Steven J. Dick**

U.S. Naval Observatory

**Ben Finney**

University of Hawaii

**Albert A. Harrison**

University of California, Davis

**David Hines**

Santa Clarita, CA

**Guillermo A. Lemarchand**

Universidad de Buenos Aires

**Claudio Maccone**

Alenia Spazio

**Jill Tarter**

SETI Institute

**Keiko Tokunaga**

Institute of Zen Studies

**Allen Tough**

University of Toronto

**Douglas A. Vakoch**

SETI Institute

Participant biographies are provided in Section VI.





# Acknowledgements

Bob Citron, Executive Director, and Donna Hines, Deputy Director, Administration, from the Foundation For the Future, made the Hawaii seminar and this report possible. As a result of their constant encouragement and help, I found that organizing and chairing this seminar was a very happy experience.

Jill Tarter and I met with Bob Citron and Walter Kistler, founder and benefactor of the Foundation For the Future, in October 1998 (at the International Astronautical Congress in Melbourne) to work out a good fit between the core goals of the seminar and the core mission of the Foundation For the Future.

Karen Meech not only coordinated the logistics of the large Bioastronomy conference that followed our seminar, but also ensured that the Hapuna Beach Prince Hotel successfully met our seminar's needs. The participants enthusiastically agreed that the location and service were superb. Imagine meeting just steps from a sunlit courtyard for coffee breaks, and just a few more steps from the warm Pacific surf for after-hours recreation!

John Billingham prepared an immediate summary of the seminar for oral presentation at a plenary session of the Bioastronomy conference. The written version of his summary is included in this report.

Albert Harrison and Steven Dick prepared the superb document that forms the core of this report. They have captured all of the major ideas from the seminar papers and discussion, and have woven these together into a readable and informative chapter.

The inspiring and evocative cover painting by David Hines provides an excellent portal to the topic.

Congratulations to Jill Tarter for winning a box of Canadian maple sugar at the Hawaii seminar by

being the first participant to figure out the source of this quotation: "If this discovery is confirmed, it will surely be one of the most stunning insights into the universe that science has ever uncovered. Its implications are as far-reaching and awe-inspiring as can be imagined. Even as it promises answers to some of our oldest questions, it poses still others even more fundamental." (Spoken by President Clinton after NASA's 1996 announcement of possible evidence of primitive microbial life in a rock from Mars, these words were also used in the movie *Contact*.)

Staff members of the Foundation For the Future responsible for the development and completion of this report include Jeff Holdsworth, Art Director; Jean Gilbertson, Publications Manager; Cathy Allen, Executive Assistant, and Ann Reid, Executive Assistant.

All of us appreciate the cooperation of the Astronomical Society of the Pacific, publisher of the proceedings for the much larger conference that immediately followed our seminar. That volume, edited by Guillermo Lemarchand and Karen Meech, is called *Bioastronomy '99: A New Era in Bioastronomy, Proceedings of a Conference held on the Kohala Coast, Hawaii, 2-6 August 1999*, ASP Conference Series 213.

Finally, I want to acknowledge the contributions of all of the seminar participants themselves. Their ideas provide the intellectual foundation for this report, and provide humanity with a fresh and profound understanding of just what sorts of impact might occur during the decades after human intelligence and extraterrestrial intelligence begin their dialogue.

Allen Tough  
Seminar Coordinator





# Overview

**Summarized below are the contents of each Section of the report, When SETI Succeeds: The Impact of High-Information Contact.**

**Section I**, entitled “An Extraordinary Event,” written by Seminar Coordinator Allen Tough, provides an introduction to SETI and to the six seminar topics.

**Section II**, entitled “Contact: Long-Term Implications for Humanity,” by Albert A. Harrison and Steven J. Dick, is a comprehensive report on the seminar and a review of the SETI field, including the rationale and justification for the search, common assumptions about ETI, discussion of search outcomes, comments on the post-contact society, and what humanity’s next steps should be.

**Section III**, entitled “Who Said What: A Summary and Eleven Conclusions,” by John Billingham, captures the highlights of the seminar discussions

addressing each of the key topics. This paper was presented by Billingham at the international conference *Bioastronomy '99: A New Era in the Search for Life in the Universe*, held at the same facilities in Hawaii immediately following the Humanity 3000 Knowledge Seminar on the Cultural Impact of Extraterrestrial Contact.

**Section IV** provides the one- to two-page statements written by participants before the seminar. Each statement addresses one of the key topics and served as a starting point for seminar dialogue.

**Section V**—“Powerful Insights: In-Depth Papers by Participants and Others”—is a collection of scholarly papers on important aspects of the search for extraterrestrial intelligence.

**Section VI** provides biographical information on the sixteen participants in the seminar.

