

# SETI POST DETECTION PROTOCOL

*A selection of papers presented at the  
37th Congress of the International Astronautical Federation  
Innsbruck, Austria, 4-11 October 1986  
and the  
38th Congress of the International Astronautical Federation  
Brighton, U.K., 10-17 October 1987*

*Guest Editors*

**J. C. Tarter**

*University of California at Berkeley  
and the  
SETI Institute  
California  
USA*

*and*

**M. A. Michaud**

*Department of State  
Washington, DC  
USA*

CONTENTS  
SPECIAL ISSUE

|   |   |     |
|---|---|-----|
| Preface   |   | iii |
| <br><i>Part I – Receipt and Verification of an ETI Signal</i>   |   |     |
| Risk and Value Analysis   | John Billingham                           | 1   |
| SETI False Alerts as "Laboratory" Tests for an International Protocol Formulation   | Jean Heidmann                             | 5   |
| Signal Verification in the Real World: When Is a Signal Not a Signal?   | Peter B. Boyce                            | 13  |
| The First Two Steps After the Signal Arrives: Verify and Tell the World   | Peter B. Boyce                            | 17  |
| <br><i>Part II – The Process of Announcing the Detection of an ETI Signal</i>   |   |     |
| Announcing the First Signal: Policy Aspects   | John M. Logsdon and Catherine M. Anderson | 21  |
| Signals From ETI Detected - What Next?  | Zbigniew Paprotny                         | 25  |
| A Critical Examination of Factors that Might Encourage Secrecy  | Allen Tough                               | 28  |
| Diplomatic and Political Problems Affecting the Formulation and Implementation of an International Protocol for Activities Following the Detection of a Signal From Extraterrestrial Intelligence | Allan E. Goodman                          | 34  |
| <br><i>Part III – The Impact of the Announcement of an ETI Signal</i>   |   |     |
| Contact: Releasing the News   | Dr. Roberto Pinotti                       | 40  |
| The Impact of Contact   | Ben Finney                                | 47  |
| <br><i>Part IV – Legal Principles Relating to Contact and Communications with ETI</i>   |   |     |
| International Law Implications of the Detection of Extraterrestrial Intelligent Signals   | Vladimir Kopal                            | 52  |
| XII Tables for Researchers on Extraterrestrial Intelligence   | Aldo Armando Cocca                        | 56  |

**Discovery of ETI: Terrestrial and Extraterrestrial Legal Implications**

Ernst Fasan

6

**Diplomacy and the Search for Extraterrestrial Intelligence**

Dr. Allan E. Goodman

6

**Basic Elements of an International Terrestrial Reply Following the Detection of a Signal from Extraterrestrial Intelligence**

Dr. G. C. M. Reijnen

7

*Part V – Who Will Speak for the Earth?*  
**Who Will Speak for Earth?**

Donald Goldsmith

7

*Part VI – Approved Protocol*

**Principles Concerning Activities Following the Detection of Extraterrestrial Intelligence**

7

## PREFACE

Since 1960, when Frank Drake conducted Project OZMA, the first search for radio signals from an extraterrestrial technology, scientists have approached the observational search for extraterrestrial intelligence (SETI) guided only by the well established principles that regulate their other scientific pursuits. Should there be additional guidelines or constraints for SETI? There are few scientific endeavors that have the potential for such a widespread, immediate and significant impact on all the inhabitants of the planet Earth.

While scientists alone may have had the tools necessary to conduct the searches during the past few decades, there have been others thinking about the possibilities and consequences of the discovery of life elsewhere. Science fiction writers have produced countless scenarios depicting the aftermath of contact with other beings[1]. Sociologists have attempted to quantify the potential for beneficial and harmful consequences following the demonstration that mankind does not inhabit this universe alone[2]. Visionary scholars of legal and political processes have even deliberated over how we might most wisely extend the principles of law and government, practiced around the world, in order that they be able to encompass interactions with other beings from other worlds[3].

In 1985 the SETI Committee of the International Academy of Astronautics (IAA) recognized that it was timely to bring together the scientists, who annually presented papers at its International Review Meetings on SETI, with other scholars, who had also pondered these issues. The hope was to uncover particular principles or guidelines that should be applied to the conduct of SETI programs and the communication of their extraordinarily important results. Towards this end, the SETI Committee proposed to co-sponsor two years of joint meetings with the International Institute of Space Law (IISL) during annual Congresses of the International Astronautical Federation. In

1986 during the Congress in Innsbruck, Austria the first session entitled "Legal, Political and Social Implications of the Detection of an Extraterrestrial Intelligent Signal" was held. This was followed in 1987 during the Brighton, England Congress by a meeting entitled "Formulation of an International Protocol for Activities Following the Detection of a Signal From Extraterrestrial Intelligence." Attendance at these sessions was high and the participants were very enthusiastic.

This Special Issue of *Acta Astronautica* includes all of the presented papers in their entirety. The papers have been grouped into topical sections rather than being presented in chronological order, in order to improve the readability of this issue. Short introductions to each section have been provided by the editors in order to present the proper context for the papers. However, with the exception of some improvements in English grammar, very little editorial control has been exercised. It is hoped that this decision will preserve the style and flavor of each of the individual deliberations and arguments by the authors/experts, at the inevitable expense of some redundancy in the text.

Following the second meeting in Brighton, a drafting session was held for all interested parties. This session and subsequent rounds of comment and revision were orchestrated by Michael Michaud. The resulting "Draft Agreement Concerning Activities Following the Detection of Extraterrestrial Intelligence" has been revised several times and the final document entitled "Principles Concerning Activities Following the Detection of Extraterrestrial Intelligence" was endorsed by both the IAA and IISL in April of 1989. The approved document is appended as the last section of this issue. In the future it is hoped that this draft agreement will be adopted by all pertinent international scientific unions, and eventually be presented at the U.N. for their appropriate action.

Jill Tarter  
Mountain View, CA  
August 12, 1988

Michael Michaud  
Washington, DC  
August 12, 1988

## REFERENCES

1. A. Fraknoi, *The Search for Extraterrestrial Intelligence: A Nontechnical Bibliography*. Published by the Astronomical Society of the Pacific (1988).
2. M. Connors, The Consequences of Detecting Extraterrestrial Intelligence. Paper presented at symposium entitled, *Are We Alone?* (1987).
3. A. G. Haley, *Space Law and Government. Metalaw, Chapter 12*. Appleton-Century-Crofts, New York, pp. 394-423 (1963).