

ACTIVITIES AND RESOLUTIONS OF IAU COMMISSION 51

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I. THE BEGINNING

The origin of our Commission can be traced to a highly successful, one-day Session on "Strategies for the Search for Life in the Universe" which we organized in 1979 at the 17-th IAU General Assembly in Montreal. When on the next evening Frank Drake and myself gave a report on this Session to the IAU in an open meeting, the large auditorium of the University of Montreal was packed to standing room only with more than 1,000 astronomers from all around the world, confirming the unexpectedly strong interest that indeed existed among astronomers on this subject.

We were also invited to publish the proceedings of this one-day Session in Montreal, which were published with the same title toward the end of 1980 by the D. Reidel Publ. Co. as Volume 83 in their prestigious Astrophysics and Space Science Library (Papagiannis, 1980). There was also considerable correspondence with the then General Secretary of the IAU, Dr. Patrick Wayman, and others during the period 1979-1982, which led to the establishment of our new Commission in 1982 at the 18-th IAU General Assembly in Patras, Greece. The new Commission was named IAU Commission 51 - Search for Extraterrestrial Life, to include the broader spectrum of life from primitive to advanced. Its first elected officers were: President -- M.D. Papagiannis, Vice Presidents -- F.D. Drake and N.S. Kardashev, Organizing Committee -- R.D. Brown, P. Connes, G.D. Gatewood, L. Goldberg, J. Jugaku, G. Marx, F. Pacini, M.J. Rees, and V.S. Troitsky.

II. ACTIVITIES

IAU Commission 51 was finally a reality. We announced it in bulletin boards during the General Assembly and nearly 100 of the attending IAU members asked immediately to become members. We wrote the first report of the new Commission for the Transactions of the IAU (Papagiannis, 1983) stating that its objectives were:

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1. The search for planets in other solar systems.
2. The evolution of planets and their ability to sustain life over cosmic periods
3. The search for biologically relevant interstellar molecules and the study of their formation.
4. The search for radio signals, intentional or unintentional, of extraterrestrial origin.
5. The search for different manifestations of other advanced civilizations.
6. The spectroscopic detection of biological activity of primitive forms of life in other stars.
7. The coordination and promotion of all these activities at the international level, and the collaboration with other international organizations (astronautical, biological, chemical, etc.) that share with our Commission common interests in these objectives. We also wrote a report in the J.B.I.S. (Papagiannis, 1983) on the formation of the new IAU Commission and gave reports at the international meetings of the IAF/IAA and of ISSOL.

Requests for membership kept coming in and we proceeded to computerize our membership and mailing lists. We also initiated a News Letter of our Commission, which we named BIOASTRONOMY NEWS, publicizing the new term Bioastronomy which we feel describes nicely and concisely the astronomical search for life (bios) in the Universe. Our membership grew rapidly and now stands at more than 250, with approximately 210 regular IAU members and nearly 40 Consultants, i.e., distinguished scientists from other disciplines who are not members of the IAU but share common interests with our Commission, which as mentioned above has objectives that relate to many disciplines.

We also began to plan for the first IAU Symposium of our new Commission. Initially we had thought of holding it in Hungary, which is a fine meeting place of East and West. In the fall of 1983, however, we realized that our Hungarian colleagues were carrying already a heavy burden organizing the 34th International Astronautical Congress in October 1983 in Budapest. We changed rapidly our plans and decided to hold it in the United States where no Symposium on the search for extraterrestrial life had been held for many years. We finally brought it to Boston and in particular to Boston University, which is the home Institution of the President of the Commission, which had fine conference facilities at its new Science Center, as well as good and inexpensive facilities for housing, receptions and banquets. We secured the financial support of the IAU, of NASA, and of Boston University, which allowed us to help more than 40 of the participants with their travelling, housing and registration expenses. We organized the Sessions, mailed announcements, prepared different special events and finally held our first IAU Symposium with great success June 18-21, 1984.

Our Symposium, which addressed practically all the objectives of our Commission listed above, was attended by nearly 150 participants

from 18 different countries and received fine publicity in some of the most respected news media, such as a whole page article in the New York Times by Walter Sullivan who attended personally all the Sessions. Its official title was IAU Symposium 112 - The Search for Extraterrestrial Life: Recent Developments, which is also the title of the Volume of the Proceedings (Papagiannis, 1985). We prepared also a summary of our Symposium for the J.B.I.S. (Papagiannis, 1985), a report on the scientific activities in our field for the volume Reports on Astronomy of the IAU (Papagiannis, 1985), and an invited review paper for Nature (Papagiannis, 1985).

It is interesting that our first Symposium coincided with the 25-th anniversary of the publication in Nature of the pioneering paper by G. Cocconi and P. Morrison (1959) "Searching for Interstellar Communications", which ushered in the experimental era of the search for extraterrestrial intelligence. Also that the publication of this Volume coincides with the 25-th anniversary of the first radio search in 1960, the historic Project OZMA by Frank Drake, the Vice President of our Commission. We celebrated the first anniversary in 1984 and honored Philip Morrison during our Symposium, and we hope to do the same for Frank Drake during the IAU General Assembly in 1985.

III. RESOLUTIONS

During our symposium we held a meeting of the Organizing Committee of our Commission and drafted a number of resolutions which in its opinion would strengthen our Commission and our young field in the years to come. These resolutions were presented to the 130 or so members of the Commission present at the Symposium, who endorsed them unanimously, and were transmitted to the Executive Committee of the IAU for its approval, which acted favorably on most of them. These resolutions were the following:

1. Use the name BIOASTRONOMY in the title of our Commission, either alone or in combination with our current title as an explanation, Bioastronomy: The Search for Extraterrestrial Life.
2. Hold the next IAU Symposium of IAU Commission 51 in Hungary in the summer of 1987. We already have an invitation from the Hungarian Academy of Sciences.
3. Elect Frank Drake (USA) as the next President of our Commission for the period 1985-88.
4. Elect George Marx (HUNGARY) as the next Vice President for the same period.
5. Elect the following ten member Organizing Committee for the same period: R.D. Brown (AUSTRALIA), P. Connes (FRANCE), G.D. Gatewood (USA), J. Jugaku (JAPAN), P. Feldman (CANADA), J.M. Greenberg (HOLLAND), N.S. Kardashev (USSR), P. Morrison (USA), M.D. Papagiannis (USA), and V.S. Troitsky (USSR).
6. Establish a prize, consisting probably of a medal and a diploma, to

be awarded by our Commission for significant contributions in the advancement of our field.

7. Elect to full IAU membership the following distinguished Consultants of our Commission: John Billingham (Life Sciences), Donald DeVincenzi (Life Sciences), Paul Horowitz (Physics), Anthony Martin (Space Sciences), Bernard Oliver (Engineering), Rudolph Pesek (Aeronautics), Cyril Ponnampereuma (Chemical Evolution), Edward Purcell (Physics - Nobel Laureate).

IV. CONCLUSIONS

Our new Commission has made significant progress in a relatively short period and with the publication of these Proceedings will join the family of all the other active Commissions of the IAU. Our field has gained international recognition and is making rapid progress in its several technical areas, with IAU Commission 51 playing an active role in this effort. We can look with confidence into the future of this exciting new field.

REFERENCES

- Cocconi, G. and Morrison, P., (1959), Searching for Interstellar Communications, *Nature* 184, 844.
- Papagiannis, M.D., (1980), Strategies for the Search for Life in the Universe, (Editor), D. Reidel Publ. Co., Dordrecht, Holland.
- Papagiannis, M.D., (1983), Commission 51: Search for Extraterrestrial Life, in Transactions of the IAU. Vol. XVIII B, p. 323, Ed. by R.M. West, D. Reidel Publ. Co., Dordrecht, Holland.
- Papagiannis, M.D., (1983), Search for Extraterrestrial Life - a New Commission of the International Astronomical Union, *J.B.I.S.*, 36, 305.
- Papagiannis, M.D., (1985), The Search for Extraterrestrial Life: Recent Developments. A Report on IAU Symposium 112. *J.B.I.S.*, 38, 281, 1985.
- Papagiannis, M.D., (1985), IAU Symposium 112, The Search for Extraterrestrial Life: Recent Developments (Editor), D. Reidel Publ. Co., Dordrecht, Holland
- Papagiannis, M.D., (1985), Commission 51: Search for Extraterrestrial Life, in Reports on Astronomy, Ed. by R.M. West, D. Reidel Publ. Co., Dordrecht, Holland
- Papagiannis, M.D., (1985), The Search for Extraterrestrial Intelligence - Recent Progress and Future Plans. *Nature* (in press).