COMMISSION BUSINESS

Presiding: Tobias Owen, President of Commission 16  
Edward Anders, President of Commission 17

1. Merger of Commissions 16 and 17

The first item of business was a review of the action taken to merge Commissions 16 and 17 into a single Commission. The resolution forwarded to the Executive Committee and the final tally of votes are appended. The resolution was accepted by the Executive Committee and the General Assembly of the IAU during the Montreal meetings. The new Commission continues with the title and number of Commission 16 (Physical Study of Planets and Satellites).

2. Election of Officers for 1979-1982

The following slate was presented and unanimously elected by the members present:

President: Bradford A. Smith
Vice-President: Victor G. Teifel'
Executive Secretary: Garry E. Hunt

The retiring president expressed his regret on behalf of the Commission members that the ill health of C.P. Florensky prevented him from serving as an officer in the new administration.

3. Meetings of Interest to Commission Members

Attention was called to the following meetings that will be held prior to the next General Assembly:

A. The Satellites of Jupiter
Org.: Dr. David Morrison  
Institute for Astronomy
University of Hawaii
2680 Woodlawn Drive
Honolulu, Hawaii 96822, USA
Place: Hawaii
Time: 13-16 May 1980
B. Infrared Astronomy
Org.: Dr. Dale Cruikshank
Dr. Gareth Wynn-Williams
Institute for Astronomy
University of Hawaii
2680 Woodlawn Drive
Honolulu, Hawaii 96822, USA

C. COSPAR - General Meeting
Contact for Information:
Dr. James Arnold
Department of Chemistry
University of California
at San Diego
La Jolla, California 92093, USA

D. Royal Astronomical Society - Uranus and the Outer Planets
Org.: Dr. Garry Hunt
Laboratory for Planetary Atmospheres
Department of Physics and Astronomy
University College London
Gower Street, London WC 1E 6BT, UK

This is by no means an exhaustive list; members wishing to bring additional meetings to the attention of the general membership should contact the incoming Executive Secretary, Dr. Hunt.

4. New Infrared Telescope Facility

William Brunk of NASA headquarters made a brief announcement of the successful inauguration of the three-meter infrared telescope built under NASA sponsorship on Mauna Kea in Hawaii. Astronomers interested in using this facility should contact Dr. Eric Becklin, Institute for Astronomy, University of Hawaii, 2680 Woodlawn Drive, Honolulu, Hawaii 96822, USA.

5. Saturn Ring Plane Crossings

Dr. M.S. Bobrov has called attention to the rare opportunities for unusual observations of Saturn and its system of rings and satellites that will be afforded by the three passages of the Earth through the plane of the rings during the next twelve months. These observations include studies of the rings themselves, mutual phenomena (eclipses and occultations) exhibited by the satellites, and a search for new satellites near the outer edges of the ring. The dates and times of ring plane crossings furnished by Dr. Bobrov are as follows:

1st Crossing: 27 October 1979, 3.6 hours UT
Sun in Ring Plane: 3 March 1980, 3.5 hours UT

2nd Crossing: 12 March 1980, 16.5 hours UT
3rd Crossing: 23 July 1980, 4.2 hours UT
6. Other Commission Business

There was a brief discussion of the future structure and function of the newly merged Commission. The members present expressed support for a continuation of the triennial report on progress in Solar System studies. They endorsed the proposal by Dr. Anders that this be prepared as a balanced review of the highlights of the entire field rather than a collection of reports of activities from different observatories, institutes, or countries. There was also approval for the establishment and continuation of only those Working Groups that have a specific and well-defined task.

Members with ideas about any of these matters are invited to write to the new officers with their suggestions.

7. Resolution for the Merger of Commissions 16 and 17

Whereas the Moon is no longer the only celestial body whose surface can be studied at high resolution, the only body explored by spacecraft, or even the only well-studied satellite, a separate Commission devoted to the Moon is no longer needed.

Be it therefore resolved, that Commission 17: The Moon, be merged with Commission 16: Physical Study of Planets and Satellites, to form a new Commission that shall retain the title and number of the existing Commission 16. The membership of the new Commission shall consist of those members of the existing Commissions 16 and 17 who have expressed their intent to join as well as other members of the IAU who have been invited to join on the basis of their research interests. This Merger will permit studies of the Moon to be continued for mutual benefit, in closer association with studies of other planetary bodies.

Note: This Resolution was passed by the General Assembly; Commissions 16 and 17 are now combined as Commission 16.

15 August 1979

I. JOINT SESSION WITH COMMISSIONS 40 AND 44:

STRATEGIES FOR THE SEARCH FOR LIFE IN THE UNIVERSE

Organizing Committee: F. Drake, T. Owen, M. Papagiannis (Chmn.), B. Zuckerman (USA); N. Kardashev, I. Shklovsky, V. Troitsky (USSR); J. Ribes (FRANCE); B. Lovell, M. Rees (UK); G. Marx (Hungary); J. Jugaku (Japan).

INTRODUCTION: An opportune occasion for this meeting (M. Papagiannis)

I. ALTERNATIVE VIEWS ON THE VALUE OF N

Co-Chairmen: I. Shklovsky and P. Morrison
1. N is very small (M. Hart)
2. N is very large (T. Kuiper)
3. N is neither very small nor very large (F. Drake)
4. N is either very small or very large (M. Papagiannis)
5. Comments and Discussion
6. Summary (P. Morrison)
II. STRATEGIES FOR SETI THROUGH RADIO WAVES
Co-Chairmen: B. Oliver and J. Jugaku
1. Progress in USA and Canada (B. Zuckerman)
2. Programs in the USSR (V. Troitsky)
3. Large and Small Alternatives for the Future (S. Gulkis)
4. Comments and Discussion

III. SEARCH FOR EARLY FORMS OF LIFE IN OUR AND OTHER PLANETARY SYSTEMS
Chairman: J. Greenstein
1. The search in our solar system (G. Soffen)
2. Future spectroscopic possibilities for other systems (T. Owen)
3. Search for planets in other solar systems through:
   a. Astrometric methods (G. Gatewood)
   b. Interferometric methods (D. Currie)
   c. Spectroscopic methods (W. Heacox)
   d. The space telescope (W. Baum)
   e. Summary (D. Black)

IV. MANIFESTATIONS OF ADVANCED COSMIC CIVILIZATIONS
Chairman: S. von Hoerner
1. Radio leakage and eavesdropping (W. Sullivan)
2. Discussion
3. Summary (S. von Hoerner)

II. JOINT SESSION WITH COMMISSION 4

ROTATION OF MARS - G. de Vaucouleurs
REPORT AND RECOMMENDATIONS OF THE JOINT WORKING GROUP ON CARTOGRAPHIC COORDINATES AND ROTATIONAL ELEMENTS OF PLANETS AND SATELLITES - M.E. Davies

16 August 1979

I. SCIENTIFIC SESSIONS

A) SATELLITES, RINGS, AND OTHER TOPICS
Chairman; D. Morrison, University of Hawaii

D. Morrison/U. Hawaii  Introduction and Overview of Recent Work
H. Masursky/USGS    Geology of Io
T. Johnson/JPL       Io Volcanoes and Volatiles
C. Pilcher/U. Hawaii Images of Jupiter's Sulfur Ring
J. Caldwell/SUNY    Atmosphere of Titan
B. Zellner/U. Arizona Dilter Photometry of Faint Outer Satellites
D. Cruikshank/U. Hawaii Compositions of the Satellites of Saturn, Uranus, and Neptune.
T. Owen/SUNY        Rings of Jupiter
E. Becklin/U. Hawaii Detection of the Rings of Jupiter at 2.2 μm
E. Epstein/Aerospace Saturn's Rings; 3 mm Observations
W. Brunk/NASA       NASA Infrared Telescope Facility
W. Sjogren/JPL      Venus Gravity Field
II. EVENING SUMMARY SESSION ON STRATEGIES FOR SETI
Chairman: L. Goldberg
1. Review of morning sessions (F. Drake)
2. Review of afternoon sessions (M. Papagiannis)

17 August 1979

I. JOINT DISCUSSION WITH COMMISSIONS 17 AND 44: EXPLORATION OF THE SOLAR SYSTEM
Organizing Committee: E. Anders, M. Marov, T. Owen

A. SMALL BODIES
Chairman: E. Anders
1. Isotopic Anomalies in Meteorites as Clues to the Early History of the Solar System - R. Clayton
2. Identification of Asteroid Classes and their Possible Relationships to Meteorites - D. Morrison
3. Chronologies for Planetary Surfaces from Bombardment Histories - G. Neukum

B. VENUS - THE SURFACE AND THE ATMOSPHERE
Chairman: B.A. Smith
4. Radar Studies of Venus:
   A) Ground-Based Observations - D. Campbell
   B) Pioneer Venus Observations - G. Pettengill
5. Crustal Evolution of Venus Compared with the Other Terrestrial Planets - H. Masursky
6. The Atmosphere of Venus - Pioneer Venus Results - D. Hunten

C. JUPITER - VOYAGER RESULTS
Chairman: T. Owen
7. The Meteorology of Jupiter - G. Hunt
8. The Satellites of Jupiter
9. Vulcanism and the Crustal Structure of Io
10. Electric Current Induced Vulcanism on Io
11. The Magnetosphere of Jupiter
12. A Film of Jupiter at 21 cm

18 August 1979

SCIENTIFIC SESSION: THE MOON
Chairman: J.D. Mulholland

1. Dynamical evolution of the early Earth-moon system
   - H. Alfvén and J. Hill
2. Present-day dynamics of the Earth-moon system
   - R.W. King
3. Free librations and the lunar dissipation parameter Q
   - O. Calame
4. Lunar secular acceleration and the variation of gravitation
   - L.V. Morrison
5. A catalogue of lunar transient phenomena
   - W.S. Cameron
6. Lunar crater distribution and surface unit ages
   - E. Whitaker
7. Lunar surface composition from thermal emission spectra
   - T.H. Morgan and A. Potter