

COMMISSION 22: METEORS AND METEORITES (MÉTÉORS ET MÉTÉORITES)

Report of Meetings: 19 and 24 August 1970

PRESIDENT: Z. Ceplecha.

SECRETARY: I. Halliday.

First Session

The President called the business meeting to order with about 60 members and guests present. He explained the procedure for the appointment of officers for the 1970–73 term and the Commission approved the slate of officers including the Committee on Meteorites with E. Anders as Chairman and B. J. Levin as Vice-Chairman.

The chairman outlined the limitations on the length of the current Progress Report and invited corrections or additions to the Report. Members discussed the value of periodic review papers in meteor astronomy and also the complete list of references which had formerly been published in the reports.

The President opened discussion on the following proposals which he had received:

1. It was proposed that ICSU be asked to co-ordinate meteorite research directly. Members felt that there were already enough committees dealing with meteorite research and because of the importance of meteorites in the evolution of the solar system the logical place for such co-ordination was the Committee on Meteorites of Commission 22. With the rapid growth of meteorite research the Organizing Committee of the Commission was asked to consider by 1973 whether meteor and meteorite research should be split into separate commissions.

2. It was proposed that a second international symposium on meteorites be organized for 1971 or 1972. It was agreed that the Chairman of the Committee on Meteorites would consider the need for this, keeping in mind the possibility of the IAU acting as a co-sponsor of a symposium.

3. The Commission approved a proposal that an effort be made to identify 'unclassified' meteorites that have never been scientifically described. Members are urged to locate any such meteorites in their countries and to arrange for their investigation by modern methods. The Committee on Meteorites shall be responsible for the implementation of this resolution.

4. The Commission approved a recommendation that programs of visual meteor observations be continued, especially if these observations are co-ordinated with radio or photographic programs. The need for a more vigorous program of visual observations in the southern hemisphere is stressed.

The President stated that he intends to distribute one more up-to-date version of the mailing list for reprints. The value of this list was recognized and the incoming President will continue to maintain it.

C. L. Hemenway offered to act as host for a symposium on meteor physics if there was sufficient interest. Many members indicated an interest in such a meeting which might be held in Albany, New York, to fit with the 1971 meeting of COSPAR in Seattle, Washington, in June. The possibility of IAU sponsorship for the meeting will be investigated.

C. L. Hemenway and B. A. Lindblad stated that the Cosmic Dust Panel, now organized within COSPAR, should strengthen its relations with meteor astronomers of the IAU. The Commission approved the formation of a 'Committee on Interplanetary Dust' with C. L. Hemenway as Chairman and a Vice-Chairman to be named at the next session of the Commission.

R. K. Soberman outlined the probable need for a system of naming meteor streams discovered from space experiments, in particular streams which do not intersect the Earth's orbit.

T. R. Kaiser extended a warm welcome to members of Commission 22 to visit the University of Sheffield at the close of the General Assembly.

Second Session

About 50 members and guests were present at the second session of Commission 22. The President requested that any changes or corrections to the meteor mailing list should be forwarded to him promptly.

The President reported that the IAU might be able to support the proposed symposium on meteor physics in Albany to a maximum amount of \$1600. The Commission appointed an organizing committee for the symposium consisting of C. L. Hemenway (Chairman), P. M. Millman, and A. F. Cook.

Millman described plans for a five-day symposium on Planetology to be held as part of the 24th International Geological Congress in Montreal, August 21–29, 1972. The IAU and Meteoritical Society are among the co-sponsors of the meeting.

Kresák reported that Commission 20 had supported a proposal to hold a conference on comets, asteroids, and interplanetary matter at Nice in 1972. The emphasis is expected to be on orbital studies.

The Commission approved the appointment of R. K. Soberman as Vice-Chairman of its new Committee on Interplanetary Dust.

The President announced that A. Hajduk and M. Šimek were preparing a catalogue of radar meteor equipment to be published in *Bull. astr. Inst. Czechoslovakia*. The deadline for inclusion in the list is December 31, 1970.

Ceplecha extended an invitation to all meteor astronomers to submit meteor papers for publication in the *Bull. astr. Inst. Czechoslovakia*. He also reported that the International Union of Amateur Astronomers had asked for the co-operation of Commission 22 in their programs and the Commission welcomed this request.

The President called upon the meeting to rise in a tribute to one of the Commission's consulting members, Prof. Dr J. Zähringer, whose death occurred shortly before the General Assembly.

The following short communications were presented before the close of the second session:

1. R. E. McCrosky: Photographic Meteorite Fall, Lost City.
2. I. Halliday: The Canadian Meteorite Camera Network.
3. P. M. Millman: Meteor Spectra Observed with the Image Orthicon.
4. A. F. Cook: Discrete Levels of Beginning Heights of Meteor Streams.
5. L. Kresák: On The Origin of Short-Period Meteors.

Third Session

Further short papers were presented at this session as follows:

6. Z. Sekanina: Statistical Model of Meteor Streams and its Application to the Association of a Meteor Stream with Asteroid Adonis.

7. B. A. McIntosh: Radar Observations of the 1969 Leonids.

8. D. W. Hughes, D. G. Stephenson: Diurnal Variations in the Mass Distribution of Sporadic Meteoroids.

9. E. Anders: Origin and Formation of Meteorites.

10. E. Anders: Meteorite Influx Rate on the Moon from Trace Element Studies on Apollo 11 and 12 Lunar Samples.

11. B. Hellyer: Mass Distribution in Meteorite Showers.

12. P. W. Hodge, D. E. Brownlee: Interplanetary Dust Detection and Collection.

13. J. A. O'Keefe: Tektites.

14. J. Hunter: The Production of Artificial Meteor Trains by Means of Shaped Charges.

The Vice-President, R. E. McCrosky, expressed the thanks of the entire Commission to the retiring President for his work on behalf of Commission 22 during the past three years, particularly for the preparation of the Report of the Commission and for arranging the sessions at the General Assembly. Dr McCrosky also expressed the appreciation of the Commission for the work of Drs Yavnel and Anders on the Committee on Meteorites.