

COMMISSION 15: PHYSICAL STUDY OF COMETS,  
MINOR PLANETS AND METEORITES (L'ÉTUDE  
PHYSIQUE DES COMÈTES, DES PETITES PLANÈTES  
ET DES MÉTÉORITES)

Report of Meetings, 22, 24, 25 and 28 August 1973

PRESIDENT: V. Vanýsek.  
SECRETARY: J. Rahe.

22 August 1973

I. SCIENTIFIC PRESENTATIONS

The following communications were presented during the meeting of the Commission, in order of their presentation:

- J. Rahe, V. Vanýsek: Report on Planned Observing Programs of Comet Kohoutek 1973f.  
J. M. Greenberg: Skylab Comet Program.  
J. C. Brandt: Remarks on NASA Comet Program and Comet Observatory.  
A. H. Delsemme: Brightness Laws and Photometric Profiles of Neutral Coma.  
V. Vanýsek, J. Rahe: Lifetime of Parent Particles in Cometary Atmospheres.  
L. Biermann: Chemical Processes in Comets.

II. WORKING GROUPS

Three working groups were established for discussions about observing programs for Comet Kohoutek 1973f, and for the preparation of Commission Resolutions concerning Early Space Missions to Comets and Asteroids, and Priorities in Cometary Research.

24 August 1973

I. ADMINISTRATIVE MATTERS

During the meeting the following administrative matters were discussed:

As new officers of the Commission were proposed and unanimously nominated by the Commission for approval by the Executive-Committee of the Union: President: A. H. Delsemme, Vice-President: N. B. Richter.

As members of the Organizing Committee were elected by the Commission: E. Anders, C. Arpigny, L. Biermann, O. V. Dobrovolsky, B. D. Donn, T. Gehrels, J. Rahe, E. Roemer, V. Vanýsek, F. L. Whipple.

As new members of the Commission were approved: J. E. Blamont, M. P. Candy, Z. Ceplecha, V. I. Cherednichenko, A. A. Demenko (Mrs), A. E. Douglas, T. Gehrels, J. M. Greenberg, W. F. Huebner, V. P. Konopleva (Mrs), C. F. Lillie, S. P. Maran, B. G. Marsden, C. D. McCord, N. F. Ness, J. A. O'Keefe, P. Proisy, G. W. Wetherhill.

Commission 15 was renamed *Physical Study of Comets, Minor Planets and Meteorites*.

II. RESOLUTIONS

The following Resolutions were discussed and approved by the Commission. They were submitted for approval and approved by the XVth General Assembly of the IAU (Resolution No. 7).

1. *Resolution concerning Early Space Missions to Comets and Asteroids*

*Whereas* Comets, unlike planets, probably still preserve the original composition of early condensation in the solar system, possibly including complex carbon compounds;

*Whereas* the interaction of a cometary atmosphere with the solar wind constitutes a natural plasma laboratory impossible to simulate;

*Whereas* Comet observations can provide information about the solar wind in inaccessible regions of space after calibration by space probes; and

*Whereas* most Asteroids represent matter aggregated in different regions of the primordial solar nebula than the planets or the comets.

Therefore the XVth General Assembly of the International Astronomical Union strongly recommends Early Space Missions to Comets and to Asteroids in continuing programs.

2. *Resolution concerning Priorities in Cometary Research*

The transient and unpredictable appearance of most comets prevents cometary astronomers from scheduling time on large telescopes.

In order to overcome the deficiency in cometary data, the XVth General Assembly of the International Astronomical Union strongly recommends the priority allocation of time for cometary observations on large telescopes.

**25 August 1973**

SCIENTIFIC PRESENTATIONS

The following communications were presented during the meeting of the Commission, in order of their presentation:

F. L. Whipple: Space Mission to Comets.

B. D. Donn: A Proposal to Space Mission to Comets.

B. G. Marsden: Nongravitational Effects on Comets.

After these presentations, Commissions 15 and 20 held a joint meeting (see Report of Commission 20).

**28 August 1973**

SCIENTIFIC PRESENTATIONS

The following communications were presented during the meeting of the Commission, in order of their presentation:

Z. Sekanina: Solid Matter in Cometary Tails.

L. F. Burlaga, J. Rahe, B. Donn, M. Neugebauer: Solar Wind Interaction with Comet Bennett.

Z. Kviz: Cometary Dust as Cloud Seeding Agents.