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Aeronautics and Astronautics will join in sponsoring a conference on Stratosphere-Mesosphere Structure. It will be held on the Texas Western campus. Instrumentation, sensitizing techniques, data analysis, and theoretical treatment of such parameters as wind, temperature, density, electron density, and radiation ozone will be among the topics covered.

The 44th annual meeting of the Meteorological Society will take place January 29 to 31, 1964, at the University of California at Los Angeles. The program is expected to include discussions on meteorology a century ago, mesoscale circulations, climatic change, planetary atmospheres, radiative transfer, interpretation and use of numerical forecasts, probability forecasts, atmospheric pollution, cloud physics, convection, and new instrumentation.

Further particulars concerning these meetings are available from the American Meteorological Society, 45 Beacon Street, Boston 8, Mass.

#### Radioactive Tracers

Isotope mass effects in chemistry and biology will be discussed at a symposium to be held December 9-13 in Vienna. Sponsored by the International Atomic Energy Agency and the International Council of Scientific Unions' Joint Commission on Applied Radioactivity, the meeting will cover the theory and interpretation of isotope effects, experimental techniques, isotope effects on chemical and biological systems in equilibrium, and kinetic isotope effects.

The official channel for US participation in the meeting is the US Atomic Energy Commission. Abstracts of 250–350 words should be sent before September 1 to John H. Kane, Chief, International Conferences Branch, Division of Special Projects, Atomic Energy Commission, Washington 25, D.C.

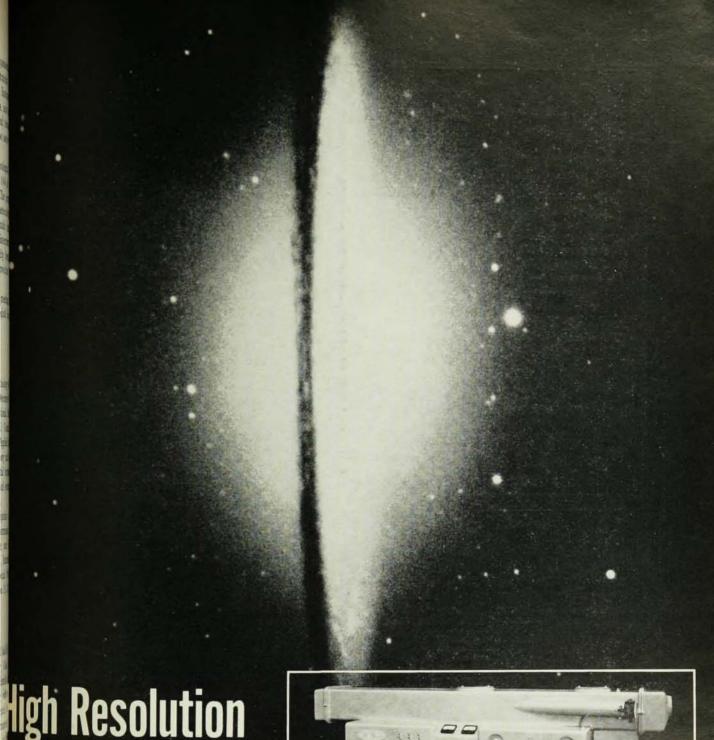
#### Earth Sciences

The American Geophysical Union will hold its third western national meeting in Boulder, Colo., from December 26 to 28. More than 700 scientists are expected to attend, and papers dealing with various major areas of geophysics will be presented, including geodesy, seismology, meteorology, geomagnetism and aeronomy, oceanography, volcanology, geochemistry, petrology, tectonophysics, hydrology, and the planetary sciences.

Abstracts and titles of contributed papers are due before October 10. They should be sent to Dr. W. W. Kellogg, The Rand Corporation, 1700 Main Street, Santa Monica, Calif.

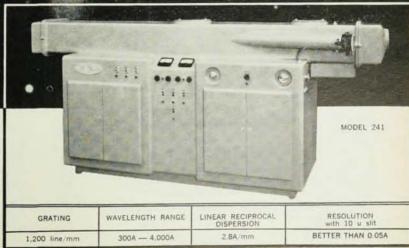
#### Cloud Physics

The American Meteorological Society is planning a conference on the physics and dynamics of clouds to be held March 24-26, 1964, at the University of Chicago. The program is expected to include papers on



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150 Tremont Street Boston 11, Massachusetts HAncock 6-8400 cloud physics, precipitation mechanisms, convection processes, dynamic models of convection, cloud studies by satellite, thunderstorm electricity, and dynamics of cloud systems. Papers on cloud seeding, weather modification, and weather radar will be excluded unless they contribute to the basic understanding of the physics and dynamics of clouds.

November 4 is the deadline for submitting titles and 200-word abstracts of contributed papers. They should be sent to Miss Dorothy L. Bradbury, Department of Geophysical Sciences, University of Chicago, Chicago 37, Ill. Other correspondence regarding the meeting should be addressed to the American Meteorological Society, 45 Beacon Street, Boston 8, Mass.

#### Surface Phenomena

An international conference on the physics and chemistry of solid surfaces will be held at Brown University from June 21 to 26, 1964. Planned as an interdisciplinary meeting for physicists, chemists, and metallurgists, the conference will be confined to topics bearing on the fundamental understanding of phenomena associated with the surfaces of metals, semiconductors, and insulators. Special emphasis will be placed on the nature of crystal surfaces, the role of surface structure in affecting atomic and electronic events, and on the interaction between chemical phenomena and electronic processes at interfaces.

Inquiries should be addressed to Prof. H. E. Farnsworth, Corresponding Secretary, Brown University, Providence, Rhode Island.

#### Combustion

The Chemical Laboratory of Cambridge University will be the headquarters for the tenth international symposium on combustion, which is to take place August 17–21, 1964. Sponsored by the Combustion Institute and the Cambridge Physical Chemistry Department, the meeting will be concerned primarily with two topics: (1) elementary combustion reactions, including reactions of both ionized and neutral species; and (2) fluid dynamics in combustion, including buoyant, low-velocity, supersonic, and unstable processes. There will be brief presentations of invited papers in closely related groups, followed by extensive discussion.

In addition to papers relating to the two discussion topics, the program is expected to deal with various areas of combustion, including air pollution resulting from incomplete combustion in reciprocating engines, electrical properties of flames, and theoretical and experimental ignition studies.

Four copies of 1000-word abstracts should be submitted by January 15 to the Combustion Institute, 986 Union Trust Building, Pittsburgh 19, Pa. Requests for hotel accommodations should be sent to the Secretary, Combustion Symposium Local Committee, Department of Physical Chemistry, Lensfield, Cambridge, England.