

LUNAR SCIENCE INFORMATION BULLETIN

NUMBER 4

The Lunar Science Institute
3303 NASA Road #1
Houston, TX 77058

NOVEMBER 22, 1974

713/488-5200

SIXTH LUNAR SCIENCE CONFERENCE

The Sixth Lunar Science Conference, jointly sponsored by the Johnson Space Center and The Lunar Science Institute, will be held March 17-21, 1975, at the NASA/Johnson Space Center, Houston, Texas.

The Sixth Conference, organized along lines similar to the Fifth Conference, will again consider the following broad, problem-oriented topics, to one of which each Abstract submitted to the Conference must be addressed:

1. Constraints on structure and composition of the deep interior
2. Characteristics and movement of materials in the lunar regolith
3. Characterization and evolution of the mare basins
4. Characterization and evolution of the lunar crust
5. Nature of impact processes and their effects on lunar materials
6. The Moon as an interplanetary/interstellar probe

Each team of investigators may submit up to three abstracts for inclusion in the Abstracts volume, but must designate one abstract as intended for oral presentation. Abstract forms and detailed instructions for their preparation will be distributed to Principal Investigators in mid-November. Co-investigators should co-ordinate submission of abstracts with their Principal Investigators. Individuals who wish to submit abstracts, but who are not associated with a Principal Investigator, should write the Conference Office, Lunar Science Institute, for further information.

Deadline for Abstract Submission 14 January 1975

Deadline for submission of manuscripts
to Proceedings of the Sixth Lunar

Science Conference

21 April 1975

NEW DIRECTOR SELECTED FOR LUNAR PROGRAMS OFFICE

In early January Dr. Edward A. Flinn will assume the duties of Director of the Lunar Programs Office, NASA Headquarters. Dr. Flinn, who received his Ph.D. in Geophysics from CalTech in 1960, is currently Associate Director of the Alexandria [Va.] Laboratories of Teledyne Geotech. Mr. Floyd I. Roberson, who has been Acting Deputy Director since Dr. Noel Hinners' appointment as Associate Administrator for Space Science, will continue in this position in the Lunar Programs Office.

SOVIETS LAUNCH LUNA-23

Luna-23 was launched from Tyuratam on October 28, with arrival at the Moon planned for November 1. The Soviet Tass news agency reports that on November 6 at 8:38 a.m. (12:37 a.m. CST) the station landed in the southern part of the Sea of Crises in an area with an unfavorable surface. As a result, the device for taking samples of Moon rocks from depths of up to 8 feet, was damaged. The station's work was stopped Saturday (November 9) after carrying on work for three days "under a new and curtailed program."

CONFERENCE: RECENT ACTIVITY WITHIN THE MOON

This conference, scheduled for April 14-16, 1975, will be held at the Lunar Science Institute, Houston, Texas. Evidence for present-day lunar activity will be discussed including moonquakes, orbital and surface measurements of gaseous emissions from the Moon, lunar transient phenomena, photo-geologic evidence regarding possible recent reactivation of ancient lines of weakness in the lunar crust. Particular emphasis will be upon physiochemical mechanisms of these phenomena. For further details contact the Conference Office at the LSI, 3303 NASA Road #1, Houston, TX 77058, 713/488-5200.

CONFERENCE: SYMPOSIUM ON PLANETARY EXPLORATION, DECEMBER 13, SAN FRANCISCO

This one-day meeting sponsored by the American Geophysical Union and the American Institute of Aeronautics and Astronautics, is being held in conjunction with the Fall Annual Meeting of the AGU. The morning session, chaired by Harold Masursky, will be devoted to reviews of our present understanding of the planets and minor bodies, and to identifying key questions which should motivate the future program. The afternoon session, chaired by James A. Van Allen, concerns the development of the U. S. Program for planetary exploration during the next decade and the possible utilization of a number of new techniques. The General Chairman is Dr. Bruce Whitehead, Space Sciences Division, Jet Propulsion Laboratory, 4800 Oak Grove Drive, Pasadena, CA 91103.

"LUNAR INTERACTIONS" POST-CONFERENCE NOTES

The conference on "Interactions Between the Solar Plasma and the Ancient and Modern Moon," was held September 30-October 4, 1974, at the Lake Geneva Campus of George Williams College in Williams Bay, Wisconsin. The conference sponsored by the National Science Foundation, Rice University, and National Aeronautics and Space Administration through the Lunar Science Institute, was organized by John W. Freeman, Jr. (Rice University) and David R. Criswell (LSI). Approximately 60 scientists participated and were generally very satisfied, and in many instances enthusiastic with the scientific content and informal style of the meeting.

A 140-page, indexed, abstracts volume was printed prior to the conference for distribution to all contributors. Copies are available from the LSI for printing and mailing costs. (Send order and check for \$10.00 to Mrs. C. Watkins, LSI). A summary of the Interactions Conference was distributed at the Regolith Conference, Houston, TX, (November 13-15), and is available from Dr. Criswell at the LSI.

CONSORTIUM INDOMITABILE PUBLISHES VOLUME 2

"Interdisciplinary Studies of Samples from Boulder 1, Station 2, Apollo 17, Volume 2" has just recently been published by the Consortium Indomitabile, John Wood, Leader. Copies of this new volume as well as volume 1, which was distributed in March 1974, are available from Ms. Karen Motylewski, Smithsonian Astrophysical Observatory, 60 Garden Street, Cambridge, MA 02138.

PRICE CHANGE - LUNAR SCIENCE III, LUNAR SCIENCE IV, APOLLO 15 LUNAR SAMPLES

These abstract volumes will now be available for the following prices:

U. S. Mailing	\$1.00 per volume
Foreign Mailing	\$6.00 per volume

Orders MUST be prepaid. Please send check (payable to Lunar Science Institute) and order to: Mrs. C. Watkins, Lunar Science Institute, 3303 NASA Road #1, Houston, TX 77058. The price for LUNAR SCIENCE V remains unchanged: (\$1.00 U.S. mailing; \$6.00 foreign mailing).

CORRECTION - LUNAR ORBITAL DATA POSTER

The Lunar Orbital Data Posters reprinted from the 4th Lunar Science Conference have a typographical error. The caption for Plate IV, Lunar Gravity Anomalies should read as follows: "The mascons, the red circular areas, have mass excesses of 800 *kilogram/cm*² and are near surface, disk shaped features . . ." Also, the source note should be "Reprinted from the Proceedings of the *Fourth* Lunar Science Conference."

PREPRINTS - SOVIET-AMERICAN CONFERENCE ON COSMOCHEMISTRY OF THE MOON AND PLANETS (For details of the conference, see LSIB #1)

To make the papers from this conference available to lunar scientists as quickly as possible, preprints are being readied for distribution. A list of the preprints and a request form are included with this Bulletin. This is a preliminary list and does not contain all the papers submitted to the conference. Additions to this list including the translations of the Russian papers, will be published as they become available. If you are interested in receiving any of these papers, please use the request form.

OPENING AND DISPLAY OF APOLLO 16 SURFACE SAMPLERS

Final preparations are being made in the Curatorial Facility to open and inspect the Apollo 16 Lunar Surface Samplers. These were devices used to obtain samples by pressing a cloth surface (one a velvet pile, the other a teflonized fiberglass) against the lunar surface. Colin Pillinger (Bristol, England), in conjunction with the Curator, has designed the apparatus and procedures to open and inspect these samples. Descriptions of the samples, including descriptions of individual particles, will be made and a plan for further study will be designed in early December. For information, contact the Curator, NASA/JSC, Code: TL, Houston, TX 77058

CALENDAR OF EVENTS

- Dec. 12-17 American Geophysical Union Fall Annual Meeting. Jack Tar Hotel, San Francisco, CA. (EOS, July 1974 for Program Chairman)
For information contact: American Geophysical Union
1707 L Street, N. W.
Washington, D. C. 20036
202/293-1144
- Dec. 13 Symposium on Planetary Exploration, San Francisco, CA
For information contact: Dr. Bruce Whitehead
Space Sciences Division
Jet Propulsion Laboratory
4800 Oak Grove Drive
Pasadena, CA 91103
- 1975
- Jan. 6-9 Historical and Present Day Observations of Lunar and Planetary Orbits...geophysical and cosmological implications, University of Newcastle-upon-Tyne. (Conference described in LSIB #3)
For information contact: Mr. W. F. Mavor
School of Physics
University of Newcastle-upon-Tyne
NE1 7RU, England
- Jan. 14 Deadline for submission of abstracts to the 6th Lunar Science Conference
- March 17-21 SIXTH LUNAR SCIENCE CONFERENCE, Houston, TX
For information contact: Conference Office
Lunar Science Institute
3303 NASA Road #1
Houston, TX 77058
- April 14-16 Recent activity within the Moon--See page 2 this Bulletin for information.
- April 21 Deadline for submission of manuscripts to 6th Lunar Science Conference Proceedings
- May 29-June 7 Eighteenth Plenary Meeting of COSPAR and Associated Symposia, Golden Sands, Bulgaria.
For information contact: Z. Niemirowicz
COSPAR Secretariat
51 bd de Montmorency
75016 Paris, France
- June 9-11 The Moon: A New Appraisal from Space Missions and Laboratory Analyses. Royal Society, London. (Conference described in LSIB #3)
For information contact: Executive Secretary
Royal Society
6 Carlton House Terrace
London SW1Y 5AG, England
- June 16-20 Fifth-Sixth Annual Meeting of the American Geophysical Union, Washington, D. C.
For information contact: American Geophysical Union

CURRENT LUNAR ARTICLES RECEIVED IN LSI LIBRARY, AUGUST-OCTOBER, 1974
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