STAR DUST
National Capital Astronomers

March 1955 Vol. 12, No. 7

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MARCH CALENDAR

Mar. 5 (Sat.) PANEL DISCUSSION BY EMINENT ASTRONOMERS.
Panel: Dr. Gerald M. Clemence, Director Nautical Almanac Office, Naval Observatory
Fr. Francis J. Heyden, Director, Georgetown Observatory
Mrs. Simone D. Gossner, Astronomy Editor, Science Magazine
Mr. E. P. Henderson, Associate Curator, Minerals and Petrology Section, Smithsonian Institution
Dr. A. Edward Lilley, Naval Research Laboratory
Moderator: Mr. Charles A. Federer, Jr., Editor, SKY AND TELESCOPE
Place: Department of Commerce Auditorium, 8:15 P.M.

Mar. 19 (Sat.) ROGER SMITH DISCUSSION GROUP. Subject: "ENGINEERING OF ROCKETS FOR SPACE TRAVEL." Commerce Dept. 8:00 P. M. (Guard will direct us to room.)

Mar. 22 (Tue) Mr. Hugh Odishaw, Administrative Secretary of the United States Committee for the International Geophysical Year speaks on the plans for the IGY at the Coolidge Auditorium of the Library of Congress. 8:00 P. M.

Sometime in March the Philosophical Society's annual Joseph Henry lecture on astronomy will be given at the Cosmos Club. Date and Subject can be obtained later by calling DU 7-7783.

Each Saturday morning, Telescope Making Class with Irene Warthen at Chevy Chase Community Center, 5600 block of Connecticut Avenue, 9-12 A. M. Miss Warthen's phone is LOckwood 5-4058.

"ASK THE EXPERTS" coming up on March 5 promises to be the most interesting and exciting program that the NCA has ever offered its members and the public. Here is your chance to ask point-blank those tantalizing questions which none of the books ever get around to clearing up. The five experts represent almost any phase of astronomy you can think of: Dr. Gerald M. Clemence, Director of the Nautical Almanac Office of Naval Observatory, has centered his investigations in celestial mechanics and the solar system in general. Fr. Francis J. Heyden, Director of Georgetown Observatory, has made expeditions to many parts of the world in his researches on solar eclipses and the structure of the Milky Way. Dr. A. Edward Lilley, of Naval Research Laboratory, has conducted researches centered in radio astronomy and galactic structure. Dr. Lilley is a new addition to our panel. Mrs. Simone D. Gossner of the Nautical Almanac Office, Naval Observatory, is Astronomy Editor, Science Magazine. Her researches have been chiefly in prediction of eclipses and occultations and the structure of the Milky Way. Mr. E. P. Henderson, Associate Curator, Minerals and Petrology Section of the Smithsonian Institution, is one of the world's foremost authorities on meteorites. Mr. Charles Federer, Jr., Editor of SKY AND TELESCOPE is moderating the program. Dr. George Gamow, originally scheduled to appear on the panel, was unexpectedly called out of Washington and could not be present.

APRIL 2 BRINGS DR. CECILIA PAYNE-GAPOSCHKIN, Phillips Astronomer and Chairman of the Department of Astronomy at Harvard University to lecture to the NCA.

ROGER SMITH DISCUSSION GROUP on Saturday, March 19 at the Commerce Department will develop information on the "ENGINEERING OF ROCKETS FOR SPACE TRAVEL." Roger is himself somewhat of a rocket engineer and he will have with him a number of specialists for a give-and-take discussion with you. With him will be Messrs. Zanville Raffel and Frank Smith of Thieblot Aircraft Company, Mr. Harry Archer of Atlantic Research, and perhaps someone from the Naval Research Laboratory. Because some other

group will be using the auditorium we shall be in another room. As at the February Discussion Group you will be directed to the room by someone at the Guard's Desk.

BOB WRIGHT DISCUSSION GROUP on Messier Objects will be long remembered by the 35 NCA members who participated at the Commerce Department on February 19. Bob pointed out that the Frenchman, Messier, located and catalogued these 109 objects in Paris skies while searching for comets some 200 years ago. A strikingly realistic demonstration with a "natural sky screen" (is it patented, Bob?) of the Andromeda nebula, Hercules cluster, and other Messier objects, as seen through a small telescope, has provoked demands for repeat performances.

MEMBERS OF THE NATIONAL CAPITAL ASTRONOMERS ARE INVITED to hear Mr. Hugh Odishaw, Administrative Secretary of the United States Committee for the International Geophysical Year speak on the plans for the IGY at our next meeting, Tuesday, March 22 at 8:00 P. M. in the Coolidge Auditorium of the Library of Congress. The International Geophysical Year will be a period during 1957 and 1958 when the United States will cooperate with 37 other nations, including Russia, in an intensive collection of geophysical data. Meteorological observations, latitude and longitude determinations, studies of geomagnetism, the ionosphere, aurora and airglow, solar activity, cosmic rays, oceanography and rocket exploration of the upper atmosphere will be conducted by these nations. The advancement of pure science is not the only reason for this international cooperation. The participating nations expect that the data collected will help solve problems in radio communications, improve weather forecasting, advance jet propulsion and perhaps determine the location, strength and movement of the jet stream.

While in most physical sciences, experiments can be controlled in the laboratory, in geophysics the world is the laboratory. Many problems of geophysics are global and interstellar in nature and international cooperation is necessary to obtain sufficient data for their solution. Because such areas as the Arctic and the Antartic are ordinarily inaccessible for regular scientific observations, Carl Weyprecht, an Austrian explorer, first suggested that the nations set aside a period when they would send special

expeditions to these areas for the collection of scientific data over a satisfactory length of time. The French and American Antarctic expeditions which set out recently are part of the preliminary arrangements for the International Geophysical Year.

This will be the third such international venture. The United States and eleven other nations participated in 1882-1883 in the First International Polar Year. The ill-fated Greeley expedition to Lady Franklin Bay and the more fortunate Ray expedition to Point Barrow were the American contributions. Great advances in geomagnetism resulted, particularly an understanding of the aurora. Some of the geophysical calculations from the first Polar Year were later used by Marconi in his transatlantic telegraph experiments. Forty-four countries participated during 1932-1933 in the Second International Polar Year. Ionosphere studies made then, resulted in information estimated worth millions of dollars to the communications industries.

Since the final plans for the International Geophysical Year were to be decided by the National Committees at a meeting in Rome in October 1954, Mr. Odishaw should be able to tell us what those plans are. We hope any of your members who are interested will attend our meeting.

——Idair Smookler, Public Relations Chairman

OBSERVATIONAL DATA

Mercury reaches greatest western elongation on March 10. It is very close to the horizon at sunrise at this elongation. Venus is a morning star prominent in the southeast before sunrise. Mars is in Aries and sets about 10:00 P. M. Jupiter is near the meridian at sunset and is visible until after midnight. Saturn, in Libra, rises before midnight and is visible low in the southern sky for the rest of the night.

——A. L. White

NEW MEMBER

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CHANGES OF ADDRESS

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FACTS ON SOME OF THE STARS VISIBLE NOW

BETELGEUSE is about 400 times as large as the sun and is 272 light-years away. It is bright reddish in color.

RIGEL is 18,000 times as bright as the sun and is 543 light-years away. It is blue-white.

PROCYON is 6 times as bright as the sun and is 10.5 light-years away. Procyon is yellow in color and is really a double star. Its double is one of the dimmest stars known, our sun being 17,400 times as bright.

SIRIUS is 26 times as bright as the sun and is 8.6 light-years away. It is white and the most brilliant of all the stars. It has a small companion which is so dense that a cubic inch would weigh a ton.

LUNAR OCCULTATIONS FOR MARCH

Date	Star	Mag.	Age	Phase	E. S. T.
2	3 Gem m	5.8	8.4	D	8:22.0 P. M.
2	4 Gem m	6.7	8.4	D	9:00.7 P. M.
2	6 Gem	6.3	8.4	D	9:59.7 P. M.
3	120 B bem	6.5	9.4	D	8:18.7 P. M.
4-5	BD + 16° 1687	6.8	10.6	D	3:12.1 A. M.
13-14	169 B. Lib	5.8	19.6	R	1:09.8 A. M.
13-14	177 B Lib.	6.2	19.6	R	2:14.2 A. M.
26	114 B. Arif	7.3	2.9	D	8:35.6 P. M.
27	133 B. Tau	5.9	3.9	D	8:52.7 P. M.
27	142 B. Tau	6.8	3.9	D	9:46.4 P. M.
28	309 B. Tau	6.6	4.9	D	9:18.0 P. M.
29	140 Tau	6.9	6.0	D	11:03.0 P. M.
30	BD + 21° 1428	6.8	6.9	D	8:03.7 P. M.
30	BD + 21° 1426	6.7	6.9	D	8:19.2 P. M.
30-31	Zeta Gem	4.0	7.0	D	12:39.7 A. M.
31	BD + 18° 1778	7.4	7.9	D	9:18.6 P. M.
31-Apr.1	3 CNC	5.8	8.0	D	12:41.6 A. M.

—A. L. White

THE LIVES OF THESE TRUTH TRAILERS make fascinating reading:

THALES, the man who knew how to foretell an eclipse (640-546 B.C.)

HIPPARCHUS, who first wrote down the stars (146-126 B.C.)

PTOLEMY, who believed the sun went around the earth (A.D. 100-178)

COPERNICUS, who put the earth in its place (A.D. 1473-1543)

JOHANNES KEPLER, whose laws govern the planets (A.D. 1571-1630)

GALILEO GALILEI, who first turned the telescope to the stars (A.D. 1564-1642)

OLAUS ROMER, who first clocked the speed of light (A.D. 1644-1710)

EDMUND HALLEY, who first foretold a comet's coming (A.D. 1656-1742)

FRIEDRICH WILHELM BESSEL, who first found the distance to a star (A.D. 1784-1846)

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Jewell Boling, Editor, 1717 P St., N.W. NOrth 7-9621