

Air Trails and Science Frontiers, September 1947, contains an informative article by Mitchell of Mt. Wilson Observatory, entitled, "New Paths to New Planets." "New paths" deal with the superiority of the parabola over the conventional ellipse, commonly thought to be the most advantageous method for routing rockets on planetary journeys. "New planets" are Venus, Mars, and Jupiter--new in the sense that present-day attributed characteristics are almost completely opposite the concepts of twenty years ago. Mr. Mitchell describes these three "new planets" in detail. A number of photographs accompany the article as well as three paintings which are an artist's visualization of the surface appearance of Venus, Mars, and Jupiter, based on Mr. Mitchell's account of recent discoveries. ---Jewell Boling

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Date

NOVEMBER CALENDAR

Mondays) 6:30 p.m. to 9:51, room 235 McKinley High
Wednesdays) School, telescope making class; R. M.
Thursdays) McLellan, instructor.

- 1 "Which Way is Up?" A. C. Poling, Saturday, 8 p.m. room 43, National Museum.
- 8 Picnic-observation at Sligo Creek Cabin, 5 p.m.
- 14 Trip to Bureau of Standards radar station at Sterling, Va. Meet at streetcar terminal, Rosslyn, 6:30. Rain or shine.
- 15 Discussion group will take the form of a hobby show, 8 p.m. foyer of Commerce Auditorium.
- 20 "Moon and Double Stars" observation at the NCA 5-inch telescope, 8 p.m. Thursday, or, if the sky is overcast at 6:30, postponed until Friday.
- 22 Junior members' night at the 5-inch. 8 p.m. Carl Werntz, observer. Observation of the moon near first quarter.

"WHICH WAY IS UP?" Mr. A. C. Poling of the Section of Triangulation, Division of Geodesy, Coast and Geodetic Survey, will explain how gravity deflects a plumb bob, and the connection of astronomical observations with geodetic work, with particular reference to the direction of the vertical.

BRING SNACKS AND TELESCOPES to the outing at Sligo Creek Cabin at Sligo Creek Parkway and Wayne Avenue,

NEW MEMBERS

- Edward V. Aker, 4707 Hudson Avenue S.E.
- Jean F. Aker, 1744 Lanier Place N.W. Hobart 4722
- Alton P. Hall, 2200 U Place S.E. Trinidad 1921
- Norma U. B. Lienhard, 1910 Belmont Road N.W. North 2615
- Nettie Mansker, 1010 25th St. N.W. (7) #609 DI-0845
- *John Lankford, 3118 Central Ave. N.E. North 9272
- *Jack Looney, 1334 Monroe St. N.E. Decatur 5164

OCCULTATION PREDICTIONS

Morgan Cilley

Nov.	Star Number	Magnitude	Immersion	H.A.
18	3012	6.7	7:30 PM	2.6 W
19	3141	6.0	7:02 PM	1.5 W
20	3276	7.4	10:41 PM	4.5 W
23	66	6.8	6:16 PM	2 E
23	76	5.9	10:18 PM	2 W
23	83	6.9	11:33 PM	2.5 W

MAJOR AND MRS. GERALD SWARTHOUT sail for Paris where he will be stationed for three years. Our heartfelt good wishes are extended to them, and hopes for their return.

Mabel Sterns, editor, 2517 K Street N.W. (7) DI-9422

Silver Spring, Md. Mr. Delaney and his committee will arrange to have coffee. If the sky is overcast, picnic will be canceled. If doubtful, call him at SH-8447; also for directions, and for shuttle service from Georgia Ave. terminal if you have no car.

ANOTHER SPECIAL EVENT will be the trip to Sterling, Va. to see the radar station. As space will be somewhat crowded, members are asked to limit the number of guests. Small groups will take turns watching the instruments in operation and counting meteors by visual observation.

Meet at the streetcar loading platform in Rosslyn, 6:30 November 14, rain or shine. Drivers have been generous in transporting members without cars. If you are willing to call for someone in your neighborhood, please notify Mr. Delaney.

DISCUSSION GROUP continues to be popular, with an attendance greater than last year. In September Mr. Evans brought a projector, several astronomical slides, a sheet of polaroid, cross sections of several minerals, and a circular, ground glass projection screen about three feet in diameter. By combining these, together with a quartz lens, he was able to give an impressive demonstration, tho somewhat confusing. The next session was a chalk talk on optics by Mr. Foster of the Weather Bureau. November 15 will be amateur astronomers' hobby night. Bring pictures of, or taken with, your telescope; devices, gadgets, charts, cameras, accessories, and what-not made by members. Projector will be provided, also tables for displaying exhibit. Mr. Wright, chairman, MI-3200, extension 274.

THE SECOND JUNIOR NIGHT at the 5-inch will study the moon after first quarter, Saturday, November 22, weather permitting. Carl Werntz will direct the telescope to stars near the moon as well as lunar features. Whether this program will be continued depends on the interest shown at the next junior night.

NIGHTS AT THE 5-INCH have been favored with clear skies. Observer Slemaker, adept at finding faint objects, focussed on several star clusters and nebulae new to some of us at the October observation. Another look-see Thursday, November 20, will show the moon and double stars. If the sky is overcast at 6:30, event will be postponed until Friday, the 21st.

NEW TELESCOPE MAKERS are still joining the class. The shop is open also to those who want to machine their castings. Pyrex glass is still short. Latest word is that our order has been postponed again, delivery date set for end of November. We hope to borrow blanks from another society. School closed Thanksgiving Day only.

REVIEWS

George Gamow--"Atomic Energy in Cosmic and Human Life," Macmillan, New York 1946, 161 pp., \$3.00.

For those who have hesitated to approach the complexities of atomic theory and technology, this book will be a pleasant introduction. The author is a pioneer atomic theorist and has made a number of outstanding contributions in this field of research. He is Professor of Theoretical Physics at George Washington University.

The author develops his subject simply and with extraordinary clarity, supplementing the text with his own amusing drawings. The volume is divided into three fairly long chapters. Chapter I, Modern Alchemy, provides essential background information on the theoretical and experimental developments of the past fifty years in the field of radioactivity. Chapter II, How the Stars Use Atomic Energy, is of particular interest to astronomers. Well integrated with the other chapters, it describes the thermonuclear reactions in our sun and the other stars and discusses theories of stellar evolution. Chapter III, How Can Man Use Atomic Energy, admirably summarizes the Smyth Report, "Atomic Energy for Military Purposes," and the work leading to the development of the atomic bomb. This is supplemented with an interesting discussion of the practical problems of using atomic energy for non-warlike purposes. ---R. J. Hinckley