

KING SIDEREAL TIME CALCULATOR

National Capital Astronomers
Washington, D. C.

By way of further description of Mr. King's invention (see Star Dust, December), the sidereal time calculator consists of (1) an 8-inch circle divided into hours and minutes; (2) a smaller protractor similarly divided, mounted in the center to rotate on the larger one; (3) a transparent pointer (plastic bar with a radial line) also mounted at the center to reach the outer circle.

To determine sidereal time at the Observatory at 8:20 p.m. December 30, 1946:

1. Convert the time to the number of hours after midnight, or 20 hours 20 minutes.
2. Add 5 hours for Greenwich Civil Time, or 25h 20m which is 1h 20m December 31.
3. Find December 31, 1h 20m in the Air Almanac.
4. Opposite this time, in the column labeled with the sign of Aries G.H.A., we find 11h 52m.
5. Set 11h 52m of the smaller circle under 0 which is indicated by the sign of Aries on the large circle.
6. Our longitude is 77°. Set the pointer at 77 on the inner circle and read the sidereal time on the outer circle under the radial line--2h 46m.

The outer circle is read contra-clockwise and the inner one clockwise. One of these calculators and a copy of the Air Almanac are available for use with the NCA 5-inch. Mr. Cilley has made an adaptation of the device that is convenient but usable only at a particular longitude.

Mabel Sterns, President and Editor, 2517 K St. N.W. (7)

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WHERE TO GO

- Jan. 4 Saturday, 8 p.m. Commerce Auditorium. "The Demon Stars" by Dr. B. W. Sitterly.
- Jan. 9 Telescope making at McKinley High School, 2nd and T Streets N.E., machine shop, room 211, 7:30-9:30.
- Jan. 18 Discussion group, 8 p.m. Saturday, foyer of Commerce Auditorium.
- Jan. 22 Wednesday, 7 p.m. NCA dinner at Brooke Manor Hot Shoppe, Cherrydale, Va. on Lee Highway.

DR. B. W. SITTERLY of the Nautical Almanac Section, Naval Observatory, will speak January 4th on "The Demon Stars," referring to the Algol variables or eclipsing binaries. Such a star has never been seen or photographed as anything but a single point of light. However, from a careful study of the quality and quantity of the light reaching us from that point, can be constructed a reliable picture not only of the orbits of the pair, but also of the shapes and sizes of the two components, the way the light is distributed over their surfaces, the manner of rotation on their axes, and in a few cases the stratification of the material in the atmosphere of one of them.

NCA DINNER January 22nd, 7 p.m. at Brooke Manor Hot Shoppe, Cherrydale, Va., on Lee Highway about two miles beyond Rosslyn, Va. Order what you like and pay your own check. Guests are welcome. After dinner the room will be ours for entertainment arranged by Mr. Wright's committee. Direct bus service. Complete details will be furnished later.

TELESCOPE MAKING. Mr. Boyle's resignation as chairman of the telescope committee has been accepted with deep regret. Mr. McLellan, Hillside 0757, has agreed to assume that responsibility and has made arrangements for grinding mirrors and making tubes and mountings at McKinley High School under his direction. Meet at the machine shop Thursday, January 9, from 7:30 to 9:30. It is customary but not obligatory for each individual to contribute one dollar to the school "pin money" for the use of its equipment.

"HITCHING OUR COUNTRY TO THE STARS" was a very interesting lecture by Rear Admiral Leo Otis Colbert on December 7th. His lecture was on the important work of the U.S. Coast and Geodetic Survey. He began by reviewing the methods of determining longitude. In this, he said, the United States is first in accuracy. There were slides showing the various instruments and methods used.

Modern methods of hydrographic surveying have enabled the Coast Survey to map the area of the Continental Shelf with a degree of detail and accuracy comparable to surveys made on land. Surveys made in recent years have uncovered many heretofore unknown facts about the formation of the Continental Shelf.

In surveying, the fundamental position must be determined by observations of the stars. The triangulation method of measuring distances between stations affords the most accurate and most feasible method, particularly where rough, mountainous terrain is involved.

As the need grows for accurate maps and charts, the work of the Coast and Geodetic Survey becomes more and more important. ---Carroll S. Slemaker, junior astronomer, edited by C.&G.S.

CORRECTION. Mr. North's address is 161 Darrington Street S.W., Washington 20.

THE RECORD ATTENDANCE and success of the December program were due in large part to the efforts of Admiral Colbert's staff. The fine exhibit in the foyer, colored slides, painted posters, and publicity material were prepared by the Coast and Geodetic Survey. Technicians were on hand to operate the projector, test the public address system, and supervise details. The great amount of work brought worthwhile results, and the society extends its gratitude.

77 VARIABLE STAR OBSERVATIONS and three occultations were reported by the junior astronomers. Some variable star charts and an atlas have been bought with treasury funds for the use of the juniors. Mr. Cilley, observation chairman, is also planning observations for regular members, especially the new ones. Call him at Naval Observatory for arrangements.

METEOR COUNTING BY RADAR OSCILLOSCOPE. Amateur astronomers took turns accompanying Dr. McNish and others from the Bureau of Standards, to Sterling the nights of December 11, 12, and 13 to count Geminids. The first two nights were cloudy. So after an inspection tour, observers watched the base line on the oscilloscope for deflections caused by ionized paths of meteors. Friday night the tables were turned and observers outstripped the radar, we hear, by counting 137 meteors within a prescribed area of the sky, in about three hours.

NEW CHAIRMAN OF THE MEMBERSHIP COMMITTEE. Mr. Benjamin King has resigned that post and Mr. U. S. Lyons has taken over those duties. Henceforth applications should be sent to Mr. Lyons at his new address, 5511 Worthington Drive, West Haven, Md.

NEW MEMBERS

Martha G. Morrow, 1914 Connecticut Ave. N.W. Du. 3982
David Rotbart, 4410 River Road, N.W. Emerson 0119
Paul Robbins, 831 Marietta Place N.W. Re. 7500 Ext. 6838
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