

METEOR COUNTING AT STERLING, VA. Mr. Lyons announced that the Bureau of Standards' radar station at Sterling will call on the amateurs occasionally to go out and count meteors visually. Persons who wish to volunteer for this service may add their names and telephone numbers to his list to be notified. Transportation will be furnished. He also described the work of the radar scope.

ANOTHER AMATEUR TURNS PROFESSIONAL. William P. Harris, Jr., long an amateur astronomer, has been selected to fill the position of astrophysicist at the Astrophysical Observatory of the Smithsonian Institution. He assumed his duties in the Washington office about the middle of November, and after a short introductory period, will be assigned to the station soon to be established near Miami, Florida.

NEW MEMBERS

- Janet Perkins, 2141 I Street N.W. Re. 7676 Ext. 610.
- Thomas M. Scott, 3318 17th St. N.E. North 6947
- Jewell Boling, 1717 P Street N.W. Dupont 2969

TURN-OUT AT THE PICNIC surprised even the committee itself. The weather was cold but the sky sparkled with stars and there were no street lights to outshine them. We were pleased to see some of the future junior astronomers there. Those who left early missed seeing our old friend, Mr. E. C. Stanton, and party of friends. He invited the amateurs to see his telescope, now permanently mounted, at his home in Bethesda.

A NEW OBSERVATORY is scheduled to be built on the Science Building of the Washington Missionary College, according to Mr. Hanson. Date of completion is still uncertain. A 20-inch reflector is under construction.

SECRETARY'S CHANGE OF ADDRESS. Mr. Lloyd North's new address is 121 Darrington Street S.W. (20).

Mabel Sterns, President and Editor, 2517 K Street N.W.

STAR DUST

National Capital Astronomers
Washington, D. C.

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REMEMBER

- Dec. 7 Illustrated lecture by Admiral Colbert, 8 p.m. at the Commerce Auditorium.
- Dec. 21 Discussion group, Eugene Henning, leader, 8 p.m., foyer of the Commerce Auditorium. The inferior planets will draw our attention.
- Dec. Instead of observing variable stars only once a month, juniors get together with Mr. Cilley about once a week.

REAR ADMIRAL LEO OTIS COLBERT, Director of the Coast and Geodetic Survey, will be the guest speaker Saturday, December 7th, 8 p.m. at the Commerce Department Auditorium. His lecture, entitled, "Hitching Our Country to the Stars," will be illustrated with a number of colored slides and moving pictures.

Admiral Colbert will discuss some of the pioneer work done by early astronomers of the Coast Survey; how astronomy is the foundation of all basic surveys; and how modern science is pushing seaward the frontiers of accurate hydrographic surveys and is opening up new fields of exploration and research in the area of the continental shelf.

In connection with his subject, there will be a display on view in the foyer.

SEVERAL MEMBERS ARE IN DANGER of losing their memberships. According to the by-laws, those who have been in arrears since September, will be dropped from the list December first.

LEO SCOTT RESIGNS AS PRESIDENT

Leo Scott, at the November meeting, explained that by reason of his duties at the National Bureau of Standards and projected trip to South America to observe the total eclipse of the sun, he found it impossible to continue as President of the National Capital Astronomers. At a Board of Trustees meeting at the Naval Observatory several weeks earlier, Mr. Scott had explained the situation and has asked that the Board proceed to fill the position which he would resign.

Since the Vice President declined to accept the nomination because of the pressure of other duties, the Trustees, in accordance with the constitution, selected Mabel Sterns to fill the position. Miss Sterns was chosen because she has the true spirit of an amateur astronomer and the qualities necessary to a good administrator.

When Miss Sterns took over the chair, she expressed the regret of the society that the demands on his time required Mr. Scott's resignation. Miss Sterns spoke of the achievements of Mr. Scott's administration, calling special attention to the fact that during his presidency the society had been provided with a constitution and by-laws, junior astronomers were admitted, duties of the officers had been defined, and the pattern of the committees established.

Miss Sterns expressed her appreciation of the trust the Board of Trustees had placed in her and requested the cooperation of the membership in carrying on the organization.

---Ray K. Windham

WHEN A NEW LEADER TAKES OFFICE, the question arises, what will he do? The answer is measured by achievements, which begin as goals. In my opinion, the purpose of a society such as ours is threefold: to provide the opportunity for instruction, observation, and telescope making. The first is being offered by means of lectures and the discussion group, the response to which

"THE MOTIONS OF THE STARS," by G. M. Clemence. This interesting paper might also be called the motions of the earth for it was an account of corrections that are made to observations of stars. As soon as any motion is definitely recognized, it can be corrected for.

Several motions are now known. Some of these are: diurnal motion due to the rotation of the earth; precession of the equinoxes which changes the zero point of the sky; nutation due to the moon; aberration of light due to the velocity of the earth in its orbit. The annual parallax is the effect of distances.

Interesting points presented were: The center of mass of the earth and moon is inside the earth. The center of mass of the solar system is outside the sun.

The surface of the earth moves about 1000 miles per hour due to the rotation. The earth moves 18 miles per second to get around the sun in a year. The sun and the solar system move about 12 miles per second toward the constellation Hercules. The solar system is not at the center of the galaxy, but at one side. The galaxy seems to be rotating and the motion of the solar system is of the order of hundreds of miles per second.

---U. S. Lyons

AMATEUR ASTRONOMERS LEAGUE. The by-laws of the proposed national organization were discussed and ratified by the National Capital Astronomers at their November meeting. Also the initial fee of \$3 was voted to accompany the ratification. The League will become a bona fide organization when ten societies have ratified it. Dues will be 15 cents per year per member with a minimum for each society of \$5 a year and a maximum of \$40. Ours will be paid out of the membership dues so there will be no extra levy on individuals.

The 1947 convention of the League will meet at Philadelphia July 4, 5, 6 under the auspices of the Rittenhouse Astronomical Society. Anyone can attend, so save those dates for a memorable weekend.

has been gratifying. Most of the observing is being done by juniors, although there is evidence of increasing activity among the others. I'd like to see one-third of the regular members on the list to use the 5-inch. At present we are trying to obtain an instructor and two laboratories for grinding mirrors and making mountings.

It will be a satisfaction if our membership numbers 85 by the end of the season. Our publicity is expanding and may be expected to increase attendance at the lectures. Entertainment and activities have fostered good fellowship. These briefly are some of the activities now under way which I hope will mark a successful year.

SIDEREAL TIME FINDER

Some observers regularly use sidereal timepieces but find it laborious or inconvenient to keep them properly set or rated by finding the sidereal time through the formula given on page 609 of the American Ephemeris, or the tabulations given on pages 2 to 17, 562 to 569, or in Table III of that publication. Those persons may be interested in the suggestion that the American Air Almanac be used for the purpose, which facilitates finding the local sidereal time corresponding to any ten-minute interval of standard time throughout the day on any day of the year by direct reading, except for the application of the observer's longitude and a simple conversion from arc to time.

In the Air Almanac there is tabulated, opposite each 10-minute interval of GCT, the corresponding Greenwich hour angle of the vernal equinox, which is, of course, the Greenwich sidereal time of that instant of GCT expressed in arc. To reduce it to local sidereal time it is only necessary to apply the local longitude, in arc, and to convert the result to time through the use of a simple conversion table in the back of the Air Almanac.

-4-

For example: it is desired to know the sidereal time of 3:20 p.m. on November 1, 1946, at a place (Naval Observatory, Washington) whose longitude is $77^{\circ} 04'$ west of Greenwich. Greenwich Civil Time being five hours later than Washington's Eastern Standard Time, 3:20 p.m. (15h 20m) would be 20h 20m GCT. Opposite GCT 20h 20m in the tabulation for November 1, 1946 of the Air Almanac, in the column for Greenwich Hour Angle of the vernal equinox, we find by direct reading, $345^{\circ} 31'$. From this the longitude of $77^{\circ} 04'$ is deducted to produce the local hour angle of the vernal equinox, which is $268^{\circ} 27'$. This is the local sidereal time expressed in arc, and from the conversion table in the back of the Air Almanac we find this to have the value of 17h 53m 44s, our local sidereal time at 3:20 p.m. EST.

A mechanical device has been developed to produce local sidereal time graphically by setting into the device the GHA vernal equinox as taken out of the Air Almanac, one of these devices now being a part of the equipment of the NCA Observatory. The gadget is not necessary to the use of the method--the Air Almanac is. Nor would the gadget be anything but useless without the Air Almanac.

While this is by far the simplest method of all for finding sidereal time at any instant of the day at ten-minute intervals, it carries with it extra expense. The Air Almanac at present costs \$3 a year. However, it is well worth the cost to an amateur association having its own observatory. It is not only in finding sidereal time that the Air Almanac is very useful: it affords a very quick method of finding local time of transit of the sun, moon, and planets by direct reading plus a simple interpolation. -----Benjamin King

(More discussion of this device will follow. Ed.)

THE MOON kept the discussion group busy for two hours at the November session under Mr. Boyle's guidance. No question was too simple or too complex to be passed over. Even answers in the book were viewed with a critical eye. The next forum will be presided over by Eugene Henning, and the questions will relate to Mercury, Venus, and Mars.