At the Junior Convention, October 1, there was a discussion of the World Night program, and the relations between the two Junior groups. Barry Sperling cited three reasons for a break in formal coordination: one, there is not enough business; two, there is the problem of transportation; three, there is a lack of enthusiasm. The result is that the next Junior Convention may be the last -- it is scheduled for January 14, at 8:00 P.M. Then the World Night program will be set up and outside clubs informed. It is interesting to note that our Junior delegate to the Astronomical League Convention was besieged with questions from representatives of other groups that had somehow not replied to our request for cooperation.

At present a rather ambitious astrophotography project is going on using members’ equipment. Lewis Acker’s 8” clock-driven equatorial with a wide-angle camera mounted on the side has been used for plates for the Georgetown University research program, under Father Haydon’s guidance. Also the light-gathering power of Rick Falwell’s 12” inch reflector will prove very useful. There is no doubt that with experience very fine astro-pictures will be obtained.

Christopher Walker
MD-DC Junior Editor

Virginia Juniors

The Virginia Juniors are happy to announce that the first section of their 3006 OF THE SKY has been published and distributed. This ten-section group is now in the process of organizing their next publication - an Astronomical Fact Sheet. In this venture they are endeavoring to explain the appearance of most of the important sky objects as seen through different optical devices. They later plan to expand this sheet and offer it to Northern Virginia High School science groups at a nominal rate.

New Members

Regular
Daniel Spitz
7607 Joffa Place, Springfield, Va. WO 4-5358

Juniors
Leo Mark Leva
7115 Bradley Blvd., Bethesda, Md. EM 5-1073
Karl Stein
2305 North Richmond St., Arl., Va. JA 2-1532

Let’s Grow

Enclosed you will find a membership form which we hope each of you can use. With more people interested in astronomy than ever before, we hope that each of you will bring one or more interested friends to join the NIA at the next meeting.

Dr. Ernst J. Opik

Dr. Ernst J. Opik is a native of Estonia, a small country under communist rule. He graduated in astronomy at Moscow U. in 1916, was an astronomer in Tashkent in central Asia, and at Tartu, Estonia; visiting lecturer at Harvard; Estonian Rector of Baltic U., which was run by Baltic refugees and the British Military Government in Hamburg after the war. His most recent popular book is "The Oscillating Universe" (a Mentor paperback).

November Notices

5 - COMETS - Dr. Ernst J. Opik. Business meeting follows. Dept. of Commerce Auditorium, 815 P.M.
11 - OBSERVING AT THE 8” - 7:30 PM at the Naval Observatory with Larry White. NIA card will admit you.
11 - VIRGINIA JUNIORS MEETING - Westover Baptist Church, 1125 W. Patrick Henry Drive, Arlington, Va., Room 234, 8 PM
12 - MD - DC JUNIORS MEETING - Glencarlyn Community Building, 5601 Conn. Ave., NW, 7:30 PM. Jim Erbe will lead a discussion on THE INNER PLANETS.
19 - DISCUSSION GROUP - Astronomical Coordinate Systems led by Bob Mc Cracken. Executive Meeting follows. Dept. of Commerce foyer, 8 PM

Telescopes Making Glasses - 7:30 P.M.
Monday - Obrey Chase Comm. Otr., 5601 Conn. Ave., - Roy Walls
Wednesday - Bladensburg Nat. Otr., 4600 Varnum - Bill Isenberg
Friday - Fairfax High School - Candy Whitney
FATHER HAYDEN SPEAKS ON SPECTROSCOPY

At the October meeting Father Francis J. Hayden, S.J., who is the Director of the Georgetown University Observatory, spoke on Planetary Spectroscopy. Father Hayden began by explaining that an incandescent source gives a solid continuous spectrum, while a rarified gas as in a neon sign, gives individual bright lines. A rarified gas cooler than its dense background gives dark lines against a solid background. These dark lines are absorption lines.

The spectra of many stars were photographed and studied. These were sorted out and the various kinds given letters alphabetically. When these groups were arranged in sequence according to the stars' temperature the order was obvious, which can be remembered from "Oh be a fine girl. Kiss me now. Smack!"

One of the most commonly known uses of spectra is to determine the chemical composition of a body. A study of the spectra of Mars, Jupiter, and Venus shows no free oxygen or water in their atmospheres, but does show large quantities of nitrogen tetroxide which with an introduction of water would produce concentrated nitric acid. Also, along the lines of chemical identification, Father Hayden has shown that many of the facts or unknown lines in the spectrum of the sun can be identified with lines of titanium oxide and zirconium oxide. He plans to try to identify more of the unknown lines. Another interesting project would be to put the polar caps of Mars on the slot of a spectroscope and thereby determine of what the caps are composed. This would not be as simple as it may sound, for it would entail using a mirror with a fifty foot focal length and exposures in the order of a week. Thus we see many interesting and important answers can be obtained through spectroscopic work.

--- Ellen Stolarik

GET WELL SOON

FATHER McCracken is the Director of the Astronomy Club. Of the members of the NCA are most regretful that our past president, Lillian Gregor, has been ill and in the hospital. We all wish her a speedy recovery and trust that we will find her busily working with the NCA soon again.

PLEASE NOTE

Important to every member of the NCA are a series of Executive Meetings which our president, Mr. Metz, has inaugurated. Officers and committee heads thus have a chance to meet regularly with the trustees and help formulate plans for future NCA activities and growth.

The next meeting of this group, which has met twice already, will take place at the Dept. of Commerce on November 19, following the Discussion Group. The agenda for that meeting is as follows: 1. Print up pamphlets for publicity, 2. Space problem—meetings, storage, shops, etc., 3. Membership campaign plan, 4. Future status of current observing program.

The Discussion Group for the evening will be led by Bob McCracken and the topic will be "Astronomical Observation Systems." It promises to be an interesting evening, so plan to attend.

BOOKS ANYONE?

Our secretary, Ellen Stolarik, will be able to order any astronomical books for you at a 10% discount. She has a list of possibilities which she will bring to the next meeting. So be sure to see her if you are interested.

TELESCOPE MAKING CLASSES

The NOAA now has three telescope making classes. The Chey Chase Community Center has had a telescope making class since 1966. The classes are open to anyone and are limited to Prince Georges County school children. Class membership has been quite varied—from ten years old boys and girls to Marine Corps Colonels, World Bank officials, biologists, chemists, engineers, Drug and Radio store managers, builders, housewives, Congressional staff members, members of Diplomatic staffs and others. Telescope making and the use of telescopes have become one of the popular High School Science Fair projects. The class members do not belong to the NOAA, however, many of these do join NOAA and become valuable members of the organization. It is believed that these classes should have better support from the NOAA. Last year only a very few NOAA members visited any of the classes.

There is a need to develop additional instructors and any person who has made a telescope would be welcomed in this capacity. There is particular need at this time for such assistance in the Prince George and Fairfax High School classes.

So far, all of the class projects have been simple Newtonian telescopes. Occasionally a member will return to make a larger telescope, but such effort has likewise been confined to the simple Newtonian telescope. The simplest telescope is one of the best reflector types. In fact, Mr. Thomas Gave says it is the best, other types give good results too and some of the latter have special features that make them more desirable than the Newtonian.

It is thought that some NOAA members might be interested in making some of the more sophisticated types of telescopes or attachments. To this end an advanced telescope making class can and will be established if there is sufficient interest on the part of the NOAA membership.

Some of the projects that might be undertaken in an advanced class are:

1. Achromatic lenses for a refractor
2. The Johnsonian-type reflectors
3. The Maksutov and other catadioptric telescopes
4. Schmidt camera
5. Eyepieces
6. Spectroscopes for telescope use
7. Development of camera attachments and photographic techniques
8. Photocell equipment

There now has basic equipment for undertaking most of these projects, and additional equipment will be acquired as the need develops. Some optical glass is available without cost.

The Chey Chase class now meets in the shop at the Chey Chase Community Center on Monday evenings. This space is available for any evening for an advanced class. If any members are interested in any advanced projects, please let me know and if there is sufficient demand, an advanced class will be started.

--- Roy Walls, Oliver 2-5395