

MD-DC JUNIORS

Dr. James J. Krebs, radio astronomer and physicist at the Naval Research Laboratory, spoke to the MD-D.C. Juniors on 19 September about what amateurs could do in radio astronomy. He described the basic types of radio telescopes, their advantages and disadvantages, and how amateurs with limited means could build them. He also suggested some objects observers with such small instruments could usefully measure, and gave several references. Anyone interested in hearing the tape of this lecture should contact Mr. Holloway.

"Measuring Cosmic Distances" will be the topic Mr. William Isherwood's talk to the MD-DC Juniors on October 10. Mr. Isherwood, instructor at one of NCA's telescope making classes, will discuss the various yardsticks used in astronomy for determining the distances between earth and other astronomical objects, near and far. All Juniors should attend this lecture at the Silver Spring library at 8901 Colesville Road, one mile south of Beltway Exit 23.

Five hundred copies of Project World Night have been printed, and will be on sale at the October 3 and 10 meetings for 10¢ each. They contain a five series of halftoned photographs about the phenomenal lunar eclipse of December 30, 1963. Edited by Doug Richstone, the booklet contains Juniors' reports from across the nation on all aspects of that memorable eclipse.

Also on sale at the October meetings will be the long-awaited 20 exposure rolls of 35 m.m. 103a0 (blue-sensitive astrophotographic) film. These are available in limited numbers at \$1.50 per cassette, and are unavailable in less than 300-foot rolls anywhere else. Contact Doug Richstone 946-3709 before the meeting for information.

The Maryland Monitor, Montgomery County's newest weekly, will soon begin publishing MD-DC's series of elementary astronomy articles. It is hoped that this will provide both a needed public service and long-sought publicity, for the NCA and MD-DC. All MD-DC Jrs. should make an effort to come to Oct. 3 meeting to pick up their publicity sheets for distribution. -Norm Sperling MD-DC Editor

A TRIP TO PHILADELPHIA IN DECEMBER...

David A. Jodanis

PB
1
579
★

STAR DUST



October, 1964

Vol. XXII, No. 2

ROCKET ASTRONOMY

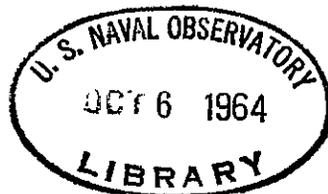


Dr. Talbot A. Chubb

The October NCA lecture will be presented by Dr. Talbot A. Chubb, Research Physicist and Head of the Upper Air Physics Branch of the Atmosphere and Astrophysics Division, U. S. Naval Research Laboratory. In this capacity he directs a 46 Branch personnel in upper atmosphere studies concentrating in the following fields: measurements of solar radiations including flare measurements, stellar rocket astronomy presently concerned with ultraviolet measurements of stellar radiation and galactic sources; aeronomy measurements concerned with measurements of molecular and ion composition of the upper atmosphere. Dr. Chubb has an AB degree from Princeton and a Ph.D. from the University of North Carolina.

CALENDAR FOR OCTOBER

- 3 Dr. Talbot Chubb of the Naval Research Laboratory, will present an illustrated lecture on "X-Ray and Rocket Astronomy", Commerce Dept. Auditorium, 8:15 P.M.
Business meeting follows.
- 2,16 McLean, Virginia Telescope Making Classes, to be held in the McLean High School, under the instruction of Mr. Grady Whitney, 8:30 P.M.
- 10 MD-DC JUNIORS MEETING at the Silver Spring Library at 2:00 P.M.
Mr. William Isherwood will talk on "Measuring Cosmic Distances."
- 16 Prince George's County Juniors, District Heights Elementary School 7:30 P.M. Phone John Stott, 736-2787 for further details.
- 17 Discussion Group, leader Mr. Henrick Hudson, Commerce Department, Room 2062, at 8:15 P.M. Topic, Discussion of the Lead article of the October issue of "Sky and Telescope". Bring your own copy of the magazine for reference.
- 19,26 Textbook Astronomy Course for NCA members, meet at the Naval Observatory, promptly at 8:00 P.M. Mr. John Stolarik, instructor.
Phone John Stolarik for further details.
- 24 NCA Picnic and STARGAZING PARTY at Fort Washington, Maryland. Bring your own picnic supper or cook-out food, come about 5:30 P.M. and have a picnic. Seeing is superb. See the write-up on Picnic for details.
- 2,9,16,23,30 ADVANCED TELESCOPE MAKING CLASS at the Chevy Chase Community Center with Roy Walls. 7:30-10:00 P.M.
- 6,13,20,27 TELESCOPE MAKING CLASS at the Chevy Chase Community Center with Roy Walls. 7:30-10:00 P.M.



Library,
Naval Observatory
Washington 25, D.C.

PRESIDENT'S MESSAGE

The current academic year 1964-65 should prove to be an active year for our members. Take advantage of the many offers to improve your astronomical background and enhance your hobby of astronomy. Of course you have to be involved, so choose a few of the activities offered through National Capital Astronomers. Consider the textbook Astronomy Course, on any college campus it would cost a student about \$90, here for NCA members it is offered at no charge. This is possible because we have members willing to take hours to teach the course. You need to purchase your textbook to be ready to start class on Monday, October 19.

Have you thought about grinding a mirror and making your own telescope? Again such a course in a school would cost many dollars, but for NCA members all you need to do is to make arrangements with Mr. Hoy Walls, Mr. Whitney in Virginia or Mr. Bill Isherwood in Prince George's County. These are the instructors for NCA Telescope Making Classes. The cost of the glass and materials is the only expense. You will always be proud of your own hand-made telescope.

Decide what you want to do in NCA this year, plan now to take advantage of the above mentioned activities or others offered to the NCA members and enjoy your year.

***** Sincerely,
Margaret K. Noble

Phone when you need information: 582-6721

NCA COMMITTEES, 1964-1965

Some members have volunteered and some have been drafted to help run the affairs of our busy organization. Have you offered your services to NCA? The following committees have been formed, but more help is always needed.

Education and Schools Advisory: Mr. John Stolarik,Chairman
Science Fairs and NCA Awards : Mrs. Eleanor Smith,Chairman

HistorianMrs. Betty Lipscomb, Jr.
Junior Division DirectorMr. Leith Holloway
Makutov Telescope ClubMr. Hoy Walls, Director
HospitalityMr. James Sharpe, ...Chairman
Mr. Donald Gillmore
Mr. George Gould
Mr. John Lohman
Mrs. J.H. Miller
Observation ProgramMr. Alexander(Larry) White
Park ProgramMr. Bob McCracken....Chairman
Parliamentarian.....Mr. Lee Scott
Publications.....Mrs. Ellen Stolarik, Editor of Stardust;
Mrs.Margaret Noble,Asst.Editor;
Russ King, Eleanor Matter & Norman Sperling,Jr,Editors;Sam Feild,Jr.
Photography & Prod;Morton Schiff,
Distribution of Publicity.

Telescope Making Classes: Mr. Hoy Walls, Director;Mr. Henry Wilson;
Mr. Grady Whitney; Mr. William Isherwood; Satellite Tracking:
Mr. Gilbert (Bob) Wright

ALL COMMITTEES PLEASE NOTE:

There will be a short but important meeting of committee members and committee chairman with the NCA Officers following the Discussion Group; Sat., Oct. 17, at Commerce Dept., room 2062. Committees come to Discussion Group and stay for Committee Meeting immediately following. This committee meeting is for committee workers only not for the general membership. Notify your chairman if you are unable to attend, however make an effort to attend.

NCA COOK-OUT AND STAR PARTY.....October 24Saturday

An area in Fort Washington, Maryland is being reserved for NCA members and their friends, on October 24 at 5:30 to 11 p.m. Let's make this a real get together. DirectionsFollow route 210 (Indian Head Highway) to the sign "FORT WASHINGTON." Bring your friends, cook out and do some sky observing too. We need 100 people on October 24 at Fort Washington.

APPLYING FOR NCA MEMBERSHIP

The following persons applied for NCA membership at the September meeting. Under the new procedure, persons applying for membership will be listed in Stardust for the consideration of all members. If you have any comments about the applicant please contact a Trustee or an Officer of NCA before the night of the meeting.

Regular Membership Applicants:

Sterling R. Anderson, 2008 Chanel Road, Annandale, Virginia
Edward E. Cragg, Rice University, Box 562, Houston, Texas 77005
Carter D. Johnston, Route 1, Box 209, Clifton, Virginia
Marvin K. Phillips, 1833 Lamont St. N. W., Washington 10, D.C.
Louis I. Werbner, 2800 Quebec St. N. W., Washington, D.C. 20008

Junior Membership Applicants:

William Bruck, 315 Audmar Drive, McLean, Virginia
Bruce W. Bunker, 3750 Keller Ave., Alexandria, Virginia
Byron Stanley Cooper, 2810 Elaine Drive, Chevy Chase, 15, Md.
Richard Firestone, 906 Playford Lane, Silver Spring, Md. 20901
John N. Holst, 5010 10th St., North, Arlington 5, Virginia
Christopher Horne, 27 Sheridan Road, Arnold, Maryland
Larry Shotland, 118 E. Indian Spring Drive, Silver Spring, Md.
Kathleen Thompson, 4712 Bristow, Annandale, Virginia

Come to the October 3 meeting and meet these people.

Frederick D. Cornelius
Treasurer, N.C.A.
115 - Chichester Lane
Fairfax, Virginia

SEPTEMBER LECTURE ---- GALAXIES

Our speaker, Dr. W. R. Willauer of Georgetown University Observatory described the techniques modern astronomers use to study galaxies. To determine a galaxy's distance the only information one has available is its type, apparent magnitude, size, and red shift. There are three basic types of galaxies: elliptical, spiral, and irregular. We live in a spiral galaxy; the Magellanic Clouds are irregular galaxies.

The apparent magnitude of a galaxy is difficult to obtain because this aggregate of stars is a diffuse object. Although the Great Spiral in Andromeda (M31) is 4th magnitude, to the casual observer it may appear much dimmer since this galaxy is over two degrees long. However, even in a large telescope one sees only the much smaller, bright, central nucleus of this star system as a fuzzy patch of light. Photographs of long exposure are required to reveal its spiral structure.

The red shift of the spectral lines resulting from the rapid recession of galaxies is considered to be a rough measure of their distances, but the exact relation between the amount of reddening and the apparent magnitude of galaxies is still uncertain. In fact, Hubble's Constant, as this relationship is called, may actually vary with direction in the sky.

Leith Holloway