June LoGuirato, Secretary of the Junior Division was born in the District of Columbia in 1949, and has been a Virginia resident ever since. Now a senior at Fairfax High School, June attended the Fairfax County Science Lecture Program during the summer of 1960. When not fulfilling her duties as secretary, June finds time to do research in chemistry, for which she was awarded an Honors classification in the Science Talent Search. She has also been awarded the Bausch and Lomb Medal. As for the future, June plans to attend VPI and major in Mathematics. She hopes to become an Astronomer (and a suitable blend of her two main interests.)

Richard Falwell, the Data Keeper, is now 17 years old and a junior at Walter Johnson High School. Although presently not a member of the NCJA, Rick hopes to win a membership this year by means of the Montgomery County Science Fair which he has consistently done well. After building a 1½ sized help of Hoy Walls, Rick became interested in planetary analysis and especially that of planet Jupiter. He is presently devoting his efforts to explaining the life cycle of spots in the atmosphere of Jupiter and Saturn.

Ed Gregg, Head of the Virginia group, was born in Seattle, Wash., in 1946. Ed is a Junior at St. Stephens School, and hopes to attend Rice Institute to study some form of astronomy, science, or mathematics. Ed joined NCJA in 1969 and has been active ever since. He attended the last two regional conventions. His other interests include skin diving and car racing.

Chris Walker, MD - DC Junior Editor

MIDDLE EAST REGIONAL CONVENTION

MAY 12

CALENDAR FOR APRIL

7 ABOUT TIME a movie to be shown at 8:15 PM in the Department of Commerce Auditorium, 14th and Constitution Ave. Business meeting follows.

14 NCJA JUNIORS MEETING at the Cedar Lane Unitarian Church, 9601 Cedar Lane, Bethesda at 2:15 P.M. Exhibition of Science Fair Projects. Phone Chris Walker at 301 267-8770 for details.

21 DISCUSSION GROUP by Walter P. Rothe, President of the Universal Calendar Society. Time 8:15 PM at Dept. of Commerce Auditorium.

27 JUNIOR DIVISION FIELD TRIP TO GEORGETOWN OBSERVATORY Meet at the Observatory at 6:00 P.M. Call Keith Holloway at 361-7870 for reservations and information on transportation.

27 OBSERVING AT THE FIVE INCH at the Naval Observatory 8:15 PM with Larry White.
THE ULTRAVIOLET SPECTRUM OF THE SUN

Although ordinary air does not absorb ultraviolet light, a layer of ozone in the upper atmosphere shields the earth's surface from sunlight having a wavelength less than about 3000 Angstrom units (one A.U. equals 0.0000001 millimeter). Thus, before the use of high altitude rockets no one knew anything about the ultraviolet spectrum of the sun. Our March speaker, Mr. J. D. Purcell, gave an excellent survey of the Naval Research Laboratory's pioneering work in ultraviolet solar spectroscopy from its early beginnings in 1946 up to the present.

Mr. Purcell amused us by telling why the first V-2 flight failed to produce any spectroscopic data. The rocket returned to earth nose first, dug a huge crater in the sand, and disintegrated into small fragments. On the second flight the research team improved their recovery methods and obtained photographs of the solar spectrum from an altitude of about thirty-four miles. These photographs extend to 2300 A.U. with a resolution of 0.1 A.U. and show fifty identifiable features.

N.R.L. rocket men developed the Aerobee rocket to continue these upper atmosphere probes after they fired the last V-2. The modern Aerobee High rocket can lift a 250 pound payload to a height of from 120 to 160 miles. In 1964 N.R.L. perfected the servo-pointer spectrograph capable of tracking the sun with an error of only one minute of arc. By means of this instrument N.R.L. scientists first photographed the Lyman alpha emission line of hydrogen.

The ultraviolet spectrum of the sun consisted of many bright lines superimposed on a dim continuous spectrum. The light of these lines when used as a source showed the photosphere of the sun. Mr. Purcell showed a slide containing a fine photograph taken in 1969 of the sun's disc in Lyman alpha light beside simultaneous monochromatic photographs of the sun in H alpha and calcium K light and a picture of the sun in white light. Each photograph portrays a different layer in the sun's atmosphere.

Finally, Mr. Purcell showed a film describing the steps and preparation for launching of an Aerobee rocket which carried aloft a new type (Schells) high dispersion spectrograph capable of 0.0002 A.U. and will require several years for analysis.

Leith Holloway

WESTINGHOUSE SCIENCE TALENT SEARCH

Three of the forty finalists in the Twenty-first Annual Science Talent Search were in the area of Astronomy. "Observations of the Planets", was the project of Clark R. Chapman of Buffalo, New York; "Jupiter and Venus in 1961" was the project of Joseph Eyer of Philadelphia, Pa.; and "Atmospheric Currents of Jupiter", was the project of Jack G. Mills of Independence, Kansas. All of them were members of local Astronomy clubs. Mr. Eyer promised that he would be present at our Middle East Regional Convention.

Betty Lipscomb

J. L. Holloway, Junior Director, was born in 1927 in Hickory, North Carolina, and came to the Washington area at the age of nine. He joined NCA juniors in 1946 and has been in the NCA ever since. In 1946 with the exception of a year, he took off to study at U.C.L.A. Leith professes himself a devoted audiophile (his stereo set now has twenty knobs.) Above all Leith loves mathematics, whether it be in astronomy, meteorology, or satellite predicting.

Chris Walker, the Chairman of the Junior Division, was born in McCook, Nebraska on 27 July 1946 just eleven days after the first atomic explosion was detonated at Alamogordo, N.M. He first became interested in astronomy when only six and at nine bought his first telescope, a three inch refractor from Hoy Walls. He joined NCA just a year later in 1957. In the fall of 1966 he became a charter member of the MD - DC junior group in which he has been active ever since. In addition to his duties as Junior Chairman he edits the junior articles in Star Dust.

Ed Lusby, Co-ordinator of the junior group is presently a senior at James Madison High School. Ed joined the NCA in 1956. Like many other juniors, Ed's interest in astronomy was stimulated by the construction of a telescope at Hoy Walls' class. Ed notes that he "would have been bored with astronomy long ago" if it hadn't been for Jupiter. By taking transit times of many different spots on Jupiter Ed has noticed an inequality of speed for these spots and has been trying to account for the accelerations and decelerations that these spots exhibit. Besides science his main interests are golf (which he plays excellently), table tennis, and pool.

Betty Lipscomb

The members of NCA wish to express their sympathy to Dr. Gent on the recent death of his wife.