



BUFFALO ASTRONOMICAL ASSOCIATION INC.
BUFFALO MUSEUM OF SCIENCE
HUMBOLDT PARKWAY
BUFFALO NEW YORK 14211

the Spectrum

Editor:
Lawrence M. Carlino

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MAY - JUNE 1979

MAY MEETING: The May 11, 1979, meeting of the BAA will begin at 8:00 p.m. in the New Science Building Auditorium at Buffalo State. Our guest speaker will be David Atkins of the Finger Lakes Astronomical Society. Mr. Atkins' topic is the mammoth radio telescope complex located at Arecibo Observatory in Puerto Rico.

JUNE MEETING: The June 8, 1979, meeting (also at Buffalo State beginning at 8:00 p.m.) is the annual BAA business meeting. As in past years, it is most important that as many members as possible are in attendance, for a quorum is necessary to transact such crucial business as the election of a new Board of Directors. In order to add a small dash of entertainment to the proceedings, several club members will present "selected short topics" of general interest.

NEWS NOTES:

The BAA Study Section will meet Friday, May 18, at 8:00 p.m. in Dr. Fred Price's lab at Buffalo State. Dr. Jack Mack of the college will highlight the meeting with a talk on cosmology.

The June 15 meeting of the Study Section will commence at the same time, but the location will shift to the Beaver Meadow Observatory in North Java.

STAR PARTY - Tom and Marty Dessert will provide a kick-off for the summer round of star parties and observing nights on June 16 at their home at 1286 South Anne Drive in Alden. In the event of total overcast or rain, the alternate night is June 17.

For Sale: Celestron 8, two Vernonscope eyepieces, Vernonscope barlow, telextender, wedge and storage trunk. \$550 Call 691-8036 after 6 p.m.

FROM THE EDITOR:

For the past two years, it has been my privilege to serve as editor of the Spectrum. Unfortunately, after the July-August edition of the newsletter, I will be unable to continue in that capacity

because of the time demands of my work in teaching and coaching. A new Spectrum editor will have to be found in order to maintain continuity in the club's lines of communication. Additionally, a "staff" of sorts (perhaps working on a rotating basis) is needed for typing and distribution of the Spectrum. This work has been performed admirably and selflessly in the past by Elaine Deazley and Marty Dessert, but they too are plagued by a limited availability of time and urgently need a respite. So, how about it? Your help as an active BAA member is most definitely needed, and any and all aid and suggestions will be sincerely welcomed.

L.M.C.

SPY and TELL

Ernst Both has been appointed head curator at the Buffalo Museum of Science. Congratulations!

The Christys are enjoying a Hammond organ which they purchased recently. * Darwin has made a new eyepiece turret mount for his 8" telescope. He is also redesigning parts for his scope. * In a Japanese bulletin dealing with micrometeorites, Shigeru Morikubo introduced Darwin's micrometeorite findings to the select Japanese group who are working in this area of study.

Orrin Christy is in Cambridge, England, on business for Moore Business Forms. He has other trips scheduled for Minneapolis and Green Bay. This summer his business trips will include a sojourn to Japan.

Phil Cizdziel had an exciting trip to Arizona, April 5-15, visiting observatories. While at Kitt Peak Observatory he worked with Clifford Stoll, a former Buffalonian, searching for asteroids in the orbit of Mercury.

Irv and Esther Goetz flew to Minneapolis for son Peter's last performance at the Guthrie Theater, before he heads to New York City and a new theatrical career.

Charles and Nancy Miess have purchased a home across the road from their present abode.

Edith L. Geiger

BAA ANNALS

15 Years Ago - The feature of the May 1964 meeting was a lecture in the Millman Series, "Galaxies of Stars," at the Museum of Science. Ernst Both, Ron Clippinger, and Paul Redding gave reports on the Observing Section, Advanced Study Section, and Elementary Study Section for the year. Summer star parties were planned at the Kellogg Observatory, Newstead Observatory, Camp Sprucelands, and at the homes of Ernst Both and Ron Clippinger.

10 Years Ago - George T. Keene spoke on "Astrophotography" in May. The astrophotography theme continued with an article by Orrin Christy and the announcement of the first BAA astrophotography exhibit in the Spectrum. Club members were asked to submit photos for display at the Museum. The show was held in December 1969.

Suggestions for improving Newstead Observatory appeared in the May issue. They included making the shutter operable, aluminizing the mirror, and repairing the door lock. Finally, a permanent director should be appointed to establish programs and maintain the observatory. The May Spectrum carried a moving obituary for Kurt Erland. Happy days!! The June Spectrum withdrew the moving obituary; Kurt was alive and well. We went to Rochester's Strassenburgh Planetarium to see "Man and the Universe" for our June meeting.

5 Years Ago - Dr. Martin Green spoke on "Astrophysics and the Amateur Astronomer" in May. We held our business meeting in June, electing Darwin Christy President, Tom Dessert Vice-President, Marybeth Gauthier Secretary, and Warren Steinberg Treasurer. An article by Dr. Fred Price in the May-June Spectrum suggested that many lunar features had been inadequately studied, and amateurs with six or eight-inch telescopes could make worthwhile original observations. According to a note, we collected \$296 toward the construction of Beaver Meadow Observatory from our sponsorship of the Buffalo Philharmonic's Gershwin concert.

Rowland Rupp

Celebrity Amateur Astronomers

by Carl T. Milazzo

Johnny Carson became interested in astronomy when he was learning navigation. He learned that skill when he was in the Navy in World War Two, and his interest in astronomy has grown over the years as it has with so many amateur astronomers. He has a 12-inch reflector at his home and an 8-inch Schmidt-Cassegrainian, which he takes on trips to the California mountains where there are dark skies. He has mentioned that he has observed NGC 7009, the Saturn nebula, and has done some observing of the southern sky objects from Mexico and Hawaii. He has also visited Cape Canaveral and NASA's Jet Propulsion Laboratory.

John Denver is an amateur astronomer and has written a song about an experience he once had from observing the Perseid meteor shower. He observed it out in the dark country skies on top of a 13,000-foot mountain in Colorado; it is called "Fire in the Sky."

Hugh Downs, who is an amateur, has a 3½-inch Questar and is featured in the January 1976 issue of Sky and Telescope on page 21.

The American poet Robert Frost died in 1963 at the age of 89, but had been an amateur astronomer since the age of fifteen. He continued this interest all through his life, which means that he was an amateur for 74 years. Once, during the 1930's, he went to Florida to observe deep-sky objects.

Bobby Goldsboro is an amateur who one day while observing the sun through his telescope smelled something burning. It turned out to be his hair which was ignited by his uncovered finderscope!

Gabriel Kaplan has been an amateur for many years and has made a telescope. He ground and polished the optics for it at the Hayden Planetarium.

C.W. Mc Call is an amateur astronomer who has written a song about the aurora borealis and also one about the milky way. One time, he and some friends were camping at an altitude of 10,000 feet in Colorado on a clear, moonless night. One friend, who is from New York City remarked about the "smog" in the sky! Mc Call informed him that

he was actually viewing the milky way.

Television personality Garry Moore is an avid amateur who has visited the Stellafane astronomical convention in Vermont.

There are certainly many more celebrities who share our fascinating avocation. Among them are Charly Callas, Barbara Feldon, Dave Garoway, Arthur Godfrey, and Anthony Newley; but I lack the details as to their exact areas of interest.

BAA PROFILE

Rowland A. Rupp

Rowland, our secretary, now in his second term, was born in Buffalo and spent his early years on Taurton Place in the North Park section of the city. He graduated from School 81 and Bennett High School, and continued his education by enrolling at the University of Buffalo, majoring in electrical engineering and graduating with a B.S. degree in 1956. He earned his Masters degree in electrical engineering at the same university in 1963. Rowland was honored by being elected to membership in Sigma Xi, a national scientific research society, for his research project, "An Avalanche Pulse Generator."

After graduation in 1956, he became employed at Bell Aerospace Textron as an analog and digital circuit designer where he remained for 23 years. From 1962 through 1967 he taught Fundamentals of Transistors for a number of terms in the evening extension division at Erie Community College.

Rowland first became interested when, as a ten-year-old school boy, he was studying geography with the usual maps, a globe, and an atlas. It was in the atlas that he found a representation of the solar system which held such a fascination for him that he proceeded to memorize the page, including distances, diameters and number of moons, which, by the way, he continues to have at his command to this day.

When Rowland was in eighth grade, he received a 25x spy glass which opened up with five extensions. This helped him to appreciate the wonders of the heavens to a greater degree. During high school, a variety of activities caused his interest in astronomy to wane, and it wasn't revived until the space program, with its astronauts and exploration, sparked, once more, his curiosity about the sky above. He purchased an Edmund 3-inch reflector which he used for three years and still uses on occasion though he now owns a 6-inch Dynascope.

While visiting in Baltimore, Rowland met a gentleman from the Bendix Corporation who was a member of the astronomical group in that city. He suggested that Rowland check with our museum to find out if there was an astronomical group in Buffalo. Finding that the BAA was an existing organization, he joined our association in early 1973.

For eight months in 1975-76, Rowland was flying back and forth to Baltimore on business trips. He found, quite often, that after leaving Baltimore on a beautiful day, he could plan on seeing our typical cloud cover as he approached Buffalo. This was particularly noticeable in November, December, and January.

Rowland is interested in astrophotography. In 1970, he took pictures of a partial solar eclipse with a 1.6" refractor, and has photographed the moon, Jupiter, and Saturn with his six-inch telescope using the afocal system. He has also photographed the constellations using the "piggy back" method. Someday he hopes to own a ten-inch reflector, and may build one if time permits.

With his desire to increase his knowledge of astronomy, Rowland is an active member of the Study Section of the BAA. He is also a collector of early books on astronomy and, so far, has fifteen volumes which date from the late 19th to the early 20th century.

In 1958, Rowland met Irene Marks, who was also employed at Bell Aerospace Textron. They were married in 1960, and have three children. Irene, 13, is called Patty; Rowland, 12, is known by his middle name, Anthony; and Edward, 10, is called Ned.

Patty is a swimmer and figure skater, and Anthony plays hockey. The children are interested in music, with Patty and Ned playing cello, and Anthony playing trombone. They are members of their school instrumental groups in Amherst. Their interest in music is, no doubt, inherited from their father who has a deep appreciation for the classics, with his favorite composers being Beethoven, Haydn, and Schubert. He also enjoys the works of Rossini, Von Suppé, and Johann Strauss. Rowland makes numerous tape recordings of treasured compositions of the masters.

He is a great admirer of Sir William Herschel, not only for his contributions to astronomy, but for his ability as a professional musician who played violin, guitar, oboe, harpsichord, and organ; and was a music teacher, composer, conductor, and choirmaster.

Rowland is a member of the northeast Y.M.C.A. Indian Guides, with its tribe being known as the Mohawks. Rowland is a chief in this father-son organization which he attends with son, Ned.

Our secretary is a connoisseur of fine wines and enjoys his hobby of wine making to the fullest. He has some choice vines of Foch and Leon Millot grapes which he hopes will produce sufficiently to enable him to make some exquisite wine in the not-too-distant future.

The family spends many happy hours at their summer cottage at Lime Lake. There is wild Concord grape on their land, and Rowland has tried eagerly and patiently to make wine from its fruits, all to no avail. After four years of tireless effort, he decided that it was a hopeless wine grape, but rated as one for grape jelly.

Rowland is a friendly, extremely efficient, precise gentleman of great sincerity. He is highly dependable, well-disciplined, and well-organized; and we are fortunate, indeed, in having him as a member.

Edith L. Geiger

Solar Eclipse (Partial) 1979

by Darwin Christy

This is a first for me, to attempt anything during a solar eclipse. I was going to attempt photographs of the eclipse as well as spectral, photos, temperature and luminosity changes. The first two did not come about due to the thick cloud cover. I was able to manage two photos of the eclipsed sun with fast breaks in the clouds at 11:16 and 11:17 EST. I did not have to use a filter as the clouds were thick enough to allow direct observation.

I was able to make measurements of the change in temperature as the sun was being eclipsed by the moon. These variations were recorded on a graph to show the dip in temperature. Although there should have been a ten to fifteen degree drop, I recorded a change of only five degrees. I believe this was due to the clouds holding the temperature fairly stable within the troposphere.

The light curve which I recorded showed the change in magnitude produced by the eclipsing moon. At this point of our orbit around the sun, the luminosity should be almost at maximum, which is about -26.8.

(continued on page 8)

631 1000 1050 1100 1150 1200 1230 1300 1350 1400 1450 1500

+500 FOR UT
-15 + 13 FOR SOLAR TIME

TEMP.

TEMPERATURE

100
90
80
70
60
50
40
30
20

46 4850
SEMI-LOGARITHMIC
2 CYCLES X 60 DIVISIONS
MADE IN U.S.A.
KEUFFEL & ESSER CO.

LIGHT MAGNITUDE

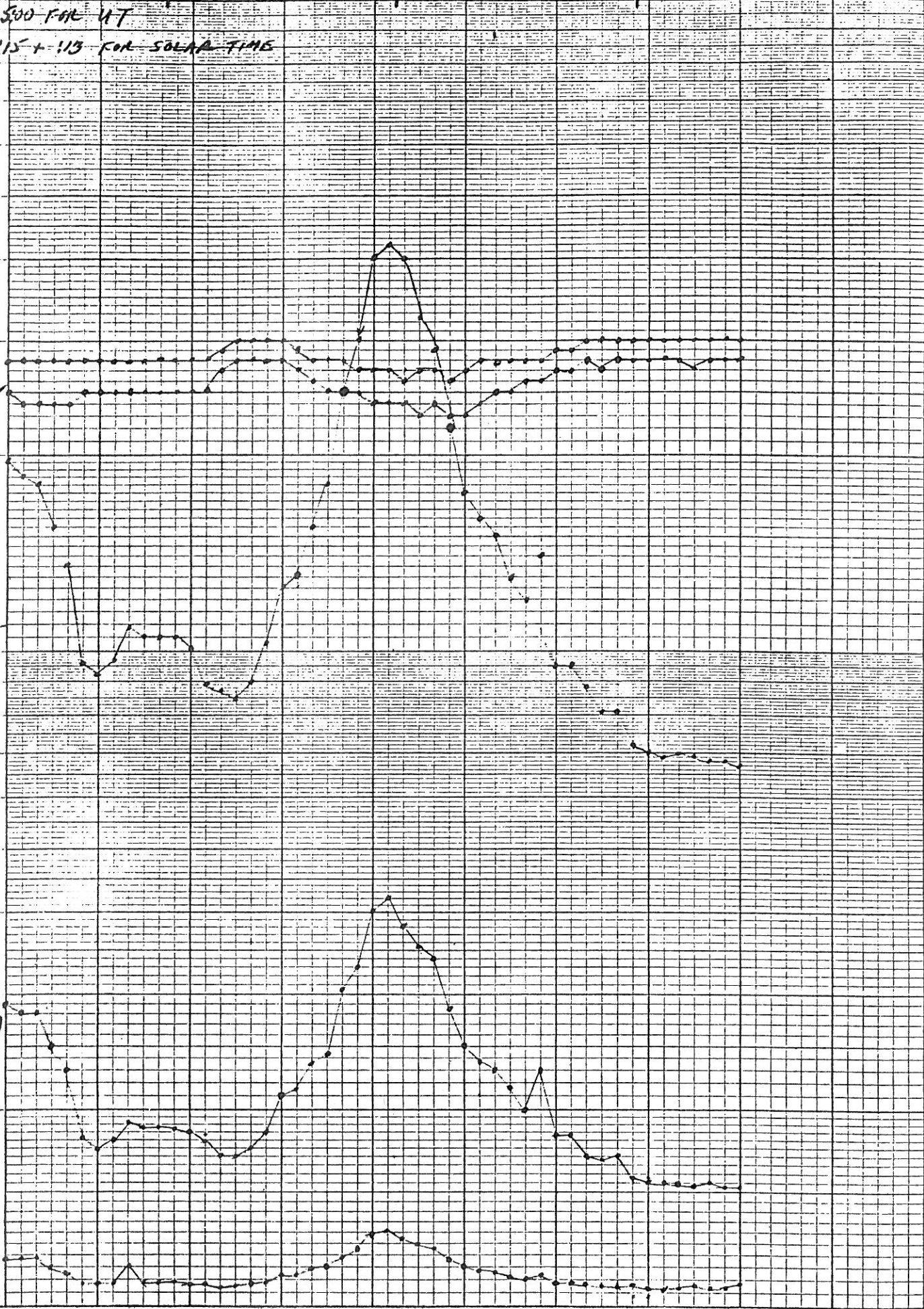
100
10

100 1000

17609126

(100) $\frac{26.8(26.72)}{10} = \text{Mag.}$

SOLAR ECLIPSE 1979 FEBRUARY 26



Eclipse - cont'd

Using this "base" I determined the magnitudes, using a specially prepared light meter, at intervals of every five minutes starting at 10:00 hours and finishing at 14:00 EST. At maximum, the moon eclipsed the sun to a magnitude of -17.15. This made a difference of 9.65 magnitudes or 7,247.5 times fainter than that of the sun's normal light emission.

Calculations for each five-minute period recorded can be made from the following formula:

- (M) mag. of sun "-26.8"
- (m) mag. of sun recorded
- (K) built in constant "4.5"
- (x) recorded value on chart graph
- (D) difference of mag. (used as a power)
- (2.512) multiplied difference between mags.

$$\frac{M}{(K+x) \log 10} = m$$

$$M - m = D$$

(2.512)^D = difference (brighter or dimmer)

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