



# the Spectrum

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

Editor:  
Lawrence M. Carlino

MARCH - APRIL 1979

**MARCH MEETING:** The March 9, 1979 meeting of the BAA will be an unusual and special treat for members. Bob Reilly, planetarium director for the Williamsville School District, will present a planetarium program entitled "The Legacy", a tour of our solar system through the medium of current and future U.S. space technology. As usual, the meeting will begin at 8 PM but the location will be the Williamsville North High School at 1595 Hopkins Road in Williamsville. The building is easy to find, and directions are provided here for those not familiar with the area. If you have not seen this planetarium before, here is your opportunity to see the largest and most sophisticated complex in the Western New York area.

**APRIL MEETING:** The April 13, 1979 meeting of the BAA will begin at 8 PM at the Buffalo Museum of Science. The program will consist of two presentations by BAA members: Tom Dessert will display a selection of deep sky astronomical slides purchased with the grant from Dow and Company, and Orrin Christy will provide his comments on the successes and heartaches of "Building an Observatory."

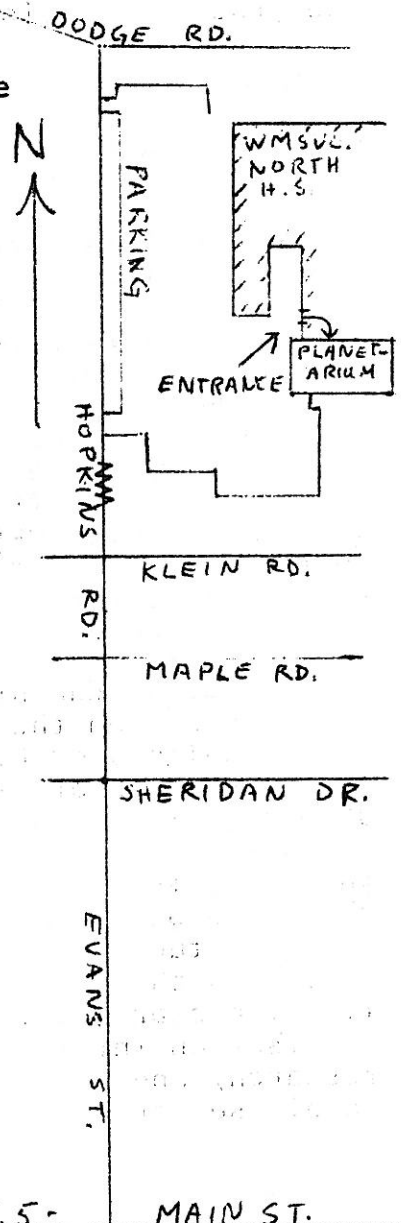
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**FOR SALE - Selsi #254 2.4-inch refractor, altazimuth mount, complete with tripod, case, and eyepieces for up to 280X. Asking \$110. Call 627-2601.**

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## NEWS NOTES -

As announced in the last issue of The Spectrum, Dr. Fred Price's new biology textbook is now in print. Entitled Basic Molecular Biology, and published by John Wiley & Sons of New York, the 500 page text contains some 200 line drawings by the author and is currently used in the intermediate level course in molecular biology at Buffalo State.



RT. 5 - MAIN ST.

VILLAGE OF  
WILLIAMSVILLE

(School is approx.  
4-1/2 miles due north  
from Main Street.)

The advanced studies section is meeting on the Friday following the regular meeting, at the New Science Building at Buffalo State College. The meetings are held in Dr. Fred Price's Microbiology Lab, Room 306. During the February meeting Roland Rupp moderated a group discussion on double stars. The March meeting will see Tom Dessert leading a discussion on properly using a telescope (including proper alignment and the use of setting circles) and during the April meeting Dr. Jack Mack will discuss modern cosmology.

The section meetings are open to anyone who has an interest in any aspect of astronomy. The topics of each meeting are chosen in advance and each member is encouraged to do some research on the topic to contribute to the group discussion. We hope to see you at the next meeting.

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### SPY AND TELL

After living for several years in a trailer, Larry and Ella Mae Hazel have moved into their new home near Fort Niagara.

Phil Cizdiel is working at the SUNYAB Amherst campus. He examines plates showing images of sub-atomic particles.

Esther Goetz is recovering from a mid-winter illness, and with the coming of spring she will be her usual sprightly self.

Ed and Olga Lindberg were mentioned prominently in an article in the Buffalo News on February 4th which covered the history of the Lillian Fairchild Travel Talks. A fine photo accompanied the article showing Ed and Olga with Dr. Virginia Cummings, retiring director of the museum.

The Deazleys were invited to attend the January wedding of their American Field Service daughter in France. They left the U.S. on January 8th and returned on the 23rd. While in France they went skiing at Isola 2000 (meter height, or 6,600 ft.) in the Maritime Alps in southern France, 50 miles north of Nice on the Italian border. The ski area is close to 9000 ft. They also spent several days on a grand tour of Paris.

Darwin Christy continues his serious study of micrometeorites. To date there are only two people in the U.S. and five in Japan who are involved in this study. Darwin, through the secretary of the IUAA, has made contact with one of the gentlemen in Japan, Shigeru Morikubo, who has a TV science program. He and Darwin had recent correspondence which promises an interesting exchange in micrometeorite information and research, and also "dust" from Japan for Darwin's inspection. (Editor's note! see article in this issue)

Edith L. Geiger

### BAA ANNALS

#### 5 YEARS AGO

We skipped the regular meeting in March 1974 to attend an All-Gershwin Pops concert at Kleinhans Music Hall that night. Our sponsorship of the concert (arranged by Edith Geiger) benefitted the fund being raised for the proposed observatory at Beaver Meadow. In April, Dr. Davis D. Meisel spoke at the Museum on "Comets" (Kohoutek had just fizzled across the sky a few months before ).

A sad note in the Spectrum was a memoriam for Bob Kartyas who died February 3, 1974. Bob was Treasurer of the BAA and an energetic and imaginative member of our club at the time of his premature death at age 25.

Dr. Fred West contributed an article on "Spacecraft Launch Windows" in this issue. The BAA was planning an astrophotography exhibit at the Museum of Science for April.

#### 10 YEARS AGO

Our speaker for March 1969 was Walter Semerau who gave a talk on "Simultaneous Photography of the Solar Disc and Solar Prominences". Walter is an expert on solar activity and a fine craftsman of sophisticated observing equipment. The Board just made Walter an honorary member of the club on January 31, 1979. John J. Ruiz spoke on "The Mayan Calender in Astronomy" at the April meeting.

Orrin Christy wrote an article about probabilities in astronomy called "Chances Are" for the April issue. Also in that issue was an editorial written by Kurt Erland entitled "Newstead Observatory and the Museum". Both the March and April issues (we put them out monthly then) carried Deep-Sky articles by John Riggs.

Rowland Rupp

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#### Catch the Shooting Stars with a Microscope

Shigeru Morikubo  
1058 Oigawa, Atsugi-Shi  
Kanagawa-Ken, 243-02, Japan

Cosmic dusts collide against the upper atmosphere of the earth at very high velocities and are heated by friction into candescence. It is the phenomenon of meteors or shooting stars as you know. On those occasions the cosmic dusts are molten into numerous small droplets. They take the spherical shape due to their own surface tension and then solidify keeping that shape. Those spherical particles, which are known as "Meteoric Dusts", very slowly fall through the atmosphere and finally reach the surface of the earth. Therefore it is believed that the meteoric dusts can be recovered at home and are observable. As far as I know the actual existence of such particles were first reported by J. D. Buddue in the U.S.A. in 1950.

In Japan the observation of meteoric dusts was started by several amateur astronomers in 1954, and since 1955 I have been observing them systematically.

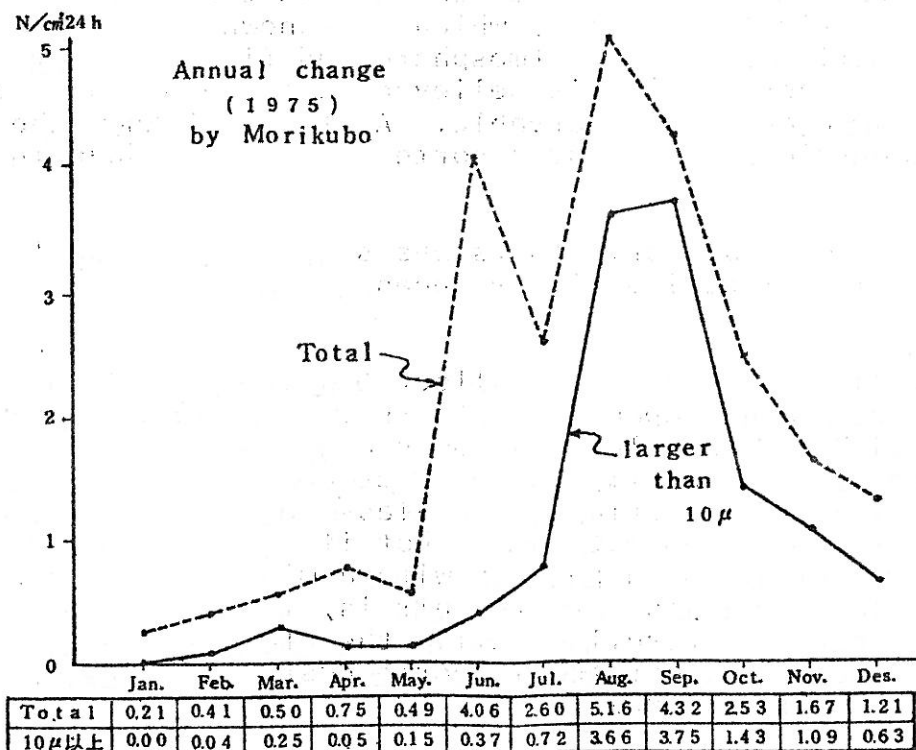
There are several different methods to collect the meteoric dusts, but the most popular method among Japanese amateurs is the so-called "Glass Plate Method". Specifically we place outdoors a glass plate (a glass slide for a microscope) horizontally and collect on it the meteoric dusts. A very thin film of glycerin on the glass plate is very helpful to capture the meteoric dusts effectively; but if the glycerin is too thick, it troublesome for later inspection with a microscope. The time in which the glass plate is exposed to the air is, in my own case as an example, 24 hours. Then we carefully examine the glass plate with a microscope at about 500X and count the meteoric dusts which exist in a known area (2 cm x 2 cm in my case).

Some of the results which have been secured by Japanese observers including myself are as follows:

- 1) The meteoric dusts are perfectly spherical particles with a very smooth surface. Their color is usually brownish black, but they also show a bluish black color less frequently. On rare occasions we also find particles of transparent and glassy appearance.
- 2) The meteoric dusts are usually smaller than 30 microns in diameter and more numerous in the smaller diameters at least down to 2 microns. Those of a diameter larger than 30 microns are extremely rare and those larger than 50 microns are practically non-existent.
- 3) Correlation of the meteoric dusts and the meteor showers is not recognizable. If such correlation existed, it is expected that there might be a maximum of the meteoric dusts 1 to 2 months after each meteor shower, but no such correlation has been found so far.
- 4) As for the annual change of the number of the meteoric dusts larger than 10 microns in diameter, there is a very prominent maximum in August to October, every year. For the smaller ones no such general rule is recognizable.

Now the above are the results which are obtained only in Japan and may or may not differ from those obtained in other countries because the meteoric dusts fall through the atmosphere and hence may be influenced by the local and global conditions of the atmosphere.

It should also be pointed out that there is a serious problem of contamination from the human activities such as industries - - namely the existence of so-called "Pseudo-Meteoric Dusts". To solve these problems the meteoric dusts should be observed at many places on the earth. Therefore I am sure that there exists a need for an international cooperation of amateur astronomers.



## Return to Synodic and Sidereal Periods

Thomas R. Giasomo

I wish to thank Roland Rupp for readily pointing out that the RASC Observer's Handbook data which I used for my table in my article on sidereal and synodic periods was too crude for use with the relationship when considering the outer planets. The relation shows an increased sensitivity with each additional outer planet, a fact which I overlooked. Below is a corrected table for the superior planets using more accurate data from Introductory Astronomy and Astrophysics by Jacobs. This table shows that the errors reflected in my previous article are greatly reduced and that my suggested sources of error are unlikely.

PLANET	T(days)	$t_p$	Error (%)
Mars	779.9	687.0 d	0.0
Jupiter	398.9	11.86 y	0.0
Saturn	378.1	29.45 y	0.0
Uranus	369.7	83.27 y	0.9
Neptune	367.5	164.06 y	0.4
Pluto	366.7	254.65 y	2.8

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### POETS' CORNER

#### Once upon a time there was a Universe

Once I met a Universe  
so schooled in structure  
she'd rehearse  
"Remember stars I am your nurse,  
Before I was...there was no first."  
and then I heard the very worst  
"Tonight I'll poke through  
every purse  
and if I find ONE silly verse  
it's curtains for your Universe!"

Sorry About That  
Esther L. Goetz '79

### TTLS

Scintillate, scintillate, asteroid minific,  
Fain would I fathom your nature specific!  
Exaltedly set in the ether capacious,  
A reasonable facsimile of a gem carbonaceous!

ANON.

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Please make sure that you read the notice on the last page of this newsletter. It is important and concerns the future of the Spectrum!



Ken Biggie has had an amazingly active and varied life both in his quest for an education and the finding of a vocation. Born in Buffalo, his first schooling was at St. Francis Xavier in Black Rock. After graduating from Kenmore High, he worked at his uncle's hardware store until he went into the Air Force. He was stationed at George Air Force Base, seven miles outside of Victorville, California (in the Mojave Desert) where he was an aircraft pneudraulic (pneumatic and hydraulic) specialist. With Victor Valley Junior College close at hand, Ken decided to avail himself of the opportunity to take some courses in the evening session from July of '61 until November of '62.

In October of '62, we were into the Cuban Missile Crisis and shortly thereafter, Ken was ordered to England where he was stationed for 26 months with the RAF at Milden Hall, 77 miles north of London. The University of Maryland had a European division there and again Ken took advantage of this chance to further his education by enrolling in classes for three semester, taking courses in political science along with some other liberal arts academic subjects. The faculty included some notable instructors, with some from Cambridge University, and the London School of Economics.

He was in England from 1962 - 65 from whence he returned to Buffalo. The summer of '65 found him working at a blast furnace at Bethlehem Steel. He then started his pursuit of an education in earnest by enrolling at the University of Buffalo. He planned to major in engineering (metalurgy), but after one semester he realized that he lacked the necessary high school background in physics and chemistry, and thought of going into political science instead.

With the coming of the second semester, Ken decided to move to Milwaukee to attend the University of Wisconsin. He moved in with an Air Force buddy and went to school and also did construction work. After six months, he found it all too expensive and moved back to Buffalo and re-enrolled at the University of Buffalo, majoring in political science and graduating in 1969. It was during his years as a student at the University of Buffalo that he took an astronomy course in the evening session with Ernst Both as instructor. Ken was greatly impressed with the excellence of Ernst's teaching.

In 1965 Diane Powers came into Ken's life. They met at the Catholic Young Adult Club, and wedding bells finally rang out for Ken and Diane in May of 1968.

After graduating from college, Ken started to work full time installing above ground redwood swimming pools as a subcontractor in the W.N.Y. area, but felt this strong desire to teach political science in a junior college. Knowing that a Master's degree would be required, he and Diane headed for California where Ken enrolled in the graduate program in political science at California State College at Long Beach. Ken and Diane moved in with Ken's brother, Don, at Huntington Beach where they stayed for four or five weeks, after which they moved into their own home in Garden Grove, a suburb of Los Angeles, and eventually ended up living on the ocean in Long Beach.

In 1971, Nature put on a rather frightening display of wrath in the form of an earthquake which registered 6.5 on the Richter Scale. With the threat of California slipping into the ocean, and the Biggies expecting their first child, Ken, after three college semesters, headed back to Buffalo with Diane and three month old Kevin. Jobs were hard to find and Ken was disillusioned over the whole idea of teaching in a junior college, so engaged in construction work with brother, Tim.

Always educationally minded, Ken applied at several law schools in '71, but with mounting expenses in supporting a family, decided against the move, so he went to Canisius College and obtained a second-

dary education teaching certification. With six months of credit left on his G.I. Education Bill, he finished his Masters in education, while substitute teaching in Kenmore. From the time Ken was a student at the University of Buffalo until he finished his Masters at Canisius, he was always above average in his studies and did honors work. As Ken was now certified in social studies, he subbed four days a week in the Kenmore schools.

When he was a student at Canisius he met Warren Steinberg, a then member of the B.A.A., who was also a student. Warren told Ken about our association, so Ken, remembering his astronomy class with Ernst Both, decided to attend a meeting. When he found that Ernst was a member, he knew that this organization was one that he would enjoy, so he joined the B.A.A. in 1972.

Continuing his desire to find work in the educational field, especially as a high school teacher, he sent out 35 job applications. Of this number he received notification of only one job interview, which was from Fredonia. Ken continued to sub in the Kenmore schools and also did construction work with his brother.

We are deeply indebted to Ken and his brother, for it was in the late summer of '75 that they set about building our Beaver Meadow observatory. They lived and worked at Beaver Meadow for two weeks constructing the building. Then with the help of other members to do wiring, paneling and carpeting, our observatory was ready in February of '76.

In September of '75, Ken answered an ad in the Kenmore paper for a Town Planner for the Town of Tonawanda. He was hired and started work in October. This job started Ken on the road to what has become a very successful career.

He worked as Town Planner until May of '76 when he transferred to West Seneca as the Town Community Development Officer. He does public administration of federal programs and grants and is also the economic development coordinator. He is involved in a wide variety of general housing and community development activities and is a speaker before various community groups.

Ken was a member of the Federal Coastal Zone Management Sub-Committee, which was active until recently at the local level under the Erie and Niagara County Regional Planning Board. He is also a member of the Planning Boards 208 Federal Water Quality Management Program Sub-Committee and is a technical advisor on the Committee on Housing, and is also on the Technical Advisory Committee on Environment in West Seneca.

Ken first became interested in astronomy as a result of his introduction to it in his earth science class in high school. His class at the University of Buffalo with Ernst increased his desire to learn more on the subject. When in England he visited the famous London Planetarium, and in the United States went to see the Observatory at the Air Force Academy at Colorado Springs, and also visited the observatories on Mount Palomar and Mount Wilson.

In 1972, after joining the B.A.A., Ken bought a Tasco 60mm refractor which he still uses while hoping to purchase or build a larger scope. He finds astronomy exciting and intellectually stimulating as he feels there is something in it to please everyone. He becomes very philosophical as he looks to the heavens. It puts him in perspective with the rest of the universe.

This very busy fellow finds time for several hobbies. He strums a guitar, plays hockey, reads science fiction as a pleasant diversion from his daily activities, and enjoys riding his motorcycle as he spins over the southern tier on Sunday mornings. He is a member of Y.M.C.A. Indian Guides, a father-son organization, and plans to treat the group to a trip to the Beaver Meadow Observatory.

Ken loves to travel and has been across the U.S. several times, and spent 30 days traveling through Europe visiting Spain, Germany, Italy, France and the Scandinavian countries where he saw the sun set and rise in an hour's time. He finds the outdoors very stimulating, and likes to rough it, traveling and sleeping in his van. In his student days, Ken, brother Don and a friend bought a car for \$92 and spent six weeks traveling through the northwest, west, and southwest United States.

Ken and Diane have two fine sons, Kevin 7, and Christopher 5. Kevin's picture was in the paper recently as one of three finalists in the 1980 Christmas Seal contest sponsored by the American Lung Association of Western New York. The paintings were sent to New York City where winners from the state will be chosen.

Ken is in his second term as our Vice-President. He has served on the B.A.A. Board of Directors and represents the B.A.A. on the Beaver Meadow Board of Managers. He has been on that board for two years and plans to continue in the same capacity.

Ken is a friendly man with drive and purpose, a clever wit with an easy manner, and an adventurer filled with the joy of living.

Edith L. Geiger

#### WANTED

#### WANTED

#### WANTED

Marty Dessert and Elaine Deazley, who have been typing, mimeographing, collating, addressing and mailing the Spectrum for the past two years, have requested a respite, and new members are needed to fill their shoes. Any and all help is needed and appreciated. Please contact Larry Carlino at 832-0491, so that we can continue this newsletter.

DON'T FORGET!!

B.A.A. NEEDS YOU

VOLUNTEER TODAY!

The Buffalo Astronomical Ass'n., Inc.

c/o Lawrence M. Carlino, Editor

THE SPECTRUM

453 Niagara Falls Blvd.

Buffalo, New York 14226

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