

# THE SPECTRUM



Last Time  
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BUFFALO ASTRONOMICAL ASSOCIATION, Inc.

JULY --- 1995 --- AUGUST

SUMMER ISSUE



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"SPECTRUM" Editor - Darwin Christy

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#### IN CASE OF EMERGENCY

If, for any reason, there might be cause for cancellation of the meetings of the B.A.A., tune your radios to either WHEW (930) or WGR (550). Also, if Buffalo State College has been closed because of inclement weather, so will the meeting of the B.A.A. be cancelled.

#### Taxacom Computer Bulletin Board

phone (716) 896 7581

for more information, call Jack Eason at (716) 745 3138.

#### Election of Board Members

The following members have been elected as Members of the Board at Large for the years 1995-1997: Joe Orzechowski, Gene Witkowski and Bill Smith.

#### College of Fellows

The following members have been recommended to the College of Fellows and approved by the General Membership:- Gene Witkowski, Bob Hughes and Steve Kramer.

#### NEW EDITORS

First, the new editors would like to extend a great big "THANK YOU" to Darwin Christy for giving us a chock-full Spectrum, on time, for the past 16 years. This longevity of accomplishment will not be duplicated by the new staff!

The new editors are Beverly Orzechowski, Bill Smith and Luann Szucs. We not only welcome your submissions of articles, observations, anecdotes, photos, sketches, artwork and anything else of interest but we encourage it. This is your newsletter and we know all of us can write - once you start it'll be hard to resist submitting more.

Submissions and items for scanning should be sent to Beverly and can be in any form but we prefer typed or PC diskettes (they will be returned) readable in WordPerfect or Microsoft Word for Windows (ASCII ok). Fax submissions to 631-1046. Writer's guidelines are being prepared.

Bill Smith



#### \*\*\* MEMBERSHIP SURVEY \*\*\*

The membership survey committee has distributed the survey to all interested parties and is requesting that all surveys be completed. Your responses are extremely important and will be reviewed by the committee to assist the Board of Directors in planning future events. If you have any questions, please call Terry Farrell (826-3738) any questions. Thank you.

#### \*\*\* NATIONAL ASTRONOMY DAY CELEBRATION \*\*\*

The BAA held it's celebration of astronomy day on Saturday, May 6, 1994 at Beaver Meadows. Bob Hughes did an excellent job in coordinating this event which was well attended by the public and allowed the members in attendance to promote our organization. Terry Farrell expresses his heartfelt thanks to everyone who assisted in this event. If you have any ideas for next year's celebration please see any club officer or board member.

#### \*\*\* TRIP TO DAVID DUNLAP OBSERVATORY \*\*\*

Plans are being made for a possible trip to visit the David Dunlap Observatory and McLaughlin Planetarium in Toronto if there is enough interest. The proposed date will be sometime in late July or early August. The observatory has several domes with the largest housing a 74" inch newtonian. If interested, please contact any board member or club officer by June 30, 1995.

There is a reward being offered to anyone who submit ideas for club activities, participates in club events, offers to do a presentation or submits a name of a possible guest speaker. The reward is the personal satisfaction and enjoyment gained from your involvement in all or one of the above mentioned items



## EDITORIAL

As most readers already know, I am resigning as Editor of the Spectrum. I served in this post for the past sixteen years. Although I intended to resign three years ago, many members urged me to continue until now.

It has been a genuine pleasure serving as Editor, and I sincerely regret being unable to continue, but feel it would be best to allow the younger members to take over and to breathe some fresh air into the publication. I am not leaving due to any health problems, rather a desire to relax in my retirement.

I was blessed to have received numerous articles from readers and I remind the "SPECTRUM" audience to continue their support as Luann Szucs, Bev Orzechowski and Bill Smith take the helm.

I would have been unable to produce a single copy of the Spectrum without contributions, and over the past 16 years, many generously donated their expertise to make the Spectrum a success. To everyone... my sincere thanks.

Individually, I must begin with Edith Geiger. I hope she will continue her good work with future "Spy and Tell" articles, the Logo and her excellent articles profiling our members. Thank you, Edith.

I appreciated Rowland Rupp's submission of numerous articles and the "B.A.A. Annals. Rowland also kept abreast with the Spectrum's output.

Bev and Joe Orzechowski provided input of new members and articles, as well as "The Membership Corner." Thanks go to our observatory director, Dan Marcus, who has given progress reports on the observatory at Beaver Meadow. Dan also coordinated "Star Parties" and reported on them in the Spectrum.

Other B.A.A. members, past and present, deserve thanks for being major contributors include (alphabetically), Anonymous (Mr. or Mrs.), MaryLou Bebak, Claudia Bielinski, Ken Biggie, Diane Borowski, Ernst Both, Ken and Trudie Brown, Larry Carlino, Orrin Christy, Dave Czuba, Tom Dessert, Triston Dilapo, Jack Empson, Kurt Erland (Who has gone into hiding), Terry Farrell, Dave Fliss, Shaun Hardy, Bob Hughes, Mike Idem, Richard Jakiel, and Ken Kimble.

Also, Doris Koestler, Al Kolodziejczak (now, after 16 years, I can correctly spell his name!), Steve Kramer, Olga Lindberg, James Machowki, Dr. Jack Mack, Ray Manners, Leslie Martin, Dr. David Meisel (although, not a member... a friend of mine and B.A.A.), Carl Milazzo, Adrienne Morris, Bruce Newman (who provided everyone's favorites... the cartoons and puzzles), Bill Owens, Dr. Fred Price, John Riggs, James Russell, Jerry Silverschatz, Bill Smith, Luann Szucs (Another talented cartoon artist), Bob Titran, and Dr. Fred West.

Those members who have passed away and remain in my thoughts are Esther Goetz, Ed Lindberg, Bob Mayer, Paul Noye and Walt Whyman.

Many thanks to all the members of the B.A.A. I am certain that I have inadvertently left out or failed to mention contributors, but I ask that you please accept my apologies, as sixteen years is a long time to recount. My best wishes go to all the readers. It has truly been my pleasure.

Darwin Christy



David Rittenhouse,  
Colonial America's Astronomer  
Part IV -- The War, Aftermath, Mint.

(Also see the article on Rittenhouse in the current (May) Sky and Telescope - good pictures.)

The highs and lows of the 1767 - 1771 period of Rittenhouse's life were past, and life went on in Philadelphia. He was now 40. He started his business again, assumed more active roles in the American Philosophical Society and at the University of Pennsylvania, did scientific research and wrote articles (some in previous Spectrums), and continued those interminable surveying projects.

In 1772 he married Hannah Jacobs. They had only one child, who died in infancy. Both daughters of his deceased first wife, Eleanor, married and had children, and descendants exist today.

In February 1775 he gave the annual APS Oration excerpted in our Jan. and Mar. '87 Spectrums. In April the War started. As Archimedes' talents were employed for warfare in ancient times, so now were Rittenhouse's. Surveying was now for fortifications instead of boundaries and canals. Optics were pointed horizontal instead of vertical. Mathematics now calculated ballistics instead of comet orbits. Lead (for bullets) weights for clocks were replaced by bags of stone. The streets and pits of the country were scoured for matter to make saltpeter for gunpowder. Cannons were cast in place of bells. Shops were making gun locks; David's brother, Benjamin, ran such a manufactory. The British came and went. As to the Orrery at Penn, it apparently suffered more from the Continental troops than the British.

Among other duties and activities he became Treasurer of Pennsylvania in 1777, which lasted 13 years. This included trying to collect taxes and maintain a budget during this very difficult time.

A new country needs several things to be considered a viable nation; one is its own coinage. And who would be better for a Mint Director, like Issac Newton before him, than an astronomer. Rittenhouse recognized the politics involved and took the position on the condition that the Mint be put under the State Department, headed by his friend, Jefferson. After to a difficult start in 1792, we finally had our own coin currency. The coinage and bullion might have been tempting for unauthorized night visitors, but it was watched over by Nero, the formidable watchdog, and no thefts occurred. Fortunately the three building complex was privately well documented in 1912 before it was demolished. The current Philadelphia Mint is the third.

Rittenhouse died in June 1796 of some abdominal distress. The weather log he had maintained was continued a couple days later.

In Fairmont Park in Philadelphia, there is an active Historic RittenhouseTown association, preserving the homes, papermaking activity and history of the original family. It includes the house where David was born. His later homes no longer exist. I could not find the locations of any of his shops, and only the bare hill of the first observatory. The American Philosophical Society is still on Independence Square.



Steve Kramer

#### SPY and TELL

On June 1st, the staff of the Buffalo Museum of Science, many friends, and city and county officials, including Mayor Masiello and County Executive Gorski, paid tribute to Ernst Both for his outstanding accomplishments as Director of the Museum and President of the Buffalo Society of Natural Sciences. Ernst's retirement will become effective June 30, 1995.

On May 21st, Ken Biggie received his second Masters degree from Canisius College, in administration and supervision. On May 20th, Christopher Biggie received his B.S. degree in industrial management from Carnegie-Melon University. Congratulations to father and son on their achievement.

Chris Matyas graduated from R.I.T. in manufacturing, and works for AMC Precision. In October, wedding bells will ring for Chris and Amy Pezzino. Amy graduated from Buff State and is working on her Masters while being employed as a substitute teacher.

Bernard Gajewski, along with a number of our members, is interested in amateur radio astronomy, computer programming, and the Internet.

Pamela Avery had surgery in March for tarsal tunnel syndrome in her foot. a nerve entrapment disorder similar to carpal tunnel syndrome in the wrist. It is very painful, with burning, numbness and some tingling. Pamela is improving since the surgery, but is not too active as yet. Hubby, Paul, is of great help as Pam is trying to get "back on her feet."

Laura Koehler is a junior at Clarence High School and is interested in astronomy. After graduation, she may go to college to learn more about the subject. She and her family enjoy the country outside of Clarence where they have six horses, both riding and draft. They raise sheep and goats that are seen at the Erie County Fair, and are proud of the 1994 Grand Champion Award given to one of their prize sheep.

Maria Paterno, Steve Kramer's neice who lives in Italy, will be visiting the Kramers again this summer. She will be here for six weeks, and will be an assistant counselor at the Park School during her stay.

Bill Halbert, who has been studying voice with Giorgio Tozzi at Indiana University this past year, will be coming home on August 1st for two weeks before leaving for Germany to continue his operatic studies.

We are saddened by the news of Ralph Daiken's passing on May 1st, in Maine, where he and his wife, Helen, had moved after he retired from Bausch & Lomb in Rochester. He was well-known for his Daiken Barlow. Besides astronomy, he had a great interest in ornithology, and took many beautiful slides of birds, including the colorful birds of New Zealand and Australia,

A write-up on George Keene's "My Large Fixed-Eyepiece Telescope," appeared in the June issue of Sky & Telescope, pg. 81. He worked at Eastman Kodak for many years, and is the author of Star Gazing with Telescope and Camera. Presently he is a consultant on space optics.

Both Ralph Daiken and George Keen were members of the Astronomy Section of the Rochester Academy of Science, and were close friends of the BAA, and gave several talks at our meetings.

Edith L. Geiger



#### MID-WINTER OBSERVING PROJECT: Map 4

When I think of mid-winter observing — before early sunsets, crisp conditions and fogging of eyepieces due to warm eyes come to mind, I think of 'map 4'. Map 4 of Tiron's Bright Star Atlas, bound into Binocular Astronomy by Crosson and Tiron, defines the best of Winter viewing. The map, by itself, under a desk lamp is a thing of beauty. The sweep of the Milky Way slicing diagonally through; the splatter of star clusters decorating that river of stars; those bright constellations of Auriga, Taurus, Gemini, Orion and Canis Major; and those big Messiers soliciting a siren call for viewing: M's 45, 42, 35, 46, 47 and 41 — all plead for you to linger and become seduced!

This is a big chunk of sky: 5 hours wide (3h 30m to 8h 30m) and +50° to -50° in declination. My horizon stops around -30° due to trees so this review goes as far south as the bottom of Canis Major. This was my observing self-assignment for Jan and Feb - a binocular tour of Map 4.

#### INITIAL IMPRESSION

It's hard not to just sit and gawk at this region. The bright stars sparkle and twinkle due to the generally more turbulent atmosphere found in winter. Many 2nd magnitude and brighter stars are icy blue in color with reddish Aldebaran as a striking contrast. Further, long winter cloudy periods make any observing more precious, so one has a tendency to simply pause and stare. When clear and dark, the Milky Way is high overhead and dives west of Canis Major to the horizon. Big naked eye objects as the Pleiades, Hyades, Orion's belt, southern Canis Major clusters and the Orion nebula beckon the eyes to try to pick out bits of detail.

Scanning with wide field binoculars shows stellar groupings and multitudes of stars with a backdrop of the Milky Way glow. Here and there you'll notice concentrations and small nebulous puffs. Map 4 is a smorgasbord of star clusters. In 7x35 binos some of these puffs show stars within them (M's 35, 37, 41, 47, 50, 93, NGCs 1746, 1647, 1981, 2232, 2246, 2264); some have a graininess of barely resolved stars (M48, NGCs 1342, 2301); some are just hazy spots of clusters comprised of members too faint to see as individual stars or are gas nebulae (M's 36, 38, 46, 78, NGCs 2281, 2354, 2527). Large 16x80 binos really resolve quite well the first group, show many stars and some leftover haze (unresolved stars) of the second group and often about the same for the third group.

The difference between the two binoculars is stunning. M42 transforms from a smallish nebulous patch with some markings to a well defined nebula with swirls and embedded stars. The companion cluster to M35, NGC 2158, shows as a faint haze. A big binocular view has to be experienced. Bigger isn't always better. Sometimes what appears as a haze in small binos (NGCs 1893, 2324) become resolved to the extent that the 'haze' disappears and the object can blend into the Milky Way background which can make initial identification harder in the big binol



### 7x35's PICK UP NGC's!

Yes, lowly 7x35s can indeed pick up many NGC's. The keys are a good dark site, patience and practice.

There are 57 deep sky objects listed on Map 4 above -30° 18 weren't seen in the 7x35s (M's 1, 43, 79, NGC's 1407, 1360, 1398, 1499, 1535, 1973 group, 2024, 2174, 2237 group, 2353, 2362, 2423, 2440, 2539, IC's 418, 434) while only 7 weren't found in the big 16x80s (NGC's 1360, 1398, 1407, 2237 group, 2440, IC's 418, 434). Although it may seem that not that many more were seen with the 16x80s, the amount of detail the big binos show is wondrous. If you get a chance to try a pair, grab the opportunity.

In the 16x80s, NGC 1499, the California nebula, was poorly seen at best; harder than 2024. Several objects, mostly clusters, not on Map 4 were seen (NGC's 2158, 2194, 2215, 2261 (Hubble's variable nebula) and a few other patches I didn't try to look up in a deeper atlas). Knowing that an object should be in an area is an aid in seeing it — especially those faint objects. Taking the time to really look is also key — let the image sink in.

The best group of open clusters, noted for their variety of richness and configuration, are here: M48, M47, NGC 2423 and Melotte 71 lie 12° east of Sirius. My vote for the "best open cluster in a starry field" is here too — M50.

Five planetary nebula (NGC's 1360, 1535, 2392, 2440, IC 418) are on Map 4. Two, 1535 and 2392, the Eskimo nebula, can be seen due to their bluish color only (confirmed with an O-III filter). 1535, by the way, is an excellent planetary in a scope.

### NOTES FOR BINOCULAR USERS

- ⇒ Don't expect too much — keeping your expectations low, but enthusiasm high, is best. Better to be amazed at what you see than disappointed because your hopes were set too high.
- ⇒ Use a dark site — the viewing difference between the suburbs and Beaver Meadow is astounding.
- ⇒ Plan out your observing session. Bouncing around the sky is fun, I do it a lot, but making a list of objects to try and finding out about them does put some order into viewing — you'll see deeper too.
- ⇒ Be patient! You'll see more with extended viewing time. At least 15 seconds in winter and 30 in summer are necessary to let your eyes adjust to the binocular field and to pick out details. Eyepiece frost is a winter problem that shortens viewing time (the eyepieces need to rest!).
- ⇒ Observe bright objects first. Better to try for M42 than M78 or M1. This accustomizes your eyes to the size and brightness of objects. You will see fainter objects once you know what to look for and how large objects appear.
- ⇒ Use a tripod. Let something other than your neckstrap hold your binos. Arms tire quick and bracing on a car top or fence wears thin fast. A tripod will maintain the view, freeing you to consult a map, stretch or rest.
- ⇒ Know your binocular's field of view. I find it helpful to cut a circle in a piece of cardboard to match what your binocular sees on your star charts.
- ⇒ Take notes — it will make you see more keenly. Just having to consider what to write makes you think about what you saw (and you'll take more looks). Nothing fancy needed! Notes may be brief as mine: NGC 2360: visible as faint hazy patch in 7x35; partly resolved with underlying haze, big bar of stars on north side, medium size in 16x80. My original notes are much abbreviated from the above.

Try your own self-assignment and pass on your experiences in the *Spectrum*!



- Bill Smith

## MEMBERSHIP CORNER

As this issue of the *Spectrum* goes to press, we are faced with many endings and beginnings. First, we have reached the end of another BAA membership year. The BAA now has a total of 105 members, with 18 of these joining this past year. Second, and more importantly, this issue of the *Spectrum* is the last to be produced by our long-time editor, Darwin Christy. We would like to take this opportunity to express our appreciation and thanks to Darwin for his tireless efforts in creating a consistently excellent newsletter.

Just as spring's end becomes the beginning of summer, so to these endings mean new beginnings. First, starting with the next issue, the task of editing the *Spectrum* will fall upon Bill Smith and Bev Orzechowski. The fact that two people are taking over Darwin's job speaks to the skills and energy Darwin brought to the position of editor. Next, we have those 18 new members just starting out in the BAA. We hope that the end of their first year in the BAA is just the beginning of a long term membership. This time of year also marks the beginning of the summer Star Party season. These get-togethers are a great way for new members to become acquainted with the BAA and its members and we hope that each of you can find the time to attend at least one. See the *Spectrum* for the time and place of a Star Party near you. They are great fun and are a most painless way to learn a little astronomy.

Finally, the end of a membership year also means that it will soon be time to renew your BAA membership and pay your dues. Anyone wishing to beat the Christmas rush may pay now. See you on the other side of what we hope will be a great summer for everyone!



Joe and Bev Orzechowski

## BAA ANNALS

**5 YEARS AGO** - Star parties for the summer replaced the meetings held during the rest of the year. Parties scheduled for 1990 were hosted by the Macks, Rupps, Marilou Bebak, Carol Lorenc and Bill Smith and the Halperts'. The Halpert's party was to be held in Monticello, NY, a 5.5 hour trip from Buffalo. I wonder how many made it.

Ed Lindberg contributed an "Instrument Note" on optical flats to the *SPECTRUM*. Edith Geiger profiled Bruce Newman, soon to be BAA Vice-President, and congratulated Ernst Both on his new position as President of the Buffalo Society of Natural Sciences.

**10 YEARS AGO** - The BAA had a show at Eastern Hills Mall in early April 1985, possibly our last one. Thereafter malls required us to have special liability insurance that carried prohibitively high premiums. Hosts for 1985's star parties were the Morrisises, Claudia Bielinski, Larry Carlino (he only had a 22.5-inch telescope in those early days), Brian Fallon, the Marcuses, DiLapos, Macks, Biggies and Nelson Pinochet. Nelson was an exchange student from Santiago, Chile, but the party was held in Eden, NY. That should be obvious—you can't hold a summer star party in Chile in August—it's winter there! If this wasn't enough for the most diehard observers (or party goers, as the case may be) we also got together at the Mees Observatory at the University of Rochester.

Two observation reports appeared in the *SPECTRUM* - one on meteor showers by Darwin Christy, and one by me on measuring position angle and separation of double stars without a filar micrometer. I had forgotten I ever did it. If you're interested in the method, just ask me about it. I also had an article on William and Charles Piazzi Smyth, prominent nineteenth century father and son astronomers.

**15 YEARS AGO** - Star parties were big in the summer of 1980 too. Hosts included the Desserts, Biggies, Brinks, Christys, Geigers, and Joe Provato. We also had a picnic at Beaver Island Park on Grand Island.

According to Al Kolodziejczak's report, we had just completed a successful exhibit at Eastern Hills Mall where we showed equipment, photos and drawings. Carl Milazzo wrote an article on NGC objects located near the more familiar Messier objects. We also had a profile. This time the subject was Edith Geiger; the author was the formerly prolific "Anonymous".

**25 YEARS AGO** - Mrs. Octavia Black's Camp Spruceland was the site of two star parties in the summer of 1970. Two other parties were held at our old observatory at Newstead. We also had a party at the Goetzes' and at Les Stoklosa's summer home. New officers were elected at the June meeting: President—Richard Zygmunt, Vice President—Les Stoklosa, Secretary—Larry Hazel, Treasurer—Edith Geiger.

**40 YEARS AGO** - Just two star parties were announced for 1955. One was in June at the Grover Cleveland golf course, the other was at the home of Walter Semerau.



Rowland A. Rupp

## GIUSEPPE PIAZZI

Giuseppe Piazzi was an Italian Astronomer who was born in Ponte, Valtellina, Italy in July 1746; he passed away on July 22, 1826 in Naples.

He was educated in Milan, Yurin and Rome, having been appointed professor of mathematics at the University of Malta in 1770, remaining there until it was abolished in 1780. In that same year, he accepted a position as chair of mathematics at Palermo. There he was instrumental in the efforts of having an observatory established in 1789. Previous to its opening, he traveled to England where he established a friendly relationship with English astronomer, Maskelyne, Herschel, Vince and Ramsden.

At his new observatory he made many important investigations which resulted in the first discovery, a minor planet in 1801, which he named Ceres. Though it was only visible for a very short period of time, his observations were sufficient to compute its orbit allowing it to be able to be followed the next year.

In 1803 he completed his first catalogue of fixed stars, containing 6784. He received a prize from the Institute of France at Paris for which it was so dedicated. Then in 1814 his second catalogue containing 7646 stars was also dedicated to the Institute of Paris. This catalogue has been of great and lasting value of his observations and are now used in modern methods of computations.

Another contribution to astronomy by him was the valuable discoveries concerning comets; and in 1817 he was appointed as the chief director of the government observatory at Naples.

Some of the most important works after his catalogues were:- "Lezioni elementari di Astronomia", 2 volumes, Palermo 1817; the Kaiserlich-Konigliche Sternwarte, Vienna, which was published in it "Annalen", 2 series, volumes IV-XII (Vienna 141-52) a collection of his observations under the title "Piazzia Beobachtungen, 1792-1813." Conculit 'Edinburgh Journal of Science', volume VI, p. 193, Edinburgh 1827, containing a list of his works; Grant, R., "History of Physical Astronomy", London 1852; Maineri B. E. "L'Astronomo G. Piazzzi", Milan, 1871.

Darwin Christy



### TRIANGULUM

Five splendid Stars in its unequal Frame.  
Deltoton Beans, and from the shape a Name;  
But those that grace the sides dim Light display  
And yield unto the Basis brighter Ray.  
from Creech's *Manlius*

TRIANGULUM, the Triangle, appeared in the 'Rudolphine Tables' as *Triangulus*, which qualified it as 'major' until the Lesser Triangle was eliminated. It lies just south of Gamma Andromedae. Although small and faint, notwithstanding our poet's description, it is one of the oldest constellations, going back in time to the ancient astrologers and astronomers. The ancients drew it as an equilateral triangle, using the stars Beta, Gamma and Delta at the base, and Alpha at the vertex.

Hood explained it as being placed in the heavens so that the head of the Ram might be better known. He recalls that the blunder of Anatos was the faintness of the Anies.

The Greeks named it Deltoton. They saw it as a delta (on the Greek letter 'D' a triangle). Because of its shape, Ovid likened it in his 'Nux'. Anatos rendered it as such in his lines which Brown translated it more literally than mythically:-

Below Andromeda, in three sides measured  
Like-to-a-Delta; equal two of them  
As it has, less the third, yet good to find  
The sign, than many better stored with stars.

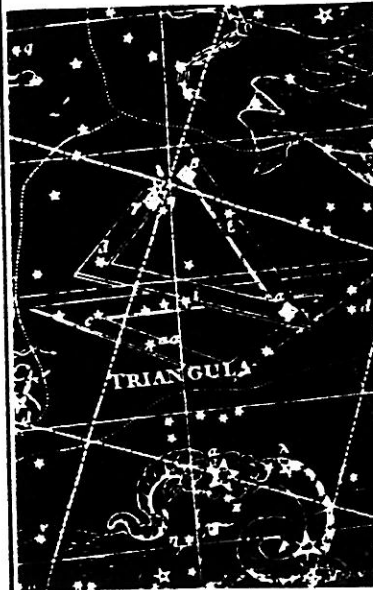
Piazzzi, on the first New Year Day of the present century, discovered the first minor planet, Ceres Ferdinandae to honor jointly the patron goddess of the island of his king, Bourbon Ferdinand of Naples. The astronomers of that day objected and dropped it as it did not conform to their rule of mythological nomenclature for the planets, ---a rule, however, deviated from in recent times in the naming of

smaller bodies. (Perhaps the astronomers had lost their classical dictionary!!!)

Even the Jews are said to have known it as *Shalish*, depicting an instrument of music shaped like a triangle. These three stars, or three cords, are mentioned in the Bible, in the Book of Samuel, chapter XVIII, verse 6.



Darwin Christy



### LACERTA

LACERTA, the Lizard has had many names throughout the various countries and opinion; the French called it *Lezard*; the Germans gave to it *Eidechae* and Bode coined it *Eideze*. It extends from the head of Cepheus to the star PI at the left foot of Pegasus. The constellation was first formed by Hevelius from stars between Cygnus and Andromeda. The space it took, was where no other constellation could fit, in the shape of a lizard. In Hevelius' "Firmamentum Sobiescianum" of 1687, he had drawn a strange weasel-built creature with a curly tail, reiterating that only a small lizard could be sinuous enough to wriggle into that tiny space so designated. Flamsteed, though, pictured it as a greyhound stretched out similar to the shape of Hevelius' figure. AND---Heis supposedly drew typically in its correct form. (WHO KNOWS???)

It inventor did give it an alternate title, 'Stellio', the Stellion, a new like animal with a 'star-like' dorsal spot, which is found along the Mediterranean coast.

From this constellation came the Lacertid meteor shower which has been written on in a past "SPECTRUM."



Darwin Christy

### ASTRONOMICAL HAPPENINGS 1995

#### TWO MONTHS of STAR PARTIES

#### JULY

- 3 - EARTH at aphelion (152,102 MM)
- 4 - Conjunction - Mars & Moon
- 5 - First Quarter Moon
- 6 - Sagittarid meteor shower
- 7 - Saturn stationary
- 9 - Conjunction - Jupiter & Moon
- 11 - Moon at perigee (358,774 Km)
- 12 - Full (Buck) Moon
- Conjunction - Neptune & Moon
- Conjunction - Uranus & Moon
- 14 - Alpha Cygnid meteor shower
- Phoeniciid meteor shower

- 16 - Conjunction - Saturn & Moon  
Omicron Capricornid meteor shower
- 17 - Neptune at opposition
- 19 - Last Quarter Moon
- 20 - Mercury at perihelion
- 21 - Uranus at opposition
- 23 - Moon at apogee (405,717 Km)  
Capricornid meteor shower
- 27 - Mercury in superior conjunction  
New Moon  
Alpha-Beta Perseid meteor shower
- 29 - Southern Delta meteor shower
- 30 - Piscis Australid meteor shower  
Alpha Capricornid meteor shower. This could also be considered in August.

#### AUGUST

- 1 - Conjunction - Mars & Moon
- 2 - Jupiter stationary  
Alpha Cygnid meteor shower
- 3 - First Quarter Moon
- 5 - Conjunction - Jupiter & Moon
- 6 - Iota Aquarid meteor shower
- 8 - Moon at perigee (362,863 Km)  
Conjunction - Neptune & Moon
- 9 - Conjunction - Uranus & Moon  
Conjunction - Mercury & Regulus
- 10 - Full (Sturgeon) Moon  
Earth passes to the north side of Saturn's ring-plane
- 11 - Venus at perihelion  
Pluto stationary  
Epsilon Pegasid meteor shower
- 12 - Perseid meteor shower \*\*\*\*\*  
Northern Iota Aquarid meteor shower  
Upsilon Pegasid meteor shower
- 13 - Conjunction - Saturn & Moon
- 15 - Juno stationary
- 17 - Last Quarter Moon
- 20 - Moon at apogee (404,763 Km)  
Venus in superior conjunction  
Kappa Cygnid meteor shower  
Southern Iota Aquarid meteor shower
- 22 - Omicron Draconid meteor shower
- 23 - Pallas in conjunction with Sun
- 25 - New Moon  
Vesta in conjunction with Sun
- 26 - Zeta Draconid meteor shower
- 27 - Conjunction - Mars & Spica
- 28 - Conjunction - Mercury & Moon
- 29 - Conjunction - Mars & Moon. An occultation may be visible from the southwest Pacific Ocean through Indonesia, Borneo, Philippines, parts of Australia and New Zealand.

#### METEOR SHOWERS

On July 16th, the Omicron Draconid meteors will be observed from radiant 18h 04m Right Ascension and from Declination +59°. This little known shower has a duration of 17 days and does produce white, 4th magnitude meteors. Their type, trajectory and hourly count are not known, so observational data is needed.

On July 30th are the Piscis Australid meteors. These insignificant meteors occur from radiant 22h 40m Right Ascension and Declination -30°. They produce a stream of yellowish 4th magnitude meteors. Perhaps 20 or more may be counted hourly for a period of about 24 days.

Whether it be July 31st or August 1st, we might be thrilled with observing the Alpha Capricornid meteors. Their radiant is 20h 28m Right Ascension and Declination -10°. Maybe 5 or more may be counted hourly at its peak. These meteors are sort of reddish and of 4th magnitude, lasting as long as 7 days or a bit more.



Darwin Christy

#### \*\*\* PRESIDENT'S MESSAGE \*\*\*

It is hard to believe that it is already June and that I have completed my first year of my term as President. The past year has been one of many challenges and successes. One of the biggest challenges I have faced is how to increase members participation in club activities. Throughout the year there has been a variety of subjects covered by our guest speakers. A 50/50 split club raffle was implemented. Members were encouraged to give short presentations. Dan Marcus, Bob Titran and others worked very hard to maintain the Beaver Meadow observatory and to increase the knowledge of the club's existence to the general public. Joe Orzechowski has done an excellent job in the retention of members and securing new members. I could continue to list the achievements of other members but let it suffice to say thank you at this point. With the amount of activities offered and the exchange of ideas that took place, I feel that more members could have been involved. The reason a membership survey was conducted is to find out what the members want and ways to increase participation.

There are several successes worth mentioning. The astronomy day celebration was well organized and attended. Our March dinner meeting proved to be a great success. The membership rolls went over the 100 members mark. Improvements were made to Beaver Meadow Observatory in terms of repairing and upgrading the computers, refurbishing the mount for the 12 1/2", and getting the CCD camera operational and offering classes on it's use. Overall, the greatest success was the ability to work with my fellow officers, board members, and the general membership in a positive way to keep things on a even keel.

Finally, throughout this past year I have had my supporters and my critics. To my supporters, thank you for your advice and hard work. To my critics, please offer your ideas and suggestions to me, my fellow club officers or board members, so that the proper action can be taken. In conclusion, please remember that being President is not an easy job and that I need everyone's help, criticisms, and suggestions to achieve our club's goals and ambitions in the upcoming year.



Terry Farrell

The DEADLINE for the SEPTEMBER/OCTOBER issue of The "SPECTRUM" is AUGUST 11, 1995. PLEASE submit your articles to BEV, BILL or LUANN. I encourage you to keep them in articles enabling them to keep the "SPECTRUM" at its best.



I sincerely wish to express my THANKS for the recognition you gave me the 16 years I was your editor, and for the beautiful PLAQUE which will be displayed in my home for all to see.

THANK YOU ALL !!!!!



Darwin Christy



## ★Beaver Meadow Observatory Events and Star Parties★

What is a star party? Some are informal observing events, others are full fledged parties. The club gets together at someone's house, or Beaver Meadow Observatory and we do astronomy. These events are normally scheduled on Saturdays, and are rain or shine. They are for all ages, and are a great way to learn about all aspects of astronomy, from the practical nuts and bolts hands on, to theoretical. Note: If you are interested in learning about CCD cameras, and how to image process, come join us at Observatory events, and we can all learn together!

### Here is the Star Party and Observatory schedule for the summer.

**June 24:** Irene, and Rowland Rupp invite you to their cottage #316 at Lime Lake starting at 1pm. This is a bring a dish to pass picnic. The Rupps will provide the drinks, and the hot dogs. If Rowland's arm feels up to it, he will be happy to take on all comers in horse shoes, so bring your lucky set. There will also be volley ball, swimming, tennis and the romantic early evening boat ride around Lime Lake. There phone there is 353-4636, and their home #839-1842.

**July 1:** Public Night, Bob and I would like to have help for this one as we would like to have the night off. So if you wish to help out please give us a call, we would really appreciate it.

**July 8:** Jack and Jayne Mack invite you to their home at 1 Hunters Lane Williamsville starting at 7pm. #632-6210. The Moon will be almost full, so the light pollution will not be noticeable! The Mir space station may be visible, so bring all your toys and a Bring a scope and we can check it out.

**July 15 & 16: Public Weekend at Beaver Meadow Observatory.** We will be doing the usual things ie. computer demonstrations, Solar viewing checking out Venus in the daytime. There will be a bring a dish to pass picnic on Saturday starting at 5pm. There will be a gas grill to cook on. Bring the family to the picnic. Note: Beaver Meadow charges admission for daytime activities, so if you are coming out to help with the observatory, let me know, and inform them at the parking lot. The Russian Space Station Mir may be visible for Public night, check in on the 15<sup>th</sup> and find out the time of passage.

**July 22:** Larry Carlino invites you to his home at 7118 Kinne Road, Lockport from 8pm to 1am. #433-3432. Come check out the 6" refractor and the new 28" scope. It should be nice and dark with no moon in the sky. Larry is a keen deep sky and planetary observer. Since Larry is an avid gadget user, this is a great place to check out equipment. If Larry hasn't got it he probably has tried it out, and he is always on the prowl for better observing equipment.

**July 29:** Bill Smith and Carol Lorenc invite you to their home at 184 Creek Road, Jamestown (phone #664-0841). The party starts at 3pm. There is a bring a dish to pass dinner starting at 6pm. Bill and Carol have a 20 acre farm with umpteen gazillion cats, dogs, horses, donkey, and all sorts of things hiding in the barn. Kids love the animals, and there is plenty of room to play. Bill promises us his 20" will be ready for use by the star party, but seeing is believing! At least the 5" refractor and the 10" reflector will be there, and if the weather is really nice we can go to the Martz Observatory and use their 30". Bring a sleeping bag and make it an all night affair. Saves you from driving home at some ungodly hour!

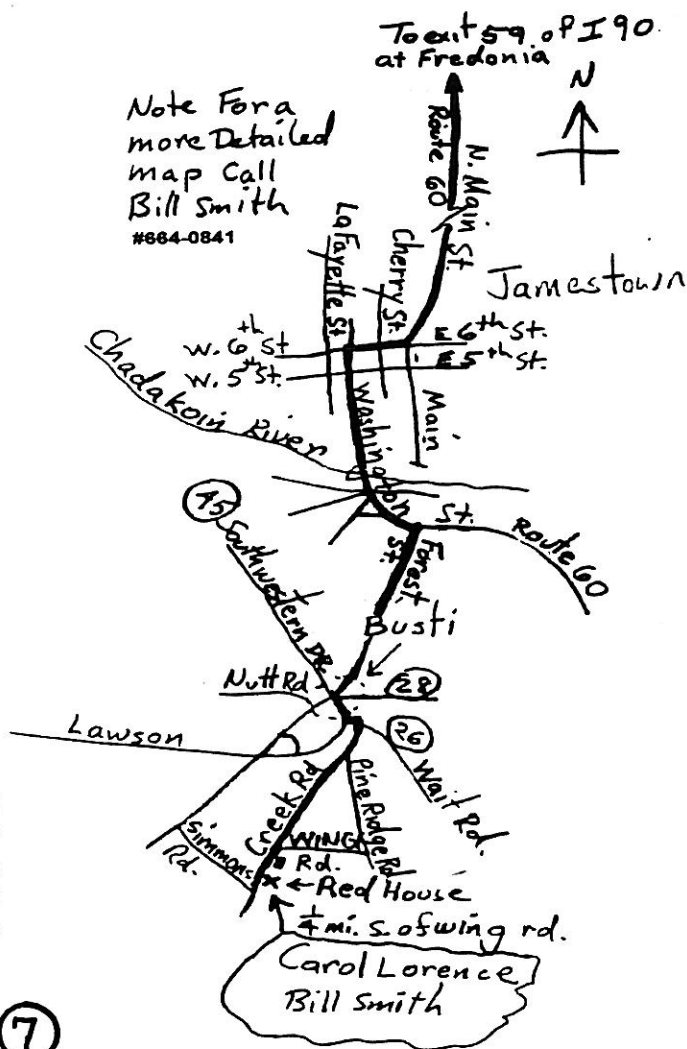
**August 5:** Public Night dusk till 10pm.

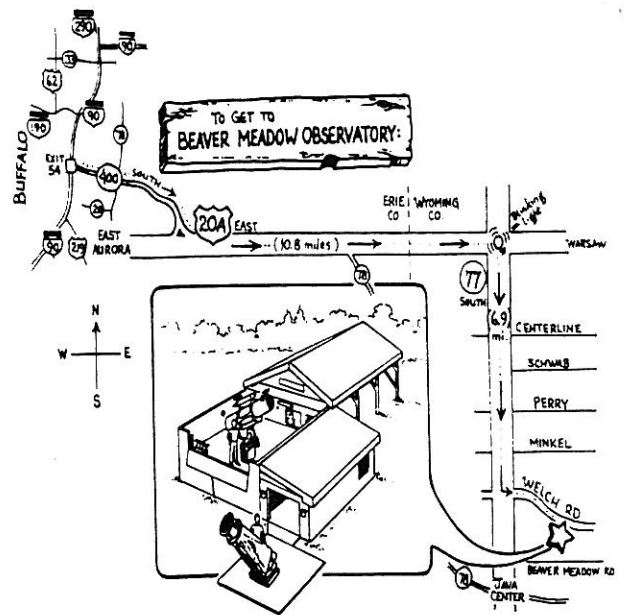
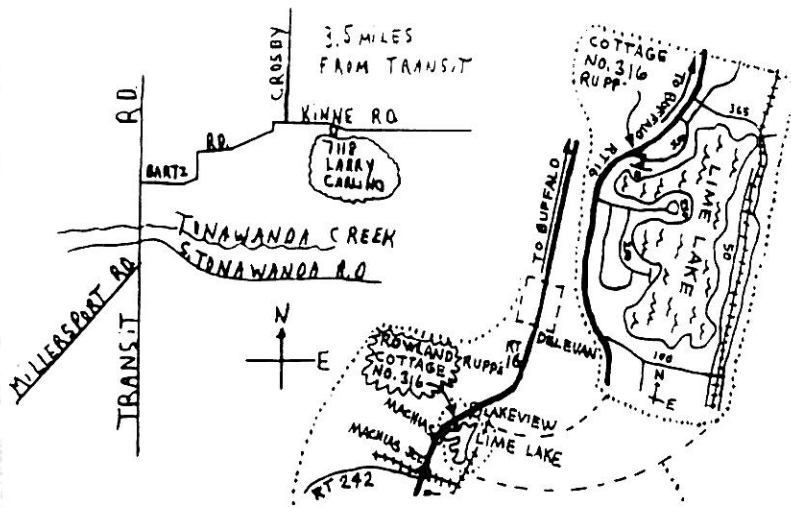
**August 19:** Public Night dusk till 10pm.

**Observatory Report:** By now I should have the refurbished 12" mount back at the Observatory. It will take several nights to align the mount to true north. While this is being accomplished I will be checking out the new drives and making adjustments. Observatory users, PLEASE KEEP YOUR HANDS OFF THE MOUNT. Any troubles, please inform me and I will get them rectified. If there are too many people playing with the mount, it will be hard to figure out what is going on. **Astronomy Day** was a huge success! Although not too many showed up for the daytime activities, we had 50 to 75 people show up at dusk. Rowland gave a talk, and 5 minutes after he was done, the room filled up with new people who wanted to hear him speak. The Public seems to really enjoy some sort of talk on astronomy even if it is clear out!!! So if you have a short talk on simple or at least of general interest, let Bob Titran or I know, and we will schedule you for a public night talk. We also could use someone to give a constellation talk or one live with the stars. The Public Night after the Club meeting will be designated CCD Camera class night. CCD camera classes will be held during public day activities during the summer when the club doesn't meet.

Special projects: There has been an interest expressed in digital setting circles for object acquisition on both the 12 and 20, real time CCD camera for the Observatory ( like Gene W's), filters, eyepieces. If you wish to head any of these projects and make a proposal to the board, see Bob Titran or Dan Marcus.

★Daniel Marcus

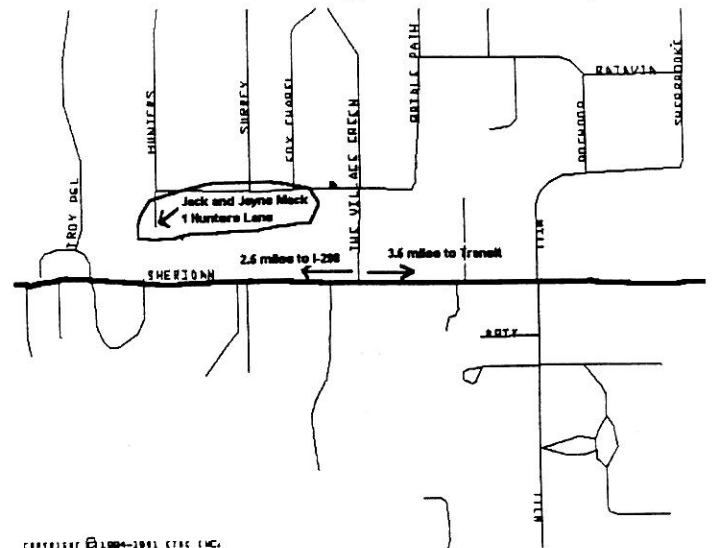




Starting from the "S" which is underlined, go around in a clockwise motion from the SUN to an area from whence come COMETS.....

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THE SPECTRUM

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**FIRST CLASS MAIL**