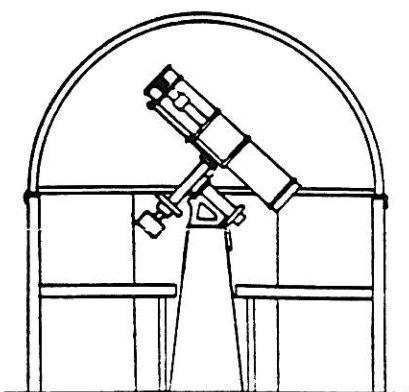


THE SPECTRUM

JULY - AUGUST
1991
SUMMER ISSUE



BUFFALO ASTRONOMICAL ASSOCIATION, Inc.

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DARWIN CHRISTY	"SPECTRUM" EDITOR

A TELEPHONE HAS BEEN INSTALLED AT BEAVER MEADOW FOR EMERGENCY CALLS AT NO COST. IT CAN, HOWEVER, BE USED TO MAKE DOMESTIC CALLS FOR 50 CENTS FOR THE FIRST 3 MINUTE AND 10 CENTS PER MINUTE THEREAFTER, PLEASE ABIDE BY THIS RULING. THANK YOU! THE NUMBER IS (716) 457 3104."

TAXACOM COMPUTER BULLETIN BOARD
PHONE - 896 7581
FOR MORE INFORMATION, CALL JACK EMPSON - 694 3814

STAR PARTIES

Never been to a Star Party? Bring all your "Astro Toys"... smaller scopes, large scopes, binoculars. Have a light pollution filter? Bring it along. Some filters work better at different locations, due to the differences of the lights. This applies especially to the Observatory, as we are looking into filters for it. Spouses, and children are welcome. Feel free to see if the host needs help with food and drinks. On bring a dish parties, it is helpful to consult the host to see what you might bring.

Note: All events are rain or shine! The Mack's party is the only Friday event, and Beaver Meadow Open House is Sat & Sun. The rest are all Saturday events.

June 22: Hosts Irene and Rowland Rupp invite you to their cottage at Lime Lake, starting at 1:00 pm. This is a bring a dish to pass party. The Rupp's will supply the hot dogs, hamburgers, and drinks. There will be the usual loosing at horse shoes (anyone have a nice magnetic pair we can borrow? Maybe then we will have a chance). For those who prefer to do more enjoyable things than loosing at horse shoes, can go boating, swimming, and in general relax. P.S. Don't miss the evening boat ride. Cottage phone 353-4636, home 839- 1842.

July 6: Public Night at Beaver Meadow Observatory dusk to 11:00 pm.

July 11: Solar Eclipse, see S&T or Astronomy magazines for more details. Remember there is a solar filter at the Observatory.

July 13: Lawrence Carlino invites you to visit his dark skies at 7118 Kinne Road, Rapids (by Lockport). Phone 433-3432. Larry has long been the leader in the "Astro Toy Club". He currently uses a 22.5" Dob, and 6" APO refractor, along with an assortment of other scopes and accessories! If clear, we should be able to do some serious astronomy!! So come on out, the party starts at 8:00 pm and will last till 1:00 am. Bring a scope to pass! This is a good place to check out your scope's performance.

July 20 & 21: Beaver Meadow Public Weekend. Saturday 10 am to 5 pm and 7pm to 11pm. Sunday 1 pm to 5 pm.

Come bring a computer, scope, pictures, or just bring yourself!, and show the public the stars. PS get solar report durring public day hours! 457-3104

July 29, *Friday* Jayne and Jack Mack invite you to their house at 1 Hunters Lane, Williamsville starting at 7:00pm. Phone 632-6210. The Moon will be full, but the "Mack Machine" has Voyager on it so we can have fun rain or Moonshine. It is a great place for deep thoughts on astronomy. Children are especially welcome, since the yard boasts a sandbox, a fort, and a cottage for the kids to play in!

August 3: Public Night at the Observatory. Dusk till 11:00pm

August 10: Melissa and Dan Marcus 23 Riverdale Drive, Grand Island. Phone 773-5105. They invite you to come for a swim at 7:00pm. The 12.5" will be set up for photography, and the Darkroom will be open, so bring a camera and B&W film.

August 17: Public Night at Beaver Meadow Observatory. Dusk till 11:00pm.

August 24: Bill Smith is organizing a trip to the Strossenberg Planetarium in Rochester. We also hope to see Richard Albrechts scopes. Write or call Bill Smith at 184 Creek Road, Jamestown, New York 14701. Phone 1-664-0841, or call Dan Marcus at 773-5015 to arrange for carpooling or to find the meeting point in Rochester.

Daniel R. Marcus

MAPS TO BE FOUND ON PAGE 7.

ELECTION RESULTS

The election for the Board Members was held with the following results; all for two years:-
Edith Geiger

Kenneth Kimble

Tom Nigrelli

!Congratulations!

ASTRONOMICAL HAPPENINGS

SOLAR: The Sun will pass from Gemini (the Twins) into Cancer (the Crab) on July 19th and then into Leo (the Lion) on August 9th where it will remain until September 12th. July 6th the Earth will be at aphelion or farthest distant from the Sun. On July 11th, there will be a total eclipse but a partial eclipse will be seen from throughout North America except Alaska. Time of the eclipse for our area will begin about 2:30 PM EST and end near 3:15 PM EST; or for those eclipse chasers, you will find it across the Ba. Peninsula or the southern coast of Maui in the Hawaiian Islands.

SOLAR CONJUNCTIONS: Jupiter - August 17th; Mercury (at inferior) - August 21st; Venus (inferior) - August 22nd.

SOLAR OPPOSITIONS: Uranus - July 4th; Neptune - July 7th; Saturn - July 26th.

LUNAR: The Lunar phases for July & August are: New Moon on July 11th & August 9th; First Quarter Moon on July 18th & August 17th; Full (BUCK) Moon on July 26th & Full (STURGEON) Moon on August 25th; Last Quarter Moon on July 4th & August 3rd.

LUNAR ECLIPSE: The penumbral eclipse will occur on July 26th, but will not be seen in North America or Hawaii.

LUNAR CONJUNCTIONS: Mercury - July 13th & August 11th; Jupiter - July 13th; Mars - July 14th & August 12th; Venus - July 14th & August 11th; Uranus - July 24th & August 20th; Neptune - July 25th & August 21st; Saturn - July 26th & August 22nd.

PLANETARY CONJUNCTIONS: Mercury & Jupiter - July 15th; Venus & Mars - July 22nd; Mercury & Venus - August 7th & 29th.

PLANETARY EVENTS: Venus' greatest brilliancy - July 17th; Mercury at greatest elongation 27° east - July 24th; Venus stationary - July 29th; Pluto stationary - August 2nd; Mercury stationary - August 6th and 30th.

MINOR PLANETS: Vesta in conjunction with the Sun - July 9th; Juno at opposition - July 16th.

OBSERVATORY REPORT *457-3104*

HELP!!(needed) for Beaver Meadow Observatory Public Nights on July 6, and July 20!!

PUBLIC WEEKEND on Saturday July 20 from 10am to 5pm and on Sunday July 21 from 1pm to 5pm. I NEED people to man the scopes, bring computers, bring pictures, and have a good time enjoying the Beaver Meadow Summer Festival. The more people the merrier! The Audubon Center will be having lectures, trail walks, and lots of people, especially if the weather is nice. It's a great time to show all the people that the funny looking building is really a working Observatory. If you have not had a chance to use our white light solar filter, come on out and lend a hand. With enough people, we can work in shifts, and get a chance to enjoy the Festival.

OBSERVATORY PROJECTS: As usual we have lots of ideas, and not enough get up and go to do them. I have not had the time required to push any of the current projects, so I need people with the willingness, and the time to lead a project to completion. September 21, there will be a repair and photo session at 3:00pm and ending after public night. I will be glad to talk to anyone willing to lead a project, and coordinate the ones we wish to tackle. Once we get our selves organized, we can make our proposals to the Board for approval. Some suggestions are: Finish our Bell tracking mount, CCD imaging, computer, big scope, (short wave, already loaned to us by Dave Fliss-thanks Dave), pollution filters, 90deg diagonal for refractor, color filters, H alpha filter for Sun, Burnhams all three vol. (we currently have a \$25 gift certificate for the Nature Company, am looking into cost), new guiding eye piece with out a cord for power, larger storage/warming room, sidereal clock, larger map table, and make book shelves. If you have any other suggestions, let me know.

OBSERVATORY REPAIRS: People are needed to repair: rug on Observatory floor, fix tube cork lining, lock for inside front door, replace hook and eyes for roof with through bolts, free up tube bearing, dimmer for map light, level front and side steps, repair/replace casements for windows, repair electrical outlets and install GFI protectors. Will discuss on Sept 21 at 3:00pm during our repair session, at the Observatory.

P.S. its our Observatory, so if you want to have fun with it come on out, and give us your support.

Daniel R. Marcus

INSTRUMENT NOTES

There were seven members present at our last instrument meeting. We collimated a catadioptric telescope using the gray overcast sky as a diffuse light source. There were no stars visible but the nearly full moon managed to burn through the murky sky so that it was possible to adjust the alignment of the finder with the telescope.

We then returned to our long term project. This consists of adapting a telescope to a fine mounting donated by the Bell Aerospace Corporation. Unfortunately this is one of those jobs that seem to go on forever.

Our present slow pace brings back memories of the Newstead Observatory. This was an overly ambitious undertaking for a small club. BUT WE DIDN'T KNOW THAT! We just kept whittling the different problems down to size, finishing each one off and then going on to the next. We had a great incentive. The club had no telescope nor observatory. We went from nothing to a domed observatory with a permanently mounted telescope in one giant step.

The start of the work on the Newstead Observatory was the result of a dream and about ten years of discussion at nearly every club meeting. "Should we or shouldn't we have a club observatory?" After a while I sensed that there was considerable interest and I began to grow tired of the endless discussions. I called a meeting at my house in the late 50's to decide on a size and design of the telescope. Starting with a blue sky suggestion that we make a 36-inch telescope, we finally got down to earth and would be happy with a 16-inch telescope. I decided to volunteer to make the mirror but I sensed the difficulty of handling a 16-inch blank. I made the proposal that if the group would settle for a 12½-inch telescope, I would make the mirror. I was surprised at how rapidly an agreement was reached. Ron Clippinger volunteered to design an observatory big enough for a 16-inch telescope. Ed Stoklosa volunteered to make the mounting and he got willing help from Frank Fronczak. Any one of these three subdivisions of the task was in itself a big undertaking. If anyone had bogged down, the end result would have been greatly delayed. It is to our credit that all of the big tasks and innumerable little problems were completed and we achieved a working facility. We simply kept going on all fronts. Ed Stoklosa would sense that some area was slowing down and he would exhort us to "GET OFF OF DEAD CENTER."

Our present telescope project seems to be going along too slowly. But this is normal for all projects at times. We have only minimum motivation since there is a completed observatory with a permanently mounted telescope and several other small scopes that can be made available by members. So the making of another telescope doesn't have a strong incentive. We have mechanical experts working on the problems and it should be finished all in due time. I have been reluctant to offer much help as my eyesight is so poor that I am afraid to use power tools. Other members work under time constraints. There is only so much time available to any of us.

Another interesting project that is looming on the horizon is a proposal by our new member Russ Bly that we make a computer controlled telescope. For details on this intriguing idea, see Russ' write-up following this article.

Ed Lindberg

A NEW CLUB PROJECT ?

The last "SPECTRUM" issue stated that the instrument section is in need of a focus. It seems many of the members don't have the time or interest in making a mirror from scratch. But- they may have time and interest in putting one together - mount, tube, etc. Lull-and-Behold, a miracle!!!!

I was fortunate to be given a 10-inch mirror from a wonderful instructor at a Texas college I attended. The mirror only needs to be stripped, tested and recoated.

This could be a new start for the TM's. Another thought comes to mind: how about a computer controlled telescope? This project could incorporate the skills and interest of many members. This would lessen the load on each who is involved, and has the benefit of more ideas generated during its production.

Computer controlled telescopes are becoming quite popular with astronomy clubs, especially for astrophotography. And there is plenty of literature on the topic.

I feel a project such as this would be beneficial for the association, and could enhance public observing nights. Anyone who is interested or whom has something to input can contact me weekdays or Saturdays at 762-8304.

Russ Bly

BUILDING A SOLAR PROJECTION SCREEN

Although solar projection won't rival direct solar observation with the appropriate filters, the proper projection screen can be capable of showing the "rice grain effect" of solar granulation when the seeing is steady.

It will even be possible to discern detail inside a large umbra and the Wilson and reverse Wilson effects. The Wilson effect is where a sunspot very near the limb shows as a depression in the solar surface, like looking at a coffee cup saucer right side up but at an angle. The reverse Wilson effect is taking that saucer and turning it upside down then looking at it at an angle, as if the spot were bulging up and out of the solar surface.

Some of the screens I've used over the years were typing paper of one or more thicknesses, a white painted plastic sheet, fingerprint paper, paper white and off-white, paper sprinkled with talcum powder and lightly lightly dusted off, the back of photo paper, developed and fixed white glossy photo paper, and a silver colored lenticular movie screen. All of these were pretty good (flat white painted plastic sheet) to totally useless (movie screen).

The requirements for a top-notch projection screen are:

1. Surface must be as smooth as possible to show the finest detail.
2. Surface must be as glare-free as possible so the fine detail is not lost in any glare.
3. Surface must be as evenly white as possible so any solar colorations are seen in their true values.

Several sources make the obvious point that the screen must be shaded from any sunlight falling directly on it. They even recommend enclosing it in a box-like affair. But what I've found is that for the best image, any secondary reflected light, even from the viewer's clothing must be preventing from falling on the image.

My procedure is to set up my 94mm f/7 refractor with diagonal and a 16mm Konig eyepiece to throw the solar image to the side. The image, about 10 or more inches across, falls on a white screen fixed to the bottom of a large cardboard box whose flaps are positioned to shield the screen from direct and reflected light. The box stands upright on a small table. The screen is adjusted to be as perpendicular to the eyepiece as possible so the solar image is a true circle not an ellipse. The center of the eyepiece field is projected to the center of the screen to avoid distortions produced off axis.

I then take a large piece of black cloth and drape it over the box and end of the telescope to put me in shadow and avoid the last bit of reflected light. For group viewing, the cloth probably won't be necessary, but for the finest image it's definitely a plus.

I've used a 16mm Konig for a wide field view and 10.2mm and 6.8mm orthoscopes for detailed views of spots with the resultant illuminated circle up to 14 or more inches across. The higher powers show the granularity better, but for group viewing the Konig allows the image to drift for quite a while before the telescope needs readjusting on its alt-azimuth mount. Changing the eyepieces changes the image size without moving the projection screen. In fact, moving the screen farther back for a larger image degrades it much more than going to a higher power eyepiece. This is a plus that once the distance is set up, it need not be changed. The drift of the image also makes it easier to see fine detail and even an occasional tap on the telescope to make the image dance brings attention to small or low contrast items.

Changing the eyepieces also prevents them from heating up, though I've never had a problem so far. I use the same eyepieces for deep-sky and planets at night. But use the best eyepiece you can afford to lose if the lens cement melts or discolours or something cracks. Orthoscopes give very good images. I also move the telescope away from the sun for a few minutes every ten or fifteen minutes to keep everything cool as one book suggested.


The construction of the actual projection screen is not difficult or expensive. I used an empty TV tray table box, about 22 by 30 by 9 inches with the flaps (as movable light shields) left on. Spray the interior flat black with several coats. The blacker the better. The entire bottom need not be painted as it will be covered by the separate projection screen, but any area not so covered must be painted flat black. Spray the inside of the flaps also. I used Design Master flat black #725 purchased from Pleasures and Pastimes but any flat black should work as well. This particular paint is acetone based and almost five dollars a can but can be used with glass, paper, foam and flowers and doesn't shrink, melt or swell anything I've yet painted with it. Spray the outside of the box with a thin clear plastic coating. This will keep dew and wet from sinking into the cardboard and warping the box out of shape.

For the screen itself, you must use Design Master flat white #726. This is applied in many thin coats on smooth poster board, \$.79 at Papercutter, next to Pleasures and Pastimes at Southgate Plaza. Buy two sheets in case something happens to the one you are making.

Before painting the posterboard, take round head paper fasteners and attach the board to the bottom of the box, one fastener through each corner. Doing this will make it easier to remove the screen and repaint it if ever needed. Once the poster board is attached and everything is flat and bulge free, remove it for painting.

First, paint the back of the poster board (least smooth or shiny side) flat black to avoid any possibility of back-scattered light. Now spray about six or eight thin white coats on the smooth side, waiting for each to dry before applying the next. Spray every other coat at a right angle to the previous one. You want to put as thin, as even and as pure a white coat on the poster board as possible. Then with everything nice and dry and aired out, attach the projection screen to the box with the paper fasteners. Once this is done, don't let anything touch the surface. Use the other poster board as a protective cover for the screen, then close the box flaps to keep everything clean between observations.

The box can be made to any size you want, the only requirements is how bright the image at however large you want it. I really like this system because the "huge" 4 by 6 inch solar images you usually see recommended in books never really showed me anything except some black dots (the larger spots). This equipment with practice, good seeing and a cloth hood can show pores the size of granules and detail inside the umbra!

 Dave Fliss

BAA ANNALS


5 YEARS AGO - As usual there were no formal meetings in the summer, because summer is the time for star parties. In 1986 hosts for parties were Ken and Diane Biggie, Brian Fallon, Jack and Jayne Mack, Jack Empson, Dan and Melissa Marcus and Tristan and Debbie Dilapo. Tristan's parties were held at Club Coco in those days and were great fun. We observed from the roof, and I, for one, found the skyline and activities of Allentown more interesting than the light-polluted sky. There were observation reports in the SPECTRUM by Michael Idem and Carl Milazzo, as well as a profile on Dan Marcus written by Edith Geiger. Darwin Christy contributed an article on the Oort Cloud of comets.

10 YEARS AGO - Star parties aren't the only events during the summer months. In 1981 the SPECTRUM mentioned a number of special summer activities: public night at the Lockport Astronomy Society's Remick Observatory, Stellafane in Vermont, the Syracuse club's Seminar as well as our own public nights. Hosts for 1981 star parties were Miro Catipovik, Larry Carlino, Steve Desmond, the Biggies and Larry Hazel. A weekend at Mees Observatory in Rochester was also planned.

The second half of Ken Biggie's article on building Beaver Meadow Observatory appeared in the SPECTRUM. Comets were the subject of Carl Milazzo's article "Celestial Icebergs". Rowland Rupp wrote an essay on "Observations on Observing", highlighting different motivations for amateur observing.

15 YEARS AGO - New officers for the 1976 to 1978 term were announced in the SPECTRUM: President—Fred Price. Vice-President—Ken Biggie. Secretary—Rowland Rupp. Treasurer—Tom Dessert. Only two star parties were planned—one at Bill Deazley's, the other at Tom Dessert's. Star nights were to be held at our new Beaver Meadow Observatory on the other weekends.

I have no copies of the SPECTRUM for the summers of 1971 or 1966. If anyone has a spare copy for either of those dates (assuming they were published), please let me have it for the archives.

 Rowland A. Rupp

SPY and TELL

Wade Sigurdson, who is a Post Doctoral Fellow at the University of Buffalo, is speaking in Japan the last two weeks in August at the International Conference on Comparative Biochemistry and Physiology. He will be speaking in Nagoya and Tokyo. His specialized work is on "stretch affected ion channels."

Lynn is also a Post Doctoral Fellow studying endocrinology at Roswell, and specializing in mammary glands. Lynn is hoping to be able to accompany Wade to Japan.

The June issue of Astronomy magazine (pg. 89) shows some sketches by Fred Price of Mars at Opposition.

Rowland Rupp has been helping young folks to become interested in astronomy. He gave three evening classes for the West Seneca Girl Scouts to assist them in earning their astronomy merit badge. The scouts also attended a Beaver Meadow Public Night where they enjoyed Rowland's tour of the sky. He also gave an hour talk on the Voyager Space Craft to the 4th graders at West Seneca Clinton Elementary School.

Patty Rupp started her internship in internal medicine in New Hampshire in a hospital associated with Dartmouth.

Joel Stuckey and Tristan DiLapo have been using Tristan's CCD camera at Beaver Meadow.

Leonard Milks made a spotting scope mounting ring for Ed Lindberg's instrument class. Leonard has been very pleased with his 8" 2080 LX5 Meade which he has had for four years.

John McFadden teaches at Bryant & Stratton where his subject area is computers. Besides his interest in astronomy, he finds pleasure in reading science fiction.

Jerry Morris was the piano accompanist for the vocal folk group at the Senior Awards Ceremony at Cardinal O'Hara High School. In August, Adrienne and Jerry and their two daughters will be going to a week long Christian Family Renewal Camp sponsored by the diocese of Rochester. Lisa will be attending kindergarten at St. Amelia's this fall. Tempus fugit.

Adrienne and Jerry were fortunate in seeing a brilliant aurora in the wee hours of the night before it was reported on the TV News.

Gus Foit is looking for a telescope and will appreciate any advice or assistance he can get.

On May 2nd, Darwin Christy received from the Tonawanda Lodge 247, a Dedicated Service Award from the Free and Accepted Masons of the State of New York. The certificate, with the seal, was signed by the Most Worshipful Grand Master of New York State. Along with the certificate, Darwin received his own apron on which Dedicated Service Award is printed. The apron is in a carrying case. He also received a pin which he can use as a tie tack or lapel pin.

Arthur Russ, having read the Cuckoo's Nest by Cliff Stoll, was very impressed with the book and decided to contact Cliff by computer network, to which Arthur belongs, to tell him how much he enjoyed it. Cliff communicated with Arthur by computer and told him of the pleasant memories he has of his home town of Buffalo, and mentioned the BAA wishing to be remembered to his friends.

Here is a rather zany item from Leonard Chrosniak. He reports that his 96 year old wife is expecting and Smithsonian is going to cover the event, and they're having the baby gold plated. How's that for a doozy contribution!

Edith L. Geiger

FOR SALE

Smithsonian Astrophysical Observatory Star Catalogue - my cost - your cost \$60.00 - used only twice. --- Burnham's Celestial Handbook - \$15.00 takes volumes I, II & III. Other astronomical books at popular savings. Call --- Carl A. Kalweit - 884-3850 after 4:00 PM.

ESSAY REVIEW LIGHTON THEORY

The president of an astronomy club often receives in the mail the latest news in physics and astronomy. A recent example of this benefit is an essay entitled "The Lighton Theory" by Barney I. T. Doyle which is available from:

Barney Doyle Press
P.O. Box 431
Caldwell, NJ 07006

His theory, compacted into four pages, addresses the issues of electromagnetic theory, red shift, magnetism, gravity, momentum and inertia. Brief explanations of the nature of the universe and of God are contained here as well, as a sort of bonus.

Lightons are particles composed of sub-galaxies and, as a medium, have fluid properties that enable them to pass easily around material objects, which is why Michelson and Morley were unable to detect them a century or so ago. For those of you who don't know, there is a ladder of particles topped by galaxies, followed by electrons (which generically contain all other atomic particles), and terminated by lightons. Each category, apparently, is composed of particles on the next lower rung. In addition, there are three groups of these general categories prefixed by super, normal and sub. So, at the top rung we have super galaxies, followed by super electrons, and at the bottom we have sub-lightons. The composite of all these particles is God!

This theory leads to important propositions which are summarized here:

1. Red shift may result from conduction losses incurred by the flow of lightons. Therefore, the universe is not expanding; it is in a steady-state.
2. Magnetism is caused by the flow of lightons.
3. Gravity, momentum and inertia are caused by the flow of lightons through material substances. (I am unable to reconcile this property with the previously identified characteristic of lightons' having escaped detection because they flow around everything.)

Anyway, if you are curious about this new theory, you may wish to contact Mr. Doyle at the address given earlier. Several hard-to-read textbooks may be replaced by this single four-page document. You may find all the explanations fuzzily put forward by Newton, Maxwell, Einstein and Hubble instantly clarified.

Rowland A. Rupp

ANCIENT CONSTELLATIONS

CERBERUS

To Cerberus too a place is given ---
His home of old was far from heaven.

Quoted from Smyth's
Bedford Catalogue.

CERBERUS, This sub-constellation was a former adjunct of Hercules. Now it is entirely disregarded by astronomers. It is supposed to have originated with Hevelius in his 'Firmamentum Sobiescianum.' Flammarion asserts that it was on the sphere of Eudoxos with the Branch. Fourth and Fifth magnitude stars were assigned by Hevelius which were Flamsteed's 93, 95, 96 and 109 which lay half-way between the head of Hercules and the head of the Swan.

King I, the royal poet, designated the infernal Cerberus as, "the thrice headed porter of hell." In Greek Myths it is described as having a head of snakes for hair. The heavenly one was so figured with serpent's darting tongues. Hesiod also described it as having 50 heads. The abode and task of the creature would seem to render very inappropriate his transfer to the heavens, making it probable to be made for the purpose of mythical completeness. The death of this dog-watch of Hades was appropriately rounded out the circle of Hercules' twelve labors (mentioned in the constellation Hercules in a past issue of the SPECTRUM).

Pluto, the third son of Saturn and Rhea was given the lower regions while the Heavens were given to Jupiter, so was the oceans given to Neptune. Pluto dwelt in Tartarus, the palace of the gods in the lower world and their train. It was spread a long way into the bowels of the earth, and was surrounded by a triple wall of brass where no dead mortal could ever penetrate into Tartarus. This all being described as the keeper and gate to Hell. Pluto's part was to stop the dead from getting out of prison, and to prevent any over-curious from entering before they had died. In ancient times a medal picturing Cerberus always with Pluto at his side.

Hesiod states Cerberus to be the offspring of Echidna and Typhon, the two most terrible and troublesome of the giants that tried to storm heaven. His BARK was terrible enough to cause hell to tremble and when loosed from his chains, even the Furies could not tame him. He guarded the entrance of Tartarus, the regions of the dead and fawned on those who tried to enter. Those who attempted to return, he seized and devoured them. On prominent buildings in ancient times, he was shown as being chained up by the side of Hercules who is said to have dragged him up from the lower worlds and controlled him thereafter.

This figure has been said by others to typify the serpent destroyed by the Hero while it was infesting the country around Taenarum of Greece or the modern Cape Matapan.

Poniatowski's Bull was made up from unformed stars in the constellation Ophiuchus of chiefly telescopic in nature. Only 20 to 25 are visible to the unaided eye, but as a distinct constellation not generally recognized by astronomers. Those stars have since been returned to Ophiuchus.

This constellation came from Abbe Poczobut in 1777 to honor the King of Poland, Stanislaus Poniatowski.



Membership Corner

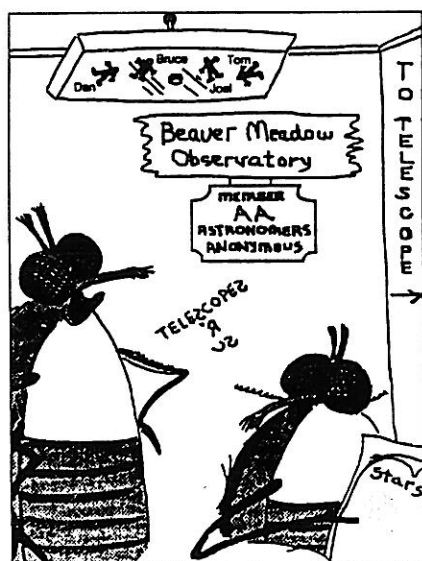
by Bruce Newman

The following individuals have joined the BAA since the publication of the 1990-1991 Directory:

Elaine Bilicki	668-8956
Russell Bly	762-8304
Joseph Drabek	668-2762
Thomas Duschen	433-1862
William Hoffman	694-8561
Thomas Loncto	873-5739
Joseph & Beverly Orzechowski	839-9109
John Raymonda	691-9274
Blake Reeves	833-6697
Frank Ricchiazzi	877-6521
Herbert Tinney	833-0959
Gerald & Michael Wisz	633-1293

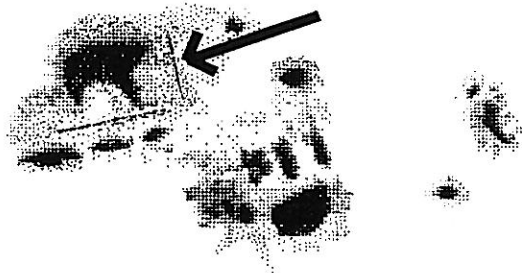
Welcome to the BAA! As of June 13th, our membership now totals 117.

Someone is not reading their Membership Directory. I never received any calls regarding the new way of portraying the constellation Lyra as drawn on the inside back page. Since the drawings were done on a computer, maybe I could blame it on a computer virus!



"Good grief! ... Didn't we clean out that light just last week?"

Sunspot Grouping



On Sunday, May 5, 1991, at 16:35 EDT (20:35 UT) I observed a rather strange looking sunspot group. The group was located just north of the solar equator and was directly in the middle of the sphere. The drawing above is a fairly accurate representation of what I saw in the eyepiece. Can anyone explain the two straight lines that were at 90° of each other? If you think that all sunspots are small, round, black dots, this observation should change your mind.

Bruce Newman



This

SPACE

could

have

been

filled

with

another

OBSERVATION

REPORT



"SPECTRUM" DEADLINE

for

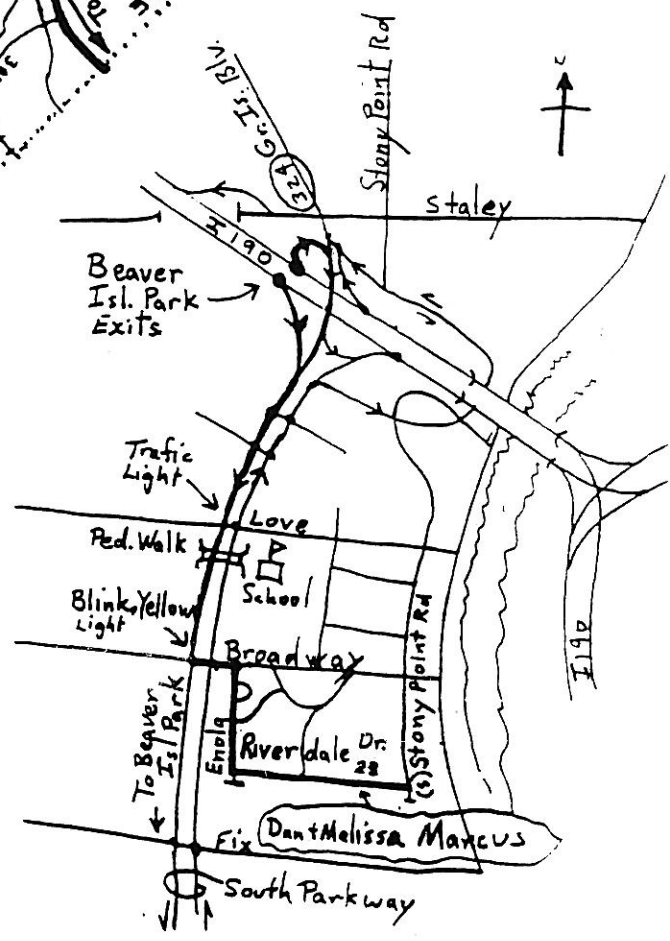
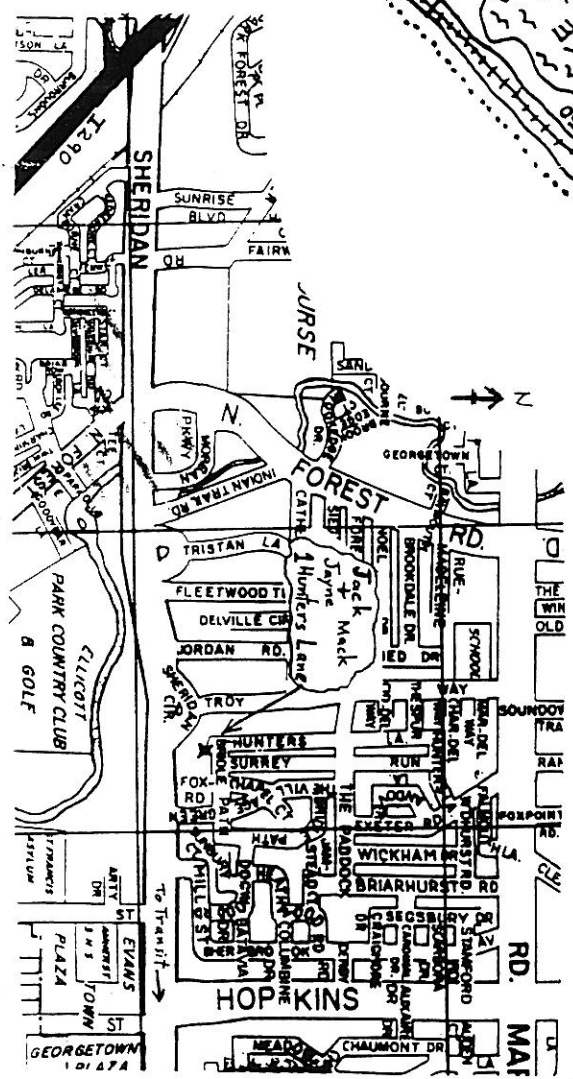
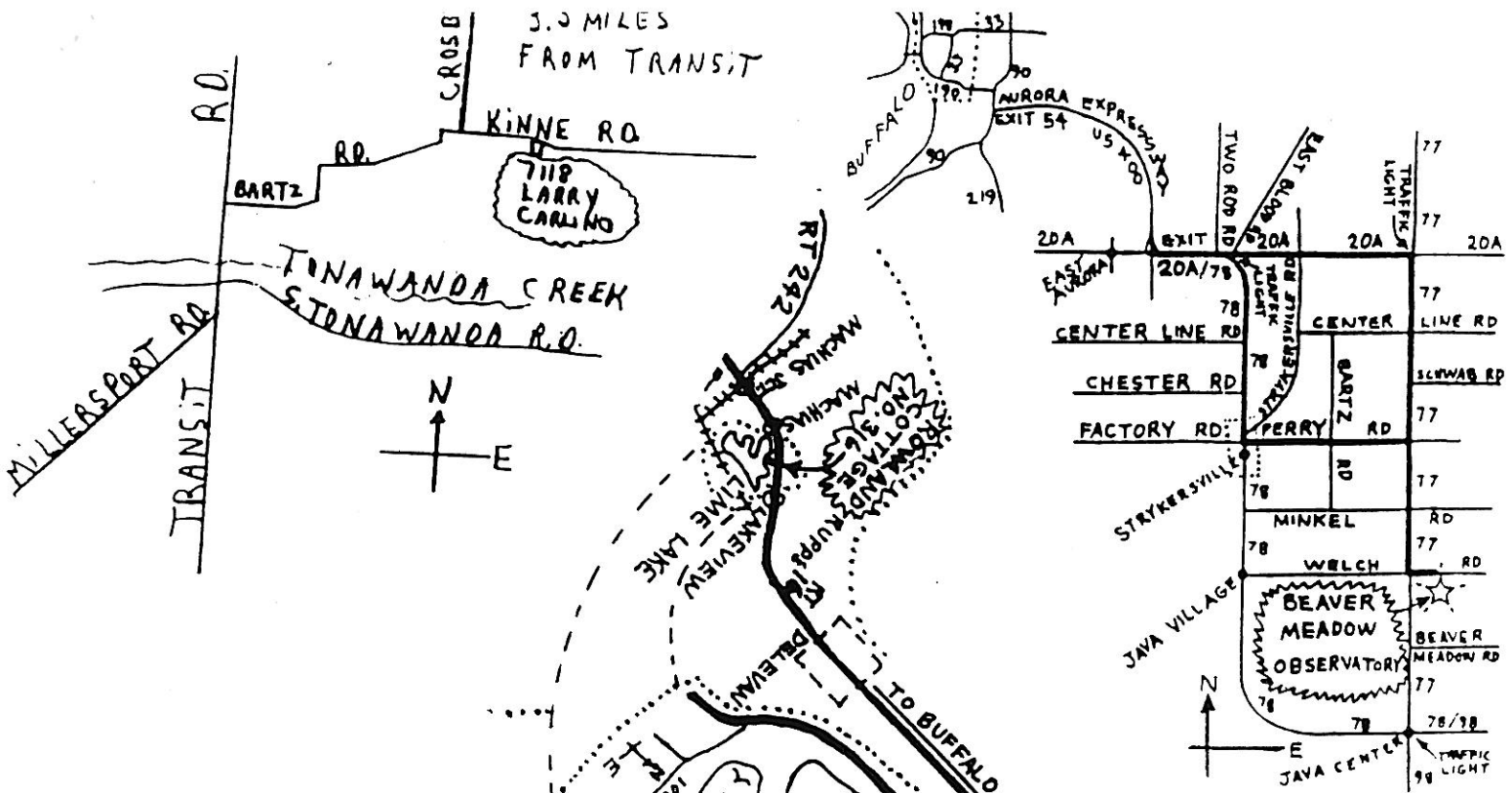
The SEPTEMBER-OCTOBER ISSUE is AUGUST 16th 1991

PLEASE take note as I will require all articles by that time. OBSERVATIONS, SHORT NOTES, SMALL & LARGE ARTICLES and any kind of TRIVIA one might be able to give. Thank you, dpc Editor-----



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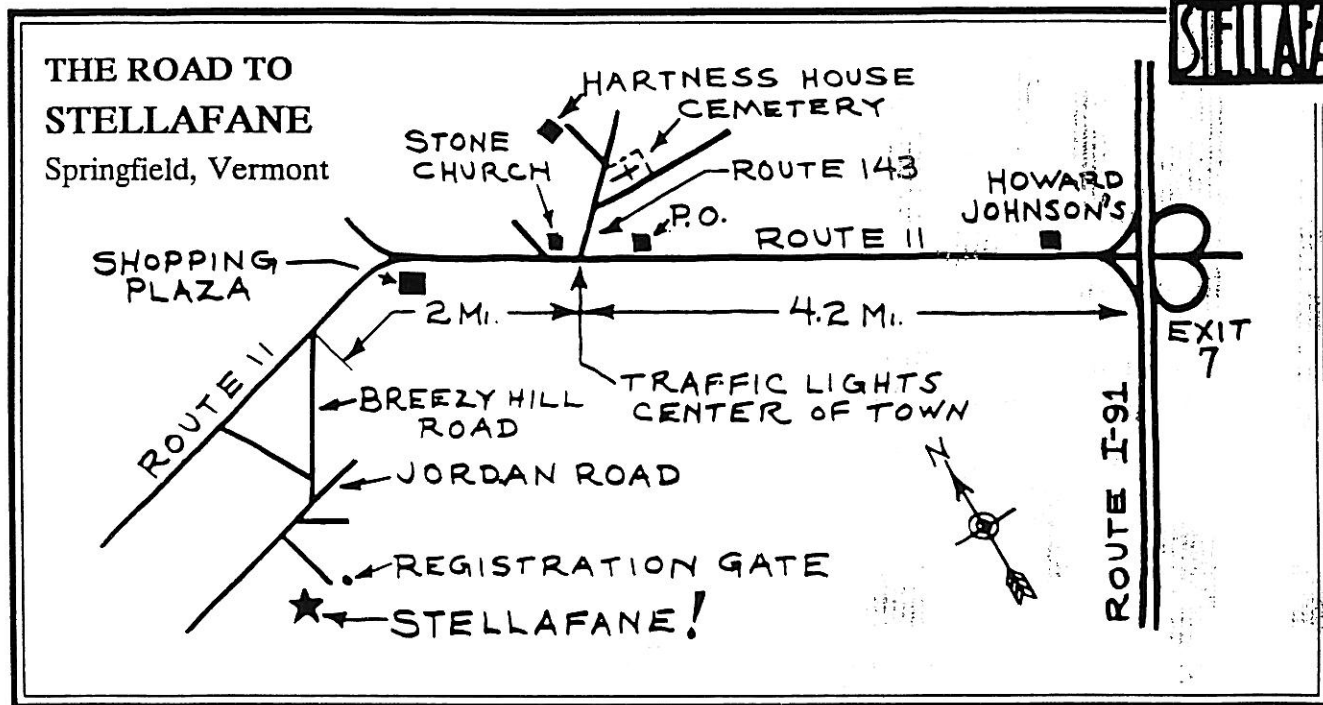


STELLAFANE

1926-1991

Saturday, August 10, 1991

The 56th Convention of Amateur Telescope
Makers on Breezy Hill in Springfield, Vermont.



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