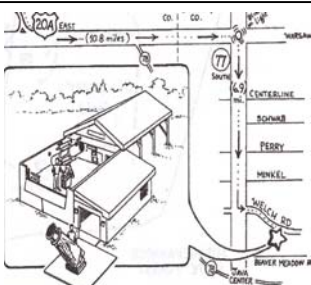


# The Spectrum



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BAA Observatory (BMO)

## William Optics 80mm Megrez II ED Optical Tube

Lawrence Carlino

In the vast gulf that separates inexpensive entry-level short-focus refractors from their high-priced apochromatic brethren, VALUE becomes the focus for many who seek a quality "grab and go" telescope without breaking the bank. Yet, between the compact Chinese-made achromats such as the Orion Short Tube 80 and the superb but expensive instruments from Takahashi, TeleVue, Stellarvue, and TMB, the choices have been quite limited. Certainly, the fine achromatic Stellarvue Nighthawk has developed a loyal following, and the Orion 80mm ED is highly regarded. But for those who desire APO performance coupled with superior mechanical quality, fit, and finish, there is a new and unique player in town.

The William Optics Megrez II ED is evolved from the previous generation of Megrez II semi-APO doublets, but it utilizes an air-spaced triplet lens design to provide claimed true APO performance. Priced at \$798, the new ED scope uses the same beautifully crafted tube assembly as WO's top-of-the-line fluorite triplet APO, a smooth rotatable 2-inch Crayford focuser, retractable dew shield, tastefully executed gold trim, and a backpack-style carrying case. Parts are cnc machined into an aesthetically pleasing instrument that could easily serve as a living room work of art when not in use under the stars. A matching finder bracket to accommodate WO's 6x30mm illuminated finderscope (or, in my case, a gloss black 6x30 Celestron unit) is an optional accessory. An L-bracket "shoe" on the bottom side of the scope has a 0.25-20 female thread for attachment to a variety of tripods and mounts, but a pair of inexpensive 90mm tube rings from Orion fit the tube perfectly and permit even more mounting options. Total weight of the Megrez II is 5 pounds and dew cap retracted length a mere 15 inches, so a relatively light-weight mount such as a Universal Astronomics Unistar light or TeleVue Tele-pod will provide adequate stability for visual observation. The heavier TelVue Panoramic mount creates a beautiful and very sturdy combination.

Putting the Megrez II to the test under late autumn and early winter cloud cover in the Northeast became an exercise in frustration, but an occasional "sucker hole" in the overcast and a handful of clear nights finally allowed an evaluation of the scope's performance. One factor became immediately apparent: the black-anodized 2-inch extender tube provided with the M II was essential in reaching infinity focus, and then, only with a 2-inch mirror star diagonal. Though the tube of the Megrez is the same length as that of the shorter-focus WO fluorite APO, its longer 560mm focal length (f/7) pushes the focal plane well beyond the confines of the tube. This is a wonderful feature for prime-focus photography or bino-viewer, but it precludes straight-through or 1.25" diagonal visual observing without additional extenders. The configuration also makes the scope slightly "tail heavy". This minor quirk aside, I finally managed to get a good look at the first-quarter moon - an effective initial test of color correction and contrast. Impressive! The characteristic purple fringing of an achromat was completely absent at 80x using a TV Nagler 7mm Type 6 eyepiece. Shadows in the lunar Alps near Plato and the Alpine Valley were black and vividly defined. Detail in the heavily-cratered lunar south was satisfyingly sharp and surprisingly bright for the scope's 80mm aperture. A few days later, when Copernicus popped into view, the crater's terraced walls stood out in stark contrast at 112x (5mm Nagler Type6), and the chain of coalesced craterlets nearby was well defined. Even the tiny rill Rima Birt near the Straight Wall could be glimpsed when the air steadied. Pushing the little refractor to 200x with a 2.8mm Takahashi LE eyepiece showed only a slight softening of the image, but no obvious false color.

With Saturn finally attaining reasonable altitude, the ringed planet became an attractive target. At only 80x, the Cassini Division stood out boldly, and the "C" or Crepe ring was just visible as it crossed the disk of the planet. At 112x, the South Equatorial Belt(s) were easily seen, and the dusky South Polar Hood could be discerned. Titan and Rhea were easy to pick up as the Megrez' excellent baffling provided a black, high-contrast background. Focusing, however, at this power and above was touchy: a little inside or outside of perfection yielded a greenish or red cast. Overall, I would have to rate the image quality as very good, but not quite up to the lofty standard created by the superb Takahashi FS-78 fluorite apochromat. *(continued page 6)*

## Election Of Members To The Board Of Directors

Nominations for three Board Members-at-Large to serve a two-year term starting in September will be submitted at the May general meeting, at which time additional nominations from the floor will be accepted. Those nominated will be voted on at the June business meeting.

Any member interested in being nominated should contact Rowland Rupp at 839-1842.

## BAA Officials

### BAA OFFICERS

President – Peter Proulx  
731-2808  
Vice President – Ted Bistany  
885-0003  
Secretary – Joe Orzechowski  
632-7091  
Treasurer – Bev Orzechowski  
632-7091

### AT LARGE DIRECTORS

Janice Gardner  
Tom Bakowski  
Alan Friedman

### COLLEGE OF FELLOWS

Rowland Rupp 839-1842

### OBSERVATORY DIRECTORS

Bill Aquino 731-9366  
Paul Tabor 434-7148

### MEMBERSHIP DIRECTORS

Tristan Dilapo 941-5613  
Alan Friedman 881-4310

### ROBOTIC SCOPE PROJECT

Anthony Davoli

### STAR PARTIES

Bill Smith

### SPEAKERS

Dr. Jack Mack

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Labels: Alan Friedman

Columns: Edith Geiger

Peter Proulx

Rowland Rupp

Paul Tabor

Articles: various authors

## BAA Web Site

[www.upstateastro.org/stars/index.html](http://www.upstateastro.org/stars/index.html)

## Location /Time Of Meetings

BAA meetings are held on the *2<sup>nd</sup> Friday of the month* from *September to June* in the *New Science Building on Buffalo State College Campus*. Meetings start at *7:30 PM*. See above web site for a map of the location. Non-members are encouraged to attend.

## Spectrum Deadline

Articles for the next Spectrum will be due by: *April 16, 2005*

## Managers Of BAA Computer Sites

<u>BAA Web Site</u>	<u>E-Spectrum Web Site*</u>	<u>YAHOO E-Mail Group*</u>
Timothy Finucane	Timothy Finucane	Dennis Hohman Mike O'Connor

\* members only

## President's Message

Peter Proulx

If you haven't been to the monthly BAA meetings you are missing out on some great presentations. We have had some great speakers, starting this past fall with Dr. Will Kenny from UB. Will was also our 2004 dinner meeting speaker. We did something different for our January meeting when we moved locations for the first time, since I've been a club member. In January, BAA Member Mark Percy hosted the club with a special presentation at the Williamsville North Planetarium; we followed up the meeting with some public observing. If you missed these meeting we have two speakers coming up that are worth noting; for our Annual Dinner meeting (March 11) Dr. Warren Marcus will be presenting a talk on The Cassini/Huygens mission to Saturn. Then the following month, for our April meeting, Dr. Judith Pipher of the University of Rochester will be giving a talk on the Spitzer Space Telescope titled: A Spitzer View on Star Formation. So if it's been a while since you've been to a meeting; make a special effort to try to attend these events.

I hope that you have had a chance to take advantage of the unusual clear skies that we have had this past month. It seems that Mother Nature is trying to make up for our lousy summer. You still have a chance to see Comet Macholz through the next few months; beware as it is fading fast. I was lucky enough to attend the Cedar Key Star Party in Florida this past month, that is coordinated by Thom Bemus. Thom promised plenty of clear skies and sunshine; this year was no different. It's unusual to see Polaris 10 degrees lower in the sky. This also gave the opportunity to see Omega Centauri to the south. This Globular rivals any other in the night sky and is truly and awesome site. I have a touch of Spring fever and can't wait for warmer nights and some clear spring skies. Speaking of observing, Tom Bakowski is trying to generate some interest in an observing program out at Beaver Meadow as soon as the weather breaks. If you are new to the club or new to observing, this is a great opportunity to get acquainted with the Beaver Meadow Observatory and get some pointers from some of the clubs veteran observers. Tom will be passing around sign up sheets at our monthly meetings.

Finally, we will be looking for volunteers for upcoming observatory projects at Beaver Meadow (the Robotic Scope) and the Remmick Observatory in Lockport. I will have information on these two projects at our April meeting. It looks like it's going to be a busy spring and summer. Hope to see you at our next meeting!

Clear skies. Peter

# Controlling Dew Formation On Telescopes

Gus Cenkner

Dew ( condensed water vapor) will form on any surface when its temperature drops below the dew point (temperature ) -- regardless of the level of the ambient air temperature. If the surface temperature drops low enough, frost (frozen water vapor) will actually form. This includes telescope tubes, optical elements, electronic boxes, grass, etc.

With a refracting telescope, the most critical and most vulnerable component is the primary lens. The primary lens is cooled by radiation and air flow (convection) cooling from both sides of the lens and by conduction heat transfer from the ends to the main tube; see Figure 1 for a cross-sectional view of a refractive telescope. The outer surface has an almost unobstructed hemispherical view of the sky, so it will radiate more energy than the inner surface. On a clear cloudless night, this outer surface is looking at deep space -- which is essentially a heat sink with an effective temperature of about 3K -- so the radiant heat loss is at a maximum. On a cloudy night, the clouds reflect thermal energy and some of this energy is absorbed by the lens, which reduces the cool down rate of the lens.

The telescope tube, and all other components, will also loose heat by convection and radiation heat transfer. Under the right conditions, dew can form on everything, over a long enough period of time.

There are a number of approaches that can be used to prevent or delay the onset of dew formation. These techniques can be broken down into two basic groups: ( 1) reduce the rate of heat loss from the components of concern and (2) provide external heat to elevate the component temperature. While discussion is limited here to the primary lens, the same basic concepts will apply to any component.

## (1) Reducing Heat Loss

(i) The easiest and least expensive approach is to simply place a cap over the end of the tube, when no viewing is taking place. This will completely eliminate the radiant heat loss to deep space.

(ii) An approach, that allows for more extended viewing, is to place a dew shield -- essentially a long tube -- on the end of the telescope, as shown in Figure 2. A dew shield can be purchased commercially or it can be hand made. The shield significantly reduces the radiant heat loss from the primary lens since the lens now has a much smaller view of the deep space heat sink. This approach will extend the acceptable viewing time by delaying, but not preventing, the onset of dew formation.

(iii) Heat loss, from the main telescope tube and/or the dew shield, can be reduced by wrapping some type of thermal insulation around the tube or dew shield. This would help control dew buildup and also reduce the cool down rate of the primary lens.

## (2) Applying Heat To Elevate Component Temperature

(i) An electrical heater is the most popular way to heat critical surfaces. These heaters can be powered by batteries -so the telescope can be conveniently moved - or they can be powered by 60 cycle current from a generator or a fixed source, making it more difficult to move the telescope. The most popular technique is to place the heater around the edge of the primary lens; it would be most efficient if it is placed beneath the dew shield. Placing the heater directly on the surfaces of the lens will, of course, degrade the viewed image. Theoretically, heaters could also be placed directly on the outside of a black dew shield so the primary lens would be heated radiantly. In any case, electrical heaters with or without controllers can be purchased commercially or they can be hand made.

(ii) An alternate approach is to apply heated air directly to the component of concern. An upright or hand held hair dryer is a convenient source of heated air. The air can be used to constantly elevate the component temperature or to drive off the dew once it forms.

Selection of the best approach, for any given telescope, depends upon a number of things: the type and size of the telescope, how often and how far the telescope will be moved, the type of power available, how long you want to continue viewing on any given night, whether you have the option of not viewing on humid nights, and how much funding is available.

It's probably best to start out with the easiest and cheapest approach -- capping the end of the telescope when not in use and installing a hand made dew shield (length of 1- 1.5 tube diameters) -- until you get a feel for what you really need. To help BAA members select an acceptable technique, other BAA members were asked to share their experiences.

*(continued on page 5)*

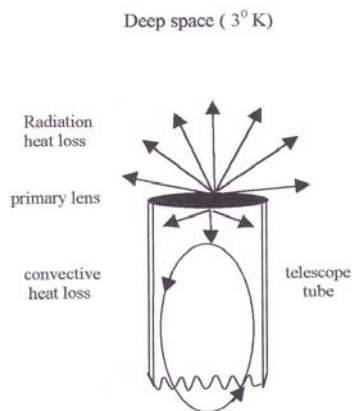


Figure 1 Radiation and Convection Heat Loss From Primary Lens

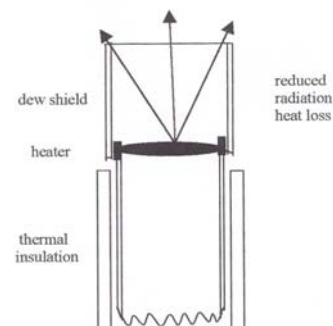


Figure 2 Thermal Control Of Telescope

**5 YEARS AGO** -- I think our March 2000 dinner meeting was held at John's Flaming Hearth in Niagara Falls. Bob Titran, Gene Witkowski, Dan Marcus and Rowland Rupp all spoke on various astronomical "pilgrimages" they had taken. Marilou Bebak and Lynn Sigurdson were inducted into the College of Fellows at that meeting, and Rowland Rupp received the College of Fellows award for organizing educational talks for school groups. "UFO's -a Serious Look" was the title of Bob Galganski's talk in April.

The featured article in *The Spectrum* announced the observation of a Gamma Ray Burster in Hercules by Bill Aquino (the author of the article), Frank Chalupka, Dennis Hohman and Tom Bakowski. Their observation of the exceedingly faint after-glow of this object (215 magnitude) led to a better understanding of GRB phenomena by professional astronomers.

"Could Somebody Be Listening?" was the title of an article addressing the prospect of radio signals from Earth being detected by alien civilizations. This article, the first of a two-part series by Carl Klingenschmitt and Rowland Rupp, dealt with the details and problems of radio communication. Alan Friedman reported on his observations in Orion and Auriga during a cold night in late January with only the sight of stars and the sound of snow mobiles to keep him company.

**10 YEARS AGO** -- Ilio Dipalo's restaurant was the site of our dinner meeting in March 1995 where Jack Mack spoke on the improvements made to the Hubble Space Telescope. Richard Jones, a new BAA member, spoke in April on major telescopes he had visited while he lived in Tucson, Arizona. He also wrote a *Spectrum* article about his plans to establish a WNY Space Forum on Free-Net on behalf of the BAA. Bev and Joe Orzechowski volunteered to take over as *SPECTRUM* editors to replace Darwin Christy who was retiring at the end of the BAA year. Bob Hughes was coordinating our participation in Astronomy Day. Observatory Director Dan Marcus announced that Bill Smith was hosting his annual Messier marathon, and that CCD classes were scheduled at BMO.

Carl Milazzo wrote about some objects Charles Messier could have seen, but didn't. Bill Smith wrote one article on objects to view within the confines of the Milky Way, and another about constellations, particularly commenting favorably on H.A. Rey's innovative depiction of them. (There are similar comments about Rey in E.C. Krupp's article in the February 2005 *Sky & Tel.*) Steve Kramer ended his series on David Rittenhouse, America's famous colonial astronomer.

**15 YEARS AGO** -- In March 1990, Dave Quigliana spoke briefly on the analemma (the peculiar figure eight that appears in the Pacific Ocean on some world globes). His talk was followed by a show at Buffalo State's planetarium. In April, Fred Price spoke on "The History of the World Greenwich Observatory".

Ken Biggie completed an article on the initial construction of BMO, describing our negotiations with the Buffalo Audubon Society, fund raising, and some of the problems encountered by him and his brother Tim when they camped out at the meadow while they worked on the building. Names of helpers on this project are reminders of the BAA's past: Bob Mayer, Bill Deazley, Darwin Christy, Tom Dessert, Warren Steinberg and Carl Milazzo. Ed Lindberg reminisced in his "Instrument Notes" about his experiences, both good and bad, in teaching hundreds of Buffalonians to grind mirrors and build telescopes. He found some students were very adept, while others seemed unable either to follow instructions or perform the mechanical operations necessary to achieve success. Darwin Christy wrote about the mythology associated with the constellation Hydra. Hugh Pettit's obituary appeared in this issue.

**25 YEARS AGO** -- Former BAA member Phil Cizdiel was our March 1980 speaker; his subject was "Arizona Astronomical Observatories". In April, Dave Atkins, a member of the Lockport Astronomy Association, spoke on Arecibo. We celebrated Astronomy Day with a show in late April at Eastern Hills Mall. Al Kolodziejczak was in charge of the exhibit. Edith Geiger highlighted Ken Kimble in her BAA Profile. Once again an article was submitted by "Anonymous", this time on Mercury. Ed Lindberg wrote on "Telescope Making", particularly on mirror grinding. Esther Goetz sent in two of her astronomical poems. I keep mentioning her poems, so maybe it's time for a sample. Here's one entitled "A Furry Tail":

A Space man landed in my back yard,  
and handed me his ID card.  
I looked at it with fear and awe,  
the ID card was a furry paw.  
My dog ran out with a knowing bark,  
and told the Space man where to park.  
Interpreters at times like these  
can solve the worst emergencies.

**35 YEARS AGO** -- Dr. W.D. Heintz, formerly of Munich Observatory and, in March 1970, a visiting astronomer at Swarthmore College's, Sproul Observatory, lectured to us on "Visual Binary Stars and Stellar Evolution Effects". In April, Dale Hankin, Larry Hazel, Walter Semerau and Walter Whyman spoke about the total solar eclipse of 1970. I don't know where it was total, but I can't remember its being around here. Our astrophotography exhibit at the Museum of Science ended in disappointment when most of the color photos were stolen. Walt Whyman expressed the philosophical view that the thief showed a flattering display of good judgement. There was a major article in *The Spectrum* contributed by Dr. Fred West of Buffalo State on the transit of Mercury scheduled for May 9, 1970. Transits recur periodically, just like eclipses of the sun.

# From The BAA YAHOO E-Mail Group – Green Lasers

Gus Cenkner

**From: "Mike O'Connor" Subject: Green Laser Update**

After our on-line discussions of a few weeks ago I decided to consult my neighbor who is an FBI agent. His initial reaction was that a heads-up to the local authorities couldn't hurt and was probably a good idea, but because this subject was outside of his area of expertise he would talk to his coworkers in the Joint Terrorism Task Force (JTTF) and get back to me.

He got back to me yesterday. The bottom line is to use common sense. The JTTF is well aware that there are many legal laser pointers being used for legitimate purposes including astronomy. As long as a laser pointer is being used responsibly and not being used to illuminate or track aircraft (I would assume cars and people would be prohibited as well) the authorities won't sick the dogs on the user. Notification of the local authorities and/or the FAA is not necessary

I have my neighbor's permission to use his name in discussing this matter within the club. Given his line of work I've decided not to post it online but would be happy to provide it via telephone if the subject of what to do about laser pointers becomes an issue for the Board.

**From: "billastrohome" Subject: Re: Green laser Update**

Thank you for the valuable input. It's important for everyone in the club that's interested in using laser pointers to understand this issue. The federal agent hit the nail right on the head when he said; "As long as a laser pointer is being used responsibly" This is really the crux of the issue.

*( Controlling Dew Formation .... continued from page 3)*

## Thom Bemus

In typical western NY conditions with my small telescope (92mm apo refractor) passive dew control works well most of the time. I use a long (3x the lens diameter) dew shield made from a 1/2" thick foam camping mattress. I also cover the scope with a towel (summer) or a down vest (winter), cap the lens and make sure it is pointed down when I'm not looking through it. This will generally ensure you'll have at least 4-5 hours without dew or frost.

On all-nighters or very wet nights I have rubber-banded a chemical hand warmer to the outside of the OTA to help keep dew and frost away. Can you tell I hate dragging around and maintaining big batteries?

## Paul Tabor

I purchased the Dew remover system for my 8" SCT from Kendricks in Canada. The dew remover which fits around the scope cost \$58, the battery was \$144 and the controller was an additional \$70. I recently also purchased the dew remover for the eyepiece, cost was \$42. All figures are in US funds.

I have found the system to be very efficient, however on nights when dew or frost is very heavy I also use the dew shield that came with the scope. It is made of a light plastic (it may be cardboard) and extends beyond the corrector plate for about 11.5". If I remember right it only cost about \$40, I got it from Astronomics.

I do not know if all I purchased seems pricey or not, all I do know it was money well spent, I have been able to get hours of viewing even on the worst nights.

## Bob Titan

size and type of telescope --- 8" SCT  
type of dew control system used --- orion dew zapper with the flexible dew shield they used to sell  
how effective is the system --- works great, but only on the main objective  
does it require power, what kind: 110 vac  
if heaters are used where & how are they attached – heating tape held to scope with an elastic band, yes, it's crude  
did they ever come off --- kind of a pain to get attached, but stays put once installed  
is a sophisticated control system used or is manual control ---  
what control? plug it in it heats.  
any problems --- I left the dew shield in the car in the sun once and it warped, took a set, and was essentially ruined.  
I replaced it and have been more careful since.  
anything else that you think might be of interest --- Dew shield stores flat, which is nice. I don't see any of this stuff in the current Orion catalog, don't know if it's still available or not.  
The AC version of the dewzapper was discontinued and recalled several years ago. Don't know why. I have yet to be electrocuted.

## Gus Cenkner

size and type of telescope --- 12" Schmidt-Cassegrain  
type of dew control system used ---  
(1) commercial black plastic dew shield, 18" long  
(2) cap end when not viewing,  
(3) hand held hair dryer used on all lenses  
how effective is the system --- very effective  
does it require power, what kind --- 110 VAC  
is a sophisticated control system used or is manual control --- hair dryer turned on manually, usually after dew has already formed.  
any problems ---  
(1) hair dryer shuts down if placed too close to the lens  
(2) I'm concerned about residual buildup on lens after dew is evaporated  
(3) It's a pain to have to keep manually heating the lenses, but it does work  
anything else that you think might be of interest --- if you've got the stamina, you can observe all night

As good as the Megrez II's performance was on the moon and planets, it became a bit enigmatic when several double stars were targeted. I found that the diffraction patterns of brighter stars were asymmetrical, the diffraction rings being offset to one side of the airy disk. An e-mail to William Optics provided a partial solution. The threaded front lens cell had become loose in shipment and needed to be tightened to restore alignment. (The objective lens itself cannot be collimated by the user.) With the cell fully reseated, a 50 percent improvement in alignment resulted. The remaining small error in exact collimation became unnoticeable at powers under 100x and a little annoying only with the scope pushed to 160x or more. I suspect that the residual error is being caused by a slight decentration of the lens and focuser. (As an aside, David Yang of William Optics was very helpful: he replied to my inquiries immediately, in detail, and was very concerned with my satisfaction as a WO customer.)

A classic test for double star resolution, Epsilon Lyrae, though fairly low in the northwestern sky ~ was neatly resolved into four pinpoints at only 62x with a 9mm Nagler Type 6. At 112x, the quartet displayed neat airy disks, delicate first diffraction rings, and a barely discernible yellow-green cast. Certainly very good, but I would rate the view slightly inferior to that provided by the Tak FS- 78, and about the same as one might expect from the Orion 80mm ED.

A tougher test, Delta Cygni, was barely resolved at 200x using a 2.8mm Takahashi LE eyepiece. Flares of red and blue emanated from the second-magnitude primary and tended to blot out its elusive companion. In similar fashion, the close and challenging Zeta Aquarii did resolve at 200x~ though a red excess surrounded both components and the bright stars flared during moments of less-than-perfect seeing. At the same power, the very close double Eta Orionis was just resolved, the 1.7 arc-second companions nearly touching when the seeing steadied. As David Yang informed me, the scope is designed to support from 120x to 140x, and it certainly does that very well, but things do get a bit sloppy at perhaps 160x or more.

With just 80mm of clear aperture, the Megrez can't be expected to be a deep-sky dynamo, but it does squeeze fine performance out of every available millimeter of its multi-coated glass.

With a wide range of potential magnifications, the scope performed admirably as a rich- field instrument. With a big 40mm Orion 2-inch Optilux in the WO star diagonal, the resulting 14x yielded a true 4.3 degree field-of-view -- wide enough to take in the entirety of M31 and frame the blue glory of the Pleiades. At 43x (13mm Nagler Type 6) the Orion Nebula became a lovely sight with the "bat wings" being easily visible and wide extensions of nebulosity glimpsed with averted vision. The Trapezium was sharply separated into its four major components, and the faint "e" companion could just be detected in brief flashes at 112x.

Open clusters such as M 35, the Auriga trio, and Double Cluster in Perseus were very satisfying: well-defined pinpoints of starlight against a very dark, velvety background. The seven anti-glare baffles in the tube of the Megrez do their job effectively in enhancing contrast and reducing stray light.

Clearly, the 80mm Megrez II ED is a compromise, but a pretty good one for most observers. The telescope is built to a price point and is undoubtedly meant to fill the void between inexpensive achromats and top-of-the-line, pricey APO's. What the potential buyer gets is very good optical performance: a complete absence of the achromats' purple color fringing (trading it for a little red excess), fine contrast, and the ability to use moderately high magnifications without severe image breakdown. The wonderful fit, finish, and aesthetic value may be its greatest virtues, however, as the pure beauty of the scope more than justifies its price of \$798. In comparison, the less expensive Orion 80ED has roughly similar optical performance, but it is larger and a bit crude in its construction. The Stellarvue AT 1010 bears magnification as well or better, but is hampered by significant chromatic aberration. The TeleVue 76 seems to have slightly better optical performance, a tad less light grasp, superb build quality, but a considerably higher price tag. At the far end of the price spectrum, the true perfectionist would probably be satisfied with nothing less than a Takahashi FS- 78, TMB triplet, or William Optics' own 80mm Megrez fluorite triplet -all of these choices upping the ante considerably.

At the very least, a viable choice now exists in the vast middle ground between frugal and perfect. In my opinion, the Megrez II ED fills that role very well.

Clear skies!

## MORE NEWTON

Rowland A. Rupp

I wrote an article, "Newton in Conflict", for the September-October 2004 *Spectrum*, highlighting three long-term disputes Newton had with other scientists and mathematicians: Hooke, Leibniz and Flamsteed, not that they were the only recipients of Newton's ire. The source of this material was obtained from a 1997 book by Michael White, [Isaac Newton -The Last Sorcerer](#). I explained that I wouldn't write more than a cursory review of the book itself because it contained very little of Newton's science, but concentrated instead on Newton's personality and his propensity for conflicts.

In response, Alan Friedman loaned me James Gleick's, [Isaac Newton](#), copyright 2003, and asked me to review it for comparison. I found both books to be scholarly, especially the latter, which supplemented 189 pages of text with 66 pages of notes, acknowledgments and sources. The notes were a bit awkward to use because they all were located in the back of the book rather than as footnotes, so one had to flip repeatedly from the text to the notes. That's not so bad in general, except often the note did not elucidate the text, it only cited a reference, making the flip and search not worth the effort as far as I was concerned. Gleick's version contained more science and less alchemy than White's, but it also told far less about Newton's personality. Even so, one won't find a treatise on Newtonian mathematics or physics here, not that one necessarily reads a biography with the expectation of learning science. Without having read White's book, one might conclude that Newton's personal life had been adequately covered, but after reading both, it clearly was not. I certainly would never have even thought of writing "Newton in Conflict" had I read only Gleick's work where these remarkable intellectual and personal battles were scantily covered at best, or only alluded to in many instances. I think it's a credit to an author if his treatment of a subject prompts someone to write a synopsis of it. If you can read only one biography of Newton, I strongly recommend White's, unless a bit more science makes you lean toward Gleick. I should warn you: if you take my advice, you'll spend a lot more time reading the former's book, there's a lot more of it. You'll also find out a lot more about one of history's most brilliant and controversial figures.

## BAA Beaver Meadows And Lkpt Remmick Observatory News

Paul Tabor

In just a few short weeks we will be into another season of Public Nights at the BMO. Not too much has been going on, as there have not been many clear nights. We are looking forward to having the Lockport High School Observatory this year, also. We are just waiting to hear about the insurance. Any public nights we have at the Remmick will be on the third and fourth Saturdays, so as not to interfere with the schedule at the BMO.

Below is a outline of this years public viewing dates for the BMO. We will need members to give presentations. Please let either Bill Aquino or myself know when you are available.

Public Viewing	Speaker	Topic	Sunset	Moonrise	Moonset	Phase Of The Moon
2 April	Bill Aquino		6:43 p.m.	3:31 a.m. following day	11:14 a.m.	Waning crescent with 42% of the moons visible disk illuminated
16 April			7:59 p.m.	11:51 a.m.	3:46 a.m. following day	First quarter Moon at 10:37 a.m. EDT
7 May	Paul Tabor	This Summers Sky	8:23 p.m.		8:00 p.m.	Waning crescent with 1% of the Moons visible disk illuminated
21 May			8:38 p.m.	6:27 p.m.	4:44 a.m. following day	(Moon transit – 11:40 p.m.) Waxing gibbous with 94% of Moons visible disk illuminated
4 June	Gus Cenkner	A Visual Tour Of The 200" Hale Telescope/Observatory				
18 June	Paul Tabor	Galileo at Jupiter				
2 July						
16 July						
6 August						
20 August						
3 Sept						
17 Sept						
1 Oct						
15 Oct						

As soon as we have more information concerning the Remmick Observatory we will post it on the Club's E- groups. If you as a member have not yet visited our Observatory at Beaver Meadows, you will want to make that a priority on your summer schedule.

One other note. We will be posting some "Guidelines for Laser Pointer Usage" at both observatories. We are asking all members to be conscious of proper use of any Laser so as not to cause local authorities, or anyone else undue concern.

### Spy & Tell

Edith Geiger

**Lynn Sigurdson** enjoyed a week at a festival at Lake George, New York. She is very busy taking the kids here, there and everywhere. Lynn is very well known for her figure skating and has many awards. We look forward to her many successes.

**Ann MacGill** is on the altar committee at Salem United Church of Christ. Ann has a beautiful garden, and is president of her garden club.

**Steve Oross** is a busy but happy man. He is a well read gentleman, who enjoys working on the computer. He enjoys traveling to visit relatives in Pennsylvania, Ohio, Wisconsin, Maryland, North Carolina, and Texas. He leads a well rounded life.

**Darwin Christie** is an authority on Gettysburg. He has 1,600 photos of monuments, all in albums. He gives lectures on Gettysburg, and how it is today.

**Bob Titran** is an excellent teacher at Niagara-Wheatfield High School. He teaches 3 regents science courses in chemistry and physics. Bob's wife, Laurie, has been tearing down the paneling in their home and replacing it with drywall. Great Fun!

## Upcoming BAA Meetings

Peter Proulx

### March 11 -- Annual Dinner Meeting And Banquet

Fairdale Banquet Center, 672 Wehrle Drive at South Forest in Cheektowaga

Cash bar at 6:00/ dinner at 7:00pm

**“The Cassini/Huygens Mission To Saturn And Its Moons” -- Dr. Warren Marcus**

### April 8 -- “Spitzer Space Telescope -- A Spitzer View On Star Formation” -- Dr. Judith Pipher

### May 13 -- “BAA Beaver Meadows Observatory Robotic Scope Update” -- Bill Aquino

-- “Orbital CCD Image Of Russian Space Station With Docked Shuttle” -- Gus Cenkner  
(taken by Ron Dantowitz using Meade 12” LX200 Schmidt-Cassegrain)

### BAA Policy

#### MEETING CANCELLATION POLICY

If, for any reason (most likely snow or ice storms), there might be cause for cancellation of the meetings of the BAA tune your radio to either WBEN (930) or (WGR) (550). Also if Buffalo State College has been closed due to inclement weather, the BAA meeting will also be cancelled.

#### BEAVER MEADOW TELEPHONE

The telephone at Beaver Meadow, 716-457-3104, is for emergency use only, at no cost. Local calls may be placed for a small charge – see collection box by the phone. This phone cannot make long distance calls.

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### Buffalo Astronomical Association Newsletter

August Cenkner Jr., Editor

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Omega Centauri (star cluster)  
Taken by: Peter Proulx