

# The Spectrum

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Late Fall Edition

November/December 2002



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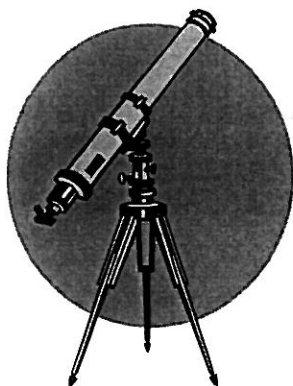
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## Attention all BAA Members

Well it's that time of year again to put away our summer toys and start preparing for the "quickly" up and coming fall and winter season! Yes, we all know what that means...

The annual BAA Holiday Party! This year it will be held on Friday, December 13, 2002 immediately following our regular meeting.

I will be hosting the party again this year and would greatly appreciate any donations of food or beverages that anyone would like to bring. We all have a favorite dessert or appetizer, so why not take this opportunity to share it with friends? If you weren't there last year you missed a great time, and for all of you that were there you can expect this year's get together to be even better than last year.

Assorted cookies, other desserts or a favorite wine would be greatly appreciated, as I will be proving a varied selection of hors d'oeuvres and appetizers, a fruit punch and a champagne punch for every one's enjoyment. If you have any suggestions or would like to donate something please let me know. Thank you all in advance and I look forward to the great time ahead!

Janice E. Gardner  
[MMDAWG@AOL.com](mailto:MMDAWG@AOL.com)  
639-0866



## Observation report by Rowland A. Rupp

I was driving my boat slowly along the placid waters of Lime Lake on the morning of September 25, staring with disgust at the weeds growing relentlessly upwards, when I noticed a small rainbow colored spectrum on the surface. My first, not very astute, conclusion was that feeble sunlight was somehow passing through a prism onto the water, but I quickly realized the prism was in the sky - a sundog. A glance at the sky confirmed my suspicion, but only a tiny bit was visible. A rainbow colored patch with the red portion nearer the sun stood at the same altitude as the sun, but extended vertically only about two degrees, or so, and had a width scarcely half of that. I searched in vain for the rest of the arc.

I resumed staring at the water and soon noticed a circular arc beneath the sun. Looking up once again I saw the bottom of the arc in the sky; it appeared almost colorless except for the faintest suggestion of red sunward. In time I could make out the entire parheliion circle though it was very washed out.

Having just read a brief mention of the phenomenon in the October 2002 *Sky & Telescope* I was aware that cirrus clouds were a necessary ingredient for a sundog to appear. Sure enough, there were plenty of cirrus clouds, enough to make the sun indistinct through them. I didn't measure the radius of the parheliion circle, but I won't dispute the 22° given in *S&T*.

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**ROBOTIC SCOPE PROJECT**

Mike O'Connor

**STAR PARTIES**

Jeff Gardner

**SPEAKERS**

Dr. Jack Mack

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**BAA Web Site**

Tom Bemus and Bill Smith put together a club web site at :

<http://members.aol.com/BufAstro/>

**Meetings**

BAA meetings are held on the 2nd Friday of the month from September to June in the New Science Building on the Buffalo State College Campus. Meetings start at 7:30 pm and all members and guest are encouraged to attend.

**Spectrum Deadline**

Articles for the next Spectrum will be due by:  
December 13th 2002

**Message from the President by Joe Orzechowski**

Changes abound at this time of year. The leaves on the trees are changing color and soon the trees will be bare. Farm fields and orchards are being harvested of their summer bounty. And it's difficult not to notice the change in our weather. The cool, crisp autumn days will all too soon make way for the cold and snowy days of winter. On a brighter note, the holidays are approaching, hopefully putting us in a more cheerful mood.

There are astronomical changes as well. As the weather gets colder, observing methods and dress have to be modified. For those of you considering observing during the upcoming frigid winter nights, I would recommend talking to some of our members who have experience in this area. Some names that come to mind include Tom Bemus, Jeff Gardner, Carl Milazzo, and Bill Smith. These and other experienced observers, will gladly give you some great tips on how to stave off frostbite while observing in the winter. Of course, one sure way to observe the winter sky in comfort is to head south. There's nothing more pleasant than making a thorough study of the Orion Nebula wearing only a flannel shirt and jeans.

The less ambitious (less fanatical?) observers may decide to pack the scope up for the winter and simply admire the winter sky with the unaided eye whenever and wherever the opportunity presents itself. This is not a bad idea. At this time of year the myriad faint specks forming the summer Milky Way yield to a number of blazing stellar beacons. Of the 30 brightest stars visible from Buffalo, a total of 18 can be seen at one time in the winter sky as long as you wait long enough for Regulus to clear the eastern horizon. In late November, this means waiting until about 1am; in late December you'll only have to wait until 11pm. Since these bright winter stars are visible from almost anywhere, a nice winter observing project for the beginner would be to locate and identify as

many of these "stars" of the winter sky as you can. For those of you who wish to remain a bit more comfortable during the winter months, consider curling up with a good book or a good web site. It never hurts to pick up a little background info on those things you observed during the summer or perhaps line up some new targets for next year.

It should be no surprise that the sky is also changing. The planets Uranus and Neptune are slowly heading below the western horizon. In the east, Saturn is making its way into the early evening sky soon to be joined by Jupiter. These two giants will appear further apart in the sky this year since Jupiter has had a full year to make a significant eastward move on Saturn. For the early risers among us, brilliant Venus begins to make an appearance in the east just before dawn, joining reddish Mars. If the sky is clear on the morning of December 1<sup>st</sup>, consider going out before dawn to catch a glimpse of the waning crescent Moon, Mars and Venus in a tight grouping about 3 degrees across. They will be low in the southeast about 10 degrees to the left (towards the north) of Spica.

In the midst of all this change, one constant is the Buffalo Astronomical Association. The BAA has been serving amateur astronomers and the public in western New York for decades and will, with the supports of its members, continue to do so for many years to come. Let's keep up the good work.

Happy Holidays to everyone.

**MEETING CANCELLATION POLICY**

If, for any reason, (most likely snow or ice storms), there might be cause for cancellation of the meetings of the B.A.A., tune your radio to either WBN (930) or WGR (550). Also if Buffalo State College has been closed due to inclement weather, so will the meeting of the B.A.A 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 the collection box by the phone. This

phone cannot make long distance calls.

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## Observatory News by Bill Aquino

The 2002 public night season at the observatory is now over. It was a great year for public night activities and the entire club deserves "three-cheers" for doing a great job. Public attendance was good throughout the year and as usual coincided with the weather. We always draw a large crowd on clear summer nights and at least a few visitors even on cold rainy nights. The observatory is now closed to the public and "non-checked-out" members but does remain open and available to all members who are checked-out. If you are not checked-out and want to be, see me during the next public night season (April through October 2003) so we can begin the process, it takes a month or two. During the winter months we will be concentrating on maintenance at the observatory and need to focus on some building repairs as well as equipment repairs. This work is done on a very informal schedule by small groups of volunteers. I will post notices in the Spectrum in advance whenever possible to organize work parties, however, most of this activity is setup on much shorter notice using the e-groups.

### Special Thanks

Need to be extended to the public night volunteers as well as too club members. Your generous donations of both time and resources make BMO one of the great amateur observatories in the country.

**September 7<sup>th</sup> Public Night Volunteers** included Paul Tabor, Bob Titran, Ted Bistany, Gary Flagg, Jamie and Anna Seibert, Dennis Hohman, and Bill Aquino. We had crystal clear skies and a large public turnout. There was a great aurora display about an hour and a half after sunset, which was a real crowd pleaser.

**September 21<sup>st</sup> Public Night Volunteers** included Jeff Gardner, Tom Bakowski, Roland Rupp, Rick Pason, Bill Aquino, and Paul Tabor. There was a high thin haze but some clear patches.

**October 5<sup>th</sup> Public Night Volunteers** included Frank Chalupka, Rick Pason,

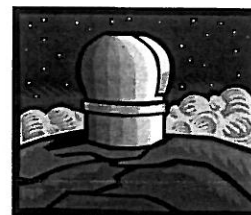
Dennis Hohman, Tom Bakowski, Paul Tabor, Tom Nigrelli, Ted Bistany, Rick Fusanti, Bill Aquino, Mark Reville, and Jim Lehman. We had mostly cloudy skies with some clear patches and cool temperatures.

**October 20<sup>th</sup> Public Night Volunteers** included Anthony Davoli, Joe Orzewchowski, Bill Aquino, Rick Pason, Ted Bistany, and Paul Tabor. There was a heavy overcast. It was damp cold and windy.

**Tom Bakowski** has donated a used hair dryer for use at the observatory. These are indispensable astronomical tools on humid nights for keeping dew off of telescopes and accessories.

**Tom Nigrelli** has donated 9 books to the clubs library. These titles are a great addition to our clubs growing collection and are now available for loan. The titles include:

Soul of the Night by Raymo  
How to Make a Telescope by Texereau  
The Planets by Preis  
Observational Astronomy by Sidgwick  
The book of the Moon by Hockey  
The Amateur Astronomer's Handbook by Muirden  
Amateur Astronomer's Handbook by Sidgwick  
A Brief History of Time by Hawkins



## Membership Corner

A hearty thanks to all members who found the courage in these months of dwindling stock portfolios to contribute so generously to the Robotic Scope Project at Beaver Meadow Observatory. With a little cooperation from the weather, we should have a roof and permanently mounted 10" SCT operational before the first snow at BMO. We have raised enough funds thus far to take full advantage of the matching contribution from the BAA observatory fund.

As I write this (Oct. 15<sup>th</sup>) 2003 dues are owed by 45 members. If you are one – tarry no longer. The unofficial grace period is speedily drawing to a close. Magazine subscriptions for the 2003 calendar year were due by October 31<sup>st</sup>. By sticking to this deadline we can ensure that those taking timely advantage of

the special club discount will not miss an issue of Sky & Tel or Astronomy.

Greetings and salutations to our newest members: Anthony and Rebecca Bartolotta, Tom Frank, William Schultz and James and Joanne Smith. We look forward to getting to know you better at the coming meetings. Clear Skies,

BAA Membership/ Alan and Tristan

## Upcoming Meetings

### Upcoming Meetings

November 8, 2002 – Astro Acoustics

Dr. Peter Brown from the University of Western Ontario is a distinguished expert in the science of asteroids. He will be speaking on "Astro Acoustics: Sounds From the Heavens – Infrasound From Large Bolides". For those of you who are looking for a topic that is a little out of the ordinary and that may challenge those little gray cells a bit, please join us for this one.

December 13, 2002 – Holiday Party and TBD

Unfortunately Edith has suffered a stroke and will not be able to do her usual "picture roast" this year. At this time the activities for the meeting are still

being determined. Please turn your thoughts to Edith for a speedy recovery.

Regular meetings of the BAA are held at 7:30pm on the second Friday of every month from September to June (except for the March dinner meeting) in the Science Bldg. on the campus of the State University College at Buffalo on Elmwood Avenue.



## Spy and Tell by Edith L. Geiger

Michael O'Connor made a video of the Aurora on September 7th, around 9:30. It passed the zenith with its beautiful display of green/red, and violet. Michael's video was seen on Channel 4 on the following day.

Howard Stirling has retired as an attorney, and has moved to Mexico where he plans to enjoy the warm climate.

The 41st Quaker Arts Festival was held September 21-22, at the Orchard Park Middle School campus, with more than 400 artisans from all over the East Coast displaying their wares. Somewhere between 50,000 and 75,000 attended the festival. Congratulations to Bill Smith, who sold 20 prints and received an honorable mention for his "Kennedy Cows." He has sold 350 prints in this year's local exhibits. He reports that the Smith garden was highly productive this summer with peppers, eggplants, cukes, and lots of tomatoes.

On October 12th, Carl Milazzo helped the Boy Scouts at Stonehaven near Lewiston.

Darwin sent in the following news item: "In August, Ann, Mike (my grandson) and I went to Gettysburg to further my collection of photographs of monuments, and/or replace them with better pictures. As it was I found five which I did not have, they were only markers, but still a part of the stones, monuments, statues etc. So now I still have to mop up with some

which I think I have failed to get. This will be done in April or May next year and August once more. We will see that when the time arrives.

October 1st through the 6th, Ann and I will be in Dayton, Ohio, at my 70th Fighter Squadron Convention. As always, I will be the official photographer, taking the group as well as the individual pictures of the gang. Our time will be to visit the Airplane Museum and we will be treated to the demonstration of the workings of a P-38 which was our plane during World War II. There are still 3 flyable crafts in the U.S. that we know of. Of the 110 members who are still alive, 38 are expected at the convention. We hope to make it a good one this time."

Between teaching school and building a house in Elma, Anthony Davoli is extremely busy. This gives him very little time to enjoy his new Takahashi telescope. He hopes the house will be finished in mid-November, and has given thought to a winter star party at his new home.

Congratulations to Jack Mack who celebrated his 60th birthday on October 6th. Our best wishes to this dynamic personality who is such a vital part of the BAA.

Happy Holidays  
Edith L. Geiger

## BAA Annals by Rowland A. Rupp

**5 YEARS AGO** - We tried something different for our November 1997 meeting. Tom Bemus, Larry Carlino, Joe Orzechowski and Bill Smith led a program entitled "Beginning Astronomy". It was heavily advertised and attracted a large turnout of the public. Edith Geiger was our featured speaker at the Christmas meeting presenting yet another of her notorious "Candid Camera" programs. Bob Titran commented on the several accomplishments by the BAA since he joined the association six years before. Among them was a just completed BOCES workshop recently conducted by several BAA members to enhance a Science Teachers' knowledge of astronomy. Bob also contributed an observation report, as did Bill Smith. Also, Bill Aquino reported on his observations of Uranus and Neptune during their recent apparition.

**10 YEARS AGO** - In November 1992 the BAA's Ken Kimble spoke on "Measuring Astronomical Distances". In December we had light topics: "December Skies" and "Laid Back Meteor Observing", but the names of the speakers were not given in *The Spectrum*. Edith followed with her own variety of observations preceding our Christmas party. Bill Smith reported on an observation he made of the setting sun and the long period following until total darkness. He photographed the progression of the event. Bruce Newman reported on the deep sky objects he located with a 4.25-inch scope, and Dan Marcus reported on viewing a waning moon just 25 hours before becoming new. Ed Lindberg discussed setting circles in his "Instrument Notes", explaining their use and the concepts of right ascension and declination in general. If you're unclear about these devices you will benefit from reading Ed's article.

**15 YEARS AGO** - Larry Josbeno from the Elmira-Corning Astronomical Association was our speaker for November 1987. His topic was "Quasars". "Big Telescopes" was the subject of Carl Milazzo's talk in December preceding Edith's "Candid Camera" and wine and cheese. The NFCAA was scheduled to meet on November 7 at the Skylon Tower in Niagara Falls, Canada where Tom Dey was to speak on "Optics for Astronomy". Speaking of Canada, we had an article, written by Karyn Bennett from the *Orbit*, the Hamilton newsletter, on the possibility that the Cheops pyramid in ancient Egyptian was used as an observatory. Another article was written by Alister Ling of the London, Ontario club on "Small Aperture Observing", and there was still one more on "Reflectors vs Refractors" by Dale Armstrong, also from London. Marylou Bebak, Adrienne Morris and Carl Milazzo sent in observation reports, and

George Scheck was the subject of Edith Geiger's "Profile".

**25 YEARS AGO** - In November, Ralph Dakin presented "Telescopes and Observatories", highlighting his extensive experience with astronomical instruments. Edith and the results of her "Candid Camera" were featured in December. The BAA was planning a couple of significant events. In January we were to hold an astrophotography exhibition at the Buffalo Museum of Science. Tom Dessert and Ernst Both were instrumental in arranging the show. In May we planned to hold a telescope competition for the general public as well as for BAA members who made their own telescopes. Bob Mayer was to be the judge of telescopes in 4-inch, 6-inch and 8 inch classes. The event was named the Edward Lindberg Telescope Competition. Ed had conducted the Museum's telescope making classes for many years. Orrin Christy submitted an article on "Automated Mirror Surfacing", giving details of a machine he designed himself. He included a sketch showing the relatively sophisticated mechanism that featured a Frisbee as one of its working parts. Edith's "Profile" was devoted to long time member and then President, Fred Price.

**35 YEARS AGO** - We met at Buffalo State's planetarium in November 1967. James Orgren, the planetarium's director, was to provide "an instructive lecture-demonstration". We didn't meet at the college then, so elaborate instructions for getting there were included in *The Spectrum*. Next month, Olga Lindberg was to speak on "Maria Mitchell and Nantucket Island". Maria Mitchell is considered to be America's first woman astronomer. In those days Edith Geiger's Christmas show was entitled "Star Nights You Wished You Had Missed Because You Were Caught in the Act" (I'm glad she shortened the title because "Candid Camera" is a lot easier to type.). Fred Price completed his article on his early observations of the moon. Dale Hankin announced that Maryvale Senior High School intended to open their planetarium with its Nova projector in January 1968. (It was still in use when I consulted there four or five years ago.) Among the *Spectrum* articles was one by Ed Lindberg on the size and distances of astronomical objects. Ron Clippenger wrote an article about the history of the discovery of the sunspot cycle. Ernst Both wrote a profile of the German objective lens maker Philipp Pauly. Kurt Erland wrote a profile on Edith Geiger. By the way, Edith's "Spy and Tell" column was appearing regularly in *The Spectrum* thirty-five years ago.

## Letter from the Editor (Electronic *Spectrum* Available) by Jamie Seibert

Some of you may know this, but for those who don't, I've started putting together an electronic version of *The Spectrum*. The last four editions (including this one) have been available over the internet in a "PDF" file format. There are a couple of reasons I decided to do this. First, there is a lot more that can be done with an electronic version over a printed version. Things like color pictures and member photographs are just a few things that I've added to the electronic version. The other big reason for producing an electronic version is that we would be able to cut back on the number of printed editions we produce. After several discussions with the Board and a few trial runs, it has been decided to ask members if they would like to continue to receive *The Spectrum* in the printed form or would they be happy to just receive *The Spectrum* in the electronic format.

The printed version of *The Spectrum* won't be going away. All member submitted articles, and the regular columns will appear in both the printed and electronic version. Other than what has been mentioned above, the editions will be the same.

Anyone who would like to only receive the electronic version should send their E-Mail address to me. My E-mail address is [jseibert@buffalo.edu](mailto:jseibert@buffalo.edu). I will compile a list of Address and cross reference it with the current membership directory. Anyone I don't receive an E-mail address from will receive a printed version like normal. I'd like to encourage anyone with internet access to participate in this. Not only will you be saving the club some money to use in other projects, but I think you'll enjoy the extra stuff available in the electronic version. You can download this issue and the past two issues from the following web site <http://jseibert5.cit.buffalo.edu/BAASpectrum>. To open a "PDF" file, you will need a program such as Adobe Acrobat Reader. This is a free program for Windows PC and Macintosh computers. You can download this program here <http://www.adobe.com/products/acrobat/readstep2.html>. I hope to hear from many of you soon.

Jamie Seibert  
The Spectrum Editor

## For Sale

Orion Little Giant II 15x70 binos.

Less than 1 year old, excellent condition.

\$200

Contact Rick Fusani at 878-7000 ext. 6036

or email [rfusani@upa.chob.edu](mailto:rfusani@upa.chob.edu)

Bogen 3047 Tripod Head w/ 2 Quick Release plates.

Hardly used, still have original box. \$50

Contact Rick Fusani at 878-7000 ext. 6036

or email [rfusani@upa.chob.edu](mailto:rfusani@upa.chob.edu)

Meade Finderscope 6x30

Like New \$25

Orion 9x50 Right Angle

Finderscope

\$49.95

Call Ralph Green at 649-5911

Meade 125mm Astro

Aluminum tripod, Electronic Controller

\$400

Jay Bowden

877-7959

Celestron G-5 telescope (Celestron #11051).

Like New. Excellent condition.

The G-5 is a 5" Celestron C5 Schmidt-Cassegrain telescope with a 6x30 finderscope mounted on a CG-3 German Equatorial mount with a full size aluminum tripod. Includes the telescope, mount, tripod, 25mm SMA eyepiece, 1 1/4" Star Diagonal, visual back, and motor drive. The motor drive that is included is the basic DC Logic drive (Celestron #93515).

Asking \$550

Contact: Don Jusiak at 667-7212 or 481-1697.



## From Brobdingnag to Lilliput: My Travels through 30 Years of the Space Program

From Brobdingnag to Lilliput: My Travels through 30 Years of the Space Program

By Diane K. Fisher

In the early 70s, as minor character in the Apollo Program, I worked in the Vehicle Assembly Building at KSC. Stepping into the VAB, I felt like the incredible shrinking woman. The space inside accommodated six 45-story office towers with vast open spaces to spare. In the vertical spaces between the office towers, the 363-foot high Saturn Vs were assembled.

From my third floor office in one tower, I often delivered documents to higher floors in other towers. Between riding the stomach-dropping glass elevators and dashing across to other towers on narrow, open catwalks at the 28th or 44th floor levels, I soon overcame my fear of heights.

On these excursions, I would see the Saturn Vs come together in the 500-foot high bays. After hundreds of engineers and technicians had toiled around the clock for months, the morning of high-bay rollout would arrive. Slowly, the Crawler Transporter would bear forth the Mobile Launch Platform and the majestic Saturn V rocket. The morning sun reflecting off its gleaming white form would take my breath away.

The last Apollo mission was 30 years ago. As the Apollo program ended, some thought human missions to the Moon, Mars, and beyond would continue apace. Though they didn't continue, the Apollo program remains a single, large step in our technological evolution as a species. It is a great tribute to the intelligence, ingenuity, and dedication of the people responsible for the Apollo missions that they were so successful and the disasters so few. NASA's program today continues to build on the technological and managerial legacy bequeathed us by Apollo.

And just where are we now? Among its other tasks, the International Space Station is teaching people to live in space for long periods. Robotic space missions are studying issues like land use and global warming and discovering the wonders of the universe, its history, and our place in it. With humanity's many other pressing needs, such quests must be done efficiently.

Part of NASA's mission is to develop the technologies to do cost-effectively what has never been done before at all. NASA's New Millennium Program develops and validates new technologies for space. Missions such as Deep Space 1 and Earth Observing 1 carry and test multiple new technologies (such as ion propulsion and advanced imaging instruments) previously untried in space. And, unlike the Saturn V, the ultimate gas-guzzling muscle car of the 70s, the new technologies must be the "zero emission" vehicles of the 21<sup>st</sup> century—small, efficient, and capable beyond anything done before.

Many of the New Millennium technologies are described for adults at [nmp.nasa.gov](http://nmp.nasa.gov) and for children at The Space Place, [spaceplace.nasa.gov](http://spaceplace.nasa.gov). Diane K. Fisher is the developer and writer for The Space Place web site.

This article was provided by the Jet Propulsion Laboratory,

California Institute of Technology, under a contract with the National Aeronautics and Space Administration.

## Member Pictures

Black Forest Star Party 2002



September 7, 2002 9:16pm 50mm cfl ISO 400 13 seconds



September 7, 2002 9:27pm 50mm cfl ISO 400 15 seconds

September 7 Aurora Shots

by Alan Friedman

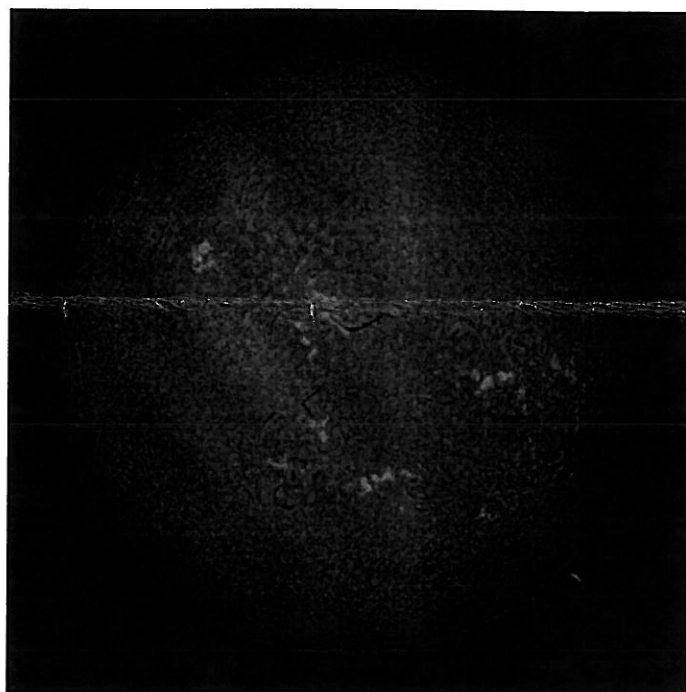
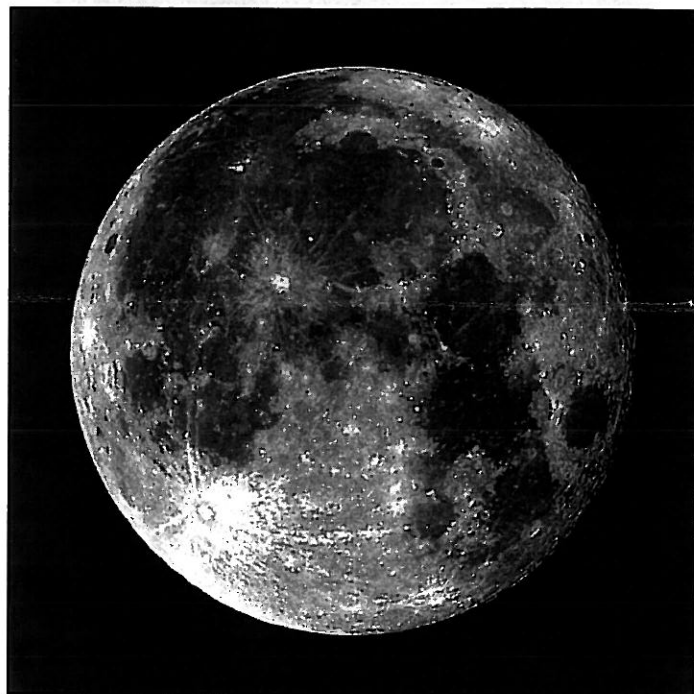


Left: M27 by Dennis Hohman

Middle Left: Harvest Moon by Alan Friedman

Middle Right: H-Alpha Sun by Alan Friedman

Bottom Left: NCG-7023 by Rick Pason

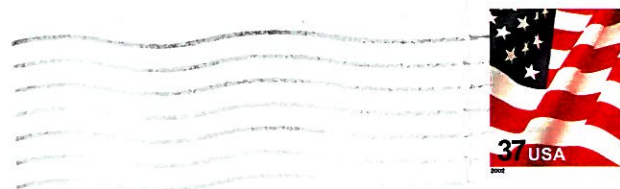


If you would like to see these pictures and more in color, then please check out the electronic version of the spectrum at:  
<http://jseibert5.cit.buffalo.edu/BAASpectrum>



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