THE FEBRUARY MEETING

What an honor it was to introduce an amateur astronomer whose dedication and endless supply of enthusiasm has earned him the respect and admiration of amateurs and professionals around the world. Howard Brewington, comet hunter, astrophotographer and public speaker...if you missed his talk on astrophotography, it is safe to say you have no idea what you missed.

As always, Howard took the time to photograph every step and item he made reference to. The slides that featured his early attempts to capture comets on film were accompanied by slides of his equipment. As his talk progressed, so did the complexity of his camera gear. The fruits of his labor, the slides of Orion, galaxies and comets he discovered progressed to a point of perfection that had the audience spellbound!

Howard promised to return with more tales of comets found and comets lost...and, I'm sure the continuing saga of the eight hundred number.

THE MARCH MEETING

Galaxies...once viewed as the most serene and benign objects in the universe. Billions of stars whirling around a central region called a nuclei provide telescopic images reminiscent of the most delicate orchids. With the advent of radio astronomy, the once placid view has been shattered forever.

In March, we will be fortunate to have as our guest speaker Shannon Hall. Ms. Hall is currently researching active galactic nuclei for her doctoral thesis. After speaking to Ms. Hall, I can assure you her talk will be one you won't want to miss.

As usual, our meeting will conclude with a social hour featuring home baked cookies, coffee, and more. Bring your friends and neighbors. If you like, you can even bring your favorite cookies! The meeting begins at 7:00 p.m. on Saturday night, March 21st and will be held in Regener Hall (see map on page 4).

MESSAGE FROM THE PRESIDENT

The weather is finally beginning to turn warmer. Spring is just around the corner. Those beautiful, clear temperate nights are just beyond our reach. Plans to make the most of the night sky are already being made.

Last year I instituted what I called the “in town star parties”. At first I wasn’t sure anyone would attend. Boy, was I wrong! The smallest crowd consisted of about thirty people. The largest, about a hundred and more. This year, the number of “in town star parties” will be extended to six. The first will be held on the west side of town on April 11th. The event will begin at 6:30 p.m. which is about an hour before sunset and will continue until the last person goes home. The exact location and last minute instructions will be announced by Robin Marshment during her
presentation of the weather at around 10:00 p.m. Friday, April 10th. If you cannot be within earshot of a TV Friday night, call any board member for details.

On May 9th, our in-town star party will be held at Coronado Monument State Park. This date corresponds nicely with Astronomy Day (see article on Astronomy Day in this issue). Star parties held at Coronado usually attract as many as a thousand people or more. Please join us for this one...and bring your scope. Subsequent dates are tentatively as follows: June 6th, July 18th, August 8th and September 5th. Locations for these dates are up to YOU! Give me a call and make a suggestion. I had one right around the corner from my house last year. You can do the same.

Some other events you will want to be on the lookout for are a family picnic and camping held in July (on the 4th or the 25th), the dedication of our very own observatory, the Messier marathon (see article in this issue on the Messier marathon) and more.

If you have any suggestions for other events or would like to be a part of the team that makes it all happen, come to the board meeting Thursday March 26th at 7:00 p.m. We really would appreciate your help.

Thank you,

George S. Pellegrino, President

SUMMARY OF THE WEDNESDAY, FEBRUARY 19, 1992 BOARD MEETING

President George Pellegrino called the meeting to order at 7:06 p.m. The general and observatory funds have respective balances of $207.61 and $7128.51 as presented by treasurer Bob Stetz. After the secretary report was given by Bruce Levin, George Dulleck gave the General Nathan Twinning Observatory update. The shutter motor is ready for installation followed by the base ring and rollers for the dome. The dome will then be raised in place by crane.

The public education events schedule was reviewed as presented in the February newsletter. Doug Ray arranged the use of the Winrock Mall for National Astronomy Day which will be held on Saturday, May 9th, the day before Mother's Day. Plans were made to organize this event. Public In Town Star Parties will begin on April 11th and will run through September 5, 1992. Our Society will be looking for radio stations to help sponsor the in-town events. One more judge is needed to assist Art Jacobs in judging the Northwestern New Mexico Regional Science and Engineering Fair being held just before noon through the early afternoon on Friday, March 20th at University of New Mexico Johnson Gymnasium.

Old business presented was investigating restroom alternatives at the observatory site, installing a radio relay link from the observatory site to a monitoring location in Albuquerque, and utilizing space data on CD ROM disks from the Space Exploration group on campus (SEDS).

Newsletter articles were assigned and the meeting was adjourned at 9:10 p.m.

OBSERVATORY CONSTRUCTION

On February 8th we did a final alignment on the rollers for the dome shutter and decided that we were finally good enough to proceed with the motor design. We took up the work on the 18th with the parts for the motor drive in hand but needing assembly. Our welder (Marc Kollendar) worked on the motor support structure while some of us put another coat of paint on the interface section of the building (the wood work had peeled somewhat under the winter weather and needed a second coat of paint).

During the design and construction of the motor assembly we were somewhat worried that the motor might not have enough torque to raise the shutter. The problem was that we knew the approximate weight of the shutter but did not know how much additional force would be required due to various friction components.

By 5:00 p.m. the motor structure was welded in place near the top of the shutter and we were cutting the various drive chains to their proper lengths for the first trial run. At around 6:00 we were finally ready for the first motorized shutter opening. At about the same time Nathan Twinning came driving up with some friends!!

After an initial safety check we invited Nathan (and friends) in to watch the first raising of the shutter!! The event marked a major milestone in the observatory construction and everyone was very excited to see the many weeks of effort succeed! We were elated when at last the shutter rolled up to the top. Congratulations were shared among all who were present.

We all packed up and then stood around for a while commenting on how good the stars looked on this significant night, but alas none of us had brought a telescope, so we headed home.

George Dulleck, Vice President

NATIONAL ASTRONOMY DAY

As has been the custom of The Albuquerque Astronomical Society, we will again be participating in the celebration of National Astronomy Day this year. In the past we have enjoyed our participation in this important day. It is an opportunity to bring astronomy, both amateur and professional, to the attention of the uninitiated. This celebration has helped our membership effort. This year's event promises to bring us success again.

National Astronomy Day will be celebrated this year on May 9. We will set up at Winrock Shopping Mall and feature displays from the Very Large Array Radio Telescope, Apache Point and Sunspot Observatories, our own telescopes and displays. Our location in the mall this year will provide us with lots of foot traffic. May 9 is the day before Mother's Day and a large sporting goods store will also be having its grand opening nearby. There will be lots of Dads with the kids doing some last-minute shopping for Mom.

This event is an important part of our efforts to "reach the people." We need people to help both with manning the displays and providing items to exhibit. If you can help your participation would be appreciated. Contact Doug Ray or Blair Johnson for more information. Our phone numbers are listed on the back of this newsletter.

Doug Ray

FIFTH ANNUAL MESSIER OBJECTS CONTEST

Date: Saturday, March 28, 1992.
Location: General Nathan Twinning

Sidereal Times March, 1992
### AAS Public Education Calendar

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<th>EVENT</th>
<th>TYPE*</th>
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* SP = Star Party  
** PR = Presentation  
** DI = Display  
** TBD = To Be Determined  

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**Observatory site. Backup date and location: April 4, 1992 at Gran Quivira. This is it! The best darn star party for sure! See the best the heavens have to offer. There just ain't no better way to learn the night sky. This is the biggest star shootout of the year. By going through the TAAS worksheet of all 110 Messier objects you'll learn more in this one night than in many nights put together. It's a night that can make a rookie stargazer into a real starhopper! No telescope is required. In fact, it works out much better to have two or three team members per scope. Team up before or after arrival. Worksheets will be passed out at the event, or before by calling Lee @ 899-3725. Don't miss this one!**

**Astrophotographs Wanted**

Society members have an opportunity to contribute their astrophotographs for publication in text books written by University of New Mexico Astronomy Professor Dr. Michael Zeilik. Dr. Zeilik is continuously looking for excellent astrophotographs.

If you feel that you have some worthy photos, send them to Dr. Zeilik at the UNM Physics and Astronomy Department. Who knows?—your photo may end up on the front cover of one of his textbooks!

**Quality Astronomical Mirrors for Sale**

How many of us amateur astronomers would like to build our own telescopes but just do not seem to have the resources, time, dexterity, and/or patience to grind, polish, and test our own mirrors? Comet hunter and telescope mirror maker Howard Brewington is selling 8-inch, 10-inch, and 12-1/2-inch Newtonian mirrors for $275.00, $425.00, and $575.00 respectively. Howard guarantees to polish these parabolic mirrors to 10th wave or better at the wavefront. A Ronchigram photograph, and tabulated and diagram results of a caustic test will be provided for the mirror purchased. The mirrors will be aluminumized immediately and prior to shipment to the customer. Howard's three comet discoveries were made with 8-inch and 16-inch Newtonian telescopes that he built from scratch (mirrors and all)! If you have the amateur telescope maker's (ATM) bug and are serious about building your own telescope at a reasonable cost and purchasing a quality mirror, contact Howard at (505) 687-3970 or write to Howard at P.O. Box 995, Cloudcroft, New Mexico 88317.

**Armchair Astronomer**

Not everyone who reads this newsletter is an avid observer. There are those among us who don't own fancy telescopes or even a pair of army-surplus WWII binoculars. There are probably even some who don't care to stand out in their backyards in these frigid months to try to find those elusive, fuzzy little patches of light. There are those among us who would like to tempt frostbite, but who are unable, for one reason or another, to brave the cold. I like to observe but, even if I have to admit that occasionally when the thermometer dips down into the teens as it often does in these parts, I can sometimes be found curled up in my recliner with a good astronomy book!

If you find yourself fitting neatly into the above category of Armchair Astronomer don't despair. You're not alone. It's with this in mind that the Sidereal Times has decided to devote this space in future newsletters to you.

We will feature articles in this column devoted to, and hopefully contributed by, armchair astronomers. We would like to hear from you if you have read a good astronomy book lately or if you have some neat little astronomy-related pastime that you pursue from the comfort of your living room. If your astronomy hobby is stored on a floppy disk then this space is for you.

Please help us reach a valuable and viable portion of this society's membership—The Armchair Astronomer. Let's hear from you.

Doug Ray

**Science Fare**

Science and Natural History  
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**HELEN ZEYEN**  
(505) 299-3420  
8246 Menaul Blvd. N.E.  
Albuquerque, NM 87110

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**TAAS Member Speaks at Roswell**

Lee Mesibov was the guest speaker for the Roswell Astronomy Club's February monthly meeting. He brought his homemade 17.5" Dobsonian down and gave a talk and slide show about Dobsonians. The talk was followed by a star party just outside of town in clear skies. The public was also invited and around 35-40 people showed up, which was a lot for their club meetings. Pros and Cons of Dobsonians were explained and shown first hand. Everyone was much enlightened.
and entertained.

SPACECRAFT PHOTOGRAPHY AVAILABLE AT SPIF

The UNM chapter of the Students for the Exploration and Development of Space (SEDS) and the UNM Map and Geographic Information Center (MAGIC) have teamed-up to create the Space and Planetary Image Facility (SPIF). SPIF is a library of images that have been stored on compact disks for retrieval on computers. It consists of optical, X-ray, and radar images gathered by Magellan, Viking, Voyager, and many other astronomical satellites. There are also many weather, geological, geographical, and atmospheric images. SPIF is free and open to the public. It is located in the Map and Geographic Information Center on the lower floor of the UNM Centennial (Science & Engineering) library. The library is underground and the entrance is located northeast of the entrance to Regener Hall.

Mike Fisk

MAGAZINE SALE

Get out your wallet! The sale of sales! Magazines by the box! Cheap! Cheap! Cheap! You name it, we've got it! Sky & Telescope, Astronomy, Griffith Observer, etc. Must sell! These magazines sell for hundreds of dollars, and feature beautiful pictures and very informative articles, but we're practically giving them away. Make an offer. We must clean out most of our surplus library inventory. Call Lee at 898-3725 and deal! All monies go the the Observatory fund.

ASTRONOMICAL CLASSIFIEDS

For sale: Celestron C11 with orange tube with Meade tripod and equatorial mount with Byers drive. Includes 2" 25mm eyepiece, 2" barlow, 2" and 1-1/4" adapters, and Accu-Trak 12 V to 115 vac inverter. Superb optics! $2200.00. Contact Bruce Ashcraft at 299-0891.

Wanted: Quality eyepieces and other astronomical accessories for donation to the General Nathan Twining Observatory. All donations are tax deductible! Call Art at 344-4985.
April 1992 Solar Almanac

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April 1992 Lunar Almanac

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Albuquerque, NM
Time Zone: MDT
Latitude: 35.08
Longitude: 106.65

MA = Morning astronomical twilight, sun is at -18 degrees altitude.
MN = Morning nautical twilight, sun is at -12 degrees altitude.
MC = Midnight civil twilight, sun is at -6 degrees altitude.
SR = Sun rise, upper limb on horizon.
TR = Transit, sun is due south and also highest in the sky.
SS = Sunset, upper limb on horizon.
EC = Evening civil twilight, sun is at -6 degrees altitude.
EN = Evening nautical twilight, sun is at -12 degrees altitude.
EA = Evening astronomical twilight, sun is at -18 degrees altitude.
Times are rounded to nearest minute.

RA = Azimuth of rising sun.
TA = Altitude of sun at transit.
SA = Altitude of setting sun.

Attitudes and azimuths are in degrees.

Calendar by Ray Sterner
Johns Hopkins Applied Physics Lab.
Laurel, MD 20707
DUES: Please note the expiration date on your mailing label. If you are due for membership renewal, you may send your dues by mail to our newsletter return address with your check written out to The Albuquerque Astronomical Society or give your check to the Treasurer at the next meeting. Please include the membership application that is sent with your newsletter when it is time to renew. Discount subscriptions to Sky and Telescope ($18/12 issues), Astronomy ($16/12 issues) and Odyssey ($16.95/12 issues) magazines, and books through Sky Publishing Corporation are available at a reduced cost when purchased by The Albuquerque Astronomical Society members through our Society. Include any of the above magazine renewal mailers and subscription payment as part of your renewal check. Membership dues are $20.00 per year and $3.00 per additional family member. Membership Packets cost $1.75 each for new members or renewing members without the Packet. Contact the Treasurer for more information.

SOCIETY COMPUTER BULLETIN BOARD SERVICE: An Astronomy BBS is available for The Albuquerque Astronomical Society members for discussion, announcements, and transfer of files and newsletter articles in our software library. The BBS is available 24 hours a day at 255-3623. Set your computer's modem to 8N1 (8 data bits, no parity, and 1 stop bit). Contact the Software Coordinator for more information.

NEWSLETTER ARTICLES: Personal astronomical classified advertisements and articles can be submitted within 5 days after the latest Society meeting in order to make it into the next newsletter. Business card size advertisements for businesses related to astronomy are accepted with the same deadline as articles and personal classified advertisements. Rates for business card size ads are $10/ad per issue of the Sidereal Times. $7/ad per issue for six continuous issues, and $5/ad per issue for twelve continuous issues. The Newsletter Editor reserves the right to include or edit any article or personal classified or business card size advertisement. Computer files in ASCII format are preferred. Contact the Newsletter Editor for more information. Since August, 1989, the Sidereal Times has been typeset on an Atari Mega ST4 and an Atari SL9604 postscript-compatible laser printer, using Pagestream and Ultrastruct.

CHANGE OF ADDRESS: Note that the Sidereal Times is mailed out at non-profit bulk rate. The newsletter will not be forwarded to your new address if you move! Please provide the Secretary with your new mailing address to insure that you receive your newsletter.

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The Albuquerque Astronomical Society
P.O. Box 54072
Albuquerque, NM 87153
Address Correction Requested

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- Society Staff -

Board Members:
- George Pellegrino
- George Dulock
- Bruce Levin
- Bob Stetz
- Mac Morgan
- Douglas Ray
- Art Jacobs
- Blair Johanson
- Wilfred Pedroncelli

Non-Board Members:
- Michael Fisk
- Helen Brasfield
- Lee Mesibo
- John Hockemeyer
- Steve Williams

821-8516 (home)
293-7994 (home)
299-0891 (home)
842-5281 (home)
296-3983 (home)
892-1596 (home)
344-4985 (home)
296-9320 (home)
344-7683 (home)
268-4885 (home)
268-4885 (home)
898-3725 (home)
293-5133 (home)
898-4885 (home)