UPCOMING EVENTS

7-28 Saturday: Delta Aquarid Meteor Shower
8-4 Saturday: Construction at Twining Observatory-Day
   Monthly meeting of the Society-Evening (7:30 p.m. at
   Regener Hall on the UNM campus)
8-6 Monday: Full Moon
8-9 Thursday: Society Board of Directors meeting, 7:00 p.m.
8-11 Saturday: Construction and Star Party at Twining Observatory site
8-12 Sunday: Perseid Meteor Shower
8-13 Monday: Jupiter and Venus within 0.5 degree in Morning sky
8-18 Saturday: Construction at Twining Observatory Site
8-20 Monday: New Moon
9-5 Wednesday: Full Moon
9-8 Saturday: Monthly meeting of the Society
9-13 Thursday: Society Board of Directors meeting, 7:00 p.m.
9-15 Saturday: Star Party at Twining Observatory site

THE GENERAL NATHAN TWINING OBSERVATORY FUND

August is the last full month during which Nathan Twining's generous offer to match donations to our observatory fund will be in effect. Our building fund got a great boost from the members at the July meeting, where we began responding to this matching-fund program with admirable enthusiasm. For those who have been giving up large amounts of their time on weekends and putting their labor into the observatory's first building, it was gratifying to see fellow members put forth money needed to keep the construction on schedule.

We still need more. If you haven't given yet, please make whatever donation you can now. Because of Mr. Twining's generosity, the money you give now will be doubled. Don't forget that your donations to this fund are tax-deductible. And don't forget that your money is going to a facility where research will be done and future scientists will be inspired and trained for years to come.

THE AUGUST MEETING

Our August meeting will feature a talk about an observatory that soon will make New Mexico even more of an important center for professional astronomy than it is already. Jim Fowler, site manager for the Apache Point Observatory, will tell us about the progress in constructing this premier astronomical facility.

The Apache Point Observatory, at Sunspot, NM, already has been featured in articles in *Sky & Telescope, The Chicago Tribune,* and *The Albuquerque Journal.* With a 3.5-meter telescope of the latest design, this observatory quickly will take its place among the leading centers of astronomical research in the world. A joint project of New Mexico State University, the University of Washington, the University of Chicago, Princeton University, and Washington State University, this observatory will feature the latest mechanical design and state-of-the-art computer control systems that will allow astronomers to make observations from their desktops a continent away. Research programs already planned at Apache Point include studies of solar-system formation around other stars; end states of stellar evolution; galaxy formation; and if and how the universe might end. Results from these studies certainly will keep Apache Point and New Mexico in the astronomical headlines for years to come.

You'll want to hear all the details that Jim Fowler will bring about this large observatory going up in our state. The meeting will be on Saturday, August 4, at 7:30 p.m., in Regener Hall on the UNM campus.
THE JULY MEETING

In many ways, our July meeting probably was one of our best ever. It had all the elements—a great speaker, good attendance, and a final element that will last far into the future. The meeting marked the opening evening of Nathan Twining's generous matching-funds offer for donations to our observatory fund. In response to his offer, and our need for money to complete the observatory's first building during the current warm-weather season, those present gave $2,653 in cash, checks, and pledges. That total, when matched by Nathan Twining, means that we raised more than $5,000 for our project in one night. We still need more, but we took a long step toward completion of the first, important phase of this observatory.

Also at this meeting we heard a great talk by Dr. Horton Newsom, of the UNM Institute of Meteoritics, on Giant Impact Craters on the Earth. Dr. Newsom told of his research, both here and abroad, into the mechanisms of impact cratering and the evidence left by large impact events. He also brought a specimen from Germany of one type of rock resulting from a large impact, so we got to see part of his topic first-hand. This was a great chance to hear a leading researcher in a field of great interest to both astronomy and geology.

OBSERVATORY CONSTRUCTION UPDATE

In the last two weekends we have brought the observatory walls up to the 2nd horizontal bond beam at the 8 foot level. The pier is now at its full height. In the next 5 or so weeks the building will be complete up to the top block. We will then wait until the dome is close to completion before we install the very top wood section used to attach the dome to the building.

During the upcoming weeks we have several large tasks to get done. The two remaining wall sections (rises) will need to be filled with concrete and the wood second floor needs to be installed. The two wall sections will be done with the aid of a concrete pump which will make getting the concrete up to the 8-foot and 12-foot levels a manageable task. The second level floor is composed of two main laminated beams supporting joists running out to ledgers mounted to the block walls at the 8 foot level. There are 31 joists to install plus the laminated beams, ledgers, stairway, railings, and floor decking.

If you can make it out to any of the upcoming work days,give me a call @ 293-7994.

George Dulleck

<table>
<thead>
<tr>
<th>DATE</th>
<th>TASK</th>
<th>PEOPLE REQUIRED</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/04/90</td>
<td>One row block, install lam beams, ledgers, fill select holes</td>
<td>15</td>
<td>Work 7 a.m.–1:00 p.m.</td>
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<tr>
<td>08/11/90</td>
<td>Install second story floor. Bring screwdrivers, hammers, and ladders</td>
<td>15</td>
<td>Work 7 a.m. 'til whenever done. Will be a long day (depends on temperature). May need to work next day</td>
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<tr>
<td>08-18-90</td>
<td>Two rows block</td>
<td>15</td>
<td>7 a.m.–2 p.m.</td>
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<tr>
<td>08-25-90</td>
<td>Two rows block</td>
<td>15</td>
<td>7 a.m.–2 p.m.</td>
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<tr>
<td>09/01/90</td>
<td>Fill third (final wall section), requires concrete pump</td>
<td>5</td>
<td>8 a.m.–noon Depends on concrete truck and difficulty of pumping to 12 ft. high levels</td>
</tr>
<tr>
<td>Sept, Oct, Nov</td>
<td>DOME WORK Need to pick up the dome (August) Need structural analysis, permits, metal work, assembly work, and transportation</td>
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<td>Details will be printed when we get further along</td>
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</table>
SUMMARY OF THE JULY 12, 1990 BOARD MEETING

President Dave Finley called the meeting to order at 7:14 p.m. Announcements were made, followed by the treasury report presented by Mac Morgan. The General and Observatory funds have July 10th balances of $1798.17 and $4617.67 respectively as provided by Treasurer Leo Wellner. The Society membership update and correspondence information was given by Secretary Bruce Levin.

Items discussed for old business were the Society Public Education, Astronomy Day planning for next year, the Society Observatory construction status, donations received for the Observatory Fund, and the Society telescope inventory. Art Jacobs indicated that there are 12 volunteers in the docent training program. He also mentioned that our Society is always looking for supplementary material for use in our public education programs. After having done a fine job of organizing this year's Astronomy Day, Bill Airo was asked and volunteered to be Astronomy Day Coordinator for next year's event. It was mentioned that Jim Cox is presently working on a steel door for the General Nathan Twining Observatory. Dave Finley was gratified at the donations and pledges received at our last general meeting. Mike Fisk provided the board with an inventory of all the telescope related equipment owned by our Society.

For new business, Art Jacobs presented for discussion providing astronomy programs for our younger and novice members. Mac Morgan proposed having Albuquerque Astronomical Society business cards made up for board members conducting business for the Society. The request was approved by acclamation of the Board. Finally newsletter articles were discussed and then the meeting was adjourned at 9:05 p.m.

MEMBERSHIP UPDATE

The Society presently has 188 general members, 58 family members, and 4 honorary members. Thank you to those of you who have renewed. The Society wishes to welcome the following members who have joined since the end of April 1990:

Brad Broadfoot    Robert Brown    Suzanne Dawson
Susanne Keniley   Daniel Kessler   Stewart McKechnie
Judith Miller     Richard Ogorek   Alan Otterson
                  Nathan and Steven West

ASTRONOMY DAY

Mac Morgan (background) and Jerry Goff (foreground) operating the sunscopes, gave Astronomy Day attendees a closeup look at solar phenomena, in the New Mexico Museum of Natural History courtyard. (Photo by Steve Williams)

George Pellegrino and Dave Finley ham it up, while George Dulleck talks to an Astronomy Day attendee in the lobby of the New Mexico Museum of Natural History. (Photo by Steve Williams)

Astronomy Day was held at the New Mexico Museum of Natural History with evening observing at Elena Gallegos Park on 30 June. In addition to AAS displays, UNM, VLA, Sunspot and Apache Point provided displays which were set up at the museum. The solar scopes were probably the most popular attraction of the day. The evening clouds cleared in time to show the public many of the wonders of the summer sky including M13, M57, M27, M8, the moon and Saturn. It was a great day to introduce the public to astronomy and the AAS.

Thanks to all who helped make Astronomy Day a success. Your assistance was deeply appreciated. A special thanks to our solar observers who endured near record breaking heat to allow the public a view of our star.

Bill Airo
OCCULTATION UPDATE

Note: The key to this new format and a discussion of what this is all about has been provided in a double sided page in your Membership Packet—to avoid excessive repetition in this newsletter.

1. Selected Total Lunar Occultations. (There are others at less convenient times. Call me if you wish.)

   Day/Date Time P UBDR O MAX PCT PH HN KH CA B C
   H M S HT 80° V MAG SHLF AL AL AZ

a. Your Own Observation Site

August - Mountain Daylight Time

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B. Gen. Twining Observatory Site - August MDT

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<td>SAT/18 04 17 39 D</td>
<td>K0405 99 -1.4 5-</td>
<td>9</td>
<td>72 62S -0.3 -0.1 -1.1 This prediction is for center of Jupiter. Duration of partial stage for disk is 65 seconds!</td>
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C. Gran Quivira (Your Occultation Coordinator assumes that all GQ fun is to be pre-empted by Twining Site labors.)

2. Selected Grazing Occultations

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<th>SAO #</th>
<th>Mag</th>
<th>Alt</th>
<th>Az</th>
<th>PShl</th>
<th>Cusp</th>
<th>Rating</th>
<th>Leader</th>
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<td>Albuquerque</td>
<td>77872</td>
<td>8.5</td>
<td>16</td>
<td>68 20-</td>
<td>7.0N</td>
<td>Marginal</td>
<td>Morgan</td>
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<td>228 39-</td>
<td>7.25</td>
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<td>Morgan</td>
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<td>183931</td>
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<td>209 48-</td>
<td>4.95</td>
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<td>Marginal</td>
<td>Morgan</td>
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3. Occultations By Asteroids (We have star-charts on this one. If interested, I'll run you a copy-set.)

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<th>Star ID</th>
<th>Rating</th>
<th>Leader</th>
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<tbody>
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<td>SAT/0901 0155m</td>
<td>-/30s</td>
<td>TERPSICHORE (mag. 13.34)</td>
<td>9.19</td>
<td>mag. star AGK3-2900648</td>
<td>RASHm57.3s DEC -29059'S3.28</td>
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</table>

4. Is anybody reading this? Frankly, I doubt it. Prove to me that I'm wrong.

Mac Morgan 296-3983

VISUAL DISCOVERY OF SUPERNOVA 1990M IN NGC 5483

The success rate in visual supernova hunting can fluctuate greatly, as can also the appearance of supernovae which are bright enough to be seen—regardless of who finds them.

Over twelve months passed between the discoveries of SN 1988A and SN 1988B, with no other supernovae between bright enough for me to see.
Nearly 16 months passed between the discoveries of SN 1989B and SN 1990K, with one other bright supernova in between, discovered by a Soviet professional. I also managed to get a brief glimpse of a magnitude 15.7 SN discovered by the Berkeley Automatic Search team.

So, two discoveries in twenty days provides a welcome break from long stretches of negative observations of galaxies. SN 1989K was found on May 25.8UT, and SN 1990M was found on June 15.45UT.

During the full moon at the beginning of June a new eyepiece arrived from Dr. Carl Pennybacker as a helpful gesture in the common cause—a 4.8mm Nagler. This eyepiece would provide just that extra bit of resolution more than the 6mm plossl I had been using regularly for some years. The wider field would be an extra help.

It was with this new eyepiece that SN 1990M was discovered, and in a location that tested the resolving power of the telescope, especially because I was partly hampered by second rate seeing conditions.

In a visual search it is easy to ignore elliptical or So-type galaxies, because they produce so few supernovae. But, on June 15, a search of NGC 5493 with high power revealed a new star on the NW side of the nucleus of the galaxy.

The only resources I owned in relation to this galaxy were (1.) 35mm slides of the galaxy from the Palomar Survey, and, (2.) a rejected test film and glass positive of this field from the U.K. Schmidt. In both cases, the galaxy images were overexposed at the location of the new star. I knew from memory that no star was there normally, but I checked the catalogues. The only reference to a foreground star was an 18th mag. star in the original NGC.

I rang Tom Clegg at his Coonabarabran home. He quickly observed the galaxy, and rang back excitedly to say that the western object was definitely stellar. He could not make it fuzzy, no matter how hard he tried. His magnitude estimate was 13.5—nearly as bright as the whole galaxy. Tom's only reference photo was also one of my 35mm slides from one of the surveys. So, he could not say that the star was definitely a new object.

To get more confirmation, and hopefully an exact position, I rang Rob McNaught, working with the Uppsala Southern Schmidt, and then also rang the Central Bureau in Boston to report on progress to Dr. Brian Marsden.

The following morning I was to find out that—on the Australian front—owing to a phone call while the exposure was being made, Rob's plate turned out to be overexposed, and the SN was not visible on it.

The observer using the 2.3 metre telescope of the Australian National University tried to observe the supernova with his spectroscope. But the dispersion was set too high, showing only a part of one of the hydrogen lines—not enough to show any detail of the supernova or of the galaxy nucleus. He said he could see two objects in the galaxy, using the monitor.

The following two nights, Dr. Russell Cannon had a low-dispersion spectrograph on the Anglo-Australian Telescope for use observing various supernovae—but cloudy weather closed in completely.

The situation was saved by Dr. Marsden, who, following my phone call, had alerted several observatories, and within twenty-four hours, had observations reported in from three sources. Astronomers using the IUE satellite reported a point source at the correct spot, with a spectrum consistent with a type 1 supernova. Spectra made at E.S.O., and at Mount Hopkins, revealed a type 1a supernova near maximum light.

The offset of the supernova from the nucleus of the galaxy was given as 15" west and 4" north. I had only been able to guess the offset roughly by holding a plastic rule behind my 35 mm slide.

Considering that Tom and I did not have any better photos of NGC 5493 than the overexposed survey pictures, and what had happened with our local efforts to confirm the discovery, (which really required spectra), the reports from other observatories provided the needed confirmation to support our two visual observations.

NGC 5493.  Position:  14H 08.9. -04 47.
Mag. 12.4.  Type E7 or So pec.
Constellation: South-East Virgo.
Velocity:  2566 km/sec.

SN 1990M.  Type Ia.  Mag. 13.5.
Offset:  15" West. 4" North.

Riverside Telescope Maker's Conference

This year's RTMC in the mountains near Big Bear, California, was one of the largest and most successful ever. The huge crowd of amateur astronomers, numbering in excess of 2000, was treated to two evenings of unusually transparent skies, hundreds of scopes up to 24" aperture, and a score of talks covering virtually all aspects of astronomy. This is not to say that there haven't been some disappointing trends at the RTMC in recent years. Since my first RTMC in 1984 there has been an increasing amount of light pollution from the nearby communities of San Bernadino and Riverside, and a decreasing emphasis on innovative telescope making. Some have also complained that this annual celebration of amateur telescope making has been increasingly dominated by displays from big telescope vendors, although for me the opportunity to buy products from companies like Meade, Celestron, and TeleVue at bargain-basement prices is part of what brings me to the RTMC year after year. Despite its shortcomings, the RTMC remains a very worthwhile experience for amateurs at all levels of expertise. For me, the highlights of this year's gathering were beautifully made 13.1" binoculars made from matching Coulter mirrors, a view of the globular cluster M13 through a 7" AstroPhysics refractor, a view of the Whirlpool Galaxy through a 24" equatorially mounted Newtonian, and a talk on comets by Sky and Telescope columnist John Bortle. If you've never been to the RTMC, make a special effort to make it next year!

Bandelier National Monument

This year, for the second year in a row, the AAS has been invited by the rangers at Bandelier to give some of their evening "campfire" talks for the public. This year's first Bandelier event hosted by the AAS was on Saturday, June 18. The event was attended by nearly 100 members of the public, and staffed by seven AAS members as part of our ongoing public education program. The event was kicked off by a slide show that I gave that had been called "Much More Than You Ever Wanted to Know About the Whole Universe, in 35 Minutes or Less". Afterward, some people actually told me they enjoyed it (out of profound pity, no doubt). I should have known enough to shut up when I realized that everyone under the age of 18 and over the age of 45 had fallen asleep. (...just kidding! Most people did actually seem to enjoy it). Anyway, the real highlight was the viewing through the telescopes following the slide show. Since this was one of the darkest and most transparent nights I have ever seen in New Mexico, it was indeed a treat for both the public and the members of the AAS. There were long lines to look though all the scopes, particularly my 5" refractor on M13, and Lee Mesibov's 17 1/2" Dobsonian on M51. After about an hour almost all of the public wandered off to bed, leaving the amphitheater to the still animated amateur astronomers. Seldom have I experienced a night where the Milky Way more richly deserved it's name, and the view of the Veil Nebula through Lee's big Dob using an OxygenII filter was stunning! The moonrise finally sent the last of us off to bed at about 3:00 A.M., leaving us all with hope that our next outings at Bandelier, on July 28 and August 18, will be as good as the last.

Art Jacobs

JUNIOR ASTRONOMY GROUP

Do you know a young person, age 7 to 13, interested in astronomy who might like to participate in a junior astronomy group sponsored by the AAS? The issue of a separate group for juniors was prompted by comments from several AAS members who said that they knew aspiring young amateur astronomers who didn't participate in the regular AAS activities because they were in one way or another unsuitable for kids. Two specific concerns raised by these adults were that our star parties were too far away for kids to get their parents to drive them to, and that the talks at our general meetings were not presented at a level suitable for children. Two concepts for a separate AAS group for kids were suggested at the July meeting of the Board of Directors. The first of these was that a separate talk for kids could be given in the half hour immediately before our regular general meeting. The second was that an entirely separate meeting could be held for the junior group at the home of an AAS member, and that this meeting would include a short talk suitable for kids and viewing through telescopes in the backyard. In either case, the meetings would be held every other month, and would require the attendance of the kid's parents. Preferably, both the child and at least one parent would be registered together in the AAS as family members. If you or some young person that you know would be interested in the idea of a junior AAS group the Board of Directors would like to hear from you! You can call me at 344-4865 in the evenings to register your opinion.

Art Jacobs, Event Coordinator

ASTRONOMICAL EQUIPMENT SALE/ FUNDRAISER

The following astronomical equipment belonging to the AAS is now on sale, with all proceeds to benefit the General Nathan Twining Observatory Fund: 5" Maksutov, f/14, 200cm focal length, made by 3M, in heavy metal tube. Detailed optical design unknown, but probably served as a missile tracking camera at White Sands in the 1960's. Suitability for astronomical applications unknown. Two available. Best offer over $75...
each. 6" Maksutov, f/4, 20" focal length, in heavy metal tube. Nameplate says "Zoomar Reflectar". Detailed optical design unknown, but probably served as a tracking camera at White Sands in the 1960's. Chipped corrector plate, and missing output lens to form image of objects at infinity. Best offer over $30. 8" fiberglass tube from a Cave Newtonian with no optics or hardware; $20. Mount and tube from a 17.5" Coe- ter Dobsonian, no optics or other hardware; $40 obo. Pair of sand cast aluminum arms from a Celestron 14 fork mount, in excellent condition. Best offer at $50. 6" Pyrex mirror blank, and 4 oz. cannister of polishing rouge; $15 obo. Optics from a 25mm Ramsden eyepiece kit, and instructions for use; $5.

All items are sold "as is". Contact George Dulleck at 293-7994 (evenings) for further information.

AAS PUBLIC EDUCATION CALENDAR

<table>
<thead>
<tr>
<th>EVENT</th>
<th>TYPE</th>
<th>LOCATION</th>
<th>AGE/GRADE</th>
<th>DATE</th>
<th>DAY</th>
<th>TIME</th>
<th>VOLUNTEERS NEEDED</th>
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<tbody>
<tr>
<td>Starfire Camp</td>
<td>PR,SP</td>
<td>Edgewood</td>
<td>10-13 yr.</td>
<td>7-26-90</td>
<td>Th</td>
<td>8:30P-9:45P</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Sandia Mt. Disc. Day</td>
<td>DI</td>
<td>Sandia Ski Area</td>
<td>All</td>
<td>7-28-90</td>
<td>Sa</td>
<td>9:30A-4:30P</td>
<td>4</td>
<td>4</td>
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<tr>
<td>Bandelier</td>
<td>PR,SP</td>
<td>Bandelier Nat. Mon.</td>
<td>All</td>
<td>7-28-90</td>
<td>Sa</td>
<td>8:30P-10:00P</td>
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<td>Starfire Camp</td>
<td>PR,SP</td>
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<td>10-13 yr.</td>
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<td>Bandelier</td>
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*SP = Star Party
PR = Presentation
DI = Display
Call Art Jacobs (344-4985) for more information.

ASTRONOMICAL CLASSIFIEDS

2X Orion Barlow. Deluxe multicoated, fully baffled—like new. "Only been used by a little old lady on Sunday star parties." A steal for $40.00 or best offer. 28mm Edmunds Scientific eyepiece—large piece of glass with a beautiful view to the edge—sacrifice at $40.00. Call Lee @ 292-1249.

* THE BATTERY IS NO PROBLEM, IT'S THE PACKING AND UNPACKING THAT'S THE REAL HEADACHE!

Cartoon by Charles Wetterer

Wayne A. Brown

The Sagittarius Globulars

EL CIELO ESTELARDO

Globular clusters are diffuse, spheroidal systems of stars that orbit the galactic center. They are particularly interesting because they are some of the oldest and most massive objects in the Milky Way galaxy. The Sagittarius Globulars are a group of these clusters that orbit near the galactic center, providing a unique opportunity to study the structure and dynamics of the Milky Way.

In appearance, the cluster concentration tends to be more diffuse than the globular clusters, with a few bright stars standing out. The most prominent of these is Messier 22 (NGC 6656), which is located in the constellation Sagittarius. This is a large, bright cluster with a distinctive appearance, with a few bright stars mixed in with the diffuse population.

The Sagittarius Globulars are not only interesting for their intrinsic properties, but also for their role in our understanding of the Milky Way as a galaxy. They provide a window into the early history of the Milky Way, as they are believed to have formed from the accretion of dwarf galaxies and other small systems. Studying these clusters can help us understand the processes that shaped our galaxy and the formation of new stars and planets within it.
### August 1990 Lunar Almanac

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#### Albuquerque, NM
- **Time Zone:** MDT
- **Latitude:** 35.08
- **Longitude:** 106.65

**MP** = Moonrise, upper limb on horizon  
**TR** = Transit, moon is due south and also highest in the sky  
**MS** = Moonset, upper limb on horizon  
**RA** = Azimuth of rising moon  
**TA** = Altitude of moon at transit  
**SA** = Azimuth of setting moon  
**Altitudes and azimuths are in degrees.**

Moon phase is shown each day at 12:00 noon in the time zone indicated.

*Calendar by Ray Sterner  
Johns Hopkins Applied Physics Lab  
Laurel, MD 20707*

### August 1990 Solar 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** = Morning civil twilight, sun is at ~6 degrees altitude  
**SR** = Sunrise, 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.

*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, Astronomy, Odyssey, Deep Sky, Telescope Making and The Observer's Guide 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 $13.00 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 8 N 1 (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 and/or edit any article or personal classified or business card size advertisement. Computer files in ASCII format (WordStar non-document mode) are preferred. Contact the Newsletter Editor for more information.

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.

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

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