**Sidereal Times**

THE OFFICIAL NEWSLETTER OF THE ALBUQUERQUE ASTRONOMICAL SOCIETY
P.O. BOX 54072, ALBUQUERQUE, NEW MEXICO 87153-4072

**JULY 1995**

Please note: TAAS offers a Safety Escort Service to those attending monthly meetings on the UNM campus. Please contact the President or any board member during social hour after the meeting if you wish assistance, and a club member will happily accompany you to your car.

**UPCOMING EVENTS**

**JULY**

7-12 Wednesday: Full moon.
7-13 Thursday: Board meeting.
7-15 Saturday: Regular meeting of TAAS at Regener Hall on the UNM campus at 7:00 p.m. (see map on back of newsletter).
7-16 Sunday: Elena Gallegos Picnic Area star party. See article for details.
7-19 Wednesday: Last quarter moon.
7-22 Saturday: GNTO observing. Call Bill Tondreau to confirm at 263-5949.
7-27 Thursday: New moon.
7-29 Saturday: GNTO observing. Call Bill Tondreau to confirm at 263-5949.

**AUGUST**

8-3 Thursday: Observatory committee meets.
   First quarter moon.
8-5 Saturday: Oak Flat Picnic Ground Star Party. See article for details.
8-10 Thursday: Board meeting.
   Full moon.
8-12 Saturday: Regular meeting of TAAS.
8-17 Thursday: Last quarter moon.
8-19 Saturday: VLA trip/Mt. Withington star party/campout. See article for details.
8-26 Saturday: GNTO observing. Call Bill Tondreau to confirm at 263-5943.
8-31 Thursday: Observatory committee meets.

(GNTO: The General Nathan Twining Observatory)
(TAAS: The Albuquerque Astronomical Society)

**THE JUNE MEETING**

Members and guests were greeted at the door by Brock Parker and Elinor Gates passing out trivia questions.

After calling the meeting to order, President George Pellegro made several acknowledgments for educational contributions including awards for the Northwest Regional Science and Engineering Fair. Way to go, Sydney, Cynthia and Laurie.

Elinor Gates introduced our guest speaker for the evening. Suzanne Chippendale, Director of The Santa Fe Community College Planetarium. Suzanne comes to Santa Fe with many years of planetarium experience and credentials enough to fill a wall. (See last month's Sidereal Times.) This year, thousands of kids have visited "her" planetarium. I say "her" planetarium, because basically it's a one person operation, which is amazing once you see all the controls, computer equipment, and projectors necessary for such a production, the heart of which is a Spitz 512 planetarium projector. It is easy to see why even a modest facility like this costs several hundred thousand dollars.

Not only are TAAS members encouraged to attend some of the shows, we are invited to bring up some of our scopes to augment her shows, particularly, on the first Thursday of each month for Celestial Highlights, a live presentation of
night sky for that month. Thanks again, Suzanne, for coming and I’m looking forward to my first planetarium show!

Kevin McKeown brought a 60 mm telescope and observing information for an Observer’s Notebook segment at our monthly meetings. Each meeting we hope to lure a member to bring in a telescope for “show and tell.”

George closed the meeting by announcing some of the upcoming events and a busy social hour ensued, complimented by some tasty cupcakes and cookies. By the way, Bruce Levin won the trivia contest by knowing the inanimate constellation of the “zodiac.”

Carl Frisch

THE JULY MEETING

On Saturday, July 15th at 7 p.m. The Albuquerque Astronomical Society will hold its monthly meeting at Regener Hall on the UNM campus (see map on the back of the newsletter).

Our guest speakers will be Elinor Gates and Thomas Pannuti. Both Ms. Gates and Mr. Pannuti are graduate students in astrophysics at the University of New Mexico and will describe some of the research in which they are participating. Ms. Gates will describe some of the Liquid Crystal Adaptive Optics system design work she has participated in at the Phillips Laboratory, while Mr. Pannuti will explain his observations and calculations of the absorption of star light by interstellar dust composed of silicates, water, and solid carbon monoxide.

In 1991 from Mount Holyoke College. In 1994 she received a M.S. in Physics from the University of New Mexico. While an undergraduate she interned at the Minor Planet Center at the Smithsonian Astrophysical Observatory in Cambridge, MA, where Asteroid 2650 was named Elinor in her honor for the work she had performed there. She was also a summer student at the National Radio Astronomy Observatory in Socorro, NM. After starting graduate school Ms. Gates started working at the Phillips Laboratory working on Adaptive Optics. Her PhD dissertation research topic is analyzing powerspectra of elliptical galaxies to determine their distances.

Mr. Pannuti graduated from Rensselaer Polytechnic Institute in 1994 with a B.S. in Physics with a minor in Astrophysics. His interstellar dust research was begun at RPI and is being continued at UNM. Mr. Pannuti presently is also working on setting up site testing towers for the Lodestar project (previously known as Cosmic Explorer) in preparation for building a site for the Enchanted Skies Observatory.

These two short talks are bound to be fascinating and inform us of what types of research are being undertaken right here in Albuquerque.

See you at the meeting and don’t forget the cookies!

Elinor Gates

JUNE BOARD MEETING

After our fearless leader, George Pellegrino, called the meeting to order, Heather Vogel gave a brief summary of the previous meeting’s minutes. The treasury has $4848.77 total funds on deposit as reported by Gordon Pegue.

Jay Harden and John Triarchis have been quite busy keeping in contact with new members and updating our membership roster. To date, we have 275 members, an all-time high for TAAS.

Alas, the observatory committee had some bad news. Gordon Pegue reported that the Isengard mirror is in bad shape upon return of being resurfaced by QSP Optical. Kevin McKeown has recommended restripping the mirror before proceeding with additional course of action as to what we should do with the mirror. Additionally, Karina Running Horse has become the latest addition to the committee. The security upgrade at GHTO is now completed. Finally, a new generator will be purchased for GHTO.

Down to previous business. TAAS’ name and logo are now formally registered with the state and a proposal for an amendment to limit use of it is underway. Letters for our complimentary members are being sent with the newsletter in an attempt to update the mailing list. Lastly, the new membership applications are almost ready to go and are awaiting the final rewrite.

And on to new business... Kevin has suggested having a telescope at the general meeting and having a brief report on current observations by TAAS members on a regular basis. He also has suggested a monthly column in the newsletter of interesting observations. Anyone out there with some photos of TAAS events they would like to share? Well, now (as
always—editor they can be part of our monthly newsletters; send the photos to the newsletter editor for inclusion.

For all those single women attending the TAAS meetings, if you would like an escort to your car, let George know and he will arrange for an escort to insure safety of any members who request it.

We now have an official public relations person for TAAS. Ruth Pendley will take on the responsibility to contact the news and other media of special events sponsored by TAAS.

Finally, after assigning news articles, the meeting was adjourned.

PRESIDENT’S UPDATE

The annual family picnic was a success despite the clouds. About twenty hearty souls went out to the General Nathan Twining Observatory to barbecue and socialize with the hopes of having a good look at the summer night sky.

Although the clouds never encouraged any of us to set up a 'scope, we did get to see something none of us will soon forget.

Thanks to Mike Pendley, we got to watch a fly-over of the space shuttle/Russian space station.

The camaraderie was worth the trip. For those who came to see the 'stars' through the Isengard 'scope, the clouds were only part of the spoiler.

If you remember my update in the previous Sidereal Times, I had exclaimed with great joy that our newly coated mirror would be back in the scope in time for the picnic...well, it's not.

Q.S.P returned our mirror in a condition unfit for use as even a shaving mirror. After quite a go-around with Q.S.P., I was able to get a refund but not a satisfactory explanation as to what went wrong.

I could not accept their explanation that we needed "to finish polishing" our mirror. As I explained to the Q.S.P. representative on the phone, what we sent them was a Cave mirror...what they sent back was a mess.

So the saga continues! Stay tuned for more details. We will eventually undo the damage to our scope that I feel was initially caused by the good intentions of CVI Laser.

On to another topic...If you have been an active participant in our public education program and would like to be publicly recognized at a meeting in the near future, check the list that follows this update. If your name is not on it, give me a call.

I am printing special awards for all of you who have contributed to our public education efforts. I know there are more people than this who deserve to be recognized. So don't be bashful! If your name has inadvertently been left out, please jog our collective memories.

George Pellegrino, President

PUBLIC EDUCATORS

The following members are those who have given their time and energy to our public education efforts.

These people have positively effected the lives of tens of thousands of people over the past year. Many of our events have reached hundreds of people, some have reached thousands at one time. All have been appreciated.

If you have helped, and your name is not listed below, please call me and get on the list!

Bette Allen
Travis Allen
Kevin Beverage
Ernest Fisk
Roger Fiegel
Carl Frisch
Ellie Gates
Barry Gordon
Scot Gordon
Allan Green
Brad Hamlin
Greg Hansen
John Hockemeir
Paul Levan
Bruce Levin
Kevin McKeown
John Micelli
Dennis Mitchell
Bob Molle
Brock Parker
Gordon Pegue
Dave Pendell
Thomas Pendell
Mike Pendley
Ruth Pendley
Dianne Pickett
Jim Pickett
Robert Semrad
Bill Tondreau
John Triarchis
Lisa Wood

FIRESIDE CHAT

This summer Albuquerque Open Skies is sponsoring evening Fireside Chats at the Elena Gallegos Recreation Area on Tramway Blvd. at Academy.

On Sunday, July 16th at 8 p.m. Elinor Gates (see The July Meeting article) will be speaking and presenting a slide show of objects visible in the summer night sky and upcoming astronomical events. Afterwards, members of TAAS will set up telescopes for public viewing. If you would like to help out and bring a telescope for public viewing please contact either Greg Hansen or Elinor Gates (phone numbers listed on back of newsletter). Otherwise, just come and enjoy an evening of observing fun!

Elinor Gates

OBSERVATORY COMMITTEE REPORT

The Observatory Committee met at Gordon Pegue's house on June

8.

The saga of the telescope refurbishment continues. We received the 16" mirror back from QSP Optical early in June, only to discover to our horror that the mirror looked as though it had stood outside for several years through many sand storms. There are thousands of minute scratches and extensive mottling covering the entire mirror. We are not certain about the origin of these problems, since the stripped mirror showed no sign of these defects when it was sent out for coating. After some heated telephone calls, QSP has agreed to refund the coating charges. We now plan to send the mirror to Nova Optical, where master optician Steve Dodds will apply such corrective measures as are required.

Other restoration projects continue on schedule. Kevin McKeown is restoring the 4" finder scope, and modifying the focuser to take 1.25" eyepieces. Gordon Pegue will grind and paint the weds on the newly installed security devices. Blair Johanson is designing a new bracket system to correct some fundamental design flaws in the original rotation mechanism. Bill Tondreau is rebuilding the telescope mount.

Karina Running Horse is welcome as a new member of the Committee. Karina will use her formidable public relations talents to obtain much needed fiscal support from the business community.

The Observatory Committee is presently very short handed. In view of our current limited resources, we have decided to simplify our objectives as much as possible in order to get the Observatory up and running. We will not attempt to install the dome rotation system, but will instead make some basic modifications to the sideways restraints which will make the dome easier to rotate manually. Conveniently located grip handles will be added to aid the rotation. Rather than install a new manual shutter drive, we will purchase a small generator and continue to use the existing electrical drive.

If all goes well the Twining Observatory should be back in operation sometime in late August. If there's anything you can do to help, please contact any member of the Committee. Even if you don't have the time to join, just showing up for one or two work parties would be enormous benefit.

Chair: Gordon Pegue 299-5944
Asst: Jim Triarchis 293-0983
Kevin Beveridge 821-5376
Blair Johanson 296-9320
Kevin McKeown 254-9117
Dennis Mitchell 877-1741
Granvil Morgan 864-6438
Richard Morgan 271-0164
Bill Tondreau 263-5949
Lisa Wood 344-8308

VLA TOUR COMING UP!

Mark your calendar now! VLA tour, Saturday, August 19th! If you missed last year's tour of New Mexico's own Very Large Array, here's your second chance. If you did go last year, here's your opportunity to hear about some of the fantastic new discoveries. The VLA continues to make one fabulous find after another. To miss a tour of the VLA now would be like missing up a tour of Mount Wilson when
Edwin Hubble was discovering the expansion of the universe. You just have to go, or regret that you didn’t!

What new discoveries, you ask. Is it possible that the VLA has its many eyes fixed on a newly discovered, superluminal emitting black hole, in some distant galactic center, or even in the center of our own galaxy, but in our own galactic backyard? Could we have at last found an observable Rosetta Stone of black holes and their phenomena? Check this newsletter next month for more information, but better yet—come to the VLA yourself! I promise you something to tell your grandchildren about.

And as icing on the cake, Carl Frisch has convinced us to follow up the tour with a star party on 10,000 foot high Mt. Withington—read Carl’s article in this issue.

**MT. WITHINGTON**

On August 19, TAAS is touring the VLA. For those adventurous ones, that night may hold some of the best deep sky observing anywhere. For those who wish to camp, there will be a campout atop Mt. Withington, about 20 miles southeast of the VLA. A caravan will head for the hill after the VLA tour. All are welcome to come.

Bring the usual stuff for primitive camping: tent, sleeping bag(s), food, water, plenty of warm clothes (even though it’s mid-August, we’ll be camping above 10,000’). There’s only an outhouse and one picnic table, but the inconveniences are well worth the high altitude, remotely located viewing site.

For anyone wishing just to camp out and not do the VLA tour, drive south from Albuquerque to Socorro. Go west on Highway 60 through Magdalena to Forest road 168 about 12 miles West of Magdalena. Turn south on FR 168 and follow the signs to Mt. Withington Lookout.

If El Nino or the summer monsoons decide to obscure the skies, at least come for the VLA tour—it’ll be worthwhile even if we don’t get to camp out or observe.

**Carl Frisch**

**OAK FLAT**

On August 5, the Sandia Ranger District will be sponsoring a star party at the Oak Flat Picnic Ground in the Juniper loop. Guest speaker(s) will be UNM department of Physics and Astronomy graduate students starting around 7:30 p.m. We are encouraging TAAS members to attend, even if you don’t have a telescope. Believe me, there will be plenty of scopes for your observing pleasure.

What makes this an attractive event is its close proximity to Albuquerque (30 minutes from the Big I), high altitude (7770’) and reasonably dark skies (with Albuquerque’s glow partially shielded by the Sandias/Manzanos).

For those who would like to picnic, grills, tables and water are provided, and the gates should be open around 7 p.m.

To get there, take I-40 East to Tijeras Exit #175 (7.5 miles east of Tijeras) then go south 8.8 miles on NM 537 (South 14). Brown signs lead you east 1 mile on FR 413 to the picnic grounds. So dig out your scopes and picnic baskets and make an evening of it.

**Carl Frisch**

**THE CHACO CANYON TRIP**

Saturday, May 27, 1995 dawned clear and bright as intrepid members of The Albuquerque Astronomical Society, their family members, friends and guests made their way to Chaco Canyon. Scheduled for that evening at the visitors center was a star party sponsored by your own society, in cooperation with Great Bear Comucopia and the fine staff at Chaco Canyon.

Members who arrived early were treated to a pleasant surprise. Great Bear had arranged to have the V.I.P. trailer and the immediate environs (for camping) made available for society members’ use. As it turned out, the trailer was a godsend. Many thanks to Great Bear for making it available to those folks who made use of its facilities.

Attending were George Pellegrino and friend Steve Barnes, Lisa Wood and daughter Lindsay, Bill Tondreau and wife Sylvia, Gordon Pegue, Karina Running Horse and daughter Christina, Linda Hixon and family, Brock Parker, Carl Frisch, Dennis Mitchell and many others. Also attending were Michael Robinson of the Santa Fe Astronomy Club and friend James. Michael treated observers to spectacular views of Jupiter through his 7” Meade APO refractor fitted with a binocular eyepiece adapter and twin Nagler eyepieces! The weather cooperated with beautiful skies until about 1:00 a.m. when clouds moved into the area.

The following day tours were offered of the various ruin sites by the staff of Park Rangers. Some of the ruin sites toured were Pueblo Bonito and Chettie Kettle. Weather was an influencing factor for some potential tour participants as it deteriorated throughout the day, culminating in a wild thunderstorm late that afternoon followed by steady rain into the evening. Most of the members had departed by this time, leaving the trailer for those "hardcore" participants who just weren’t ready to return to "civilization." Alas, it rained almost all of Sunday night. However, the remaining members were able to entertain themselves with card games and guitar music which is an enjoyable and relaxing way to spend an evening.

Even though the weather "dampened" the camping activities, the star party itself was a great success with many visitors enjoying the views seen through society members’ telescopes. I look forward with great anticipation to the next Chaco Canyon experience.

Gordon Pegue, Treasurer
### July 1995 Lunar Almanac

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- **MR** = Moonrise, upper limit on horizon.
- **TR** = Transit, moon is due south and also highest in the sky.
- **MS** = Moonset, upper limit on horizon.
- **RA** = Azimuth of rising moon.
- **TA** = Altitude of moon at transit.
- **SA** = Azimuth of setting moon.

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

Calendar by Ray Stermer
Johns Hopkins Applied Physics Lab.
Laurel, MD 20707

### July 1995 Solar Almanac

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- **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 limit on horizon.
- **TR** = Transit, sun is due south and also highest in the sky.
- **SS** = Sunset, upper limit 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 Stermer
Johns Hopkins Applied Physics Lab.
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### August 1995 Lunar Almanac

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

**Notes:**
- MR = Moonrise, upper limit on horizon.
- TR = Transits, moon is due south and also highest in the sky.
- MS = Moonset, upper limit on horizon.
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**Moon phases shown each day at 12:00 noon in the time zone indicated.**

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Johns Hopkins Applied Physics Lab.
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- SS = Sunset, upper limit on horizon.
- EC = Evening civil twilight, sun is at -6 degrees altitude.
- EH = 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.
Lanham, 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 ($20/12 issues), Astronomy ($18/12 issues) and Odyssey ($19.51/12 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.

NEWSLETTER ARTICLES: Personal astronomical classified advertisements and articles can be submitted within 3 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 are preferred. Contact the Newsletter Editor for more information.

TAAS LIBRARY: Please call the Librarian at the number below to check out a book.

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The Albuquerque Astronomical Society

P.O. Box 54072
Albuquerque, NM 87153-4072
Address Correction Requested

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- Society Staff -

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