UPCOMING EVENTS

9-1 Saturday: Construction at Twining Observatory
9-3 Monday: Comet Levy near Lagoon Nebula
9-5 Wednesday: Full Moon
9-8 Saturday: Monthly meeting of the Society, 7:30 p.m., at Regener Hall on the UNM campus.
9-10 Monday: Pleiades occultation, early morning
9-13 Thursday: Society Board of Directors meeting, 7:00 p.m.
9-15 Saturday: Star Party at Twining Observatory site
9-19 Wednesday: New Moon
9-22 Saturday: Dark Sky Night at Gran. Quivira
9-23 Sunday: Autumnal Equinox, 12:55 a.m. MDT
10-4 Thursday: Full Moon
10-6 Saturday: Monthly meeting of the Society, 7:30 p.m., at Regener Hall on the UNM campus.
10-11 Thursday: Society Board of Directors meeting, 7:00 p.m.
10-13 Saturday: Star Party at Twining Observatory site

THE AUGUST MEETING

Jim Fowler, site manager of Apache Point Observatory gave the August presentation. He brought slides of the project and described the construction of the facilities and instruments which have been built so far. Apache Point Observatory is located in the Sacramento Mountains near the National Solar Observatory. The project is the result of the efforts of a consortium of universities which includes New Mexico State. Since many of us have been involved with the construction at our own observatory, there was plenty of enthusiasm about the size of the construction project as well as for the astronomical instrumentation.

Jim described the primary telescope as well as different kinds of instruments which will be available to observers using the Apache Point facility. The telescope will use a 3.5 meter primary which was "spin cast" at the Steward Observatory Mirror Laboratory in Tucson, Arizona. Various spectrographs and CCD imagers were described. The development of large composite CCD arrays was very impressive. In addition the telescope will also include remote operation capability enabling observers to get the data from their own locations.

For telescope builders and users the presentation was a chance to see how the professionals build and operate a large state-of-the-art observatory system.

After the main meeting, Dave Finley announced that he had accepted a new job which would take him out of New Mexico, and he therefore would have to resign as President of the Society. Dave made a farewell presentation and then announced that the board had selected George Dulleck as President and Bill Airo as Vice President for the remainder of the term. In appreciation for all the service Dave has given to The Albuquerque Astronomical Society, George then presented Dave with a framed photographic collection showing Dave in his various capacities as President and Vice President. We thank Dave for his many contributions and wish him much success in his new job.

SEPTEMBER MEETING

The September meeting will feature Dr. Michael Zeilik, Director of Graduate Centers (UNM) in Los Alamos and Santa Fe. His presentation will be entitled High Noon on the Planet Mercury. The presentation will deal with heat flow properties in the surface layers of Mercury. Some of the measurements were done with the VLA and are the first of their kind with this system.

Dr. Zeilik is well known for his work in astronomy education and has written several well accepted text books in astronomy. One of the texts, ASTRONOMY, The Evolving Universe is in its 6th edition! The meeting is on Saturday, September 8, at 7:30 p.m. at Regener Hall on the UNM campus.
On July 28 we had our first experience with using a concrete pump when we filled the second block section at the eight foot level of the wall. Prior to the concrete and pump arriving we were all busy bending rebar, installing ledger bolts and boring holes for future electrical feedthroughs. Once the concrete and pump arrived things happened very quickly. The 84 feet of wall section (about 4 feet deep) was filled in about 30 minutes. Each time the concrete pump "pumps" it would almost fill a single hole to the 4 foot depth. It’s not easy to keep a good hold on the hose system and it takes 3 to 5 people to move it around as you fill the blocks. I don’t even want to think about how long it would take to do the same job with a mixer and buckets!

On August 4 we raised the wall another block level to support the second floor ledger. We installed the second floor laminated beams (two 5x10.5 inch beams) and installed the south ledger used to tie the joists to the building wall.

Jim Cox and Cal Currier worked most of the night on August 4 to complete the door for the observatory. (Jim owns a wrought iron business and donated the materials, Jim and Cal then spent considerable hours in the construction and installation of the door). On Sunday evening, Aug 5th, Jim, his wife and son, and Cal installed the door. Now you may not think that a door is all that big a deal, however, this is no ordinary door. It weighs around 400 lbs—we wanted it “tamper proof”! There was something significant about being able to lock the building up for the first time, I guess it was just a indication of how close we are getting.

The next weekend (Aug. 11) a larger group was present for the installation of the floor. There was lots of hammering and sawing as all the floor joists and supporting posts were installed. We quit after installing 4 of the 6 floor decking sheets. At last we had people standing on the second floor!

We still need to install the stairs, complete the decking and raise the wall another 4 block levels. About 2 weeks of work are ahead before we quit and start working on the dome.

Refer to the last newsletter for construction times and dates at the Twining Observatory site.

George Dulleck

TWINING OBSERVATORY FUND GETS AWARD FROM NATIONAL ACADEMY OF SCIENCES

The V.M. Slipher Committee of the National Academy of Sciences has notified us that we will receive a monetary award to assist in constructing The General Nathan Twining Observatory.

The V.M. Slipher Committee, named after a leading astronomical researcher of the early 20th Century and late director of the Lowell Observatory in Flagstaff, Arizona, awards funds for projects that enhance the public's understanding of astronomy. The Committee, which has only a modest amount of money to award each year, is giving our Society $500 “with the expectation that this money can be used to encourage other sources to donate funds,” according to its chairman, Dennis Schatz of the Pacific Science Center in Seattle.

This award indicates national recognition of the importance of our scientific educational efforts. To those of you who have helped to bring science to your neighbors and their children, this award confirms that your efforts are a service not only to our community, but also to our nation.

This recognition by a committee of the prestigious National Academy of Sciences lends considerable weight to our efforts to raise funds for the General Nathan Twining Observatory. Already, both local newspapers, the Albuquerque Tribune and the Albuquerque Journal, have carried articles about this award, and other media also have shown interest. As we seek contributions from other organizations and business firms, this support from a respected national scientific group will serve as a powerful recommendation for our project.

We as an organization earned this recognition through the dedicated efforts of many members. It was your work and support, both on the observatory project itself and in our public-education program, that have been recognized by this award.

Dave Finley

A FAREWELL MESSAGE FROM DAVE FINLEY

As many of you know already, I have accepted a job that requires me to leave New Mexico, and will soon be gone. I’m going to Newport, Rhode Island, where I’ll be working in the Advanced Scientific and Engineering Computation Center, Naval Underwater Systems Center, as Manager of R&D Programs, High Performance Computing Directorate, for Technology Applications, Inc. I’m very excited about this new position, but regret very much that it will take me and my family away from Albuquerque and New Mexico, which we have come to love in the last four years.
While I'm sorry to have to resign as President of The Albuquerque Astronomical Society, I'm quite pleased to turn over the office to George Dulleck, who has more than earned the position by his dedicated labors on behalf of this Society over the last few years. I know George will serve as President with great distinction. Even had he done nothing else (but he has—much), George deserves the presidency of this Society on the basis of the countless hours he has spent on the planning and construction of our observatory. I also am pleased that Bill Airo, who led our Astronomy Day effort this year, will be helping George as your new Vice President. I'd like to ask all of you to help George, Bill and the entire Board of Directors, because a Society as large and active as ours requires many people to keep things running smoothly.

I am quite proud to have been associated with this Society, and honored by the privilege of serving as your President. My pride comes from the association with a wonderful group of people, whose dedication has allowed this group to achieve tremendous things in just a few short years. Since I joined this Society, we have more than doubled our membership and have, through our public-education activities and media campaigns, brought astronomy to thousands of people in this area. To the extent that we have made these thousands more aware of science, they have gained a broader outlook and have become, to some extent, better citizens. Out of those thousands, perhaps a few score will take up astronomy as a hobby, and perhaps a few will make it their career. If so, then we can take some small amount of credit for the contributions they may make to science. They, in their turn, will spur the interest of others, and so the good we have done will go on down through the generations. There is no more important contribution we can make.

I also am extremely proud of the dedicated efforts of so many of you that have made the General Nathan Twining Observatory a reality. No, it’s not finished yet, but I have confidence not only that it will be finished this year but also that it will continue to grow as a facility and as a centerpiece of a vigorous educational and research effort over many years. As such, it will stand as a monument both to the great general after whom we have named it and to all of you who gave of your time, labor, and treasure to bring it forth out of the dreams and plans.

Finally, while business takes me away, there is a piece of the Land of Enchantment in this amateur astronomer that certainly will draw me back from time to time. I intend to keep in touch with this Society, and to help, as I can, from afar. Don't be surprised to see me show up sometime.

Dave Finley

SUMMARY OF THE JULY 30, 1990 SPECIAL BOARD MEETING

President David Finley called the meeting to order at 7:01 p.m. and made a special announcement that he received notice from the V. M. Slipher Committee that The Albuquerque Astronomical Society will receive funds in the amount of $500.00 toward the construction of the General Nathan Twining Observatory from the V. M. Slipher Foundation.

David also tendered his letter of resignation to be effective August 4, 1990 as a result of a substantial job opportunity and promotion back east. Dave Finley made a motion for his resignation which was seconded by Mac Morgan and unanimously approved by the Board. Dave made further motions for Vice President George Dulleck to become the new President and for Board Member Bill Airo to become the new Vice President. These motions were seconded by Mac Morgan and unanimously approved by the board. The meeting was adjourned at 7:25 p.m. The Society will miss Dave's expertise and leadership, yet wishes him well in his new job.

SUMMARY OF THE AUGUST 9, 1990 BOARD MEETING

President George Dulleck called the meeting to order at 7:00 p.m. Announcements were made followed by the Treasurer and Secretary reports. Treasurer Leo Wellner reported that the General and Observatory funds have August 7th balances of $317.00 and $5171.59 respectively. Society correspondence information was given by Secretary Bruce Levin.

Main topics of discussion were the progress and schedule of the observatory construction project, the general fund status and projections and budget, and receipt of pledges for the observatory matching funds. It was noted that the Society Observatory now has a steel door in place which was built by Jim Cox and installed by Jim with the help of Cal Currier.

For new business, George Pellegrino discussed the issue of light pollution and moved to have a light pollution committee started. The motion was seconded by Lee Mesibov and unanimously approved by the board. Mac Morgan then moved to have George Pellegrino become chairman of the committee. Art Jacobs seconded the motion and the motion was passed unanimously. George will contact numerous Society members that are interested in this committee.

Other items of business were the acceptance of Daniel Steffy and Wilfred Pedroncelli as new Board members by approval of the Board, and the upcoming Jupiter and graze occultations of the moon as explained by Mac Morgan. Finally, newsletter articles were discussed, and then the meeting was adjourned at 8:59 p.m.
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.)

<table>
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<tr>
<th>Day/Date</th>
<th>Time</th>
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<th>USNO</th>
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<td>AL</td>
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a. Your Own Observation Site

September—Mountain Daylight Time

SAT/01 01 52 03 D | 2872 | 76 | 6.2 | 85+ | 10 | 231 | 50S | -2.0 | -2.7 | 0.6 |
SAT/01 02 08 14 D | 2875 | 76 | 6.1 | 85+ | 8  | 234 | 35S | -3.0 | -5.0 | 0.1 |
MON/04 21 05 13 D | 3238 | 94 | 7.0 | 99+ | 25 | 145 | 65S | -1.6 | -0.9 | -1.2 |
WED/05 23 09 26 R | 3507 | 95 | 6.4 | 98- | 40 | 121 | 56S | -0.5 | 2.5  | 0.5 |
THU/06 01 41 11 R | 3512 | 96 | 5.8 | 98- | 58 | 173 | 72S | -1.3 | 1.8  | 0.6 |
FRI/07 00 17 20 R | 0233 | 86 | 6.2 | 87- | 42 | 102 | 67S | -0.5 | 2.1  | -0.1 |
SUN/09 03 14 38 R | 0387 | 86 | 6.9 | 77- | 68 | 126 | 55N | -2.6 | -0.1 | -0.6 |
MON/10 06 31 31 R | 0536 | 89 | 5.4 | 66- | -3 | 73  | 233 | 27S | -1.6 | 5.5  | 0.8 |
WED/12 01 01 03 R X07323 | 85 | 9.0 | 45- | 11 | 66  | 23S | 1.3  | 3.1  | 0.4 |
WED/12 01 33 28 R X07369 | 85 | 9.0 | 44- | 17 | 69  | 26S | 1.0  | 3.1  | 0.2 |
WED/12 03 06 11 R | 0869 | 68 | 7.2 | 44- | 34 | 80  | 81S | -0.6 | 1.4  | -0.7 |
THU/13 01 35 56 R | 1030 | 79 | 3.2 | 33- | 6  | 63  | 41N | -0.5 | -0.7 | -1.4 |
THU/13 02 05 23 R X09743 | 88 | 7.2 | 33- | 11 | 67  | 22S | 1.3  | 3.5  | 0.3 |
THU/13 04 47 17 R X09947 | 85 | 8.8 | 32- | 42 | 87  | 16S | 0.7  | 7.3  | 0.2 |
FRI/14 03 07 33 R X11677 | 85 | 8.6 | 23- | 10 | 70  | 48N | -0.6 | -0.6 | -1.3 |
FRI/14 03 56 27 R X11714 | 76 | 8.3 | 22- | 19 | 76  | 85N | -0.4 | 0.6  | -1.0 |
SAT/15 04 57 46 R X13331 | 86 | 8.3 | 14- | 19 | 81  | 90S | -0.4 | 0.7  | -1.0 |
SAT/15 05 22 12 R X13352 | 95 | 8.9 | 13- | 28 | 85  | 55S | -0.4 | 2.1  | -0.8 |
SAT/15 05 45 58 R | 1319 | 87 | 7.5 | 13- | 28 | 88  | 88N | -0.8 | 0.5  | -1.0 |
SUN/16 05 13 01 R X14600 | 85 | 8.7 | 7-- | 9  | 81  | 58N | -0.3 | -0.5 | -1.1 |
SUN/16 05 31 05 R | 1426 | 86 | 8.5 | 7-- | 112 | 84  | 72S | -0.2 | 1.3  | -0.9 |
SUN/30 20 39 52 D | 3186 | 85 | 6.7 | 86+ | 37 | 151 | 50S | -3.1 | -0.2 | -1.4 |

October—MDT

WED/03 03 52 34 D | 3477 | 94 | 6.6 | 98+ | 25 | 253 | 79N | -0.8 | -0.3 | 1.0 |

b. Gen. Twinning Observatory Site—September—MDT

SAT/01 01 52 53 D | 2872 | 76 | 6.2 | 85+ | 11 | 231 | 48S |
FRI/07 00 16 00 R | 0233 | 86 | 6.2 | 87- | 41 | 101 | 67S |
SUN/09 03 13 46 R | 0387 | 86 | 6.9 | 77- | 68 | 124 | 57N |
SAT/15 05 45 22 R | 1319 | 86 | -7.5 | 13- | 28 | 87 | 89N |
SAT/29 20 39 30 D | 3058 | 67 | 5.9 | 78+ | 36 | 166 | 25S |
SAT/29 20 55 31 R | 3058 | 67 | 5.9 | 78+ | 37 | 171 | 55S |

c. Gran Quivira [Your Occultation Coordinator assumes that all GQ fun is to be pre-empted by Twinning Site labors.]

2. Selected Grazing Occultations

<table>
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<tr>
<th>Day/Date</th>
<th>MDT</th>
<th>Nearest Town</th>
<th>SAO #</th>
<th>Mag</th>
<th>Alt</th>
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<th>PSnl</th>
<th>Cusp</th>
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<td>98139</td>
<td>8.4</td>
<td>21</td>
<td>83</td>
<td>13-</td>
<td>-1.0N</td>
<td>Marginal</td>
<td>Morgan</td>
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<td>163975</td>
<td>5.9</td>
<td>37</td>
<td>170</td>
<td>78-</td>
<td>15.5S</td>
<td>Favorable</td>
<td>Morgan</td>
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3. Occultations By Asteroids

(Since we have star-charts on this one. If interested, I'll run you a copy-set.)

SAT/0901 @ Q2h5m -/-.30s TERPSICHORE (mag. 13.34) occults 9.19 mag. star AKG3-2900468 @ RAS5h4m57.3s DEC -29059'53.28''
MON/0903 @ 04h03a " PRYMO (mag. 14.35) " 11.00 " " AC6340 @ RA7h21m36.8s DEC -21042'46.2''
SUN/0916 @ 01h13m " HERCULES (mag. 13.44) " 10.5 " " AC2350 @ RA6h13m9.43s DEC -23033'38.58''

MacMorgan 296-3983
### September 1990 Lunar Almanac

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<th>Sunday</th>
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### September 1990 Solar Almanac

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

- **MR** = 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

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
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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Treasurer:
Secretary:
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Librarian:
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Telescope Curator/ABM:
Board Member:
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Board Member:
Board Member:

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Bill Airo
Leo Wellner
Bruce Levin
Steve Williams
Michael Fisk
Art Jacobs
Lee Mesibov
Mac Morgan
Alan Trever
Chris Hilleary
George Pellegino
Paul Maestas
Daniel Steffy
Wilfred Pedroncelli
293-7994 (home)
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292-0948 (home)
299-0891 (home)
898-4885 (home)
266-4885 (home)
344-4885 (home)
292-1249 (home)
296-3983 (home)
275-2601 (home)
298-0093 (home)
821-8516 (home)
883-1086 (home)
265-2157 (home)
294-1215 (home)