TAAS Sponsors Explorer Post 110  
by Michael Pendley

On June 30, Alison Schuler sent me the following e-mail: Sandia District (in the form of its Vice Chair for Membership, me) wants to establish a Venturing Post in Astronomy. Your name came to mind immediately (because of my involvement in other Scouting activities). The e-mail continued with ideas on how to proceed.

For the next several months, Alison worked on plans, met with David Blair and I, and sought out adult volunteers to fill key positions. Finally, in early October it was clear that enough details had been worked to warrant a specific proposal to the TAAS Board of Directors. That proposal was made and the Board of Directors passed a motion to become the Charter Organization (sponsor) for a Boy Scout of America Venture Post.

As mentioned last month, Exploring is part of the BSA’s Learning for Life program. It is a youth run organization for young men and women between the ages of 14 and 20. Its purpose is to allow young adults to explore, in depth, subjects like law enforcement, amateur radio, sailing, fire protection, and all types of science.

An organizational meeting was held on November 4 to brief the initial adult volunteers on what Venturing is all about and to plan the first meeting of the post. Highlights of the meeting include:

- Posts are identified by number. We chose 110—the number of Messier Objects
- November 16 was chosen as the date for the first Post meeting.
  (The location was not known at press time. Call the hotline if you are interested in attending)
- Post dues were set at $25/year. This includes BSA fees and a student membership in TAAS
- Jan Gimar (of BSA) will get the word out to Albuquerque area schools
- Jan Gimar and Art Jacobs will look into possible meeting locations.

The following adults attending the organizational meeting and volunteered to serve:

- Dean Clark — Advisor (equivalent to Scout Master in a Troop)
- Mike Pendley — Committee Chairman, Associate Advisor
- Art Jacobs — Associate Advisor
- Lyman Sandy — Associate Advisor and Committee Member
- Sergio Restaino — Associate Advisor
- Alison Schuler — Associate Advisor and Committee Member
- Sammy Lockwood — Associate Advisor

The first Post meeting will open with introductions, an explanation to the youth of what Venturing is all about, and other administrative topics. This will be followed by a social hour where the youth attending will be able go “station to station” and talk to adult volunteers about different aspects of astronomy. Station themes known at press time include a telescope display, a comet making demo, telescope making, analyzing light with diffraction gratings, and the TAAS Astronomy Day displays.

Contact Dean Clark (dclark@logicom.com) or Mike Pendley (mycall@rt66.com) if you think you might be interested in serving as an associate advisor or committee member.
The solar system’s two largest planets and six largest moons ruled the sky on the evening of October 22. The city lights around Campus Observatory couldn’t diminish them in the least.

No. 5 on the Big Moon List—our own Queen of the Light Polluters—shone nearly full, inflicting pupil shutdown on any light-bucket voyeurs who dared to peep unprotected.

Inside the observatory courtyard, I stacked yellow #15 and 13-percent neutral-density filters into the eyepiece of my six-inch reflector. I found a kinder, gentler Moon, with the lighting just right to accentuate some of her newest craters.

To students of Sandia Junior Academy, I pointed out the rays of ejected material from Copernicus and Tycho. One young man rewarded me with a new quote for Lisa Wood’s collection of How Kids Tell It.

“They look like paint-ball splatters,” he said.

I’m at a loss to come up with a better description myself. Indeed, if you stretch the definition of paint-ball . . .

Can you tell I really enjoyed myself that night?

Jay Harden estimated, and I agreed, that a hundred visitors came. We looked at anything that shone through the moonlit city sky, from the core of the Andromeda galaxy to a ghostly showing of the Ring Nebula.

But the planets and moons dominated. Europa was easy to point out near Jupiter, and we talked about the ocean that might be hidden below its ice.

As Saturn climbed higher, I could barely make out Tethys with the six-inch, so I judged the transparency to be off a bit, but the steadiness of the air was remarkable.

Out came my 4 mm Orthoscopic. This tiny, third-hand eyepiece was every-so-wrong for the long-focus refractor used by its first owner and the long-focus reflector used by its second.

Yet, as I discovered with Mars earlier in the year, it is the perfect planetary eyepiece for my f-5.8 Newtonian. Together mirror and eyepiece yield superb contrast at 215 diameters.

I coached a few late-stayers on the use of the high-power eyepiece—how to focus, how to track—with surprisingly good results.

Finally I stayed alone, allowing Jupiter and Saturn to get higher and sharper. Around 11 p.m., I was seeing them as well as I ever have with my own equipment. I could see Casini’s division the whole way round.

The Mars experience had inspired me to do my first planetary sketching in years. If only I’d thought to bring my sketch pad that night!

Old Sketch, New Image

At home just before midnight, I pulled out a sketch I made of Jupiter on another remarkably still night.

My drawing of 24 May 1969 was the best of a series of Jupiter I did that spring, observing from the Ohio shore of Lake Erie at the age of fifteen. Then, too, I used a six-inch reflector, one of those classic f-8 DynaScopes manufactured by Criterion in Hartford.

The drawing, scanned last month into a TIF file, is reproduced here—along with all its flaws.

I had made myself a standard form for my series of drawings, and I used a compass to create the shape of Jupiter, to be filled in at the telescope. So my form was round instead of elliptical to match Jupiter’s true shape. (I knew this at the time, but I had no idea how to draw a neat, properly proportioned ellipse.)

And maddeningly, when my dad reproduced the form on a Xerox machine at work, the puncture of the compass point was faithfully reproduced in every copy.

So my round Jupiters all have a Not-So-Great Black Spot at dead center. Annoying, but what’s a fifteen-year-old with no art training do to?

Fast forward thirty years, and enter Adobe Photoshop, version 5.0. Scan, baby, scan, and up comes Jupiter.TIF on a nineteen-inch screen. A touch of the magic-ward tool here, a prick of the pencil tool there, and the No-So-Great Black Spot is history.

Fiddle with the image size. Instead of 154 x 154 pixels, let’s try 154 (horizontal) x 140 (vertical). Uhg! Too flat. Looks like Saturn.

How about 154 x 145? Much better! (And a good eye, if I may say so, myself. I letter checked my proportions against Jupiter’s official measurements, and found I was right on.)

But I wasn’t done. I looked at the back circle (now an ellipse) at Jupiter’s edge. I looked at the white sky around it. That’s not what I saw when I looked through my telescopes all those years ago.

No problem.

The Photoshopped drawing—like Xerox, Photoshop is now a sloppy verb, though I’ve yet to hear Adobe complain—the Photoshopped revision, shining in a black sky, is the second drawing reproduced here.

Continued on page 8
The October 21, 1999 Board of Directors (BoD) meeting of The Albuquerque Astronomical Society (TAAS) was called to order at 7pm by President David Blair. Other board members present were Robert Williams, Sammy Lockwood, Gordon Pugue, Robert Ortega, Nancy Dodge and Carl Frisch. Observers included Mike Pendley, Barry Gordon, and Tom Pannuti.

David opened the meeting with a thanks for the work done recently on PR and Mercury Magic, and noting the TV coverage of our last school star party.

Placitas Star Party

Barry first noted his time spent recently with Ellie Gates at the Lick Observatory. He then explained that the Placitas Star Party was moving to a new site that would have remote parking and use 3 busses to get people to the scopes. Due to problems with contracting busses, cost’s to the Las Placitas Association has risen unexpectedly, and the association needed some help. Barry asked the BoD for $150 to cover the cost of renting the third bus. After a short discussion, Barry left the meeting for a prior engagement. Gordon motioned that TAAS donate $150 from the general fund to the Las Placitas Association to rent a third bus. There was discussion as to what funds were available, and what TAAS events still needed funding. Sammy suggested a smaller $75 donation to partially cover the third bus. Carl seconded Gordon’s $150 motion which did not pass. Gordon then motioned for a $75 donation from the general fund to the Las Placitas Association, to be used for however many buses they decide upon. Robert Ortega seconded the motion, which passed.

Sammy read the minutes of the Sept 27 Special BoD meeting. Robert Ortega motioned to accept the minutes, Robert Williams seconded the motion, and the minutes were accepted.

Robert Williams presented the Treasurers Report. Education Funds on deposit are $1689.96. GNTO funds on deposit are $2101.62. General funds on deposit are $247.87.

Robert then explained that $2000 savings CD was mature, and motioned to cash it and deposit it to the Education and GNTO fund’s from which it came, to help make us more liquid. Gordon seconded the motion, which passed.

Committees

GNTO — Robert Ortega briefed everyone on this month’s GNTO Committee meeting, including plans for a Leonid Meteor Party, and wall for the astrophysics scope. Robert explained that he is planning some fundraisers for this wall, but is concerned that money he raises may be spent on other TAAS projects. He wanted to ensure that money raised for GNTO stays at GNTO. There was a long discussion. Finally, Robert motioned that $1800 be appropriated from the GNTO fund, to build a wall at GNTO, contingent on these funds being raised at a later date. Robert Williams seconded the motion, which passed with 3 abstentions.

Grants—David explained that the Intel Grant is submitted but still being decided. An answer is expected by 10/28.

Public Relations—Sammy announced that the TAAS License plates are in. He also needed someone to write a press release on the Leonids.

Membership Committee—Robert Williams announced a membership committee meeting for 11/2.

Calendar

Carl has amended the following events, as approved from the previous BoD meeting: Pot Luck to 12/18/99, BoD meeting to 12/16/99, GNTO Committee to 12/9/99, and GNTO night to 12/11/99. After discussion, the BoD then approved the following new TAAS Calendar events: Leonid Party at GNTO 11/17/99, Bluewater Lake State Park 6/24/00 (Robert Williams, event owner), and GNTO night in 1/1/00.

Past Events

Osuna Elementary—Sammy noted that the event went well, with about 12 scopes, and 250-300 people attending, as well as TV coverage.

9/25 General Meeting—David noted that the Sept Meeting went well, and everyone enjoyed Bob Kyrilach’s show. Mike noted that Bob had left a message asking why a recap of his presentation was not included in the newsletter. Sammy explained that he had talked to Bob, and apologized for the oversight. Mike noted that the August meeting did not get a recap either.

Future Events

Mercury Magic 11/15—Sammy explained that we have secured Downtown Civic Plaza for $100, that 1500 fliers for the event have been distributed to all Albuquerque Public libraries, City Hall, and most Albuquerque Bookstores. Sammy is currently working with area school to get field trips arranged to the site. Several press releases have also gone out.

Oct and Nov General Meeting—David explained that everything is ready for the Oct meeting, and a speaker is lined-up for the Nov meeting.

Old Business

UNM Night—David explained that he has received mixed responses to our proposal to change UNM nights to Sundays, but had submitted a written request, and expects an answer soon.

TAAS Server—Robert Ortega said that interest in our e-mail server has been lacking, even with BoD members, and encouraged everyone to subscribe.

New Business

Explorer Post – Mike proposed

Continued on page 8
December 1999

<table>
<thead>
<tr>
<th>SUN</th>
<th>MON</th>
<th>TUE</th>
<th>WED</th>
<th>THU</th>
<th>FRI</th>
<th>SAT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• St. Lucy’s Day (middle of winter)</td>
<td>• Vesta ~0.4° from moon</td>
<td>• New Moon at 15:32.</td>
<td>• Earliest sunset</td>
<td>• First quarter at 17:50</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Mars ~0.6° from moon</td>
<td>• Mars ~0.7° from Uranus</td>
<td>• First quarter at 17:50</td>
<td>• Board Mtg. (7pm @ PandA building)</td>
<td>• UNM Mtg. (call to confirm)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Mercury~ 3° from moon</td>
<td>• Uranus ~0.2° from moon</td>
<td>• ATM Workshop 7pm, Valley HS</td>
<td>• ATM Workshop 7pm, Valley HS</td>
<td>• UNM Mtg. (call to confirm)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Jupiter Stationary in RA at 22:00. End retrograde motion</td>
<td>• Moon ~1.3° from Aldebaran</td>
<td>• Full Moon at 10:32</td>
<td>• Winter Solstice on Mars</td>
<td>• Christmas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Venus ~0.6° from moon</td>
<td>• Neptune ~0.18° from moon</td>
<td>• Winter Solstice Potluck</td>
<td>• Winter solstice on Mars</td>
<td>• Winter solstice on Mars</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>26</td>
<td>27</td>
<td>28</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Venus &gt; 1au from Earth</td>
<td>• Mars ~0.6° from moon</td>
<td>• Venus &gt; 1au from Earth</td>
<td>• Winter Solstice Potluck</td>
<td>• Christmas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Neptune ~0.18° from moon</td>
<td>• Uranus ~0.2° from moon</td>
<td>• Winter Solstice Potluck</td>
<td>• Uranus ~0.2° from moon</td>
<td>• Winter solstice on Mars</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Moon ~1.3° from Moon</td>
<td>• Jupiter at W elongation</td>
<td>• Moon ~0.18° from moon</td>
<td>• Moon ~0.18° from moon</td>
<td>• Equation of time = 0 at 10:00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>31</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• New Year’s Eve</td>
<td>• New Y ear’s Eve</td>
<td>• Board Mtg. (7pm @ PandA building)</td>
<td>• ATM Workshop 7pm, Valley HS</td>
<td>• ATM Workshop 7pm, Valley HS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Christmas</td>
<td>• Christmas</td>
<td>• ATM Workshop 7pm, Valley HS</td>
<td>• ATM Workshop 7pm, Valley HS</td>
<td>• ATM Workshop 7pm, Valley HS</td>
</tr>
</tbody>
</table>

Volcanoes on Venus
by David Nelson Blair

Vulcanism on Venus is the topic of our keynote address at TAAS’s November General Meeting.

Jayne Aubele, head of education at the New Mexico Museum of Natural History & Science, will deliver the program.

She manned the museum’s Astronomy Day booth on May 22, and many TAAS members had the pleasure of meeting her.

The TAAS General Meeting will begin at 7 p.m., Saturday, November 20, at UNM’s Regener Hall in Albuquerque (see map on last page).

The Annual Winter Solstice Potluck Dinner Party Of 1999
by Bruce Levin

TAAS has long standing traditions that go back to when our group was known as the Albuquerque Astronomers with a smaller group of folks meeting at members’ homes. One event that was started in the early 1980s was the Annual Winter Solstice Potluck Dinner Party. This has been one of the favorite events since its inception.

This year’s festivities will be held on Saturday, December 18th in the gym of Heights Cumberland Presbyterian Church. The church is located at 8600 Academy Boulevard, N.E. just east of Moon Street, N.E. Parking is available just north of the gym with the entrance on the north side of the building and the northeast part of the property. This is the same venue as the last two years.

There is an adjacent kitchen and the facility has plenty of room for our inflatable planetarium and show-and-tell items that people wish to share. So feel free to bring astronomy books, astrophotos, telescopes, accessories,
### January 2000

<table>
<thead>
<tr>
<th>SUN</th>
<th>MON</th>
<th>TUE</th>
<th>WED</th>
<th>THU</th>
<th>FRI</th>
<th>SAT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>30</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
</tr>
<tr>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
<td>29</td>
</tr>
<tr>
<td>30</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Planet Rise / Set (1/15/2000)
- Mercury: 07:15/17:00
- Venus: 04:45/14:30
- Mars: 09:30/20:45
- Jupiter: 11:45/00:30
- Saturn: 12:30/01:45
- Uranus: 08:30/19:00
- Neptune: 07:45/18:00
- Pluto: 03:30/14:30

#### Sunrise/Sunset
- 01/01: 07:14/17:07
- 01/15: 07:13/16:19
- 01/31: 07:06/17:35

#### NOTES:
- TAAS = The Albuquerque Astronomical Society
- GNTO = General Nathan Twining Observatory. Call Gordon Pegue @ 332-2591 to confirm.
- UNM = University of New Mexico Observatory. Call the TAAS hotline @ 296-0549, or the UNM hotline @ 277-1446 to confirm.
- ATM = Amateur Telescope Making. Call Michael Pendley for information @ 296-0549.
- PandA = UNM Physics and Astronomy. Corner of Lomas and Yale.

---

and astronomy projects that you may wish to share. Most important, bring yourself, family, and friends with a healthy appetite. This is a great time to prepare your favorite casserole or other main dish, salad, vegetable, or special dessert. Your gastronomical delight will be savored by all.

The dinner starts shortly after 6:00 in the evening. If you wish to help ahead of time, setup will start at 4:00 p.m. Pick up your phone now and contact Bruce Levin at 299-0891 if you can help. Your special dish is your ticket for this event. Food, fun, conversation, and sharing is guaranteed.

---

### Heights Cumberland Presbyterian Church

8600 Academy NE

---

---

---

---
November Musings

For stargazers, November really should be the time to accomplish some last second deep sky work, prior to hard winter cold. After all, November offers the last opportunity to observe, or reobserve such remarkable quests as the Sculptor Dwarf Galaxy, the Fornax Dwarf Galaxy, the Sculptor galaxy cluster (and NGC 253), and the Fornax galaxy cluster (and NGC 1365). Or perhaps, for those who travel to southern New Mexico, November is the best time to try for the great southern star Achernar, alpha Eridani, as it skirts the southern horizon at culmination.

Perhaps so. But for many stargazers—those old enough to recall the events 1966 that is—the eleventh month will forever stand special. For on the morning of the 17th of November, 1966, the Leonid meteors didn’t just shower hard, or rain, they fell like snowflakes! And then, even if you didn’t actually see the display, but only heard about the reports on the nightly news, November was made forever special. What happened on the November 17, 1966, over southwestern USA, in the hour before dawn really seems like a page out of the astronomical history of the 1800’s, when great meteoric storms happened regularly. And like what might have happened in the 1800’s, the 1966 Leonids went almost unforecast. That the Leonids failed to produce storms, let alone rains, is almost unforecast. The public star party at the visitor center was well attended. But nary a Leonid graced the sky! With the radiant high overhead, one slow sporadic meteor mockingly ended in the Sickle of Leo. November 16th clouded by noon. Thick clouds and rain showers hid the skies all night on the 17th, the most likely night according to Dr. Isaac. But nothing rare was to show that morning anyway, as dawn came two hours early for the east coast—and the meteor storm. In terms of space (clear skies) and time, I missed it by 26 hours. Twenty six time zones. Missed it by that much.

My friend Shelby lived in Illinois at the time. As a student, he’d get up before dawn. As twilight commenced on the 17th, Shelby marveled at the building steady rain of Leonids. He distinctly recalls that something was up. Just what, he didn’t know. Shelby was not into stargazing back then. He also missed the storm. Since the peak for the hour long meteoric snow storm was centered on 6:30 AM Central Time, only persons west of about Nebraska had any good view. Shelby was one hour off in space and time. He missed it by that much.

It was even seen right here in Albuquerque! Meteors fell so thick that you didn’t even need car headlights to drive at night! Fireballs as bright as half moons, and even full moons seen right to the horizon. Those lucky New Mexicans always tell me about the wonderful aquamarine blue colors of the fireballs. They can’t forget the ‘66 Leonids. But neither can I.

Leonids Update

There are at least two nights to monitor Leonid activity: November 16-17, and especially November 17-18. Last year, on the morning of the 17th, we observed a wonderful fireball event at GNTO. Will it repeat? Also, the storm peak is expected to occur late on the 17th for America. Therefore, be watching the skies beginning about 11:25 PM MST on November 17th, til dawn, November 18th, for the possible storm!!!

Chaco Canyon, Sept. 3rd - 5th

The best weather ever at Chaco made for three days of superb deep sky observation! Gordon and Alejandra arrived Friday. Many other TAAS members arrived Saturday. Gordon reports that Friday night (Sept. 3rd) was very clean and black. Saturday proved just as fine! The public star party at the visitor center was well attended. Many of the visitors stayed well into the night also. Of note this night were the fine views of the late...
summer Milky Way, and the autumn galaxies! Also, Gordon Pegue recovered Comet Lynn (sp?). This was a fairly faint, diffuse glow with a soft inner coma. Because the weather was so fine, many of us stayed for Sunday. That night, many exquisite fireballs highlighted the DSOing. However, the highlight of the night was the sighting of the central star of the Ring Nebula with the Chaco 24 inch scope! Later, Gordon reported that he recovered this star in his 20 inch at a power of 1200, as I recall! Attending were Robert Ortega, Robert Williams, Gordon Pegue and Alejandra Valderrama, Carl Frisch, John Sefik, Kevin McKeown, Pete Eschman, Brock Parker, Katherine Blankenburg, Bruce Levin, and several recent, or new members whose names escape me.

**GNTO, Saturday, October 2nd**

Very fine weather provided some excellent deep sky views tonight. However, the entire evening was, by and large, captivated by a highly unusual, and at first, terrifying “UFO”. Here’s what happened. At 7:55 PM—just about the end of twilight—I was inside the observatory, when I heard someone outside shout loudly, “an Iridium”! For a few seconds, I paid little heed to this claim—after all, I’d seen plenty of Iridiums (a type of satellite). Then, numerous persons outside began shouting: “come see this”, “look at that”, “what is it”, and so on. At this point, I ran outside, and in the nearly due western sky, low along the horizon, the most incredible sight was beheld! We saw a bright gray, nebulous, expanding “fireball”, with “rays” of smoke, or “curtains” emanating mostly downwards. When I first saw it, it was perhaps the diameter of the full moon—fuzzy, and bright—and perhaps one tenth the brightness of the full moon. It gave me the impression of a space vehicle with retro rockets aimed downwards. But this was no satellite, and certainly not a conventional meteor—but what was it? AND it appeared to be headed exactly towards GNTO. After several seconds, we began to talk about taking cover behind the observatory! After, say, two minutes of ogling at this brightly glowing celestial ghost—because now it really looked like a giant Casper the Ghost—the object began to expand and dissipate into a large round glow. This glow merged with the horizon, and, after about 10 minutes, it had all the appearance of a dome of light pollution thrown up by a large, distant city! Overall, the horizon glow was about 25 degrees wide, semicircular, and about ten times a bright as the dome of light pollution from the town of Socorro! It was obviously very distant—we could see that it was cut off by the distant horizon. Over the next 50 or so minutes, the glow slowly shrank, and faded..

After we determined we were apparently safe from doom, the question of the nature of the phenomenon was asked by nearly everyone. First, we knew the object was very distant, large, high up, and energetic. Some of the suggestions included a meteoric impact over California, an oil well blow-out fire, a nuclear accident in California, a terrorist nuclear bomb, the collision of two jumbo jets, and a munitions depot explosion at Ft. Wingate. This latter explanation was bolstered by the observation of many low flying aircraft along the distant horizon! Note: in all cases, true, big disasters were suggested! Since it was now about 9 PM, Robert Ortega asked that I turn on a radio. I did, and the lead story was short and simple. “The Pentagon has announced the successful test of a new generation of killer missile designed to destroy ICBM’s. About an hour ago, a mock up nuclear missile launched from Vandenburg AFB was intercepted by the killer missle 140 miles up over the central Pacific Ocean”. WOW! We had witnessed this test from thousands of miles away! The event apparently produced a phenomenon related to the aurora! It seems also likely that the sun illuminated the high altitude blast materials.

Later, Carl Frisch demonstrated a new twist to CCD imaging. He adapted his 28 mm to 85 mm zoom Telephoto lens to the ST-6 camera! This field was some 5 by 7 degrees wide, I believe (at 80 mm). Carl obtained remarkable views of the Milky Way, open clusters, galaxies (eg. NGC 253), and surreptitious shots of the observing field with TAAS members at their scopes! Then I suggested that we try for the Sculptor Dwarf (what the heck, right?) Patiently, Carl and I tracked down the correct field from Tirion . . . and, after a 5 minute track and accumulate image . . . there it was!!! A soft, round glow, not much above background, but certainly there, lay at the precise position of the Sculptor Dwarf. We did it! Note: many attended tonight, but I did not get names.

---

**Internet Info**

Dave Finley forwarded the following U.S. Naval Observatory press release to me - ed.

**Atomic Time on Your PC**

The official U.S. time in any U.S. time zone now can be obtained from the new Internet web site, http://www.time.gov, maintained by the Boulder Laboratories of the National Institute of Standards and Technology, an agency of the Commerce Department's Technology Administration.

This public service is provided jointly by the two federal agencies that provide the nation’s time services: NIST and the U.S. Naval Observatory. Both contribute time from their respective atomic clocks to an international pool that is used to define Coordinated Universal Time (abbreviated UTC from its French name), the official world time. The two clocks should never differ by more than one ten-millionth of a second.

Because of the complexities of international time zones and daylight-saving time, www.time.gov provides local time for U.S. locations only. For times outside the United States, links are offered to a UTC display and an international time zone web site (via the “About This Service” page).

Most users will receive a time reading accurate to much better than one second.

---

---
President Update
Continued from page 2

This modest twenty-minute exercise—accomplished almost within the confines of a fifteen-minute break at work—barely hints at what is possible with modern graphic-arts software. A rough (but careful) field drawing might turn into stunning print of color and gradation.

Just as the computer is revolutionizing astrometry and astrophotography, it offers equal potential for interpreting the impressions of visual astronomy. That’s exciting.

In the past, I have half-seriously considered organizing an Orion Nebula drawing contest. What artist can best capture the visual impression of that marvelous object—so different from the photographic.

But pooh to organizing it! I’m going to brush up on my Adobe Photoshop and Illustrator skills and wait for someone else to set up the contest. That way, I can enter.

The Eyes Have It

Speaking of visual astronomy, Sky & Telescope has again cited observations made by TAAS member Kevin McKeown. His visual sightings of the moons of Uranus and Neptune are covered on page 111 of the October 1999 issue. Way to go, Kevin!

Boundless Energy

Sam Lockwood, TAAS’s secretary and first-time Board member, has demonstrated industriousness of Pendlenian proportions. Tackling TAAS’s long-vacant public relations post, he is getting out the releases and has already earned us time on the 10 o’clock news. I’m delighted that some of the 16 seconds of air time went to Sam himself.

Meanwhile, he’s done a superb job of handling the logistics for our Mercury Magic event in Civic Plaza—a process that proved more complicated and drawn out than we anticipated.

Please join me in extending thanks to Sam for many a job well done.

Thank You, TAAS

G. B. Cornucopia, our speaker at TAAS’s October 23 General Meeting, thanked TAAS for its contribution toward establishing the observatory at Chaco Canyon.

He emphasized the efforts of Carl Frisch and John Seffick.

G. B., himself a TAAS member, also deserves much of the credit for the observatory, no to mention the excellent relationship between TAAS and Chaco Canyon.

Founder’s Program

Another TAAS member—a founder of the Society, no less—addressed the September 25 General Meeting.

Bob Kyrllach not only took us through amateur astronomy as it existed in the 1940s and 1950s, he build the opaque projector that he used for the occasion.

To my shame, the program was not promoted ahead of time, and acknowledgment of his fine effort is overdue.

But let me assure you, Bob, that the program was among the best of the year and was well received by the membership. Thanks very much.

Random Acts of Kindness

We’re always appreciative to those making donations in any amount. Since September 1, we’ve received them from Doug Earick, Anna Whitlow, Gordon Pegue, Kevin McKeown, Bruce Levin, Central Elementary School, Lisa Wood, and the United Way of Central New Mexico.

Thanks to all for your donations.

New Members

Please join me in extending a warm TAAS welcome to new members of our Society:

John and Kaye Coffman
Benedict Costodio
Gene A. Dees
Joseph G. Huffman
Laura Lindenmay
William R. Needels
Don and Linda Rumley
David Smith

I’ve already had the pleasure of meeting some of you, and look forward to the chance to meet the rest.

Clear skies, all.

-000-

BoD Report
Continued from page 2

that TAAS sponsor a new Astronomy Explorer Post. An Explorer Post would be part of the Boy Scouts of America organization, would be co-ed, and would use interested TAAS members as advisors to the post. Cost to TAAS would minimal. Gordon motioned that TAAS formally sponsor a Boy Scout’s of America Explorer Post, and pay for it’s charter fees. The motion was seconded, and passed. Mike Pendley will be the Post’s contact to the BoD.

Nancy Dodge – Nancy announced that she would be resigning from the BoD, and her post as TAAS Archivist, because of differences with the board.

Newsletter Assignments were handed out, and the meeting adjourned at around 8:30.

These minutes will not be official until accepted by the Board of Directors — ed.

-000-

Its Back to Placitas on November 13
by Barry Gordon


The timing of this event could hardly be better, as every one of the most popular “show stoppers” will be up there waiting for us. Sunset will be at about 5:00 (MST), and the sky will be completely dark by 6:30. There will be a 5-day-old crescent, which is always a “grabber” for the inexperienced—and it should pose no problems for “deep sky” objects, as it will set at 9:30. Among the other attractions that will be visible at that time (weather permitting) will be: the giant planet Jupiter, the ringed planet Sat-
urn, the double star Albireo (called “the cub scout star,” come and find out why), the double-double epsilon Lyra, the Pleiades or “Seven Sisters” open cluster, the magnificent Great Globular Cluster in Hercules, and the spectacular Andromeda Galaxy—a sky virtually tailor-made for newcomers to the glory of the heavens.

The location will be Anasazi Field East, a Community Farm, where more than a dozen telescopes of various sizes will be set up for the public. To get there, take I-25 to the Placitas Exit (#242), go East on NM-165 for about 7.3 miles, and then turn Right onto Paseo de San Antonio. After 0.3 miles, the entrance to the Farm will be on the Right.

A flash-light could come in handy, but it should always be directed downward, to preserve maximum “night vision” for all participants. Warm clothing is strongly recommended.

-o0o-

**TAAS Member Passes Away**

by Lisa Wood

Society member Robert Semrad passed away on Oct. 8, 1999 after a long illness. Robert was one of a select group of Society members who learned the art of mirror grinding from John Dobson during a four week class held in 1994. He built by hand a beautiful 12 inch reflector. Robert will long be remembered for his quiet smile and keen perceptions. He will be greatly missed.

-o0o-

**ATM Workshop**

by Mike Pendley

The Amateur Telescope Making workshop is now in operation. The workshop meets the first and third Wednesdays of each month at Valley High School, 1505 Candelaria—the north side of Candelaria, just west of 12th street. The meetings begin at 7 PM in building A, room 7.

-o0o-

**Docent News**

by Lisa Wood, Education Liaison

**Sliding By...**

Many thanks to the three Society members who offered to come to our aid by volunteering to give slide shows at our school star parties. Nancy Davis, Jeff Goldmeer and Jay Hardin all offered to come to the rescue. Member Dan Richey, who faithfully gave presentations throughout the previous school season will be bringing his skills to the eyepiece outside to long lines of excited children. I estimate Dan gave about 35 slide shows last season—phew!

**Next Star Parties**

Nov. 9 Queen of Heaven
Nov. 11 Grant Middle School
Dec 7 Alvarado

**Curious Questions**

One of our docents (I think it was Larry Cash, but I might be wrong) relates that he was asked (by an adult)—“When a falling star falls, does another star come to take its place?”

**A letter from Osuna**

Dear Lisa and all the wonderful volunteers,

When I first heard about the Star Party I thought “Oh, that sounds like a good idea.” It was so much more than that! What an incredibly wonderful experience for the children and their families. I have received so many compliments and congratulations on a really enjoyable evening. It meant so much to many of these children and adults that might not ever have seen Saturn through a telescope or a nebula that was so far away they can only imagine how far. You provide such a great service, mixing education with fun! That’s what it’s all about! Thanks again so much. I hope we can do it again next year! Please pass my (and the school’s) thanks on to all the volunteers. A job well done!

Sincerely,

Lee Rottler
Osuna Elementary PTA President

-o0o-

**October Trivia**

by David Nelson Blair

Here is the trivia question put to TAAS’s membership at the general meeting of October 23:

Jupiter and company are at both opposition and perihelion tonight. At 1,950 miles in diameter, which is the only Galilean moon smaller than the Earth’s moon?

A. Callisto
B. Europa
C. Ganymede
D. Io

**Answer and Controversy**

Daniel Appel was the winner with Europa, and the decision of the contest writer is always final.

However, several experienced club members respectfully questioned the answer. They sided with the majority of the respondents in favoring Io, which was chosen by 25 respondents, against only 6 for Europa, 4 for Callisto, and 3 for Ganymede.

My original source was Norton’s 2000.0, which I subsequently verified with The Cambridge Atlas of Astronomy, 3rd ed.—both post-Voyager sources. So I’d be surprised if there’s much disagreement about the moons in this day and age. On the other hand, I’m also surprised at the two-thirds patronage of Io in the contest.

Are others looking at sources that disagree? If so, let me know at david@lobo.net or 505/296-9632, so that I can report further, if necessary.

-o0o-

**Last Newsletter**

(for this year)

by Michael Pendley

The lunar calendar TAAS follows results in some years with 13 newsletters and some with 11. Last year was a 13 edition year. This year we make up for that and will only publish 11. Look for the next edition in your mailboxes on or around January 14, 2000—the beginning of the last year of the millennium.

-o0o-
8 October: Good clear night. We had fifty viewers. A Real enjoyable night as we had time to talk and answer questions. Docents in attendance: Brock Parker, Jay Harden, Bill Tondreau, Mike Pendley, Pete Eschman. We had five telescopes and one binocular operating.

15 October: Good night for viewing. We had 45 viewers. A small but a nice group. Docents in attendance: Bill Tondreau, Jay Harden.

22 October: Business is picking up. We had at least 150 viewers and possibly more. Seven telescopes were operating. Attending docents: Brock Parker, Bill Tondreau, Mike Pendley, Gordon Pegue, Jay Harden.

30 October: We were busy tonight with at least 350 viewers. We had seven telescopes and one binocular operating with long lines waiting at each scope for over two hours and maybe longer. Docents attending: Brock Parker, Jay Harden. Also assisting: Tom Saunders with two telescopes from the Rio Rancho Club, David Princehorn, a professor from TVI. I’m certainly glad we had these two visitors with their telescopes.

I received the following e-mail from Ray Jones on November 6—another 300 person night at UNM. I figured I would run it now before I loose it ;-) — ed.

Dear TAAS:

Just a short note to say “Thank You!”. I was at the public viewing last evening, Friday, November 5th at the UNM Observatory. I was like a kid with a new toy. My parents gave me a telescope when I was about 14 years old. I would never see anything with it except the Moon. Last evening I saw Jupiter, Saturn, Mars, Uranus, two binary stars, the Andromeda Galaxy, the Ring Nebula and got to learn enough about telescopes that allow you to really see amazing stuff.

Thank you for all your work and your generosity. You have peaked my interest in the night sky again to the point I want to learn more and give myself a great birthday present in May of a telescope. Is it possible to join your society to learn more about telescopes and the sky even though I am not an amateur astronomer, yet!? I did download the application and the membership packet a few minutes ago. But I wanted to thank you for the great time I had last night.

Raymond M. Jones
-o0o-

Free Telescope Offer

What’s that? Did you say Free? That’s right FREE! Any TAAS member can use this coupon to borrow a TAAS telescope. Call Dee Friesen at 856-1593 or Jason Vargas at 899-9755 and receive a loaner telescope absolutely free. You can choose from scopes with apertures ranging from 6” to 13”. Call soon because they’ll be going fast!

Some restrictions apply. Offer valid for current TAAS members. Offer is first come first served. Late comers will be put on a waiting list. Neither TAAS nor the telescope curators will be held liable for any lost sleep or other problems arising from the use of TAAS scopes. Borrowers are required to enjoy the telescopes.

Library News

by Lisa Wood

All Eyes on SPUD AWARD Recipient

Board member Carl Frisch has mashed the competition in receiving the first ever library award given by the Society. The Spud Award is presented to those members who view the entire 40 lecture video series entitled “Understanding the Universe”. This award was named especially to honor couch potatoes everywhere. The elegant foil covered baked spud was awarded to Carl at the October meeting in a room stuffed with spectators. He assured members that they would enjoy the series, if only they would only fry it—er—try it.

-o0o-
**LETTERS**

An open letter to Bob Kyrlach

Dear Bob,

At our September 24 TAAS General Meeting, you gave up your free time and energies to give our club a great presentation. Unfortunately, we overlooked your work, and failed to mention you in our newsletter, either in a preview, or a recap. Please understand how sorry we are because of our oversight. For those of you who missed it, Bob agreed to be our key speaker in September, and gave a great presentation. As a founding member of what was later to become TAAS, Bob gave us all a peek into the early days of Albuquerque Astronomy, and showed us fascinating glimpses of the work he has done in optics, photography, and telescope making. His knowledge is fascinating, and his enthusiasm was contagious. For me, the highlight of the show, was the presentations he made on a projector that he hand made specifically for our meeting. But TAAS failed to give you any mention or credit at all for your presentation. We messed up.

As the TAAS secretary, I can say that we really try to cover all of our base’s. We have more board meetings, committee meetings, than I really care for, but in spite of all of this we still mess up at times, and overlook important things. I know I speak for everyone concerned when I say that I am deeply sorry for our oversight, and hope that you can forgive us.

Sammy Lockwood
TAAS Sec.

-o0o-

**CLASSIFIED ADS**

**For Sale:** Intes Mk-67 Maksutov Cassegrain, 6” f/10 OTA. Crayford focuser, 8x40 finder, padded storage case. Superior high-contrast images. Very portable. Asking $650. Also, 21mm Televue Plossl eyepiece in very good condition. Asking $50. Call Art Jacobs at 281-9223 (eves./weekends) or e-mail at ajacobs@lobo.net.

**For Sale:** I build large, custom dobs as a hobby and am presently completing 2-18", and 2-20" scopes. I am contacting groups in this region as I prefer to deliver the scopes rather than worry about shipping headaches. I use Pegasus optics and other quality components throughout. If any of your club members are looking for a large instrument please pass my phone no. on to them. The costs are $3800 for an 18" and $4100 for a 20" delivered. Pete Kron—(405)-329-0161

---

**SOCIETY STAFF**

<table>
<thead>
<tr>
<th>Board of Directors</th>
<th>Phone</th>
<th>E-mail Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>David Nelson Blair</td>
<td>296-9632 (H)</td>
</tr>
<tr>
<td>Vice President</td>
<td>George S. Pellegrino</td>
<td>821-8516 (H)</td>
</tr>
<tr>
<td>Secretary, Public Relations</td>
<td>Sammy Lockwood</td>
<td>275-0258 (H)</td>
</tr>
<tr>
<td>Treasurer, DB Manager, Starlab &amp; Membership Chair</td>
<td>Robert Williams</td>
<td>839-2840 (H)</td>
</tr>
<tr>
<td>Director</td>
<td>Katherine Blankenburg</td>
<td>224-3384 (W)</td>
</tr>
<tr>
<td>Director, Event Coordinator</td>
<td>Carl Frisch</td>
<td>239-6002 (H)</td>
</tr>
<tr>
<td>Director</td>
<td>Allan Green</td>
<td>281-6651 (H)</td>
</tr>
<tr>
<td>Director</td>
<td>Bruce Levin</td>
<td>299-0891 (H)</td>
</tr>
<tr>
<td>Director</td>
<td>Kevin McKeown</td>
<td>254-9117 (H)</td>
</tr>
<tr>
<td>Director, Observatory Director</td>
<td>Robert Ortega</td>
<td>891-7847 (H)</td>
</tr>
<tr>
<td>Director</td>
<td>Gordon Pegue</td>
<td>332-2591 (H)</td>
</tr>
</tbody>
</table>

**Non-Board Members**

| Telescope Curator | Dee Friesen | 856-1593 (H) | friesend@aol.com |
| Telescope Curator | Jason Vargas | 452-9098 (H) | vargas@wans.net |
| Education Liaison, Librarian | Lisa Wood | 344-8308 (H) | asteroids@aol.com |
| Web Master, Newsletter Editor | Michael Pendley | 296-0549 (H) | mycall@rt66.com |
| UNM Campus Observatory Coordinator | Jay Harden | 296-0537 (H) | bluecorn@flash.net |

---

**For Sale:** Intes Mk-67 Maksutov Cassegrain, 6” f/10 OTA. Crayford focuser, 8x40 finder, padded storage case. Superior high-contrast images. Very portable. Asking $650. Also, 21mm Televue Plossl eyepiece in very good condition. Asking $50. Call Art Jacobs at 281-9223 (eves./weekends) or e-mail at ajacobs@lobo.net.

**For Sale:** I build large, custom dobs as a hobby and am presently completing 2-18", and 2-20" scopes. I am contacting groups in this region as I prefer to deliver the scopes rather than worry about shipping headaches. I use Pegasus optics and other quality components throughout. If any of your club members are looking for a large instrument please pass my phone no. on to them. The costs are $3800 for an 18" and $4100 for a 20" delivered. Pete Kron—(405)-329-0161
MEMBERSHIP: You may request a membership application by calling the Hotline or by sending e-mail to the Database Manager (see previous page). Applications may also be downloaded from the Web site. Annual dues to The Albuquerque Astronomical Society are $30/year for a full membership and $15/year for an educator or full time student membership. Additional family members may join for $3/each (educator, student, and family memberships are not eligible to vote on society matters). New member information packets are available for $3.50 (free copies are available from the Web site). 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 (see previous page) at the next meeting.

MAGAZINES: Discount magazine subscriptions to *Sky and Telescope* ($29.95/12 issues) and *Astronomy* ($29/12 issues) as well as discounts on books from *Sky Publishing Corporation* are available when purchased by TAAS members through our society. Include any of the above magazine renewal mailers and subscription payments as part of your renewal check (We recommend you renew 1-2 months early to ensure uninterrupted magazine subscriptions).

NEWSLETTER ARTICLES/ADVERTISEMENTS: Articles, personal astronomical classified advertisements and business card size advertisements for businesses related to astronomy must be submitted by the deadline shown on the Society calendar (generally the Saturday near the new Moon). Rates for business card size ads are $10/ad/issue or $7/ad/issue for 6 consecutive issues or $5/ad/issue for 12 consecutive issues. The newsletter editor reserves the right to include and/or edit any article or advertisement. E-mail attachments in Microsoft Word, 10 point Palatino, justified, .25 inch indent at paragraph beginning, no spaces between paragraphs is preferred. ASCII and RTF are acceptable. One column is approximately 350 words. Contact the Newsletter Editor (see previous page) for more information.

CHANGE OF ADDRESS: Note that *The Sidereal Times* is mailed at a nonprofit organization bulk mail rate. As a result, the newsletter will NOT be forwarded to your new address should you move! Please provide the Database Manager with your new mailing address to ensure that you receive your newsletter.

**TAAS LIBRARY:** Please contact the Librarian (Lisa Wood) to check out a book or make a contribution.

**TAAS on the World Wide Web:**
- [http://www.taas.org](http://www.taas.org)
- [taas@www.taas.org](mailto:taas@www.taas.org)
- **TAAS Hotline:** (505) 296-0549

**Map to UNM Campus Observatory**

*The Albuquerque Astronomical Society*

P. O. Box 50581
Albuquerque, NM 87181-0581

Address Service Requested