January 2002 General Meeting

Karen Keese

Society for two years. Neil Goldberg also stood and spoke in praise of Eric’s leadership and the crowd gave Eric a standing ovation. We then heard from Ryan Gray, who is spearheading an exciting new special interest group in TAAS called Backyard Astronomy. This group seeks to show new members and beginners how to get started with astronomy, including terminology, navigating the sky, and the basics on using binoculars and telescopes (hmmm, I could have used this last year when I was just trying to figure out which end to look in.)

Steve Snider introduced our guest lecturer, Dr. Adrian Brearley, Associate Professor of Mineralogy in UNM’s Department of Earth and Planetary Sciences. Dr. Brearley’s research interests are directed at understanding the geological evolution of asteroids, Mars and the Earth through the study of planetary samples, and his current work involves evaluating alternative hypotheses for the evidence of fossil life in the famous Martian meteorite ALH84001 that fell in Antarctica in 1984. In his talk and slide show, Dr. Brearley presented some key questions that researchers are seeking to answer, such as “Was there water in the past on Mars?”, “Did life ever evolve on Mars?”, and “Are there environments on Mars today that could support life?” Although the hypothetical evidence for fossil life in the famous meteorite, presented by scientists in 1996, included organic compounds associated with carbonates, fine-
HEARTS AND MINDS

I have been incredibly lucky. A year or so after I joined TAAS, I changed schools and teaching assignments. My new science department chairman at Valley High School asked me what I would teach if there were no restriction on the range of choices. After very little reflection, it was clear that my choice would be astronomy with a physics emphasis, the sort of course that would encourage a strong science student or astronomy enthusiast to dig in on the math and science, so as to take Physics as a Junior and Astronomy in the final high school year. As the course did not exist in the Albuquerque Public Schools course catalog, I was encouraged to “invent” and present a description of my invention to the District Curriculum Committee. The rest is history: within a year I was, in the eyes of nearly 100 students, an astronomer! It was abundantly clear that I needed TAAS far more than TAAS needed me.

Teaching this course, I found, was fundamentally different from teaching chemistry, the discipline I had been delivering for a dozen years and in which I was trained. When we make a connection to the scales which operate in astronomy “distance, time, mass or energy” we cannot help but be transformed. My students have fairly uniformly affirmed that they leave the study of astronomy quite changed from whom they were when they entered.

Of course! I had been transformed as a younger child than these. It might have been a visit to the Hayden Planetarium, or perhaps the magic of my mother leading me through the summer constellations, using a flashlight to guide me. It is clear that astronomy informs both hearts and minds.

Along the way, I have discovered that we who are members of TAAS have a real community when we discover that what we recognize in one another is more than an academic interest in the practice of amateur astronomy; we get past the iteration of the names of things, their classification and coordinates, their distances from us in light years and parsecs, and perhaps their proper motions if we are so inclined. Sharing this dry, albeit fascinating, trivia is the stuff of networks of individuals, but it doesn’t foster any real sense of community.

TAAS members go to schools to stir the hearts and minds of young people, and return to the UNM observatory on Friday nights, week after week, to share their view of the heavens. We express our concern over the threatened further loss of our dark New Mexico skies. We go to coffee houses, the Oak Flats picnic area, State Parks and Astronomy Day at Coronado Mall. TAAS members author press releases, publish this newsletter and maintain a web site. In every case we attract others at least as much by how we feel about astronomy as by how much we know.

Whatever our zeal in “proselytizing” astronomy, these activities would soon come to a standstill if we did not renew ourselves in the associations we enjoy both with each other and with our organization. This is, at basis, what only a community can provide. GNTO is a splendid place to go to observe dark skies, but it is our home, and we return there to find real comradeship, the delight of being with our TAAS sisters and brothers. (The ten Valley students who were there for the recent Leonids shower were touched no less by the sense of fun which animated all of the “old” people than by the spectacular fireworks!)

I have been incredibly lucky. More than the meetings and star parties, perhaps it is the less structured, more impromptu, occasions which have given me the sense of being in contact with the hearts as well as minds of TAAS. Movies and small dinners; meetings which lasted longer than they by rights needed to; and bouncing off the dirt at GNTO with a pair of post hole diggers: these are numbered among the best of times.

I feel so honored to have been elected president of TAAS, and to have the opportunity to work with a Board of Directors who combine so much talent, brilliance, commitment and energy. While we are determined to make the facts of astronomy accessible to the public, recognizing that this is a meeting of both hearts and minds, we are no less determined to help the largest possible number of our membership to experience the greatest possible sense of joy and privilege that is their share as members of TAAS.

For now, I am about as networked as I can stand to be. This community, however, is rather special. No less than years ago, I need TAAS more than TAAS needs me.
grained magnetites within iron-rich carbonate bands, and worm-life structures which resemble bacteria, some problems that researchers such as Dr. Brearley have grappled with are “What constitutes a robust ‘biomarker’, in other words, what would the yardstick be for determining the presence of living organisms?”, “Are nanofossils really fossilized bacteria?”, and “What is the impact of terrestrial contamination on the samples that are being studied?” Study of ALH84001 has revealed that nanofossils are not fossilized bacteria, but rather an artifact of the way the sample was prepared, and that much of the carbon in the meteorite is terrestrial contamination.

Dr. Brearley concluded his enthusiastic presentation with some important “lessons learned”, namely, that 1) a robotic mission to the surface of Mars would have very limited efficacy, as researchers need returned samples to put through a battery of tests here—24 tons of equipment were used to study ALH84001! and 2) all possible mechanisms to explain different phenomena must be vigorously investigated, such as the significant effects of shock on microstructures, before making conclusions.

Drifting in from the lobby area throughout the meeting was the sound of kids laughing and having fun as they launched their Alka Seltzer rockets in our Kids’ Activity. Many thanks to Judy Stanley for adding this delightful new aspect to our meetings. Barry Gordon provided a fine finish to the meeting with his spectacular slides of the December 28 occultation of Saturn by a gibbous moon.

The large crowd adjourned to the social hour where a cornucopia of baked goods awaited – many thanks to all who contributed to the refreshments...and all who stayed to chat.

February 2002
General Meeting
Karen Keese

Something for Everyone

If the January general meeting was any indication of the new energy and excitement that is sweeping through TAAS, then you won’t want to miss the February meeting.

We can look forward to another fine presentation by a local scientist—this time, on the subject of landing sites on Mars, and the process of selecting those sites for both robotic and manned missions. It promises to be a fascinating lecture.

For the Kids’ Activity, we will be offering kids the opportunity to build their own model of the International Space Station – what fun! So whatever you do, don’t leave the kids “home alone”! Bring them on down to Regener Hall. The Kids’ Activity begins after the general announcements and prior to the introduction of the guest speaker, and is appropriate for ages 6 to 16.

Remember, the General Meeting starts at 7:00 PM and is followed by a social hour. Baked goods are always welcome, because, after all, astronomers do have to eat! Regener Hall is located on UNM’s Main Campus, west of Popejoy Hall. For more information, call the TAAS Information and Message Line at 296-0549.
February 2002

SUN   MON   TUE   WED   THU   FRI   SAT

3     4     5     6     7     8     9
• Last Quarter @ 06:35

10    11    12    13    14    15    16
• New Moon @ 00:43

17    18    19    20    21    22    23
• School Star Party Chelwood Elementary
• First Quarter @ 05:03
• ATM Workshop 7P.M., Valley HS

24    25    26    27    28
• School Star Party Sunset Mesa
• Full Moon @ 02:17
• Board Meeting (7 P.M. @ PandA Bldg.)

Planet Rise / Set (2/15/2002)
Mercury 05:27/15:40 Saturn 11:47/01:52
Venus 07:19/18:20 Uranus 06:53/17:42
Mars 09:11/22:02 Neptune 05:58/16:16
Jupiter 13:35/04:04 Pluto 02:08/12:57

1
• UNM

8
• GNTO-CTC
• UNM

9
• GNTO

10
• UNM
• The Sidereal Times Deadline

15
• UNM

16
• GNTO

24
• UNM

27
• Full Moon @ 02:17
• Board Meeting (7 P.M. @ PandA Bldg.)
Sunrise/Sunset
2/1  07:06/17:37
2/15 06:53/17:51
2/28 06:38/18:04 (MST)

Astronomical Events
• Feb 23 19:00 Moon 0.89° NNW of Jupiter.
• Feb 24 Delta Leonid meteors
• Feb 27 Full Moon is called Snow Moon, Hunger Moon or Wolf Moon. Very high tides can be expected from the coincidence of perigee with full Moon.
• Late February, on clear Moonless nights, is the best time to look for the zodiacal light, from 1 to 2 hours after sunset, around the part of the ecliptic near the Sun; and the Gegenschein or counterglow, around midnight and around the part of the ecliptic high in the sky.

School Star Parties
Judy Stanley, Education coordinator education_coord@taas.org
• Jan 29 Monte Vista Elem 3211 Monte Vista Blvd NE
• Feb 19 Chelwood Elem 12701 Constitution Ave NE
• Feb 26 Sunset Mesa 3020 Morris NE
• March 19 Navajo Elem 2936 Hughes Rd SW
• April 23 Tomasita Elem 701 Tomasita St NE

• May 14 Central Elementary 520 N Main St - Belen
Each star party begins at 7:00P.M. Set-up at 6:00P.M.
## Notes

**TAAS** = The Albuquerque Astronomical Society

**GNTO** = General Nathan Twining Observatory - premium observing night.

**GNTO-CTC** = Must confirm with GNTO Director - Pete Eschman (gnto@taas.org, or 873-1517).

Check TAAS-L listserv for information

**GNTO Training** = GNTO observing and training

**UNM** = University of New Mexico Observatory. Call the TAAS hotline @ 296-0549, or the UNM hotline @ 277-1446 to confirm, or unm_coordinator@taas.org

**ACSA** = Albuquerque Coffee Shop Astronomers. Contact Sammy for information or visit www.taas.org and select sidewalk astronomy

**ATM** = Amateur Telescope Making. Call Michael Pendley for information @ 296-0549, or atm@taas.org

**PandA** = UNM Physics and Astronomy. Corner of Lomas and Yale.

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### ATM Workshop

*by Ray Collins/Mike Pendley*  
*atm@taas.org*

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 P.M. and are in Building E, room #3.

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### TAAS General Meetings

**Saturday, February 2, 2002**

**7PM**

Regener Hall - UNM

**Subject:**

Landing Sites on Mars

**Kid’s Activity:**

International Space Station Models

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## March 2002

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|     |     | Last Quarter @ 18:26  
ATM Workshop 7P.M., Valley HS |
|     |     |     |     |     |     |     |
| 10  | 11  | 12  | 13  | 14  | 15  | 16  |
|     |     |     |     | New Moon @ 19:04  
**GNTO Committee Mtg** |
|     |     |     |     |     |     |     |
| 17  | 18  | 19  | 20  | 21  | 22  | 23  |
| School StarParty  
Navajo Elementary  
**ATM Workshop 7P.M., Valley HS** |
|     |     |     |     |     | First Quarter @ 20:29  
**UNM** |
|     |     |     |     |     |     |     |
| 24  | 25  | 26  | 27  | 28  | 29  | 30  |
|     |     |     |     | Full Moon @ 12:26  
**Board Meeting (7 P.M. @ PandA Bldg.)** |
|     |     |     |     |     |     |     |
| 31  |     |     |     |     |     |     |

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### Planet Rise / Set (3/15/2002)

- Mercury: 05:35/16:30
- Saturn: 10:00/00:07
- Venus: 06:58/19:18
- Uranus: 05:08/15:56
- Mars: 08:15/21:48
- Neptune: 04:11/14:30
- Jupiter: 11:45/02:13
- Pluto: 00:19/11:08

### Sunrise/Sunset

- 3/1: 06:36/18:04
- 3/15: 06:17/18:16
- 3/31: 05:55/18:29

(MST)
Minutes from the Board of Directors Meeting - December 20, 2001

Dan Richey

Correspondence

Eric stated that he is in possession of a signed contract between Carl Frisch and TAAS for the Chaco Light Survey. This information was passed on to Chris Wilson (via telephone.)

Unfinished Business

Campbell Farm - Cobisa

Pete reported on the December 19, 2001 meeting of the Socorro County Commission. An emergency ordinance was passed providing a 120-day moratorium on power plant issues in Socorro County. Karen is to find out when the next meeting of the Socorro County Commission is to be held.

Karen discussed a request from Ron Babcock of the Belen West Mesa Group (Valencia and Socorro counties.) The request involved TAAS participation in the Belen West Mesa Group organizing against the Campbell Farming Corporation as concerns matters of rezoning and industrial development.

Pete discussed possible petitions that TAAS could be asked to circulate. These petitions concern the various power plant issues in Socorro and Valencia counties. Those present at the BoD meeting felt there were no problems circulating these petitions at the December 22nd Pot Luck and the January 5th General Meeting.

Pete discussed the relationship between TAAS and the people of Valencia and Socorro counties and TAAS and the Cobisa, Campbell Farm and Rio Communities power plant projects.

Lodestar Relationship

General discussion about the TAAS relationship with Lodestar. Consensus was that the direction TAAS is now taking is correct and should be a mutually supportive relationship.

Committee Reports

There were no committee reports.

Calendar

The next Explorer Post 110 event could be scheduled on January 18, 2002 or January 25, 2002. All board members present voted to have this event on January 25, 2002. Chris Wilson was contacted by telephone and voted for the January 25, 2002 date.

All board members present voted to move the Messier Marathon from March 16, 2002 to April 13, 2002. Chris Wilson was contacted by telephone and voted for the Messier Marathon being held on April 13, 2002.

All board members present voted to have the June 1, 2002 and September 21, 2002 General Meetings at the Lodestar Astronomy Center. Chris Wilson was contacted by telephone and voted to hold these general meetings at the Lodestar Astronomy Center.

Newsletter Assignments

Dan Richey discussed the February 2002 newsletter deadline and noted that the newsletter would not be completed for the first BoD meeting in January, but would be done by the second January BoD meeting.

The meeting adjourned at 9:30 PM.
Minutes from the Board of Directors Meeting-January 10, 2002

David Blair

Minutes of The Albuquerque Astronomical Society Board of Directors meeting, 10 January 2002, Physics and Astronomy Building, The University of New Mexico:

President Ray Collins called to order the Board of Directors at 7 P.M. Attending were the president, Karen Keese (vice president), David Blair (secretary), Dave Brown (treasurer), Eric Bucheit, Larry Cash, Pete Eschman, Barry Spletzer, Judy Stanley, and Chris Wilson. Absent were Board members Neil Goldberg and Dan Richey. Society members Barry Gordon and Gordon Pegue observed.

New President’s Introduction

Ray recalled going to Twining Observatory the weekend following the Sept. 11 attacks. “I was looking for something, and I found it: a good group of people.” He expressed his vision of the Society as “a community whose members enjoy both doing amateur astronomy and working to help the public to grow in its understanding and appreciation of astronomy.”

Following a review of organizational concepts, the president asked for and received consensus of the board to drop formal rules of order. He reported on officers meeting of 6 January, and ideas were employed in task forces later in the meeting.

The Board accepted without discussion minutes of the 29 November 2001 meeting.

Treasurer’s Report

Dave reported accounts and funds as of 31 December 2001 and changes since 31 December 2000:

- Total General Funds, $1,092.08, up $872.93.
- Total Observatory Funds, $1,857.15, up $605.17.
- Total Education Funds, $977.97, up $475.07.
- Total Explorer Group 110 Fund, $66.99, up $34.99.
- Total Dark Sky SIG Fund, $159.36, up $64.36.
- Total Broline Memorial Fund, $700.00, down $250.00.
- Total Funds on Deposit, $4,853.55, up $1,802.52.

The Board will revisit the annual budget and discuss concerns about membership drop at its 31 January 2002 meeting.

Business Session

Eric is to raffle StarParty Users Manual software donated by Vince Sempronio.

Eric advised the Board not to lose site of issue of Campbell Farms development in the vicinity of Twining Observatory, asking whether the Society should oppose or make the best of the situation. Ray will try to arrange officers meeting with Campbell Farms representatives.

Pete reported on Observatory work parties of 27 and 29 December, which involved wiring, sanding, painting, wiring of guest trailer, installation of metal gate, fence repair, and installation of door to Astrophysics dome.

Judy reported a need for additional Starlab docents. She also reported success of kids activities during the 5 January General Meeting, with two groups of parents bringing “gobs” of kids. Kids activity at the coming meeting will be construction of a model International Space Station.

Allison Schuler will be asked to propose a new date for an Explorer Post activity.

Karen reported on coming General Meetings: Horton Newson will discuss Mars landing sites for February General Meeting. Awards for 2001 will be given at the February meeting. Awards for 2002 will be given at the December potluck.

Owners for coming events were established: the GNTO Committee for the Equinox Picnic and the Messier Marathon, Judy Stanley and Sam Lockwood for Astronomy Day, and (if there is no other volunteer) Karen Keese for Five Planets.

Vision for TAAS

Ray asked, “How do we open up broader and deeper involvement in TAAS to more people?” He noted that GNTO and Education were going very well and thus were outside the scope of a review.

The Board identified four other areas for review by task forces, which are to complete their work by 28 March:

- Community Life, to be headed by Judy.
- Funding, to be headed by Eric.
- Dark Sky Issue, to be headed by Chris, and
- TAAS in Print, to be headed by Karen.

The meeting adjourned at 9:09 p.m.
Did you know that all you need to do to join in the fun is to show up? Now you know!

Our outreach effort has expanded to include “School Star Party Lite” where we bring “scopes only” to schools that would otherwise miss out because our regular schedule is booked. We have added special “kid’s activities” to our general meeting format. Please don’t miss the next one as we will be building our own version of the “ISS”.

Our outreach effort has room for the experienced and the novice. Training and support are available for all our activites. Check the newsletter calendar for dates and times.

Did you know that sharing your love of the night sky by just showing up at our outreach events will bring joy to others and yourself? Now you know!

Contact me for more info; Judy Stanley

Are you a beginner to astronomy and don’t know where to start, or is your starting point a telescope given with good intentions, and you feel a bit lost? Sometimes it’s hard to get started. You know you should be able to do it, but your first attempts may be met with frustration. I’m a beginner myself, and I’m organizing a series that is designed to give us a good start.

Backyard Astronomy is designed as a series of lessons for beginning amateur astronomers (not just new TAAS members). The idea is to cover a breadth of core sky viewing concepts and skills so that you have a good foundation for your interest to build on. It consists of monthly gatherings, typically in the city, for beginners who want to get to know their way around the sky and learn how to use their telescopes and other astronomical equipment. The event locations are primarily in the city because that is the sky many of us see most often and can practice on most frequently. It’s also good for beginners because it is “simpler” than a very dark sky.

The events in the series are:
1. Introduction to the night sky
2. Introduction to the celestial sphere
3. Introduction to binocular viewing
4. Introduction to telescope viewing
5. Backyard Astronomy Lab (practice new observing skills with telescopes and interact with other TAAS members)
6. Introduction to dark sky viewing at GNTO

It will be a repeating series, and the next one will have different skies, so it is worth repeating and reinforcing the skills learned. Backyard Astronomy is for TAAS members – it is not a public event. However, invited guests are welcome to sample this series that is a benefit of membership. The first event, announced at the January general meeting and on the TAAS e-mail list, was January 19th. The exact dates for the others in the series are yet to be determined – they are tentatively set for one each month. You can see more information and keep up to date on the Web at: http://members.home.net/u2mr2os2/taas/backyard

After the end of February, this Web address will change due to @home customers transitioning to Comcast.net. A new link will be provided when it is known, and hopefully soon linked from the TAAS Web site. You can also contact me by e-mail: u2mr2os2@home.com or by phone: 463-4987.

Continued Page 12
Our last GNTO committee meeting on December 13th was reported in last month’s newsletter, so I’ll focus on more recent stuff this time. We had several very successful work parties on December 27th and 29th. We installed a permanent 14-foot wide metal gate at the entrance to the GNTO property, which is locked with a combination padlock. We set the fence posts in concrete on the first day, then set the metal gate on the second day. The combination for the gate lock is the same as the combination padlock on the Outhouse. The gate gang included Larry Cash, Ray Collins, Karen Keese, Mark and Elaine Kroska, and myself. The second major accomplishment was a modification to the doorway on the new Astrophysics dome. The door has now been altered so that it can remain open when the observatory dome is rotated. This change allows easy access to the telescope during CCD imaging sessions and when using the scope in visual mode.

While some of us worked on the modifications to the Astrophysics Dome door, others reinforced fencing on the west side of our property. We suspected that several areas along the west side might have allowed cattle to get through the fence, so Elaine headed up the fencing task force for this area. Meanwhile, Ray got busy routing a new electrical feed to the Guest Trailer. A GFI outlet in the observatory now protects the new electrical line. Larry Cash had donated and installed an intercom that he donated. The intercom will prove very useful in coordinating focusing and telescope centering in the dome while the CCD computer control person is located in the Ortega Building. Larry also left a pull-string in the conduit that will allow us to add more cabling later. Karen worked on the main dome doorway located on the landing to the upper dome level. The door had been difficult to open at times, so Karen sanded down the door jamb then applied a fresh coat of paint to help keep moisture away from the wood. Karen also made headway cleaning and organizing some areas of the Guest Trailer that had not seen the light of day for a while. Larry and I ended the second day by adding water to the batteries, then returned on Sunday with more distilled water to finish the task.

Carl Frisch and I got to GNTO early on January 12th to adjust the float and bulk settings on the charge controller of the photovoltaic system. These adjustments were recommended by the folks at Direct Power, here in town, and we hope the revised settings will reduce the possibility of overcharging the batteries during times when the electrical demands are low. Next, we took hydrometer readings on all 30 battery cells, and all batteries look like they are in good condition. Our final task was to clean corrosion from the various copper connecting strips that are used to interconnect the batteries. As we worked on the batteries, Larry and I ended by adding water to the batteries during times when the electrical demands are low. Next, we took hydrometer readings on all 30 battery cells, and all batteries look like they are in good condition. Our final task was to clean corrosion from the various copper connecting strips that are used to interconnect the batteries. As we worked on the batteries, Larry and I ended the second day by adding water to the batteries, then returned on Sunday with more distilled water to finish the task.

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We had a great observing session, with nearly perfect skies in the early evening. All told, we had eleven telescopes in use, counting the Isengard and Astrophysics instruments. Mark Kroska took advantage of the opportunity to use the ST-9E camera, equipped with a color wheel that Carl provided to do some astro-imaging on the Astrophysics. This was a shake down for the newly refurbished TAAS-2 computer, which we used from the warm comfort of the Ortega Building. The new computer is comprised of equipment donated by Dave Brown, as well as a newer monitor that Carl made available to us. The intercom that Larry Cash had donated and installed earlier was a big hit when negotiating camera focus or rough pointing of the instrument.

In addition to Larry, Nancy, Carl, Mark and myself, other observers included Ray Collins, Karen Keese, Bob Legasse, Eric Lieberman, Dale Murray, Mark Nagrodsy, Gordon Pegue, Tol Singer, Barry Spletzer, and Robert Williams. We also had two Belen area visitors, but I did not catch their names. The final observer count was 17 people, all of whom had a great time.

Up coming events include our next GNTO observing sessions on February 8th, 9th, and 16th. The February 8th date is a Friday, and all Friday events are designated as a GNTO CTC night. CTC means you need to call or email to confirm that someone will be at GNTO. Our next GNTO training session will be March 9th, when we will offer training on all three GNTO equipment access levels.

Last month I reported that Cobisa now plans a power plant a mere 2 miles Southeast of GNTO, which places the plant in Socorro County. The only new development to report on this issue is that there is now a 120-day moratorium in place, which restricts any new power plant construction in Socorro County. Please keep this threat to your observatory in mind as this moratorium expires, because we will need everyone’s help to fight the new proposed plant location.

GNTO committee meetings are open to all interested TAAS members. We meet on Thursdays, one week before the TAAS general meeting. Everyone is welcome to contribute at committee meetings. If you have questions about access and availability of GNTO, please contact me (Pete Eschman, gnto@taas.org, home phone: 873-1517, work phone: 277-0020.)

I hope to see you soon at GNTO.
Charter of Celestial Ethics

A river of artificial light has cancelled out the stars. The night sky is dying. Light pollution, the effect of light wasted upwards, defies the natural balance of day and night, light and dark. The charter of celestial ethics is a behavioural code with the aim of saving the night sky.

General Terms

The starry sky, a visual and real image of the universe, is the heritage of humankind;
let’s not alter the day-night natural balance;
let’s not send artificial light towards the vault of heaven;
let’s respect flora and fauna;
let’s not upset the psychological and physical balance of people;
let’s not dazzle people and animals;
let’s not destroy the astronomical culture inherited from our forefathers;
let’s not hinder scientific observation and astronomical research;
let’s save energy and economic resources;
let’s not reduce the chlorophyllian synthesis of plants.

Particular Terms

let’s use shielded outdoor light sources;
let’s light from the top downwards;
let’s reduce bright emissions late at night;
let’s not use excessive floodlights on monuments, churches, and areas of archaeological interest;
let’s send light only where people need it;
let’s not project images towards the vault of heaven, on land or facades;
let’s not use skybeams and laser beacons;
let’s use monochrome lamps or slightly “hot” (pink/orange) colours and limit their use;
let’s use highly efficient lamps;
let’s turn on/off fittings at civil twilight;
let’s turn off fittings when not needed;
the terms of this charter should serve for the planning of exterior lighting schemes;
let’s respect and spread the celestial ethical charter.

Those who do not abide by the requirements of the celestial ethical charter will be counted among the many destroyers and spoilers of the starry sky, to their shame: will posterity remember their names?

The above was written and disseminated internationally by Dr. Carlo Rossi, National Light Pollution Committee of the Italian Amateur Astronomers Union, Civitavecchia, Rome, Italy. It was translated by Professor Renato Palomba, Amateur Astronomers Monti della Tolfa, Civitavecchia, Rome, Italy, and Bob Mizon, British Astronomical Association’s Campaign for Dark Skies, Wimborne, Dorset, England.

Barry Gordon with his spectacular slides of the December 28 occultation of Saturn by a gibbous moon.

Photos by Eric Bucheit
Lodestar Astronomy Center

Astronomy Speaker Pool

LodeStar occasionally gets requests for astronomy speakers at schools, senior centers and other community venues. Most requests are day engagements and simply require someone do a slide presentation on an aspect of astronomy that is of particular interest to the speaker.

Sometimes there is a stipend involved, but more often what is required is a sheer love of astronomy and the desire to express a passion for the subject.

If you think you might be interested in becoming part of an Astronomy Speaker Pool, and can be contacted for upcoming requests, please contact Karen Keese at pr@taas.org or 261-0040 with your topic(s) of interest and the best way to contact you.

Monthly Membership Report (December)

Dave Brown, treasurer@taas.org

<table>
<thead>
<tr>
<th>Membership</th>
<th>Current Month</th>
<th>Past Month</th>
<th>Change</th>
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<tr>
<td>Regular</td>
<td>198</td>
<td>204</td>
<td>-6</td>
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<tr>
<td>Family</td>
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<tr>
<td>Honorary</td>
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</tr>
<tr>
<td>Complimentary</td>
<td>10</td>
<td>10</td>
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<tr>
<td>Total Members</td>
<td>295</td>
<td>302</td>
<td>-7</td>
</tr>
</tbody>
</table>

TAAS Reports/Notices

Membership Services

- All Membership Inquiries
- Update your Membership
- Magazine subscriptions

Contact Dave Brown @ membership@taas.org
505/275-9126 (O)
PO Box 50581 Albuquerque, NM 87181-0581

Note from the Editor
Dan Richey

Please note that the deadline for the March 2002 issue of The Sidereal Times will be Friday, February 15th, as the finished manuscript must be at the printers on Monday, February 18th so that you will receive it by the following Saturday. My e-mail address is editor@taas.org. Thanks as always for your interesting articles and your cooperation.

UNM Report

Jay Harden, UNM Campus Observatory coordinator
unm_coord@taas.org

- 14 Dec: Fairly good viewing but quiet chilly. We had 25 viewers, thanks in a large part to Karen’s Boy Scout group. Docents: Mark Kroska, Jim Lawrence, Jay Harden. There were other TAAS members there. I will not name them. In the dark I probably didn’t see all of them.

- 21 Dec: We only had 5 viewers on a cool, breezy night. Docents Jim Lawrence, Mark Kroska and Jay Harden. We did do some good personal viewing.

- 28 Dec: Good viewing night. We had 19 viewers who left early. Docents: Mark & Elaine Kroska and Jay Harden. We had another good personal viewing night.

- 4 Jan: Was cloudy and snowing early. Around 7:00 it did clear up. I arrived at UNM at 7:30. No viewers. I left around 8:00.

- 11 Jan: Good viewing night. However, later in the evening it got cold and very dewy. We had at least 30 viewers. When they left, we left. Docents Mark Kroska, Brock Parker, Dick Gonzales, Jay Harden and one VIP known as Ray Collins, AKA known as TAAS President.

February 2002

Classified Ads

Brand New Release from Paideia Productions
1-800-467-1085 www.paideiaproductions.com

The Wanderers: A Journey from Mercury to Pluto
• 65-minute Video Exploring the Solar System
• Filmed at the Lodestar Astronomy Center
• 40 Minutes of Computer Graphics
• Award-Winning Albuquerque Production Team

SIG’s Continued

AMATEUR TELESCOPE MAKING WORKSHOP

Ray Collins

ATM INTRODUCES THE “PLATFORM-LESS EQUATORIAL PLATFORM!”

One of the virtues of the Dobson telescope is that you can point it quickly – and with very little effort – to whatever part of the sky you want to observe. With estimable stability, your scope remains exactly where you direct it, an extension of the Earth to which it seems rooted.

Therein lies the rub: the Earth has little interest in your celestial viewing, and inexorably turns your telescope toward the east, while the image in your eyepiece drifts “out of the picture”. This is a problem only to the extent that you want to prolong the time you spend looking at a given object. You adapt quickly to giving our scope periodic nudges: you become the human counterpart of the tracking mechanism that whispers quietly in your friend’s Schmidt-Cassegrain or equatorially mounted refractor.

However, you can’t quite match the performance of a small computer and electric motor, which patiently provide an incredibly large number of very small nudges to keep the image centered in your friend’s field of view.

The solution to which many have turned is the “equatorial platform,” a separate mechanical device placed between the telescope and the ground, which keeps the telescope moving “with the sky”. The ATM (Amateur Telescope Making) group has given some thought over the past year to helping interested telescope owners (or potential owners) to work together to produce these platforms – a rewarding group effort in “mass production.”

We’re pleased that we waited! Barry Spletzer, a robotics scientist with more than a little renown as a successful innovator in telescope design, has come forward with a mechanism to add celestial tracking to virtually any telescope that sits on the ground – without a separate platform added to the labor of transporting, setting up, and taking down. This is potentially a breakthrough which will begin in Albuquerque and sweep the country, if not the Galaxy!

Barry will introduce his design at the February meetings of the ATM group, a “Special Interest Group” having the same relationship to TAAS as the Coffee House Astronomers. ATM meets on the first and third Wednesdays of each month at 7:00 pm at Valley High School. It is a very informal get together for people with diverse questions about telescopes.

Some ATMers are patiently grinding and polishing mirrors with the guidance of those who have expertise, while others seek advice on design, a possible purchase of a telescope or associated equipment, collimation, and almost anything else.

ATM meetings are conspicuously immune to cold weather, cloudiness and the phase of the moon. Plan to see what has the ATM “regulars” so excited. For specific directions to Room E-3 at Valley High School, e-mail ATM@taas.org or call Ray Collins at 344-9686. The February meeting dates are the 6th and 20th. Valley H.S. is at 1505 Candelaria Northwest, between 12th Street and Rio Grande Boulevard.

Ads Continued on page 13

—The Official Newsletter of The Albuquerque Astronomical Society—
Green Estate Sale

For Sale:  17” Safari Truss Tube Type Dobsonian Telescope with Starbeam pointer, 2” Tectron focuser and more; Celestron 8” SCT Telescope, f/10, 2000mm focal length, complete with wedge mount and motor drive, tripod, Telrad, 2” mirror diagonal, tripod tray and dew shield; Televue eyepieces; finder scopes; Easy Guider; drive corrector; a bunch of ATM stuff and much, much more! Call Julia Green @ 281-6651 for details.


★  ★  ★  ★
What’s that?  Did you say Free?  That’s right FREE!
Any TAAS member can use this coupon to borrow a TAAS telescope. Call Randall Gauntt at 293-3410 or telescope_loans@taas.org 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.

— SOCIETY STAFF —

<table>
<thead>
<tr>
<th>Board of Directors - <a href="mailto:board@taas.org">board@taas.org</a></th>
<th>Telephone</th>
<th>Email Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>President/ATM Coordinator</td>
<td>Ray Collins</td>
<td>344-9686 (H)</td>
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<td>Vice President/Public Relations/Gen Mtg Coord</td>
<td>Karen Keese</td>
<td>261-0040 (C)</td>
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<td>Secretary</td>
<td>David Blair</td>
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<td>Director/Membership Director</td>
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<td>Director/Newsletter Editor</td>
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<td>Director</td>
<td>Eric Bucheit</td>
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<td>Director</td>
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<td>Barry Spletzer</td>
<td>294-4601 (H)</td>
</tr>
<tr>
<td>Director</td>
<td>Chris Wilson</td>
<td>821-1640 (H)</td>
</tr>
</tbody>
</table>

Events Coordinator                  | Vacant | 292-0463 (H) | events_coord@taas.org |
TAAS Archivist                       | Pat Appel | 856-2054 (H) | archivist@taas.org |
TAAS Librarian                       | Dawn Gray | 296-0549 (H) | librarian@taas.org |
TAAS Web Master/ATM Coordinator      | Michael Pendley | 296-0537 (H) | webmaster@taas.org |
UNM Campus Observatory Coordinator   | Jay Harden | 293-3410 (H) | atm@taas.org |
Telescope Curator                    | Randall Gauntt | 856-7450 (H) | telescope_loans@taas.org |
Explorer Post 110 President           | Ted Schuler-Sandy | 884-9108 (H) | post110_pres@taas.org |
Explorer Post 110 Advisor            | Mark Kroska | 884-9108 (H) | post110_advisor@taas.org |

—The Official Newsletter of The Albuquerque Astronomical Society—
MEMBERSHIP: You may request a membership by calling the Hotline or by sending e-mail to membership@taas.org. 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 a full time student (High School or less) membership. Additional family members may join for $5 each (student and family memberships are not eligible to vote on society matters). New member information packets can be downloaded from the website or requested from the TAAS Membership Services Director at membership@taas.org. 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.

MAGAZINES: Discount magazine subscriptions to Sky and Telescope and Astronomy 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. Make checks out to TAAS (we will combine and send one check to the publisher). Warning: publishers take several months to process 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 commercial ads (per issue) are $120 per page, $60 per half page, $30 per quarter page. 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 at editor@taas.org for more information.

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taas@www.taas.org

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(not to scale)
MLK Dr.
Regener
University
Central
Popejoy

The Albuquerque Astronomical Society

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

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