IT IS ONLY 18 DAYS until the annual TAAS Perihelion Banquet. The event will include a keynote address by Dr. Trish Henning on the subject “A New Ear on the Universe—The next generation radio telescope, the Square Kilometer Array.”

A delicious buffet dinner and cash bar will be provided. Cost per person is $20.

There will be door prizes, a challenging trivia contest, and other entertaining features.

The time is Saturday January 9, 2010, at 1800 MST (6 p.m.) at the MCM Elegante Hotel. Details are available on the TAAS Web site (www.TAAS.org). This is an event you will not want to miss.

Contact Sy Santos at sysantos@aol.com for reservations NLT January 6, 2010.

See page 4 for the story behind the Mullen Dobsonian telescope...
Resolutions

IT'S THAT TIME of year again. Time for the “I’m-really-going-to-do-it this-time” resolutions. We all know about them because we’ve had them in the past, pursued them, and finally ignored them. The nice thing is that each year we get to try again. I think the reason we try again is that our resolutions are personal and generally require more of us than of anyone else. So, I will share with you my astronomy resolutions for 2010.

Learn to collimate my telescopes: For about the umpteenth time I am going to learn how to collimate my reflector telescopes. Since I have two of them, my inability to correctly align the optics is multiplied by two every time I look at them. I have read magazine articles, searched Google, and even watched You-Tube, but still I approach collimation with fear and trembling. I do have a laser collimator. I wonder if the fact that I have dropped it on the garage floor, run over it with my bicycle, and even kicked it under my car matters. I guess the only solution is to ask the same patient TAAS members I have asked many times for assistance to instruct me one more time.

Observe the Moon: I have the books, the software, and the charts. What I do not have is a good plan. When I parked the jet for the last time, I stood up at a TAAS general meeting and said that I had not seen all the Messier Objects, but intended to before the end of the year. Soon after that, I had 20 TAAS members at my house willing to look with me. It appears that I will have to have a Moon party. I will announce it at the appropriate time, and you are all welcome to attend. Since we have a large moon, we may need to have several parties.

Organize my stuff: This of course applies to most parts of my life. However, I will restrict my resolution to astronomy. I have to begin with my astronomy literature. Several years ago I decided to convert all of my stuff to digital storage. I obtained a scanner, and now I have a “waiting to be scanned” pile approaching the size of my old astronomy magazines pile. Do I really need all of this stuff? When I need something, I simply Google it. Then store it on my computer desktop which is rapidly evolving from an open cluster to a globular cluster of icons. I am learning to download to save time, but the need to have a good filing system does not go away. So, I am back to organizing.

Complete my double-star list for TAAS: Since I cannot see the “faint fuzzies” I enjoy looking at real objects like double stars. Presently, there is not a TAAS Double-Star list. I intend to create a list of 100 stars that can be observed during one complete trip around the sun. I invite all of you to make suggestions for this list. Nothing wrong with seeing double.

It has been a great two years. I wish to thank my fellow officers, a terrific Board of Directors, a very patient and helpful editor, and all of you for making it two wonderful years of OBSERVING - EDUCATING - HAVING FUN.

Mentorship Program Continues

THE TAAS MENTORSHIP PROGRAM continues with the pairing of students and teachers following the two Kick-Off meetings the first part of December. This program will pair experienced TAAS members with those new to astronomy. Together they will complete activities one-on-one to promote a better understanding of astronomy for all involved. Details are on the TAAS Web site (www.TAAS.org). All TAAS members are encouraged to participate. Interested persons may contact Lynne Olson at desiree41@aol.com or 856-2537.

Happy New Year!
OUR SECOND EVENT for last month took place on November 21. This observing opportunity was a pretty good night for around thirty people, and we counted fifteen telescopes in operation through the course of the night. Steve Welch opened the facility for this event. Lance Hurt served as host for the Isengard telescope, with help from Melissa Kirk.

Sky conditions were mostly clear, with some high cirrus clouds. A fair number of meteors were spotted, and those who missed seeing them could hear others exclaim, “Wow!” or “Did you see that?” Steve had his video gear running on his ETX-80AT, and folks were impressed at the image resolution of galaxy NGC 253 integrated for 8 seconds. Some felt the video image from this 3-1/4” scope was comparable to what they saw in Tom Davies’ 12” Orion. Winds and clouds increased after 11 p.m., so Steve and Paul started closing up around midnight, and everyone left before 1 a.m.

Our December 12 New Moon event was clouded out, although Kevin McKeown reported that conditions cleared shortly after people gave up and returned to town in the early evening. Will Ferrell had been on hand to open the facility, while Dee Friesen was there to host the Isengard telescope. Dee delivered the Masera Binoscope that Jim Lawrence rebuilt for us. This binocular scope joins the set of loaner scopes at GNTO, which now includes a 16”, this dual 10”, and a 6” telescope. Many thanks go to Jim Lawrence and all who helped to make this binoscope project a success.

OUR MOST RECENT GNTO committee meeting took place on December 17 and was attended by Larry Cash, Ray Collins, Pete Eschman, Paul Grunwald, Lance Hurt, Dale Murray, Gordon Pegue, Bill Wallace, and Steve Welch. We met at O’Neill’s Pub on Central Avenue SE, and plan to hold future meetings there. We decided to purchase parts to build an all-sky video monitor. We have allocated up to $300 for parts to build our own inexpensive cloud and meteor sensor. If we have a network connection at GNTO in the future, sky conditions could be posted on a Web page. We also plan to export data from our WMR968 weather station as well as Photovoltaic system data.

I reported that Carl Frisch installed new LEDs and wiring along the path from the parking area to the Robert Ortega Building. Carl also removed some shrubs that bounded the west border around the propane tank. Thanks for your help, Carl, and thanks for the work you put into keeping our access road in good shape!

We have two events scheduled for January, a New Moon observing event on January 16 and an Observing/Training event on January 23. The training session, “Introduction to GNTO and the Isengard Telescope,” starts at 5:45 p.m. We only schedule training sessions four times a year, so this may be your best chance for the near future. The next training session will be March 20. Our New Moon event for February is scheduled for February 13.

Steve Welch heads up our CCD imaging program. If you are interested in this program, contact Steve at 505-866-7668 to make arrangements. Steve can have our CCD imaging equipment ready in the 10-foot dome so you can learn about imaging and take some images of your own.

We will have the heated Robert Ortega Building open and our Guest Trailer available for coffee, hot chocolate, and any snacks you might want to share. We’ve got a bunch of great equipment waiting for you at GNTO, so plan your next trip to GNTO soon.

GNTO committee meetings are open to any TAAS members, providing a great way to get more involved with your observatory. We meet every other month at 6:30 p.m. Our next committee meetings are February 18 and April 15 at O’Neill’s Pub, 4310 Central Avenue SE. If you have questions about GNTO, please contact me (Peter Eschman, gnto@taas.org, phone 873-1517).

I hope to see you soon at your observatory.
My 100-pound Coulter Scope is now an Agreeable Traveling Companion

Barry Spletzer

IT’S FINALLY DONE. Well, almost. After three years of design, several months of cutting, gluing, and machining and one miserable failed attempt resulting in lots of funny shaped wooden scraps, my 13-inch portable scope is reasonably complete. My primary goal was to build a large telescope suitable for air travel. Seeing those glorious Southern Hemisphere skies without a big scope is just unthinkable. Objects not visible from here in America like the Magellanic clouds and the incredible globular cluster, 47 Tucanae, just scream for aperture. The resulting scope, measuring six feet tall when assembled, weighs 22 pounds and packs into a 21 x 16 x 7-inch package. To be clear, this includes everything, structure, mirror, truss…

11-pound primary mirror. The actual build took about four months and 100 hours of labor. There are over 400 separate parts in the scope. Half of them are commercial items (bolts, washers, fittings) but over 200 of the parts had to be custom fabricated, all the way from things as simple as a custom length of tubing to the complex bentwood upper cage requiring days to complete and weighing in at a mere 13 ounces. I went so far as to build my own 4-ounce focuser and nearly nonexistent secondary mirror holder. I incorporated a number of unusual features to achieve the light weight such as no base board, no real mirror cell, fixed nonadjustable mounts for both mirrors, and truss poles that break into three pieces each.

I say the scope is “reasonably” complete because it still needs a carrying case to be useful. That in itself promises to be a challenge, since a heavy case would negate much of the effort in the scope. I figure a five-pound case may be possible. One final word for ambitious scope builders, I can supply a full set of engineering drawings in case you want to consider turning your lumbering 100-pound Coulter 13 into a very nimble instrument.

The Story Behind the Mullen Dobsonian Telescope

THE TELESCOPE pictured here is the result of a labor of love by former TAAS BOD member Charlie Mullen. He took a donated 10-inch mirror from William Anliker and built an f/4.5 Dobsonian telescope that will be the Grand Door Prize at the 2010 Perihelion Banquet on January 9, 2010.

Charlie, a retired aerial survey pilot, was an active telescope maker in Florida prior to moving to New Mexico. He is also active in the TAAS Amateur Telescope Making (ATM) SIG.
Thanks to all 2009 TAAS Board Members for your service

Note from Treasurer
Clarification of Member and Renewal Policy
Renewal notices will be mailed out one month before expiration date. Renewals and new members will be dated on the first of next month no matter when during the month they arrive. This will help with the database reports and queries.

There will also be no grace period for renewals. Please make sure that you send in renewal information and your check before the expiration date. Renewal of magazines and new subscriptions will be sent in twice a month. All checks are to be made out to “TAAS.” Thank you for your attention to this important issue.

If you have any questions or special needs pertaining to membership and/or magazine subscriptions, contact the Treasurer, Dan Clark at treasurer@taas.org.

Election of 2010 Officers
Full Members are encouraged to vote in person at the Perihelion Banquet Saturday, January 9, 2010, at 6:00 p.m. or by mailing the proxy ballot on page 11.

Monthly Membership Report
December 2009

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<th>Past Month</th>
<th>Change</th>
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<tr>
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<td>38</td>
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<td>Total Members</td>
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<td>308</td>
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Donations to TAAS
General
UNITED WAY

GNTO
PAUL LIN

Dark Sky
PAUL LIN

Location, Location, Location

• Chaco Canyon•
6185’ elevation
Latitude  Longitude
36˚ 01’ 50”N  107˚ 54’ 36”W
36.03’  -107.91’
36˚ 1.83’  -107˚ 54.60’

• Oak Flat•
7680’ elevation
Latitude  Longitude
34˚ 59’ 48”N  106˚ 19’ 17”W
34.99’  -106.32’
34˚ 59.80’  -106˚ 19.28’

• UNM Campus Observatory•
5180’ elevation
Latitude  Longitude
35˚ 5’ 29”N  106˚ 37’ 17”W
35.09’  -106.62’
35˚ 5.48’  -106˚ 37.29’

To convert from Degrees, Minutes, Seconds:
Divide seconds by 60, then add minutes, then divide by 60 again.

For security reasons, GNTO location is available by request only, so please contact Pete Eschman for GNTO information.

Courtesy Pete Eschman

Membership Services
for:
• Membership Inquiries
• Events Information
• Volunteer Opportunities

Contact Bill Firth at
membership@taas.org

for:
• Membership Dues
• Magazine Subscriptions
• Address/e-mail changes

Contact Dan Clark at
treasurer@taas.org

P.O. Box 50581  Albuquerque, NM 87181

The deadline for the next issue of The Sidereal Times is Friday, January 15.

Please e-mail text as an attachment, preferably in Microsoft Word or OpenOffice.org Writer. Please do not embed photos in text. Attach photos and illustrations separately. The e-mail address for the newsletter editor is editor@taas.org.
The December School Star Party Was Huge...

Bob Hufnagel

The last school star party of 2009 was held on December 8, on the heels of a big storm that threatened to cancel the event. Cottonwood Classical Preparatory School was the scene of a very successful star party, complete with comets, rainbows, solar systems, and five telescopes in the parking lot. Earlier in the day, very high winds covered most of the state, along with plenty of clouds and snow. But it all cleared as evening brought clear skies and whisper-soft winds. Over 250 students, parents, and teachers, and ten TAAS members enjoyed the indoor events and outside telescopes in the first star party at the school. More such events were being planned before the evening was over. More school star parties are scheduled for the remainder of the school year. Check the TAAS Web site calendar for details.

Visit the TAAS Store online at www.taas.org
Look for the link on TAAS homepage.
## TAAS BANQUET

**Saturday, January 9, 2010**

6:00 P.M.

**TAAS Perihelion Banquet**

MCM Eleganté Hotel, 2020 Menaul Blvd NE, Albuquerque

*A New Ear on the Universe*

The next generation radio telescope, the Square Kilometer Array

Dr. Trish Henning, Keynote Speaker

$20 per person   Cash Bar

RSVP  Sysantos@aol.com  by January 6

More details at www.TAAS.org and on page 1

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**Notes**


GNTO = General Nathan Twining Observatory

GNTO Training = GNTO Observing and Training

GNTO NM = New Moon Premium Observing Night

UNM = University of New Mexico Observatory. Call the TAAS hotline @254-8227, or the UNM hotline @ 277-1446 to confirm, or unm_coordinator@taas.org.

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

P & A = UNM Physics and Astronomy Building, Corner of Lomas and Yale

SIG = Special Interest Group

TBA = to be announced

Blue Italics = Non-TAAS events
Directors present: Steve Welch, Bob Hufnagel, Bob Havlen, Gordon Pegue, Pete Eschman, Robert Williams, Dee Friesen (President), Dan Clark (Treasurer), and Melissa Kirk (Secretary), Dick Fate, Tom Davies

Directors absent: Larry Cash and Dave Pitonzo are excused.

The meeting convened at 8:10 p.m.

There are no revisions to the November Board meeting minutes.

President’s Report:
Bill Firth and Dee will mail the ballots for the election of the officers and invitations to the Perihelion Banquet.

Tyler Love will work with Pat Appel to maintain the TAAS archives.

Finance:
Dan transferred $3,000 to the GNTO fund after November 15, 2009.

Account balances as of November 15, 2009:
- General Fund: $16,558.90
- GNTO Fund: $8,272.33
- Education Fund: $6,308.56
- Dark Sky S.I.G. Fund: $1,338.96
- Special Projects Fund: $5,457.23
- Science Fair Fund: $475.00
- Cosmic Carnival Fund: $323.85
- Astronomical League Reserve: $95.96
- Total Funds on Deposit: $38,830.79
- Total Expenses for Oct. 16–Nov. 15: $1,340.38
- Total Income for Oct. 16–Nov. 15: $1,109.44

Loaner Telescopes:
Barry Spletzer spent $621 for a telescope and supplies.

GNTO:
The next star party is scheduled for December 12. Will Ferrell will open the observatory. Dee will operate the Isengard telescope. The next committee meeting is scheduled for December 17. Steve and Pete are finishing prototyping on the HAL computer, and they have set up a weather station.

Mentorship:
Lynn Olsen is interested in working on mentorship with Dee Friesen.

Telescopes for Teachers:
Trish Kincaid from Pajarito Elementary School is Trish Logan’s replacement in the Telescopes for Teachers program.

Education:
The Night Sky Network has a new feature on its website. The website lets the general public see information about upcoming events of astronomy clubs.

Old Business:
The Board discussed replacement of TAAS computer hardware and software. TAAS owns several computers: one for the general meetings, one for education, one for finance, one for editing the newsletter, and the computers located at GNTO. The finance computer works well. The education computer has a battery problem. A new computer for education will cost $500 to $600. A new computer for the general meetings will cost $800. The software for editing the newsletter should be replaced.

The Board discussed possible wording of a resolution that would replace resolution F-7. The new resolution would establish a protocol for disposition of TAAS mirror blanks. The wording of the proposed resolution will be presented to the mirror blank committee for approval. The committee will then report back to the Board, so the Board can vote on the resolution.

New Business:
Larry Cash is leading the awards committee.

We adjourned at 9:20 p.m.
The Orion Nebula, M 42 and 43. Photo by Dan Richey from TAAS Photo Show
## 2009 TAAS Board of Directors/Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Email</th>
<th>Phone</th>
<th>Extension</th>
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<tr>
<td>President</td>
<td>Dee Friesen</td>
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<td>856-1593</td>
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<td>259-3658 (C)</td>
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<td>Web Master</td>
<td>Bill Wallace</td>
<td><a href="mailto:webmaster@taas.org">webmaster@taas.org</a></td>
<td>864-8212</td>
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</tr>
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</table>
Election of TAAS Officers for 2010

The TAAS Nominations Committee has prepared a slate of recommended officers for the 2010 calendar year. The nominations are:

- President – Robert Williams
- Vice-President – Steve Snider
- Secretary – Melissa Kirk
- Treasurer – Dan Clark

TAAS members can participate in the election in two different ways. You may attend the Perihelion Banquet on Saturday January 9, 2010 at 6:00 p.m. and vote in person or you may return this proxy ballot to the address below. Your participation is requested in this important matter.

Complete details of the Perihelion Banquet can be found on the Web site (www.TAAS.org) and elsewhere in this newsletter.

Proxy Ballot

I, (please print) ____________________________, a full (regular) member of The Albuquerque Astronomical Society with voting privileges, hereby authorize Dick Fate to cast my Proxy Vote at the January 9, 2010 Annual Meeting of the Society, or any subsequent rescheduled date for that meeting. This Proxy Vote shall apply to all matters that come before said meeting, including but not limited to the electing of officers for the corporation.

Signed: ____________________________ Date ____________________

Mail the ballot to

TAAS
P.O. Box 50581
Albuquerque, NM 87181-0581
MEMBERSHIP: You may request a membership application by sending e-mail to membership@taas.org or calling (505) 254-TAAS(8227). 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 teacher, student (grades K-12), or military membership. Additional family members may join for $5/each (teacher, student and family memberships are not eligible to vote on society matters). New member information packets can be downloaded from the Web site 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.

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, $7 for business card size. The newsletter editor reserves the right to include and/or edit any article or advertisement. E-mail attachments in Microsoft Word, 11 point Palatino, justified, no indent at paragraph beginning, one space 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.

CHANGE OF ADDRESS: Note that the Sidereal Times is mailed at a first class mail rate. As a result, the newsletter may be forwarded to your new address should you move, or it may not!! Please provide the Treasurer (treasurer@taas.org) with your new mailing address or e-mail address to ensure that you receive your newsletter.

TAAS LIBRARY: Please contact the Librarian at librarian@taas.org or 890-8122 to check out a book or make a contribution.

TAAS ON THE WORLD WIDE WEB: The TAAS Web site includes:

- Online Sidereal Times
- Educational Outreach
- Programs: TAAS 200, Equipment Trader, Telescope Loaner Program, and more
- SIGs
- Members Guide
- Links to Astronomy Resources and Members' Blogs

E-mail: taas@taas.org