TAAS GENERAL MEETING
“Supernova Remnants”
SATURDAY, OCTOBER 27TH, 7:00PM
Science and Math Learning Center
UNM Campus
Free and Open to the Public

The featured speaker for the TAAS General Meeting on Oct. 27 will be Dr. John Dickel of UNM. His topic: “Supernova Remnants.” Following a short monthly Society meeting, Dr. Dickel will offer a different perspective on supernovas and their often spectacular remnants.

At age of four years, John had been introduced to the Pleiades, but not the Seven

continued on page 3 . . .

TAAS ASTRONOMY 101
“Astrophotography from Film to Digital”
SATURDAY, OCTOBER 27TH, 6:00PM
Science and Math Learning Center
UNM Campus
Free and Open to the Public

Prior to the TAAS General Meeting on Oct. 27, TAAS astrophotographer John Landing will present “Astrophotography From Film to Digital.”

John will give a history of the progress and evolution of astrophotography from the era of film to the current digital world, from

continued on page 3 . . .

OPEN SPACE VISITOR CENTER PUBLIC STAR PARTY
SATURDAY, NOVEMBER 3RD
( FOLLOWING COSMIC CARNIVAL)
6:00 - 9:00PM, Free to the Public

On Nov 3: a double treat for the public, with a star party just after the Cosmic Carnival at the Open Space Visitor Center. The sky darkens very early, as Daylight Saving Time has ended, and the heavens begin to show their wonders by 6:00 pm, allowing visitors to enjoy observing through the TAAS telescopes as the late fall coolness sets in.

continued on page 4 . . .
IN THE LAST MONTH there have been a number of important turnovers in TAAS Leadership.

Art Vandereedt has taken over the webmaster responsibilities from Bill Wallace. When you see Bill please thank him for the excellent job he did as the Interim Webmaster.

The second turnover was Steve Snider relieving Lynne Olson of the responsibility for organizing, scheduling, and staffing our Public Events. When you see Lynne please thank her for the many public events she organized and executed. We and the public benefited from her enthusiastic leadership of these important events.

Mark Goodman has assumed the Education Outreach Director responsibilities from Tom Grzybowski. Tom led the Education program through an urgent recovery from the loss of the planetarium. Through his efforts the new planetarium was ready for the next year’s School Star Parties. Under his leadership the Education Program has continued to be one of our star efforts.

Lastly, Olga Isabelle Copson is relieving Lynne Olson as the Publicity Coordinator. For several years Lynne has kept us all informed of what is going on in TAAS and the public informed of our events. Her infectious enthusiasm for promoting our events has truly helped TAAS be successful.

The 2020 ALCON Planning Committee has formed and held two meetings. The committee has received a significant amount of information about the 2018 ALCON from the Minneapolis Astronomical Society that we help us focus our planning efforts. There are nine committee members, but we can use more. In particular we need someone to serve as the webmaster. This position will be a busy one especially in the months leading up to the ALCON. If you are interested in joining the committee, please contact me.

I am writing this message the evening before departing for the Okie-Tex Star Party. When I joined TAAS in 2012 I kept hearing about this great star party in Oklahoma. I attended my first one in 2013 and was hooked. Large star parties at a very dark site are wonderful. You learn a lot from the other observers and you have the time to really enjoy the night sky. If you have not attended one of these events you should consider it. You will not regret it.

At 10:30 p.m. the class ended, and the wind died down to 10-15 mph, but the sky was 98% overcast and seeing was almost non-existent. The site was closed-up about 10:45 p.m.

Upcoming Events:
- Nov. 3: 3rd Quarter Moon Observing
- Nov. 10: New Moon Observing
- Dec. 1: 3rd Quarter Moon Observing
- Dec 8: New Moon Observing

Don't forget that the GNTO Observing Field is available for use by TAAS members anytime. Check the TAAS website for the procedure to follow. Contact me if you have any questions.

As always, check TAAS_Talk and the TAAS website for last-minute changes and updates. GNTO events are open to all TAAS members and their guests.

GNTO Director: GNTO@TAAS.org or 505-803-3640.
Astronomy 101 continued from page 1

his experience and perspective. Digital capture has given astronomers much more freedom and many options in their photography efforts, and John will explain the differences in working with the two mediums. He will also display some of the equipment he has used to produce his images.

Examples of astrophotography by TAAS members can be seen on www.TAAS.org by selecting “Image Gallery.” See www.TAAS.org for map.

—Lynne Olson

Photos for Perihelion, Please!

I HAVE BEGUN COLLECTING PHOTOS of TAAS events and members for the slide show to be presented at our Perihelion Banquet on Jan. 12, 2019. This is a request for copies of your photos.

Part of the fun at our annual gathering is watching the slide show – so I’m looking for color photos (medium resolution) of members eating, socializing, and doing astronomy stuff. That means we need to take and collect pictures of members at virtually all of our many activities.

As you send me images (to: bobship10@gmail.com), I’ll build the show. You will receive credit for each picture I use. I plan to select between 100 and 150 pictures, depending on quality and number of the year’s events represented.

Each month’s activities are on our Web site under the heading, Upcoming Events with date and location. With your contribution, we can look forward to seeing lots of smiling faces in the slide show at next year’s banquet.

—Bob Shipley,
TAAS board secretary

Observation Loan Program Update

by Rick Vergas, Telescope Loan Program Coordinator

THERE WERE NO SIGNIFICANT CHANGES to the telescope and accessories inventory available this month. However, we have received a generous donation from Art Vandereedt, our new webmaster, of a classic Meade LX200 10” SCT on a fork mount. The scope did not include a tripod, and I will test the electronics. It is feasible to “de-fork” the scope and mount it on a sturdy German equatorial mount and tripod. Art did donate a field tripod suitable for a Meade ETX 90 or 125mm. There are currently 8 scopes immediately available, and any other scope may be reserved.

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<th>Loan Program Statistics</th>
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<td>Scopes</td>
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Type:
- Reflectors: 23
- Refractors: 7
- Catadioptrics: 12

Size:
- Large (>8”): 12
- Medium (5”-8”): 17
- Small (<5”): 13

Tracking:
- Manual: 26
- Push-To: 5
- Go-To: 7
- Tracking: 11

As of: 10/10/18

General Meeting News continued from page 1

Sisters of the night sky: his Navy father served on the USS Pleiades! By five, he was hooked on physics and astronomy, and has remained so ever since.

John studies supernova remnants, both observationally and theoretically, to detail the interaction of the expanding blast with the surrounding interstellar medium. By using radio, optical, infrared and x-ray wavelengths, he and his colleagues can investigate all the various components of the surroundings to see how clumping and irregularities affect the expansion. For example, we have the three-wavelength image of the supernova remnant Cassiopeia A, with this article, produced by Dr. Dickel, Fred Seward, and another colleague. One of his latest research targets is N103B. In his presentation he will offer new information on this rare class of supernova remnants in the Large Magellanic Cloud, which is at yet unpublished (so you will be at a scientific "premiere"!). He is also participating in multiwavelength studies of the Magellanic Clouds, satellite galaxies of the Milky Way, and is part of the team building the Long Wavelength Array, being constructed by UNM and many more participants.

DR. DICKEL has a BS in Physics from Yale, a PhD in Astronomy from Michigan. He spent 40 years at the University of Illinois. Then, in 2005, he and his wife, Dr. Helene Dickel, came to Albuquerque and have been Adjunct Professors at UNM.

—Lynne Olson

Page 3
The Official Newsletter of The Albuquerque Astronomical Society
AUTUMN IS HERE, and with it, the Placitas Star Party! The event will take place at the Placitas Community Library on Saturday, Oct. 20. The star party starts at dusk, as the first celestial objects shine in evening sky (sunset is at 6:24 p.m.), and continues into the night. There will be a variety of types and sizes of telescopes to guide you to the wonders of our dark skies.

The Placitas Star Party is free and open to all ages, so bring your family, friends and your curiosity. Members of The Albuquerque Astronomical Society (TAAS) will be on hand to share their knowledge of the heavens as well as the different telescopes they bring. Star Parties are a fun and informal way to learn, meet other sky watchers and inspire lifelong learning about our universe. Please arrive well before dark for ease of parking and for watching the setup of the various types of telescopes. Dress warmly and only use red flashlights or headlamps in the observing area in order to preserve night vision.

Directions: From Albuquerque, take I-25 North to Exit 242 (Bernalillo). Turn right (East) on to Highway 165 and travel approximately 4.5 miles. The library is on the left (North) side of the road – if you pass the fire station, turn around! For more information, see www.taas.org , www.placitaslibrary.com , contact 867-3355 or email to TAAS@TAAS.org.

—Lynne Olson

TAAS Fab 50 - Fall Session
Friday, October 19th, 7:00pm
All Saints Orthodox Church - 10440 4th St., NW

The quarterly TAAS Fabulous 50 presentations are designed for individuals who want to understand the layout of the nighttime sky and how to identify major stars, constellations, and occasional Messier objects. It is an excellent public forum where TAAS members reach out and assist participants from the public and other members with naked eye, binocular, and telescope visualization. This session, on Friday, Oct. 19, covers the beautiful starry nights of the autumn season and includes a lecture by Phil Fleming on what will be seen, plus an observing session and a social time afterward. For more information go to taas.org.

Come early and enjoy the Cosmic Carnival. Then at 6:00 pm, go to the eastern patio for observing, a constellation tour with green laser and conversation with amateur astronomers.

• At 7:00 pm, there will be a talk in the Kiva Room by Phil Fleming on “Learning The Autumn Sky – The “TAAS Fab 50”.

• In the video/media room, Neil deGrasse Tyson’s “Cosmos” will be playing throughout the evening.

• The lobby will feature star-chart making with TAAS members.

This is an opportunity also for TAAS members to show off their fine equipment and acquired knowledge, so all are encouraged to join in! (special parking for TAAS members to unload scopes close to the patio).

Bring a jacket for the evening chill and please, use only red headlamps or flashlights in the observing area.

See www.TAAS.org for directions to the Open Space Visitor Center.

—Lynne Olson

You can receive a FAB 50 Award Pin!

• Attend all 4 FAB 50 presentations: Winter, Spring, Summer, Fall
• Sessions prior to year 2018 do not qualify
• TAAS membership is not necessary
• There is no time limit for completion
M 27, the “Dumbbell Nebula,” captured on Sept. 10 from GNTO. M 27 is a planetary nebula in the constellation Vulpecula, approximately 1360 light-years from Earth. Planetary nebulae are the remains of modestly sized stars, similar to our sun, which, having expended their nuclear fuel, shed mass and collapse to white dwarfs.

10 x 10-minute subs were made with an SBIG 4000XCM camera mounted on a Celestron-HD Edge 11” with focal reducer operating at f/7 and a focal length of 1960mm. The mount was a Losmandy G11. Processing was done using PixInsight and Photoshop CS2; the image was cropped for aesthetics. I would have preferred more data; unfortunately, gusts of wind kept ruining subframes. Fortunately, the object is sufficiently bright that an acceptable image could be made from the available data.

— Vance Ley
Chaco Public Star Party  
Sept. 7-9  
by Melissa Kirk

The skies above Chaco Culture National Historical Park are well known for their darkness, and many TAAS members and visitors enjoyed them on September 7, 8, and 9. Chaco skies are rated 2 on the Bortle Scale, where the parts of the Milky Way visible during the northern summer appear intricate to the naked eye, with M6 and M7 very apparent.

The roads to the park were dry, although the last part of CR7950, before reaching the paved entrance to the park, is very bumpy. When Bridget de Saint Phalle and I arrived on Friday evening, several other TAAS members were already present.

The targets of observation included M22, Venus, Jupiter, Saturn, Mars, and Comet 21P/Giacobini-Zinner. Fernando Torres showed me the comet thru his 16-inch sidewalk telescope. Wow, it had definitely grown a tail. Visitors from the public were excited to see the crescent Venus.

Bridget, Nena Iriarte and I stayed busy that first night capturing nightscape photos. The evening and morning skies were mostly clear, with sparse clouds appearing Saturday morning and then disappearing.

Ranger G.B. Cornucopia led a tour thru Pueblo Bonito on Saturday afternoon. I try to imagine what life was like for the Chacoan Sun and Moon Watchers. There is evidence these people may have indeed known about the Moon’s 18.6-year cycle, the solstices, and the equinoxes.

Among the TAAS members and guests in attendance were Ed Juddo, Martin Hilario, Paul Pulaski, Jon Schuchardt, Ed Allison, David Groover, David Ochadlik and Michael Grumbine, along with Bridget, Nena and myself.

Several of us left in a caravan on Sunday afternoon, encountering some reluctant goats on the road on our way to Highway 550.
Mars, with Wings  The Chaco Star Party Sept. 7-9 enjoyed mostly clear skies, but clouds did form eventually, producing a strange effect to the South: Mars, the God of War, transformed into a butterfly.

—Photo by Bridget de Saint Phalle
Isleta Elementary School
Star Party, Oct. 9

We had a great evening at Isleta Elementary School. We shared the event with Explora, whose representatives, Felicia and Christian, set up some wonderful experimental stations in the school cafeteria.

We had six scopes for the evening. Martin Hilario brought a 3" refractor that, before sunset, he set up with an H-alpha filter; John Laning brought his Ritchey-Chretien. Jim Roucis had his 6" Newtonian*, and his daughter, Kelsey, had her 8" Dob; Fernando Torres came with his 10" Dob, and Viola Sanchez brought her 12" Dob to round out the field. (I have estimated the apertures of the various scopes, not having asked the owners specifically.)

Jim Greenhouse operated the planetarium for three classes. Olga Copson came out to assist with the planetarium shows. Olga is new to Albuquerque and TAAS, and so it was great to have her there. Tom Grzybowski was there, too, bringing some essential elements of the planetarium setup.

More than 70 students and parents took part in the evening. It was wonderful to see the kids enjoying the Explora offerings, and to hear the “Ooohs!” and “Aaahs!” of folks looking at Mars, Saturn, and Jupiter. Jim Roucis also offered Antares, giving an explanation of the evolution of the star to the observers, which was pretty cool.

All-in-all, a successful evening. Thank-you to all who participated, most especially Betty Lovato from Isleta Elementary, who helped coordinate the event. Please forgive me if I’ve failed to list your participation. If I’ve missed you, please let me know so that I can make the report complete.

—Mark Goodman
NGC457 is an Open Cluster in Cassiopeia also known as the Owl Cluster or ET cluster, or Caldwell 13. It has a size in the sky of over 20' which converts to 20 light-years in diameter. It is a young open cluster about 20 million years old and its distance is nearly 8,000 light-years. It contains more than 100 stars, but the two brightest stars in the image – Phi 1 and 2 – are in front of it and not part of the cluster. William Herschel discovered it in 1787.

Equipment: ES ED127CF f/7.5, SBIG ST8300M with FW5 CCD camera, Celestron CGX-L mount, guided with SBIG SG-4 on AT72ED f/6. Software: CCDSoft V5.210, ImagesPlus V5.75a, Photoshop Elements V9. Exposure: 15 x 1minute RGB for total 45 minutes. Location: 3 miles north of Oak Flat on my backyard patio, Oct. 10, from 8:30 to 9:30 PM MDT.

Note: This is the second time I have used my new mount, so still learning how it works. I put it on wheely bars so it is not quite level because bolts holes for tripod feet may be off, and this may cause the stars to be oval not round.

—John Laning
Donations to TAAS

Sara Thomas Wofford
Alison K. Schuler.

The Albuquerque Astronomical Society is a 501(c)(3) organization. Donations are deductible as charitable contributions on the donor's federal income tax return.

Welcome to New or Returning TAAS Members

Richard Bryant
Brice Burgess
Lynnae Chavez
David Flores
Anthony Saraiva
Conner Terborg
Eric Terborg

Explanation of Dues and Membership Renewal Date

New memberships are registered immediately if you pay online. If you pay by check, your membership is registered when your check is received by the treasurer.

Renewal notices will be sent out via e-mail beginning 60 days before your membership expires. If your membership is renewed before it expires or within 90 days after it expires, your new expiration date will be advanced one year from the previous expiration date and your membership will be continuous.

If dues payment is received more than 90 days after the expiration date, you will be reinstated as a member with an expiration date set as one year from the receipt of payment.

Monthly Membership Report September 2018

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<td>Total Members</td>
<td>465</td>
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Editor's Note

The deadline for the next issue of The Sidereal Times is Wednesday, October 31 (boo!). The newsletter editors' e-mail address is editor@TAAS.org.

Location, Location, Location

• Chaco Canyon
  6185' elevation
  Latitude 36° 01’ 50"N  107° 54’36"W
  36.03'  -107.91'
  36° 1.83'  -107° 54.60'

• Oak Flat
  7680' elevation
  Latitude 34° 59’ 48"N  106° 19’ 17"W
  34.99'  -106.32'
  34° 59.80'  -106° 19.28'

• UNM Campus Observatory
  5180’ elevation
  Latitude 35° 5’ 29"N  106° 37’ 17"W
  35.09'  -106.62'
  35° 5.48'  -106° 37.29'

For security reasons, GNTO location is available by request only, so please contact Jim Fordice, GNTO Director, for GNTO information, e-mail GNTO@TAAS.org.

Membership Services

for:
• Membership Inquiries
• Events Information
• Volunteer Opportunities

Contact Bob Anderson at membership@TAAS.org

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

Contact Doug LeGrand at treasurer@TAAS.org

TAAS
P.O. Box 50581
Albuquerque, NM 87181

Thank You

The Official Newsletter of The Albuquerque Astronomical Society
**MEMBERSHIP**

You can join TAAS or renew your membership online. Just go to [www.taas.org](http://www.taas.org) and select “Join Us!” or “Renew Your Membership” from the main menu on the left side. Annual dues are $30 for a regular membership, $15 for educators and active military, and $5 for students. Only regular members are eligible to vote in society matters. Our new member information packet can be viewed or downloaded from the same location on the website. You can pay your dues online through PayPal, by Visa, MasterCard, or American Express. To pay by check, mail your check to TAAS, P.O. Box 50581, Albuquerque, NM 87181-0581 or give it to the treasurer at one of our meetings.

**MAGAZINES**

TAAS no longer offers magazine subscriptions.

**ARTICLES/ADVERTISEMENTS**

Articles, personal astronomical classified advertisements and advertisements for businesses related to astronomy must be submitted by the deadline shown on the Society calendar (generally the Friday 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 or compatible word processor format; ASCII and RTF are acceptable. One space between paragraphs is preferred. One column is approximately 350 words. Contact the Newsletter Editor at editor@TAAS.org for more information.

Note that the *Sidereal Times* is no longer mailed. It is posted on the TAAS website, [www.TAAS.org](http://www.TAAS.org).

Send submissions or correspondence to editor@TAAS.org.

**TAAS ONLINE**

The TAAS website includes:

- Programs . . .
- TAAS 200
- TAAS Fabulous Fifty
- Educational Outreach: School Star Parties, Solar Astronomy Outreach
- Equipment Trader
- Telescope Loaner Program
- Telescope Making and Maintenance . . . And more
- Online *Sidereal Times*
- Calendar of TAAS Events
- Members’ Guide
- Links to Astronomy Resources and Members’ Blogs

E-mail: TAAS@TAAS.org

Members’ Google Group: TAAS_talk@googlegroups.com