

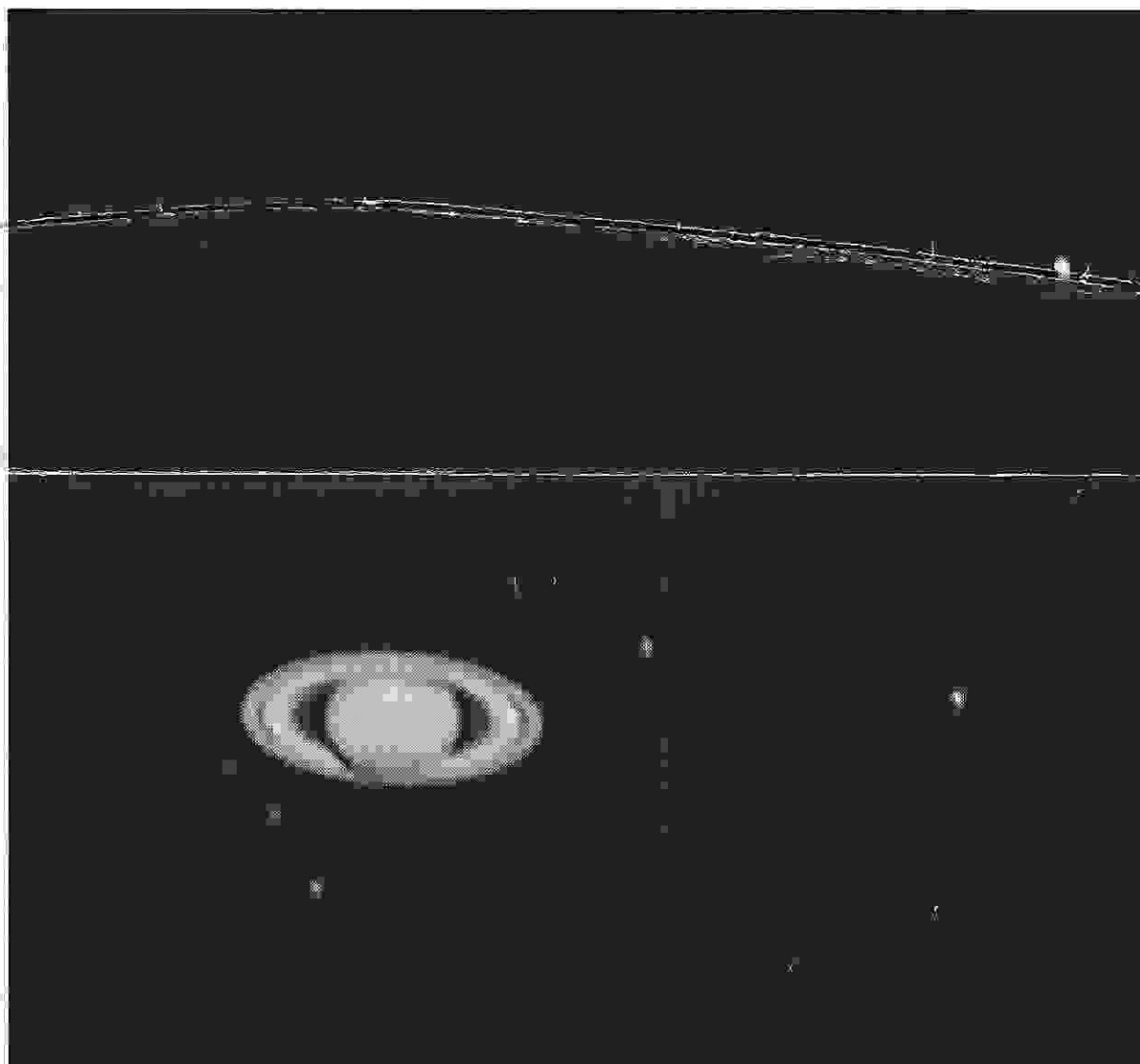


Desert Skies

Tucson Amateur Astronomy Association

Volume L, Number 3

March, 2004



Webcam Image of Saturn

Cover Photo: Saturn and moons, composite of two stacked and processed webcam images. The moons are (clockwise from top) Titan, Tethys, Rhea, Dione, Enceladus and Mimas. Imaged by Andrew Cooper at 6:57pm MST on Feb 15th from Tucson, AZ, north is up and left is east.

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Membership in the TAAA

Annual Dues

Individual membership.....	\$ 23
Family.....	\$ 28
Senior (over 60) membership.....	\$ 21
Senior Family (at least one over 60).....	\$ 26
Student membership (over 18 years old).....	\$ 15

Family Membership includes two adults plus minor children. Persons under 18 may join at a special Reduced Family Membership rate (\$15/yr) upon parental or guardian acknowledgement of participation in TAAA activities. Call the Treasurer to request the required form.

Options (add to above membership rates)

Tucson society of the Astronomical League (TAL) dues\$	5.00
Sky & Telescope Magazine.....	\$ 32.95
Astronomy Magazine.....	\$ 29.00
Postage for New Member Pack.....	\$ 3.50

Donations are accepted for any of the TAAA funds: SA-IDA/Light Pollution, TIMPA, Education, 30" Telescope & Land, or General Fund.

Renewal Information

- Membership expires the last day of the month indicated on your mailing label. You will receive a renewal notice when they are due.
- TAAA members may join the Tucson society of the Astronomical League (TAL). TAL expiration will match your TAAA expiration.
- Discounted Sky & Telescope or Astronomy magazine subscriptions are available to members and can be started or renewed at anytime. Only single year subscriptions are accepted. Allow at least 3 months for processing. Subscriptions must be sent through the TAAA. *Do not send money directly to the magazines.* To change an individual subscription to the group rate, send the above subscription amounts and your magazine renewal notice to the TAAA

treasurer.

- To ensure proper credit to your account, please include a note explaining what you are paying for. Credit cards are not accepted. Write one check or money order for dues plus any options or donations. Make it payable to TAAA and send to:

Tucson Amateur Astronomy Association
PO BOX 41254 Tucson, AZ 85717

Mailing Address or Email Changes - Send changes to the above address or email the treasurer.

TAAA Mission Statement - We are a resource for anyone interested in astronomy. It is our mission to nurture a person's natural curiosity about the night sky. By giving people a knowledge and understanding of astronomy, we enhance their enjoyment of the sun, moon, and stars. Through our public activities and school evening observing sessions, we bring astronomy to persons of all ages. Our regular meetings and observing sessions offer members a forum to meet others with similar interests and experiences and to learn from one another.

Desert Skies Publishing Guidelines - All articles, announcements, news, etc. must be submitted by the newsletter deadline noted above. Materials received after that date will appear in the next issue. The editor retains all submissions unless prior arrangements are made. Partial page submissions should be submitted in Word compatible files via e-mail or on a floppy disk. Full-page articles, artwork, and photos can be submitted camera ready. All material copyright Tucson Amateur Astronomy Association or specific author. No reproduction without permission, all rights reserved. We will not publish slanderous or libelous material! Send submissions to:

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President's Message

There's been a change in the Star Party schedule for March. DO NOT go to the TIMPA site on the 13th, and DO NOT bother the caretakers at the site to gain entry through the gate. Call or email a board member about any unscheduled access to TIMPA. The TIMPA group will be having their annual Jet Rally and there is truly no room for observing on the 13th. At the March meeting we will announce the star party schedule changes for the month. The 20th of March will be loaded with star party possibilities. We have Las Cienegas, possibly TIMPA, and the All-Arizona Messier Marathon for observing opportunities.

March is also Members' Night. But it also is the 50th anniversary of our club's inception. We will be having cake and beverages available, so save room for dessert. Remember that we also have the Telescopes for Telethon on the 26th and 27th this month. See elsewhere in the newsletter for more details. This year promises to be the best ever.

We are in the midst of the annual search for members to serve on the Board of Directors. There are spots open to bring for new board members, and all positions are contestable. If you wish to run for office, or nominate someone to run for office, contact someone on the Nominating Committee.

To those going to Las Cienegas, there is a change in the directions. When you reach the fork that splits left to the ranch and right to Las Cienegas-Empire Road, stay to the right. When the road ends in a Tee, take the left and you're back on the original route to the runway. I don't know the specific mileage, but just remember the left at the Tee, you'll be fine.

The TAAA board wishes to thank all those who have been involved with school, and other, star parties. Your cooperation has been greatly appreciated.

Meeting Information and Calendar of Events

TAAA MEETING DATE: Friday, March 5, at the Steward Observatory Auditorium - Room N210

BEGINNERS LECTURE: 6:30 pm
Members Night

GENERAL MEETING: 7:30 pm
Members Night

Tonight is your night to share the spotlight! If you have an astronomy-related topic you would like to present, contact Thom Peck to reserve a time slot during the main meeting.

BOARD OF DIRECTORS MEETING: Wednesday, Mar. 10, 6:30 pm at Steward Observatory Conference Room N305

STAR PARTIES AND EVENTS:

03 Mar - Esperanza Elementary Star Party
04 Mar - Oyama Elementary Star Party
09 Mar - Lyons Elementary Star Party
11 Mar - TAAA AstroPhoto SIG
16 Mar - Davis Educational Center Star Party
17 - 19 Mar - Math, Science and Technology Funfest
20 Mar - TAAA Star Party at Las Cienegas
25 Mar - Our Mother of Sorrows Elementary Star Party
26 - 27 Mar - Telescopes For Telethon

NEWSLETTER SCHEDULE: Deadline for articles: Sat, Mar. 20. Printing: Mon, Mar. 22. Folding Party: Tues, Mar. 23. Mailing: Wed, Mar. 24. The newsletter is mailed at least one week prior to the following month's General Meeting.

Club News

50th Anniversary Celebration

It was in March 1954 that a small group of people gathered at the home of Earl Burch and came to the conclusion that Tucson needed an astronomy club. Although our first meeting wasn't held until April 1954 when our first name (Tucson Astronomy Association) was chosen, the board decided that next month's Aaronson Memorial Lecture would be an inappropriate time to celebrate our 50th year. So, we will celebrate the founding of the TAAA rather than our first meeting. We will mark this momentous occasion with a celebration at the March general meeting. This month is a Members Night, so the meeting structure is less formal; however, at

some point during the evening we recognize our 50th birthday and then have some special refreshments. We are working towards some local publicity for this special event so we hope to see some first time visitors at the meeting.

Upcoming Lecture Schedule

The TAAA General Meeting schedule is given below. Please note that the May 7th Beginners Lecture is open, so don't everyone volunteer at once. Give suggested speakers for the future lectures (either Beginners or Invited) to Terri Lappin.

Club News (cont.)

Date	Lecture	Speaker	Topic/Title
April 2	<i>Aaronson Lecture, 7 pm*</i>	Lyman Page	Light from the Edge of the Universe: Our Oldest Fossil
May 7	<i>Beginners, 6:30pm</i>	Open	
	<i>Invited, 7:30 pm</i>	James McGaha	Asteroid Occultations
Jun 4	Members Night (no Beginners Lecture), 6:30pm		

* Our April meeting will be adapted to the Marc Aaronson Memorial Public Lecture. The lecture will begin at 7pm. There will be no Beginner's Lecture in April. Steward Observatory will provide refreshments. Our regular meeting activities, including door prizes, are planned after the refreshments.

Member News

We welcome the most recent members to join the TAAA: Greg Baril and family, Richard Carlson and family, Alexander Cook and family, Jule Dubois, Nils Holmes, Chris Lomax, Jennifer and Michael North Morris, Wally Rogers, Thomas Watson and family. Glad to have all of you join! New members should be sure to pick up a new members pack at a meeting. Hope you'll make it to our star parties or meetings so we can all get to know you. (Updated membership lists are available to any member at most regular meetings, so pick one up if you need it.)

TAAA TO INITIATE A STRATEGIC PLANNING PROCESS

By Bill Lofquist, Board Member

The Board of Directors of TAAA at its February meeting made a decision to hold a special session to begin a strategic planning process for the organization. I have been asked to facilitate the process.

The special session will be on Saturday, April 3, 2004. The session will be held in the 3rd floor meeting room where the Board of Directors usually meets. It will begin at 9:00 and end at 3:00. Food will be ordered in for a working lunch. The Board of Directors and all of those carrying other official roles will be participating, as well as any TAAA members who would like to contribute.

We are interested in getting as much input from the membership as possible. Articles in the March and April issues of Desert Skies will solicit suggestions from TAAA

members. At the March Members' Night meeting, we will use one 15-minute block of time to engage those present in providing their ideas and thoughts. These will be recorded for use on April 3. We are also inviting members to give their ideas to Board members to bring to the session. The members will be notified via the Yahoo mailing list and can contribute ideas through that means. The April 3 session will be open to any member who wishes to attend. We will ask those planning to participate to RSVP so we will know how many to expect. We need to plan for space and lunch.

We hope during this special session to create a detailed strategic plan that looks at all aspects of the organization. At best, we will continue to keep the planning process alive over time to keep it dynamic and relevant as we move into the future. We hope members will contribute to this process to make it as useful as possible. We have many things going for us that we can build upon. Please think about this, participate if you can, and help to make the organization even stronger and more meaningful to members and the larger community.

Support TAAA with Basha's Thanks a Million Program

Basha's shoppers can now designate the TAAA to receive up to \$1 for each \$100 spent when they use their Basha's "Thank You" card. This program ends April 30th, so there's still time to sign up if you haven't already done so. We appreciate your support! To participate, Basha's shoppers should give the cashier our 5-digit number (23178) when they check out. You only do this one time. Bring your first receipt, which will show the TAAA as your benefactor, into a meeting for \$1 off club apparel or membership dues. If you have questions contact Terri Lappin, tklappin@earthlink.net. 579-0185.

**Basha's Thanks a
Million
TAAA number
23178**

AstroPhoto SIG Image Processing Workshop: Planetary Images

Saturday, March 6th 10:00-1:00, Location TBD

Grab your laptop and join us in our first workshop to help our members learn to process their image data. If you don't yet have your own images to process we'll have plenty of raw image data to share. Steve Peterson will moderate this session and provide a hands-on introduction to using K3 CCD Tools and RegiStax to collect and process planetary images.

Participants will be encouraged to share their processing

Club News (cont.)

techniques. There will also be an open session where participants can work on their own images and help each other out.

This is a free workshop open to all TAAA members, but space is limited. Advance sign-up is required. Contact Ray Toscano (ray_toscano@earthlink.net) or Steve Peterson (swpeterson@thereiver.com) for more information or to register.

Telescopes for Telethon 2004

By John Kalas

The TAAA will be supporting the Muscular Dystrophy T4T activity again this year on Friday and Saturday, March 26th and 27th. The activity on Friday, March 26th involves two-telescope teams at each of five different Wal-Mart stores around Tucson from 6:00 to 9:00 pm. Saturday's activity will have solar viewing taking place from 3:00 to 6:00 pm with evening observing running from 6:00 to 10:00 pm at the Sabino Canyon Recreational Area. David and Wendee Levy will be hosting the event. It is anticipated that Starizona, Sky Works, Stellar Vision and Coronado Instruments will also be participating.

John Kalas is the TAAA coordinator for the event. There will be sign-up sheets at the March meeting. Many volunteers will be needed to operate telescopes (solar and evening), staff donation areas and assist in general public support. Please consider supporting this worthwhile event. If you are unable to attend the meetings to sign up, please contact John at 620-6502 or via e-mail at jckalas@cox.net.

SARSEF 2004

The Southern Arizona Regional Science and Engineering Fair will take place March 16 - 19 at the Tucson Community Center. For the past several years the TAAA has given awards to promising young people who have an interest in astronomy and related sciences. We need a

couple more judges to help select the student projects that will receive an award from the TAAA. Judging takes place on Tuesday, March 16th at the TCC (parking is usually free), beginning at 7:30am with a great breakfast being served while announcements are made. We review the displays after breakfast and continue until we complete the job. We usually stick around long enough to talk to the senior high students who arrive at 1pm. Yes, it's a good part of a day, but it's important to the students and a great way to encourage young people to pursue their scientific and engineering interests. Contact Terri Lappin, tklappin@earthlink.net, 579-0185 if you can volunteer some time for this year's judging.

Comet Making for Girl Scouts

Terri is looking for assistance making comets on March 20th from 8:30am to 4pm. You don't need to know how to make comets, but you might learn if you help make even one comet. It's great fun and a bit messy (don't wear your Sunday finest). If you want to pretend you are still 8 years old playing with soupy mud (and a bit of dry ice) then this is for you. This will take place at the Pima Community College Desert Vista campus near Irvington and I-19. Terri would appreciate your help, especially if you can stay for two hours or more. This is part of the Girl Scout Science, Math, and Related Technologies (SMART) program. The TAAA is also providing solar observing during the event. Contact Terri Lappin at tklappin@earthlink.net, 579-0185.

Planet Quest Toolkit Available

Terri Lappin

I have received a few inquiries about the Planet Quest Toolkits, which were received from the Astronomical Society of the Pacific for our outreach programs. This kit contains a set of projects that explains the search for extra-solar planets. In general, they are designed for small group presentations such as scout troops or star party groups. The projects can be loaned out to any

STARIZONA

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Center



Club News (cont.)

TAAA member. Special arrangements can be made if non-members want to use the projects. If you are making a presentation to a small group, these "canned" projects are available for the asking. They are simple enough for young people to understand but easily adapted to an adult audience. I can provide assistance as required. Please contact me before the meeting if you want to borrow a project and I'll bring it to the meeting or make other arrangements with you. The titles of the projects are:

Is Our Solar System Unique? (Model of Solar System)
Where In Our Galaxy Are We Searching (Model of Milky Way)?
How Will We Find Planets Around Other Stars? (Detection Methods)
Why Put Telescopes In Space?
Telescope Tour of the Sky (star parties only)
Star Maps: Where Are The Distant Worlds? (Star parties only)

You can hear me describe all these kits on the March 3rd "Let's Talk Stars" program online at www.letstalkstars.com.

Grand Canyon Star Party

12-19 June 2004

The National Park Service has approved the 14th annual Grand Canyon Star Party. With the arrival of the New Year, these dates are being made public so that our members and friends can plan their vacation or reservations at the park to join us. The largest crowds (of astronomers and public) are at the south rim, but don't forget that we've got a group of Utah astronomers that also operate a north rim star party if you feel like checking out that side of the Canyon.

For those who plan to stay all week, free campsites are available again this year on a first-come, first-served basis. You can call or e-mail Dean on March 1 to reserve your spot at a campsite. For any questions, call Dean Ketelsen at 293-2855.

50th ANNIVERSARY SHIRTS PICK-UP

The final order of TAAA 50th Anniversary T-shirts and sweatshirts has been placed and they should be available for pick-up at the March meeting. If you ordered an item (s) and will not be at the meeting, please contact Twila Peck ASAP to make arrangements for getting your order to you ASAP, and thanks. Twila, 520-327-7825, twilap@email.arizona.edu.

The TAAA List Servers - Announcements and Forum

The TAAA has two email distribution lists, both hosted by Yahoo!Groups. Members of the "TAAA Announcement List Server" receive last minute information and reminders about meetings and other TAAA business. This gives the TAAA board and officers one-way communication with our general membership. List members cannot post messages to other TAAA members. The "TAAA Forum" is available for any TAAA member wanting to communicate with other members. These messages are seen by all members of the Forum. The TAAA Announcement List Server averages about a dozen messages each month. The TAAA Forum averages about 30 messages a month. TAAA members can join either or both of these lists. Since Yahoo!Groups hosts these list servers, they do insert ads into each email. The TAAA has no control over the content of these ads; however, some email programs or network protection software may strip the ads from the emails so you won't see them. It is also recommended that you visit the Yahoo!Groups website before joining either list server to learn of their privacy policy if such things are of concern to you.

To get TAAA Announcements, send an email to: tucsonastronomy-subscribe@yahoogroups.com or join through the Yahoo website: <http://groups.yahoo.com/group/tucsonastronomy>.

To join the TAAA Forum, send an email to taaforum-subscribe@yahoogroups.com or join through the Yahoo website: <http://groups.yahoo.com/group/taaforum>.

You must have a Yahoo login account to join through the Yahoo websites.

Your TAAA membership will be verified before your membership on these list servers will be granted. If your name can't be guessed based solely on your email address, please send an email directly to Terri Lappin stating that you are subscribing to a list server and what your email address is.

For more information, contact Terri Lappin, tklappin@earthlink.net, 579-0185.

Items of Interest

2004 All Arizona Messier Marathon

March 24th - Arizona City

By Andrew Cooper

It is time again for March Madness! I'm not talking basketball here but much more importantly the 2004 All Arizona Messier Marathon. Pack up the scope, put enough munchies in the cooler to make it from dusk to dawn, and join the Saguaro Astronomy Club for a night of Messier Madness. As usual the event is to be held on the Farnsworth Ranch south of Arizona City.

It looks like a pretty good weekend this time around with new Moon falling on the weekend, thus no moon will be visible. The best weekend is just a little early in March so in all likelihood M30 will not be available for a possible 109 objects, unless you are really, really good. If you don't want to marathon come anyway and enjoy one of the state's largest star parties.

For information including the full rules of the event and directions to the site you can go to <http://www.saguaroastro.org/content/messier.htm>. If you have not participated before the rules are highly suggested reading. Keep in mind the rules are not really all that strict, no drawings or descriptions of each object are needed, only a checkmark, go-to scopes are allowed, just be honest to yourself and have fun.

See you there!

Desert Sunset Star Party - May 13-16, 2004

The 2004 Desert Sunset Star Party will be held at the Caballo Loco Ranch, about 11.5 miles south of Three Points, AZ, on Rt. 286, and then east for 8 miles. This RV ranch is in a secluded area of Arizona with dark skies. The telescopes of Kitt Peak are in clear view to the west. The DSSP begins on Thursday night and runs through Saturday night. We will have a speaker on both Friday and Saturday evenings along with door prize giveaways. Registration information will be posted on the DSSP website - <http://chartmarker.tripod.com/sunset.htm>

FLANDRAU SCIENCE CENTER

Ever wanted to have control of the entire night sky at your fingertips? Enjoy showing the night sky to friends, family and the public? Here's your chance to do both. Flandrau Science Center is looking for knowledgeable and people friendly astronomers (amateurs or otherwise) to run its Minolta Mark IV planetarium projector for public shows as 'Console Operators'. Console Operators operate the planetarium theater for public planetarium shows, prepare the theater for operations and ensure that shows are set up and ready to run at the scheduled times. Console Operators maintain the safety of the audience at all times and interact with them as well, giving short live "Sky Talks" that describe aspects of the night sky and

astronomy subjects as needed. This is a volunteer position, but there is potential for a future paid position.

DUTIES: The Console Operator operates the planetarium theater console for public planetarium shows, and sometimes for school shows. Under the supervision of the shift supervisor, the console operator prepares the theater for operations and ensures that shows are set up and ready to run at the scheduled times. The console operator dismounts shows and shuts down the theater at the end of their shift. They are responsible for interacting with the audience and maintaining the safety of the audience at all times. They will perform the operation of the show as planned and programmed by the planetarium production department, as well as conducting live "Sky Talks" describing aspects of the night sky and astronomy subjects as planned by the production department. The Shift Supervisor or Planetarium Manager may assign the Console Operator other duties as needed.

QUALIFICATIONS: Basic knowledge and understanding of astronomy is required. Public speaking skills are highly desired, as are aptitude for operating multi-media and theater technical equipment, experience in theater operations, familiarity with personal computers and the ability to work well with others. Console Operators must be available to work a majority of school holidays and vacation times.

TRAINING: Training of console operators will be conducted by the Planetarium Assistant and will be overseen by the Planetarium Director. Frequency and degree of training will depend on the employee's prior experience and level of expertise.

April Meeting Time Change

Please note that the April Monthly Meeting will start at 7:00 pm

Also note that the regularly scheduled TIMPA star party for April has been cancelled.

Star Parties & Events

Esperanza ES Star Party

Wednesday, 3 March 2004

South-Central

No. of Scopes: 5

Esperanza ES will be hosting their Star Party at 2353 E Bantam Rd. Take Campbell South towards Irvington/Make a left on Bantam/ Head East on Bantam until you approach the school. Please follow the signs to the viewing area. Contact person Matt Hough can be reached at 545-2900 or email MattH@susd12.org. Set-Up Time: 6:30 pm. Observing will be from 7:00 pm to 8:15 pm. Sunset: 6:23pm Dark Sky: 7:45pm Moon Phase: Waxing Gibbous.

Oyama Elementary Star Party

Thursday, 4 March 2004

Southwest

No. of Scopes: 5

Oyama Elementary will be preparing Family Science Night at 2700 S. La Cholla. Go west on 22nd St., past interstate to La Cholla, turn left (south) at "L". Continue about 1.5 miles to school on the right. Viewing will be in parking lot north of field. Contact person Celina Morales can be reached at 225-5700 or email moralescg@aol.com. Set-Up Time: 6:00pm. Observing will be from 6:30 pm to 8:00pm. Sunset: 6:24pm Dark Sky: 7:45pm Moon Phase: near Full Moon.

Lyons Elementary Star Party

Tuesday, 9 March 2004

East

No. of Scopes: 6

Lyons Elementary will be celebrating Family Science Night at 7555 E. Dogwood St.. From Pantano and Speedway take Pantano Rd south, past Golf Links and Escalante. Take the first right (west) on Dogwood and proceed about 1/2 mile to Lyon Elementary, on the right and just past Heather Place. Viewing will be behind the school at the northeast side. Contact person Sandra Blitz can be reached at 584.6653 or email sandra.blitz@tusd.k12.az.us Pizza & Coke will be available for TAAA volunteers! Set-Up Time: 6:30pm. Observing will be from 7:00pm to 8:30pm. Sunset: 6:28pm Dark Sky: 7:49pm Moon Phase: (no moon during viewing).

THE TAAA TIMPA STAR PARTY SCHEDULED FOR MARCH 13TH HAS BEEN CANCELLED. MORE DETAILS WILL BE ANNOUNCED AT THE MARCH MEETING.

Davis Education Center Star Party

Tuesday, 16 March 2004

South-Central

No. of Scopes: 5

Davis Education Center will be holding "Mars and the Night Sky" at 5660 S. 12th Ave. Take Irvington to 12th Ave., turn south. Continue past the light at Nebraska until the La Princessa shopping plaza on the right (and before Drexel). Turn right at street on south side of shop-

ping plaza; school is behind shopping center. Viewing will be North parking lot of the school. Contact person Ms. Heather Hilliard can be reached at 722-8130 or email hilliard@deccs.org. Set-Up Time: 6:30 pm. Observing will be from 7:00 pm to 8:30 pm. Sunset: 6:33pm Dark Sky: 7:54pm Moon Phase: (no moon during viewing).

Math, Science and Technology Funfest

Wed- Fri, 17-19 March 2004

Central

Scopes: 1+ each day

Math, Science and Technology Funfest will be held at the Tucson Convention Center daily from 9am to 1pm for area students. Last year we attracted a considerable interest with views of the sun. Volunteers should check in at Volunteer Check-In Booth in the main lobby. Contact person Sharon O'Neal can be reached at 794.3957 or email sloaneal@raytheon.com. Set-Up Time: 8:30am. Observing will be from 9:00am to 1:00pm.

TAAA Star Party at Las Cienegas (Empire Ranch)

Saturday, 20 March, 2004

Las Cienegas (formerly Empire Ranch) has been our normal dark-sky observing site for quite a number of years. Please try to arrive before sunset. Stay as long as you like, but let everyone know when you are ready to leave; someone may be taking astrophotos. Bring a telescope if you have one, but you don't need one to attend. Any member would be glad to let you look through their telescope. There are no restroom facilities at the site, so be prepared. Las Cienegas is at 4000 feet so be prepared for very cold temperatures after sunset. Attendees should park their vehicles either perpendicular to the airstrip facing toward the center of the strip, or parallel to the airstrip along either side facing west. That way, when you are ready to leave, you will not have to back up and turn on your bright white backup lights. See the directions to Las Cienegas on the outside flap of this newsletter.

Our Mother of Sorrows Star Party

Thursday, 25 March 2004

East

No. of Scopes: 5

Our Mother of Sorrows will be hosting "Mars Eclipsed (Occultation) by the Moon" at 1800 S. Kolb Road. Go East on Speedway to Kolb. Turn South (right) on Kolb, go past 22nd street. OMOS School is on the right between Calle Denebola and Calle Ileo (Calle Ileo is the next light after 22nd street). Viewing will be on basketball court. Contact person Susan Tek can be reached at 747-1027 or email suetek@cox.net Pizza & coke will be available for TAAA volunteers! Set-Up Time: 7:00pm. Observing will be from 7:30pm to 8:45pm. Sunset: 6:39pm Dark Sky: 8:01pm Moon Phase: Crescent.

Star Parties & Events (cont.)

International Wildlife Museum Star Party **West**
Friday, 26 March 2004 No. of Scopes: 3

International Wildlife Museum will be supporting a Star Party at 4800 West Gates Pass Road located 5mi west of I-10 on Speedway. This wonderful event takes place on one of the TFT nights, but we are asking that several TFT scopes take part at IWM. Contact person Kristine Massey can be reached at 629.0100, ext. 336 or email KristineM@thewildlifemuseum.org will be available for TAAA volunteers! Set-Up Time: 5:00pm. Observing will be from 5:00pm to 9:00pm. Sunset: 6:40pm Dark Sky: 8:02pm Moon Phase: Crescent.

Sunrise Drive Elementary K-5 Star Party **Foothills**
Monday, 29 March 2004 No. of Scopes: 5

Sunrise Drive Elementary K-5 will be preparing for "MoonScope" at 5301 E. Sunrise Dr. The school is located on Sunrise between Craycroft and Swan, on the north side of street at Suncrest. Viewing will be on the sidewalk in front of school near the parking lot. Contact person Betty Reades can be reached at 577.5325 or email adavidson@fc.cfsd.k12.az.us. Pizza & coke will be available for TAAA volunteers! Set-Up Time: 6:30 pm. Observing will be from 7:00 pm to 8:30 pm. Sunset: 6:42pm Dark Sky: 8:05pm Moon Phase: First Quarter.

Desert Skies Classified

FOR SALE:	Meade 10" LD200 telescope: F-10. Lens case with lenses. Telrad, Software for laptop operation, Heavy permanent mount. Asking \$2500. Jim Polk, Sun City West, AZ. 85375. jpolkaz@msn.com 623-556-1377 [03/04]
FOR SALE:	Orion 8x56 binocs, \$100, and stereo microscope \$150; both like new. Eric Schilling 323-8435 or erschilli@aol.com [03/04]
FOR SALE:	Orion 9mm illuminated reticle eyepiece w/"target" cross hairs in cloth bag and original box. \$50 OBO. Contact Gary Freiburger (Day) 520-626-6121 (Evening) 520-742-9494 or email to garyf@AHSL.arizona.edu [03/04]
FOR SALE:	Televue Renaissance 4" Refractor APO F/5.5 with includes the following. 2-inch diagonal, dew shield, UV Blocking filter for photography, wooden carrying case. Asking 1,000. 10 inch F/6 Cave Tube assembly; Includes 8x50 finder, JMI Focuser (\$350 new), rotating rings, mounting blocks to put on a flat saddle. Mirrors coated with enhanced coating 3 years ago. Tube is a Parks fiberglass tube. A new 10" OTA with rings goes for 2,000 without the JMI focuser add-in. Asking \$1300. 8 inch Orion Reflector (the kind you see at Starizona) Only 18 months old. (New 450.00) Asking 400.0 but that includes a Telrad Finder. Call Dean Salman at 520 250-0407 for more details. [05/04]
FOR SALE:	SBIG ST-6A CCD camera outfit. Complete with Daskocil case, cables, manual and software. Like-new condition. Originally over \$3000.00; yours for \$900.00 obo. CB245 Cookbook CCD camera, complete with book, software, cables, and heat exchanger. (No Peltier supply). Has dark current modification performed by Veikko Kanto himself! Works great! \$400.00 obo. Phone Steve Peterson @ 762-8211 or email at swpeter@theriver.com. [05/04]
FOR SALE:	8" f/10 Meade LX50 SCT, good optics, heavy duty fork arms, equatorial wedge, custom machined and anodized wedge plate and latitude adjustment bar, heavy duty adjustable field tripod modified for easy mounting of the wedge, declination motor, 1-1/4" diagonal, visual back, piggyback camera adaptor, Thousand Oaks full aperture solar filter, scope is modified for use with rechargeable Lilon battery packs, two packs and charger included, full hard case with wheels. Asking \$1000, contact Andrew Cooper, 520/795-3585 or acooper@pobox.com [05/04]
FOR SALE:	Starry Night Pro, version 3.0, \$70. Soft case for 8" Celestron, \$125. Call Richard at 245-5441. [06/04]
FOR SALE:	Celestron C80 F/5 OTA with rings and case \$100. Meade ETX125 with #884 tripod, #497 hand controller, power supply \$750. Meade ETX60 with tripod plate and power supply \$100. Celestron Orange Tube C8 with many acc. \$500. Orion SteadyPix camera mount \$25. Orion 7-21mm zoom eyepiece \$60. 14mm Ifocus for SBIG 237 \$80. Meade electronic eyepiece \$40. Contact Richard at 721-0694 or email at richard.schulze@cox.net. [06/04]
FOR SALE:	Celestron NexStar II 4GT Mount. Mount only - no OTA. Includes GoTo hand controller with 4,000 object database, tripod and manual. Adapters for attaching small refractors are commercially available. One year old, \$75.00. Also, Televue 12mm Nagler (Type 2). Fits 2" or 1.25" focuser, \$150.00. Can deliver to Messier Marathon. Contact Sam at sam&anne@pobox.com or (480) 924-5981. [06/04]

Your ad will run for 4 months unless specified. Month and year of last appearance is last item of ad. For additions or changes to this list, call George Barber at 822-2392 or e-mail at barbergj@flash.net.

TAAA Board of Directors Meeting - February 11, 2004

The Board, absent: Cooper, Finney, Peterson, Wheelock.
 Members present: Rob Nelson, Twila Peck, Maria Marten,
 Steve Marten and Nora Toscano.
 President's Call to Order: 6:37PM

1. **Agenda Changes**2. **Announcements**

3. **50th Anniversary Merchandise:** Twila Peck reported merchandise sales have moved well and requested funding of additional merchandise. Board unanimously approved additional \$678 outlay.

4. **Star Parties:** Bill Lofquist noted very successful Starry Night presentation at recent star party. Ray suggested canned screen. Terri suggested using Planet Quest program. Steve Marten will coordinate with Terry and Bill for Starry Night/Planet Quest feasibility.

5. **Treasurer's Report:** TIMPA maintenance and 50th Anniversary Party brought higher than usual that will be covered by mid-year; current 50th event net is \$596. \$820 contribution for GPS scope was noted. Steve M recommended investment company change to Schannep Investment Advisors as they are better tuned to small organizations and would cost TAAA less. Board approved change and manager will speak at next Board meeting.

6. **Volunteer Awards Follow-Up.** Steve presented ideas including award name, periodicity, type and recognition features. Steve and several other members will finalize ideas.

7. **30" Scope:** Rob Nelson, former President and VP of North Shore Astronomy Club near Boston, offered his services to work with Roger Tanner on the 30" scope project. Thom appointed him 30" Telescope Project Manager.

8. **Amado Territory:** More info including any costs required. Star party will be scheduled to measure feasibility and member interest.

9. **TIMPA Access:** Discussed methodology. Thom expecting delivery of 25 gate access cards from Mike Cummins at TIMPA.

10. **Beginners Lecture:** Ray suggested "true" beginner lectures plus handouts to better assist new members with topics observable in small scope. Board agreed and set aside last 10 minutes of Beginner Lecture for monthly item of interest report.

11. **Treasurer Access.** Several Board members questioned how surrogate could temporarily manage Treasurer responsibilities if Terri was not available (emergencies, illness, etc.) Terri suggested

that she formalize her procedures for availability.

12. **Science Fair:** Terri suggested TAAA with some of our supporters contribute to the upcoming Science Fair in the form of three grade level awards. Board voted unanimously to contribute \$100.

13. **March 50th Anniversary Meeting:** Terri suggested and Board agreed March monthly meeting be special 50th anniversary meeting including cake and soft drinks.

14. **Biosphere:** Thom suggested TAAA evaluation of unused 4,000' Biosphere site/astronomy equipment as it may be gifted or sold. Thom will gather additional information.

15. **Strategic Planning:** Discussion of TAAA Strategic Planning encompassing our vision of TAAA future, key issues, objectives, specific goals, priorities, funding and timelines. Board directed several announcements in newsletter and monthly meetings before Saturday meeting April 3, 2004 from 9:30 to 3 (coffee/donuts at 9). Ray suggested open forum to include members. The Board appointed Bill Lofquist to be the facilitator.

Adjourned: 9:45PM

April Meeting Time Change

Please note that the April Monthly Meeting will start at 7:00 pm

Also note that the regularly scheduled TIMPA star party for April has been cancelled.

Dark Skies for March 2004

DARK SKIES (no twilight, no moonlight) for Tucson in 24-hour MST: 18-6pm, 20-8pm, 22-10pm, 0-12am
RISE, SET, VISIBILITY for sun and bright planets: rise for morning object, set for evening object

Su/Mo 29/ 1	3:29 - 5:30	Th/Fr 11/12	19:51 - 23:57	Su/Mo 21/22	19:59 - 5:03
Mo/Tu 1/ 2	4:19 - 5:29	Fr/Sa 12/13	19:52 - 1:08	Mo/Tu 22/23	20:33 - 5:02
Tu/We 2/ 3	5:04 - 5:27	Sa/Su 13/14	19:53 - 2:15	Tu/We 23/24	21:31 - 5:00
We/Th 3/ 4	- - -			We/Th 24/25	22:29 - 4:59
Th/Fr 4/ 5	- - -	Su/Mo 14/15	19:53 - 3:16	Th/Fr 25/26	23:27 - 4:57
Fr/Sa 5/ 6	- - -	Mo/Tu 15/16	19:54 - 4:09	Fr/Sa 26/27	0:25 - 4:56
Sa/Su 6/ 7	Full Moon	Tu/We 16/17	19:55 - 4:54	Sa/Su 27/28	1:20 - 4:55
		We/Th 17/18	19:56 - 5:08		
Su/Mo 7/ 8	- - -	Th/Fr 18/19	19:56 - 5:07	Su/Mo 28/29	2:11 - 4:53
Mo/Tu 8/ 9	19:49 - 20:33	Fr/Sa 19/20	19:57 - 5:06	Mo/Tu 29/30	2:58 - 4:52
Tu/We 9/10	19:50 - 21:39	Sa/Su 20/21	19:58 - 5:04	Tu/We 30/31	3:39 - 4:50
We/Th 10/11	19:50 - 22:47			We/Th 31/ 1	4:16 - 4:49

Weekend	Sun	Sun	Mercury	Venus	Mars	Jupiter	Saturn	
Sa/Su	Set	Rise	Set Vi	Set Vi	Set Vi	Set Vi	Set Vi	Vi=Visibility
28/29	18:18	6:50	17:54 -	21:44 -4	23:33 1	7:14 -2	3:20 0	-3 brilliant
6/ 7	18:24	6:42	18:34 -	21:54 -4	23:27 1	6:44 -2	2:52 0	0 conspicuous
13/14	18:29	6:33	19:12 7	22:04 -4	23:21 1	6:14 -2	2:25 0	3 moderate
20/21	18:34	6:24	19:46 4	22:13 -4	23:15 1	5:44 -2	1:58 0	6 naked eye limit
27/28	18:39	6:15	20:08 3	22:21 -4	23:09 2	5:14 -2	1:31 0	9 binoculars limit

By Erich Karkoschka

Object of the Month by Alfredo Garcia, Jr.

Hard to believe that February went by so fast, but it did! I hope you were able to get out and do some observing as we were presented with some great, clear skies. It is March now and the onset of spring is upon us and the nights are warming up. So time to get out under more comfortable skies and enjoy them.

Dominating the early spring sky to the east is the mighty Jupiter. If you go out during any March night at around 9:00 PM or so and look east, you will find Jupiter shining bright at a magnitude of -2.5! I have chosen an OTM that marks the beginning of spring at around this time and is a splendorous observing target. As a matter of fact, it is only about 28 degrees from Jupiter during the month and is "related" to Jupiter.

The object belongs to the nebula class of objects and in particular, the type known as a planetary nebula. Besides their name, planetary nebulae have absolutely nothing to do with planets at all. They were named planetary nebulae by the early sky observers who first discovered them due to their appearance. To these astronomers they did not appear as stellar point sources, but rather as small diffuse objects that resembled the outer planets in our solar system such as Uranus and Neptune when seen through a telescope and hence their name.

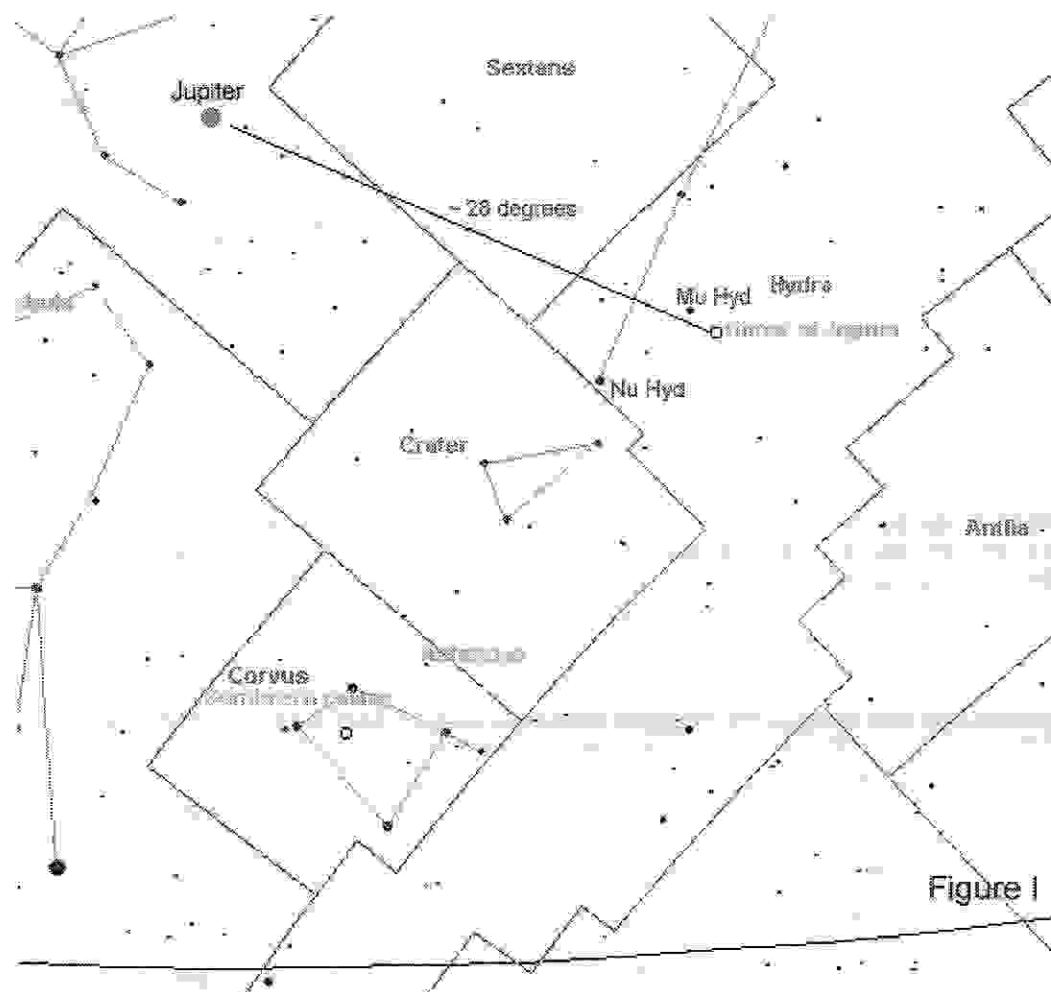
In reality, planetary nebulae are gaseous shells shed by stars late in their life cycles after they have used up all of their nuclear fuel. The star ejects a significant portion of its mass in a shell leaving an extremely hot central star that illuminates the matter. Planetary nebulae do not last long in cosmic terms and eventually the gaseous shell expands and diffuses. It becomes invisible leaving a central star that we see as a white dwarf.

The planetary nebula I have chosen is one of the finest examples of these remarkable objects that our Milky Way Galaxy has to offer. It lies in the constellation of Hydra, the Water Serpent. This planetary nebula was discovered by the astronomer William Herschel in 1785 which he designated as NGC3242. In a small telescope it appears as small, oval disk that bears a close resemblance to the planet Jupiter. It was the English amateur astronomer William H. Smyth (1788-1865) who first noted this resemblance to the planet Jupiter and most likely where its common name as the "Ghost of Jupiter" came about. Like most bright planetary nebulae, the Ghost of Jupiter appears pale blue or green to the eyes of most observers. This view is easily seen in telescopes of all sizes and more spectacularly in color astrophotographs/CCD images.

The accepted distance to NGC3242 is about 1,400 light-years. It has a visual magnitude of about 8.6 placing well within reach of most telescopes. Its apparent size in the sky of about 25 arcseconds equates to a linear diameter of about 0.2

Object of the Month by Alfredo Garcia, Jr. (cont.)

light-years at the accepted distance. Nearby Jupiter on the other hand is about 45 arcseconds in size and only a mere 86,500 miles in diameter. And then contrast the time it takes for light from the objects to reach you. Jupiter's light takes about 40 minutes to reach you while the Ghost of Jupiter's light takes 1,400 years! The central star of the Ghost is dim and has a magnitude of about 12.



If you go out observing (from the Tucson area) around mid-March at about 10:00 PM (MST) and look between to the east, you will find NGC3242 at an altitude of about 40 degrees above the horizon. Since the stars that make up the constellation of Hydra are quite bright, finding NGC3242 is easy to do without celestial coordinates by starhopping to it. But, you do require optical aide to view the nebula as it is clearly not visible to the unaided eye. To find NGC3242 start by first locating Jupiter and then locating the constellation of Hydra. In Hydra, locate the two stars n (Nu) Hydrae (mag 3.3) and m (Mu) Hydrae (mag 4.1). Draw a line between Jupiter and these two stars and NGC3242 is about 2 degrees from Mu Hydrae (See Figure 1). If you have setting circles or an automated go to scope, the coordinates for the Ghost are: RA: 10h 24m 46.1s and DEC: -18° 38' 32".

Figure 1

The Ghost of Jupiter is not only an excellent object visually through a scope, but it also an outstanding astrophotography or CCD imaging target. The "disc shape" is visually unmistakable through a scope, but when it is astrophotographed or CCD imaged, it becomes even more spectacular. When, I first received my Starlight X-Press MX5C CCD camera several years ago now, NGC3242 became one of my first imaging targets. I used my Meade T0" f/6.3 LX200 and produced the image at Figure II. It shows nice detail in the outer and inner nebular shell and the dim central star is clearly visible. If you get a chance to image this nebula, I recommend you do so. It will reward you with a fine image to proudly display.

So if you have the opportunity get out under the clear, moonless early spring nights do so. Then view this unique planetary nebula for yourself. First observe the planet Jupiter and then turn your gaze to NGC3242 and see if you too notice the same "ghostly resemblance" to the planet that William H. Smyth did.

Clear Skies,
Alfredo

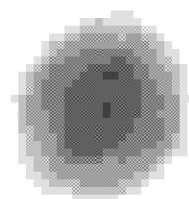


Figure II

Constellation report by Chris Lancaster

Orion

The Hunter

Orion is the heavyweight among all the constellations. Probably the most well known group of stars with, perhaps, the exception of the part of Ursa Major called the Big Dipper. On the celestial equator is a line of three stars forming the very recognizable "belt" of Orion. The faint stars and nebulosity below this represents his "sword", and other faint stars on each side of Orion's body show one arm raising a club and the other holding a shield against Taurus, the bull charging out of the northwest.

Mythology portrays Orion as a strong hunter. He claimed that no living thing could kill him, so to prove him wrong, the goddess Hera send a scorpion to attack him. After falling victim to the scorpion's sting, Orion squashed the pest, but soon died from the venom. We now see this relationship between the scorpion (the constellation Scorpius) and Orion on fall and spring nights. The two characters are placed on opposite sides of the sky, so when one rises, the other is defeated and sinks below the horizon.

You can begin observing Orion before it is fully dark. Use high power to see Rigel and its magnitude 6.7 companion 9" away and holding a PA of 202°. Diagonally across the body of Orion from Rigel is Betelgeuse. This is an M2 supergiant of a striking orange color. Betelgeuse puts out an enormous amount of energy, only a fraction of which is in visible light. As a result, its outer atmosphere has inflated to make the star a truly bloated behemoth. Estimates of its size put its diameter matching the orbit of Mars or more, which also creates a stellar density of an exceedingly small nature—millions of times less than the sun.

Dark skies bring Orion's many deep-sky objects into view. His sword is home to the best region of nebulosity in the sky, M42. So prominent is this misty glow even to the naked eye that it is mentioned in some examples of 19th century literature, namely Tennyson's *Merlin and Vivien* and Poe's *The Murders in the Rue Morgue*. Binoculars show a wispy fog surround its central stars, 3-inch telescopes will bring out a fan-shaped nebula, and 8-inch and larger scopes will show detailed knots and tendrils extending away from the main glow. The entire complex of gas is made to fluoresce by Theta¹ (θ) Orionis, called the Trapezium. Most views of this group of stars will show 4 members of magnitude 5.4 to 6.7 about 30" in expanse, but high power and large aperture will bring the total to 6. Adjacent to the main mass of M42 is M43, a roughly comma-shaped object separated from M42 by a dark rift. To the north is a dusty reflection nebula with the designations of NGC1975, 1973, and 1977. It's curiously named the "Running Man Nebula" from the shape that is traced out by the dark lanes that separate distinct sections of the nebula. 10-inch apertures and larger are best for the dim glow of the "Running Man".

Another well known nebular region surrounds Zeta (ζ) Orionis. This one, however, is notorious for its difficulty to observe. NGC2024, the "flame" or "flaming tree" nebula, is not too elusive about 15' east of Zeta. Seen with a 6-inch or larger telescope, it's a circular emission nebula with branching dark lanes crossing it toward the north. Below this is the famous "Horsehead nebula." The glowing region, IC434, is a 1 degree long spike of nebulosity pointing south from Zeta. Intruding into this is the dark nebula B33 forming the shape of the horse's head. While some claim to have seen it on dark nights with plenty of aperture, most will only capture it on film or CCD images.

2.5 degrees northeast of Zeta is M78, one of the more challenging Messier objects to find, but unmistakable when you do. It is cometary in appearance with a dusty glow surrounding a double star of magnitude 8.2. The nebula shines at magnitude 8 and covers 8.0'. Hunt down M78 at RA 5h 46m 2 s Dec +00° 3'.

With all that Orion has to offer, it is easy to brave the cold temperatures of winter to spend some time with his treasures.

