



# Desert Skies

Tucson Amateur Astronomy Association

Volume XLIV, Number 3

March, 1998

**Brands and Features:**

- ORION** (with logo)
- TELESTRON** (with logo)
- Vixen** (in a rounded rectangle)
- PENTAX** (vertical text)
- Tele Vue**
- Meade**
- Plössl**
- Ultra-Wide**
- Flat-Field**
- Power**
- Orthoscopic**
- Coatings**
- Sharpness**
- Erle**
- Nagler**
- Field of View**
- Eye Relief**
- Apparent Field**
- Kellner**
- Illuminated**
- Zoom**
- Parfocal**
- Contrast**
- Panoptic**
- Exit Pupil**

**? EYEPIECES ?**

## Calendar of Events

**BEGINNERS LECTURE:** Friday, March 6, 6:30 pm at the Steward Observatory Auditorium - room N210. This month's topic is *The Battle to Save Our Night Skies* by Bob Gent.

**GENERAL MEETING:** Friday, March 6, 7:30 pm at the Steward Observatory Auditorium - room N210. Topic is *Demonstration Night* including Variable Stars, Eyepieces and a Swap Meet.

**BOARD OF DIRECTORS MEETING:** Thursday, March 12, 7:00 pm at room N305 of Steward Observatory.

### STAR PARTIES & EVENTS:

March 5 - St. Gregory's School

March 10 - A.L.O.A. Luther Hostel, Picture Rock Retreat

March 20, 21, 22 - 4th Avenue Street Fair

March 20 - W.O.W. Star Party, Aqua Caliente Park

March 21 - Smithsonian Star Party, Whipple Observatory

March 28 - 1998 All Arizona Messier Marathon

March 28 - Girl Scouts SMART 98

March 28 - TAAA Star Party/Cookout, Catalina State Park

March 31 - John E. White Elementary School

April 2 - Amphl Middle School

April 4 - Project ASTRO Satr Party, Desert Museum

**Newsletter Schedule:** Deadline for articles: Monday, March 16. Printing: Tuesday, March 24. Folding Party: Wednesday, March 25. Mailing: Thursday, March 26. The newsletter is scheduled to be in the mail at least one week prior to the following month's General Meeting.

**Cover:** Got Eyepieces?

**TAAA Home Page:** <http://www.primenet.com/~lwilson/taaa/taaa.html>

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### TAAA Mission Statement

We are a source 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.

### Membership in the TAAA

Regular membership	\$ 23
Senior (over 60) membership	\$ 21
Add for Family membership	\$ 5
Add for Astronomical League	\$ 3
Add for Sky & Telescope	\$ 27
Add for Astronomy Magazine	\$ 24

Rates for membership are given above. Family Membership includes two adults plus minor children. Members may subscribe to Sky & Telescope or Astronomy Magazine (or both) at the time of membership renewal, saving substantially over the regular subscription rates. To assure we understand what you are paying for, please identify which class of membership and what options you want. Send one check made payable to TAAA to cover both membership and magazine subscription(s) to:

Tucson Amateur Astronomy Association  
Attn: Renewals  
P O BOX 41254  
Tucson, AZ 85717

Call the Treasurer if you have any problems.

### Send Address Changes to:

TAAA  
Attention: "ADDRESS CHANGE"  
P.O.Box 41254  
Tucson, AZ 85717

### Desert Skies Publishing Guidelines

All articles, announcements, news, etc. must be submitted by the newsletter deadline listed above. Materials received after that date will appear in the next issue. All submissions are retained by the editor unless prior arrangements are made. Partial page article submissions should be submitted on Word compatible files on a floppy. Full page articles, artwork, and photos should be camera ready. We will not publish slanderous or libelous material! Send articles, announcements, etc. to:

TAAA - Desert Skies  
c/o John Kalas  
3470 W. Red Bird Court  
Tucson, AZ 85745

OR email: [jckalas@aol.com](mailto:jckalas@aol.com)

### 4 Easy Steps to Membership Renewal

1. Pay your dues 2-3 months early. Your month of membership expiration is listed on your newsletter mailing label.
2. Find your membership class and its rate. Add the Family Membership rate to this, if applicable.
3. If you desire membership in the Astronomical League or magazine subscription(s), add the appropriate amounts to your membership rate. If this is a renewal, include the renewal notice if possible. Be sure to identify which options you are paying for.
4. Write one check, payable to TAAA, and send it to the address given above.

Desert Skies is published monthly by the Tucson Amateur Astronomy Association, PO Box 41254, Tucson, Arizona 85717

### President's Message

I attended the second meeting of the Southern Arizona-International Dark-Sky Association (SA-IDA) and was happy to see many TAAA members. I was also pleased to see that this is an action driven group. For example, a form was made available for reporting lighting violations to the county. Several bad lighting problems in Tucson was discussed and action will be taken on a few of the worst violators. A lot of the success of this new group is due to the efforts of Ed Vega who is heading up SA-IDA. If making a change in bad lighting in your neighborhood is of interest to you then consider attending the next meeting which will be on the evening of Wednesday, March 11 at the International Dark-Sky Association (IDA) office (3225 N. 1st Ave.) More light pollution information will be provided by Bob Gent at this month's Beginner's Lecture.

This month holds lots of activities for the TAAA. We have finally been selected as one of 20 nonprofit booths at the 4th Avenue Street Fair. This event takes place Friday, March 20 through Sunday March 22. We need lots of volunteers to man our booth and to help the fair organizers. If you are available, especially on Friday, please get involved. There is an article about

the street fair in this newsletter.

We also have a star party at the Catalina State Park on March 28th. Look for an article in this issue for details about this event. There is a star party on March 21 (which conflicts with the street fair) at the Whipple Observatory. There are lots of other things to do, so be sure to read about all of them in this issue.

All these activities are in addition to our regular meeting. This month we have another demonstration based meeting. We will start out with a short presentation about Variable Stars by Bob Andress and then have a short presentation about eyepieces. Then activities move to the lobby where we will have eyepieces for you to look at and questions about variable stars will be fielded by Bob Andress. At the same time, we will have a swap table for members to trade astronomical "stuff" with others.

It's a busy month, but there's something for everyone!

See you under clear skies!

Terri

### Meeting Information

#### Beginner's Lecture: Bob Gent

The beginner's topic for March 6, will be *The Battle to Save Our Night Skies* by Bob Gent, the Public Relations Officer for the International Dark-Sky Association. Bob will give us an update on recent activities of IDA, and he will introduce the new Southern Arizona Chapter of IDA.

In addition, he will play a new video prepared by the City of Los Angeles, *Looking to the Stars*. This video discusses significant discoveries in astronomy, the adverse impact of light pollution on astronomy and it illustrates what the City of Los Angeles is doing to fight the problem. The International Dark-Sky Association promotes good outdoor lighting to conserve energy, improve both safety and security and to preserve the beauty of our night skies. Please do not miss this presentation. We need your help!

#### Featured Speaker: Demonstration Night - Variable Stars, Eyepieces, and Swap Table

This month we have chosen to talk about two topics which were recently suggested by members. We will also have a swap table so haul your treasures out of your closet!

First, Bob Andress will be giving a short talk about Variable Stars and give some real hands-on ideas for observing them. Bob is a member of AAVSO

and has been observing variables visually for 30 years. AAVSO is an organization which gathers data from the amateur observing community and makes it available to professional astronomers.

After Bob's presentation we will have a short talk about the different types of eyepieces on the market these days. From the most basic (Ramsden) to the more expensive (Naglers), we'll talk about all of them.

After the presentation part of the meeting we will break to the lobby of Steward Observatory where some of those eyepieces will be available for looking over. In fact you could try some out if you bring your telescope. Another set of tables will be set up for anyone with anything astronomical they want to sell or trade. Bob Andress will be around to answer questions you have about variable stars. He may even help you start observing variables by pointing out Algol to you. Algol goes through minimum approximately every three days!

**EDITOR'S NOTE: Wanted.** Good astronomical items, i.e. books, telescopes, telescope accessories, widgets, do-dads, thing-a-mabobs, etc. for this month's swap meet. This should be a lot of fun, so bring out those unneeded goodies from your closet (no dust bunnies, please).

## Club News

### 4th Avenue Street Fair

We will be one of the nonprofit exhibitors at the 4th Avenue Street Fair this month. After two years we have finally beaten the odds! We want to make a good impression as it may be some time before we are selected again.

Let's hope for clear, dry weather so we can show the fair-goers the sun. We will have two telescopes each day for viewing the sun—one showing sunspots and one (thanks to new member David Lunt) showing solar prominences. We will also have 8X10 color photographs taken by TAAA members available for a donation. We can also take new memberships right there at the fair. Nothing convinces a person to join the TAAA quicker than a look through a telescope and talking to one of our members!

The fair takes place Friday, March 20 through Sunday March 22. We need volunteers each day from 10am to 7pm to talk to the public, help run the telescopes, and maybe run out to get some food for the others. We also need a few early helpers (from about 8:00am to 9:30am) to set up tables, chairs, telescopes, etc. (No vehicles will be allowed to unload after 9:30am each morning.) After the fair closes each day a few people will need to clean up. We will not be leaving any valuables at the fair, so everything needs to be unloaded and loaded each day.

Non-profit exhibitors are also required to provide 18 hours of volunteer work to the fair organizers. These volunteers booth sit for visiting artists so they can get some food, or whatever. This requires some walking. These volunteers are expected to work in two hour shifts (11am-1pm, 1pm-3pm, and 3pm-5pm). If you are assigned one of these time slots, you are required to sign in and out at the appropriate times in the 4th Avenue office. This is very important as failure to do this will result in the TAAA losing its \$100 deposit.

Several member have already offered to help but we need a few more. There will be a sign up at the March meeting, or call John Kalas at 620-6502 if you want to get involved. John Kalas is in charge of scheduling all volunteers and will be the man in charge during the fair. A mailing to all volunteers will be made so everyone knows what's going on, where our booth will be located (not known at this time), and any last minute details that you need to know.

### Telescope Needs a Mount

The TAAA has a 6" f/8 Newtonian telescope Duane Niehaus assembled some time ago. We're looking for someone to build a mount for it. A basic Dobsonian mount would be just fine. This telescope could be loaned to a member or it could be used by the Project ASTRO partners as a teaching tool. If

someone would like to help us out, let Terri know. The cost of materials will be reimbursed.

### April 3rd Meeting: A Special Event...Special Time

Our April 3rd meeting lands on the same day Steward Observatory has scheduled the presentation of the Aaronson award. Rather than change the April meeting place and/or time, it's been decided that the Aaronson lecture will be our April lecture. The lecture is geared to the general public so it will be suitable for most members. The format is a little different than our format. Most importantly, it begins earlier, around 7pm. This earlier start time means we will not have a Beginner's Lecture in April. Refreshments will be served by the Aaronson committee beginning around 6:30 in the lobby. After the lecture, the TAAA meeting will continue with member presentations and other activities.

Each year Steward Observatory presents the Aaronson Award to an individual or an individual on behalf of a group who by their passion for research and dedication to excellence, has produced a body of work in the past ten years in observational astronomy which has resulted in a significant deepening of our understanding of the universe. This year John Mather of the Goddard Space Flight Center will be presented the award for being a conceiver, organizer, and developer and project scientist of the COBE spacecraft, and as principle investigator of the Far Infrared Spectrometer (FIRAS) on COBE. Results of FIRAS show that the background radiation is exactly a blackbody, with measured deviations of less than 50 parts-per-million. This is the strongest evidence to date for the hot Big Bang model of the expansion of the Universe. He is recognized for his exquisite care in the design and understanding of the errors of instruments and observational projects. He is also one of the leaders on the Next Generation Space Telescope project. The title of his lecture is "Observing the Cosmic Dark Ages with the Next Generation Space Telescope".

### SMART '98

On Saturday, March 28 the TAAA has been asked to participate in the Sahuaro Girl Scout Council SMART '98 program. This annual event introduces about 600 girls in grades 2 through 9 to Science, Math, And Related Technologies. From 9am to noon the girls (in small groups) will take part in short demonstrations being presented by several organizations. We are looking for volunteers to help with the astronomy demonstrations. Being planned are three demonstrations based on Project ASTRO activities: Making a Comet, Learning about Meteors, and Solar Observing (weather permitting). If you want



### Club News (cont.)

to help with this important event, contact Terri at 579-0185. (You will be shown how to make your own comet!) The event will take place at the Desert Vista Campus of Pima Community College which is located at 5901 S. Calle Santa Cruz just east of I-19 near Drexel. There is a second session from 1pm to 4pm but we will only participate in the afternoon session if enough volunteers come forward.

### Recent Library Donations

Over the past month we have had two donations to our library. Ed Vega donated the video "Looking To The Stars" which was produced by the City of Los Angeles Public Works Department, Bureau of Street Lighting. This video will be shown during the Beginner's Lecture this month. The second donation comes from Mark Trueblood who donated the newly released 2nd edition of his book. "Telescope Control" is co-authored by Russell Merle Genet. This book will show you "how to connect a non standard computer peripheral (a telescope) to a computer and how to program the computer to perform time-critical computations". Both these items will be available for borrowing from our library which is located in Steward Observatory. The only problem is we don't have a librarian yet. Until we get one, borrowing books and videos is going to be a little bit of a challenge! Talk to Terri if you are interested in either of these items or more information about the library.

### From the Mailbag

Here are some things that recently landed in our PO Box. These items will be at the next meeting, so ask Terri about anything that catches your eye. Mention of an item does not indicate an endorsement by the TAA.

#### \* Reports

Minutes from the recent meeting of the Sonoita Valley Planning Partnership. This includes the discussions regarding the mine that is being proposed on the east end of the Santa Rita mountains not far from our current observing site.

#### \* Samples

A copy of a book about the moon: "Welcome to the Moon"

#### \* Trips

Riverside Telescope Makers Conference information

#### \*Miscellaneous

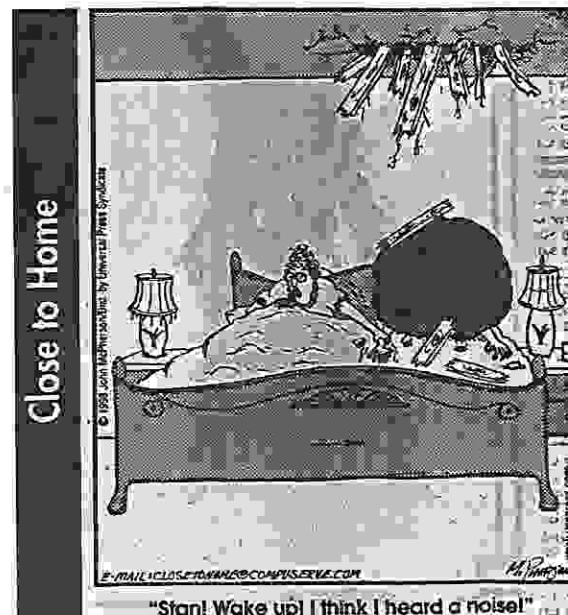
Swedish company making lamps that look like Saturn (really neat looking).

#### \* Catalogs

We always have a selection of catalogs including: Meade, ASP Conference Series, Novagraphics, Edmund Scientific, Swift Binoculars, Sky Publishing, Kalmbach Publishing, two Meteor Catalogs. There are many others.

#### \* Newsletters

International Dark-Sky Association, Saguaro Astronomy Club (PHX), East Valley Astronomy Club (PHX), Astronomy Club of Sun City West (PHX), Albuquerque Astronomical Society (NM), Salt Lake Astronomical Society (UT), Denver Astronomical Society (CO), Peoria Astronomical Society (IL), Warren Astronomical Society (MI), The Universe in the Classroom (ASP).



## Items of Interest

### Steward Observatory Public Evening Series

Steward Observatory has been hosting public evening lectures in astronomy for 70 years. The lectures for the Spring 98 semester will be held on Monday nights at 7:30pm in room N210 of Steward Observatory. Following talks, there will be opportunities for viewing the night sky (weather permitting) with the use of the 21-inch telescope at the Campus Station of the Observatory operated by undergraduate majors in astronomy and related sciences. All of the lectures and the use of the telescope are free of charge and open to the general public.

Mar. 2: Dr. Philip Pinto *How Old (and How Massive) is the Universe?*

Mar. 23: Dr. Marcia Rieke *Hubble Space Telescope Expands its Vision to the Infrared*

Apr. 6: Dr. William Tifft *Galaxies and Three-Dimensional Time*

Apr. 20: Dr. Michael Lesser *Digital Imaging for Science and Home*

May 4: Dr. Peter Strittmatter *A New Golden Age of Astronomy*

### Arizona Theatre Company

The ATC's new play has an astronomical theme...sort of. It's called "Rocket Man" and is about a man who "settles into his favorite recliner, pushes a button...and blasts off on an amazing journey to a parallel universe". In the second scene he enters a universe where time runs backwards! It's described as a serious comedy. It's written by Steven Dietz and directed by David Ira Goldstein. It will run from Feb 28 to March 25. We have information for group discounts (\$4 off regular price of \$18.50-\$27.50). If someone wants to arrange a group of 10 or more they can get the information from Terri at the March meeting. (Since this will not be an official TAAA activity any deposit and money collection will be the responsibility of the organizer.)

### A New Award for Young Astronomers

The Astronomical League is a federation of over 200 astronomical societies with about 14,000 members. This year, the AL is pleased to announce a new award, the **Horkheimer Award** for exceptional service by a young astronomer. This award is geared toward young astronomers under the age of 19, and it's made possible by the generous support of Mr. Jack Horkheimer, the host of a late night astronomy program called, the *Star Gazer*, formerly the *Star Hustler*. Each year at the Astronomical League's awards banquet, the first placed winner, will receive a check for \$1,000.00.

To be considered for the award, the applicant must provide outstanding public service in astronomy, show exceptional observing skills, or be actively providing service to an astronomy club. To be eligible, the young astronomer must be a member of the Astronomical League. The deadline for applying is March 30, 1998.

Please note that there is no change to the National Young Astronomer Award. This program, also administered by the AL, continues to grow. The award for the NYAA is a Meade LX-200 10-inch Telescope, valued at about \$3,500.00. We have already passed the deadline for the 1998 NYAA, but next year's applications must be postmarked not later than January 31, 1999.

Please let me know if you'd like information or applications for the Horkheimer Award. Thanks for your interest in promoting astronomy for our nation's youth.

Clear skies and warm regards,  
Bob Gent  
TAAA AL Correspondent

### Project ASTRO Update

Applications for the 1998-1999 Project ASTRO workshop are ready for distribution. The workshop will be held Friday and Saturday, September 25 and 26th. Please consider sharing your knowledge of astronomy with teachers and students as a Project ASTRO Partner, and help spread the word about this great program to teachers you know. We encourage amateur astronomers to apply, and we hope to attract community educators and classroom teachers. A degree in Astronomy is not required. Please contact Ginny Beal with questions or requests for applications: 520-318-8535 or email: [gbeal@noao.edu](mailto:gbeal@noao.edu)

Project ASTRO partners and their families will head out to the Arizona Sonora Desert Museum for an end-of-year star party Saturday, April 4. A pot luck dinner and slide presentation, followed by observing in the parking lot will make for a full and enjoyable evening. TAAA members are especially welcomed because of their much appreciated support of Project ASTRO, as well as help with star parties at the Desert Museum. Admission to the Museum will be free from 5 -6 PM to Project ASTRO folks. We will then meet at the Education Building at 6 PM for a pot luck dinner. There will be plenty of food so if you can't bring a dish, come anyway. Please plan to be there for all or part of the evening.

Items of Interest (cont.)
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**Volunteers Needed for School Group at Kitt Peak**

On Thursday, April 30, a group school children will visit the Nightly Observing Program at Kitt Peak. Volunteers are needed to provide additional telescopes in the Visitor Center parking lot and to help educate the students about constellations and other night-sky objects. TAAA volunteers will be allowed to stay in the parking lot until Midnight for additional observing after the school group leaves around 9 PM. If you are interested in helping with this effort, please sign up at the TAAA meeting, or contact Ginny Beal at 318-8535, gbeal@noao.edu

**Kitt Peak Docent Training Under Way**

A behind the scenes tour of Kitt Peak was held for Docent trainees on February 7. Dean Ketelsen provided technical leadership of the tour which included the WIYN, Solar, 2.1M and 4M telescopes. The 16 Docent trainees enjoyed touring the mountain, learning about the telescopes, and being allowed into areas of the telescopes normally restricted to visitors. Training will continue into March. If you are interested in being a volunteer Docent for the Kitt Peak National Observatory, please get in touch with Ginny Beal, 318-8535, gbeal@noao.edu

**13th Annual Greater Verde Valley Astronomy Festival**

June 19-20 - *Making Your Own Telescope* is this year's exciting theme, with workshops both days to teach you. Or just relax and view celestial bodies through one of some 18 telescopes provided for night viewing, or through solar telescopes in daytime. Lectures by a prominent astronomer, and fantastic opportunities to photograph the stars, planets and other heavenly bodies using one of the largest camera platforms built to track the night sky. Bring your own film, camera and locking cable release for timed exposures. Held in the enchanted setting of Red Rock State Park, on Oak Creek 5 miles below Sedona, which offers hiking trails, environmental exhibits and stunning scenery including Cathedral Rock. 1p.m. to 11p.m. both days. Admission to park is \$5/vehicle, no charge for festival admission, for further information call (520) 634-7332 or (520) 282-6907.

**Article from America West Airline Magazine  
January 1998***Starry, Starry Nights*

When it comes to bed-and-breakfast inns, traditionally bastions of Victorianism, there's often nothing new under the sun. But under the moon, planets, and nebulae...now there's another story. Book a room at the Skywatcher's Inn near Benson, Arizona, and you also can reserve a personal guide to the galaxy.

You might say that owning an astronomy-oriented B&B was in the stars for Dr. Ed Vega, a Tucson pathologist with an auspicious surname. Vega's longstanding interest in things celestial, spurred by sputnik in 1957, culminated in his building a private state-of-the-art observatory just outside Benson in 1990. As Vega explains, an abundance of clear skies makes southern Arizona a stargazing mecca, and Benson, some 47 miles east of Tucson, is relatively free of "light pollution" - glare from street lights, headlights, and other artificial illumination that can interfere with night viewing.

The Vega-Bray Observatory was an instant hit with Vega's fellow members of the Tucson Amateur Astronomical Association, who had only one gripe: It was a drag to drive back to Tucson after peering into the sky for half the night. Dr. Vega and his wife, Pat, began toying with the idea of providing weary stargazers with a comfortable crash pad and morning-after meal. In 1995, they built a spacious three-bedroom, three-bathroom house next to the observatory, hired an innkeeper, and enlisted members of the astronomical society to serve as star guides to the guests.

Ads in astronomy journals have drawn visitors from around the world, some of whom arrive with wish lists of otherworldly objects they'd like to view. Many of them simply rent the observatory's impressive array of telescopes for the night. Others, curious but untutored, opt for the equivalent of Intro to the Universe 101, while a number of the more advanced expand their horizons by signing on for CCD imaging, a method of taking snapshots of the cosmos.

## Items of Interest (cont.)

*Starry, Starry Nights (cont.)*

It's not only the telescopes that make this place science-geek heaven, however. The inn's library is loaded with hands-on experiments, as well as fossils, meteorites, and astronomy videotapes for viewing on a 42-inch television. The accommodations themselves are filled with techno-gizmos: One room doubles as a planetarium, while another has a ceiling that reveals the night sky when you switch on a black light. Even the most traditional of the three, done in frilly florals, features a bed with a headboard that lights up when you touch it.

The vicinity also holds plenty of attractions for those who prefer to do their exploring by day. A two-mile hiking trail that leads from the inn is popular with birdwatchers, who can catch some of the best avian

action in the United States in this region (nearby Ramsey Canyon is especially renowned for its variety of hummingbirds). Destinations within a short drive include Tombstone, Bisbee and Chiricahua State Park. And opening at the end of 1998 is Kartchner Caverns State Park, just outside of Benson. No doubt even the most hardcore astronomy junkies will then take their search for the meaning of the universe underground.

Skywatcher's Inn: (520) 745-2390.

- Edie Jarolim

## Editor's Note:

Congratulations, Dr. Vega, on this great article promoting your labor of love in Benson.

## Dark Skies for March 1998

**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

Sa/Su 28/ 1	20:54 - 5:30	Tu/We 10/11	- - -	Sa/Su 21/22	19:58 - 2:15
Su/Mo 1/ 2	22:01 - 5:29	We/Th 11/12	- - -	Su/Mo 22/23	19:59 - 3:05
Mo/Tu 2/ 3	23:07 - 5:28	Th/Fr 12/13	Lunar Eclipse	Mo/Tu 23/24	20:00 - 3:54
Tu/We 3/ 4	0:11 - 5:27	Fr/Sa 13/14	- - -	Tu/We 24/25	20:01 - 4:40
We/Th 4/ 5	1:11 - 5:26	Sa/Su 14/15	19:53 - 20:04	We/Th 25/26	20:01 - 4:58
Th/Fr 5/ 6	2:08 - 5:25	Su/Mo 15/16	19:54 - 20:56	Th/Fr 26/27	20:02 - 4:57
Fr/Sa 6/ 7	3:01 - 5:23	Mo/Tu 16/17	19:54 - 21:49	Fr/Sa 27/28	20:03 - 4:55
Sa/Su 7/ 8	3:49 - 5:22	Tu/We 17/18	19:55 - 22:42	Sa/Su 28/29	20:04 - 4:54
Su/Mo 8/ 9	4:33 - 5:21	We/Th 18/19	19:56 - 23:35	Su/Mo 29/30	20:47 - 4:53
Mo/Tu 9/10	5:13 - 5:20	Th/Fr 19/20	19:57 - 0:29	Mo/Tu 30/31	21:55 - 4:51
		Fr/Sa 20/21	19:57 - 1:22		

Weekend	Sun	Sun	Mercury	Venus	Mars	Jupiter	Saturn	
Sa/Su	Set	Rise	Set Vi	Rise Vi	Set Vi	Rise Vi	Set Vi	Vi=Visibility
28/ 1	18:19	6:50	18:44 -	4:20 -4	19:36 5	6:41 -	21:13 1	-3 brilliant
7/ 8	18:24	6:41	19:20 5	4:13 -4	19:34 6	6:18 9	20:49 2	0 conspicuous
14/15	18:29	6:32	19:49 3	4:09 -4	19:32 7	5:55 6	20:25 3	3 moderate
21/22	18:34	6:23	20:00 4	4:05 -3	19:30 8	5:32 4	20:01 4	6 naked eye limit
28/29	18:39	6:14	19:43 8	4:01 -3	19:27 9	5:09 3	19:38 7	9 binoculars limit

By Erich Karkoschka



## Star Parties & Events

### **St. Gregory's School March 5 (Thursday)**

This is a reschedule for the Feb. 3rd rainout. We need 4 scopes to handle a group of middle school students. St. Gregory's is located at 3226 N. Craycroft Rd. The entrance to the school is on the west side of Craycroft at a traffic light just north of Ft. Lowell Rd. Set-up will be at 6:00 pm with viewing at 6:30 pm.

### **A.L.O.A. Luther Hostel, Picture Rocks Retreat March 10 (Tuesday)**

4 scopes are required for this observing session for older adults from this facility. The Redemptorist Picture Rocks Retreat is located at 7101 W. Picture Rocks Rd., 4 mi. west of I-10. Take Ina Rd. west, cross over Silverbell and turn left (south) onto Wade Rd. Turn right on Picture Rocks Rd. and the retreat will be on the left.

### **W.O.W. Star Party, Aqua Caliente Park March 20 (Friday)**

This is part of the Wonderful Outdoor World (WOW) program for kids 9 to 12 years old. They campout at various parks around town with adult supervision. Set-up is at 7:00 pm with viewing at 7:30 pm. Five (5) scopes are needed. Aqua Caliente Park is located on Roger Rd. less than ¼ mile east of the intersection with Soldiers Trail on the north side of Roger Rd. Take Tanque Verde Rd. east past Tanque Verde Loop Rd. and turn left (north) on Soldier Trail. Past Ft. Lowell Rd., turn right on Roger Rd. and look for the park on the left side of the road.

### **Smithsonian Star Party, Whipple Observatory March 21 (Saturday)**

The Whipple Observatory will present an Open House and Star Party on Saturday, March 21. Observing will begin 7 p.m. courtesy of telescopes provided by the Tucson Amateur Astronomy Association and Sonora Astronomical Society.

3 pm: Visitors Center opens

6 pm: Informal lecture on astronomy by Observatory staff

7 pm: Observing begins (in parking area next to Visitors Center).

Dress for cool evening temperatures. Small flashlights and binoculars are useful to bring. Please cooperate with staff directing parking when you arrive. The parking spaces nearest the building are reserved for TAAA members and their telescopes. Visitors should park along the driveway or in the parking area outside the gate or along the road as directed. (Please note: Visitors will be allowed to

park cars next to the building in the space usually reserved for telescopes until 5 p.m. At that time, visitors will have to move their cars to other parking spaces so that telescopes may be set up.) For more information call 670-5707. In case of threatening weather, call 670-5707 after 3 p.m. on the 18th for information about star party cancellation.

### **TAAA Star Party/Cookout, Catalina State Park March 28 (Saturday)**

A cookout and star party is scheduled for Saturday, March 28 at the Catalina State Park. We will gather in the main picnic area of the park (look for TAAA signs). Catalina State Park is situated on the far northwest side of Tucson, against the Catalina Mountains. The site offers a beautiful view of Pusch Ridge, a number of hiking trails, and a reasonably dark sky.

Charcoal will be supplied. Bring your own food, including a dish to share, drinks (non-alcoholic please) and utensils. And your telescope! The grills should be ready by 4:30pm. Sunset is around 6:30 at which time the grills will be extinguished. We received special permission to stay past the normal closing time but we need to be out of the park by midnight. The park charges \$4 per carload entrance fee, so be prepared with some cash on hand. An honor system is in effect after the visitor's center closes.

### **John E. White Elementary School March 31 (Tuesday)**

Three (3) scopes are needed for about 28 first graders and their families. Set-up is at 6:30 pm with viewing at 7:00 pm. The school is located at 2315 W. Canada. Take Ajo Way west, past I-19 and turn left (south) on Mission Rd. Pass Irvington Rd. and turn right on Canada St. The school is on the left.

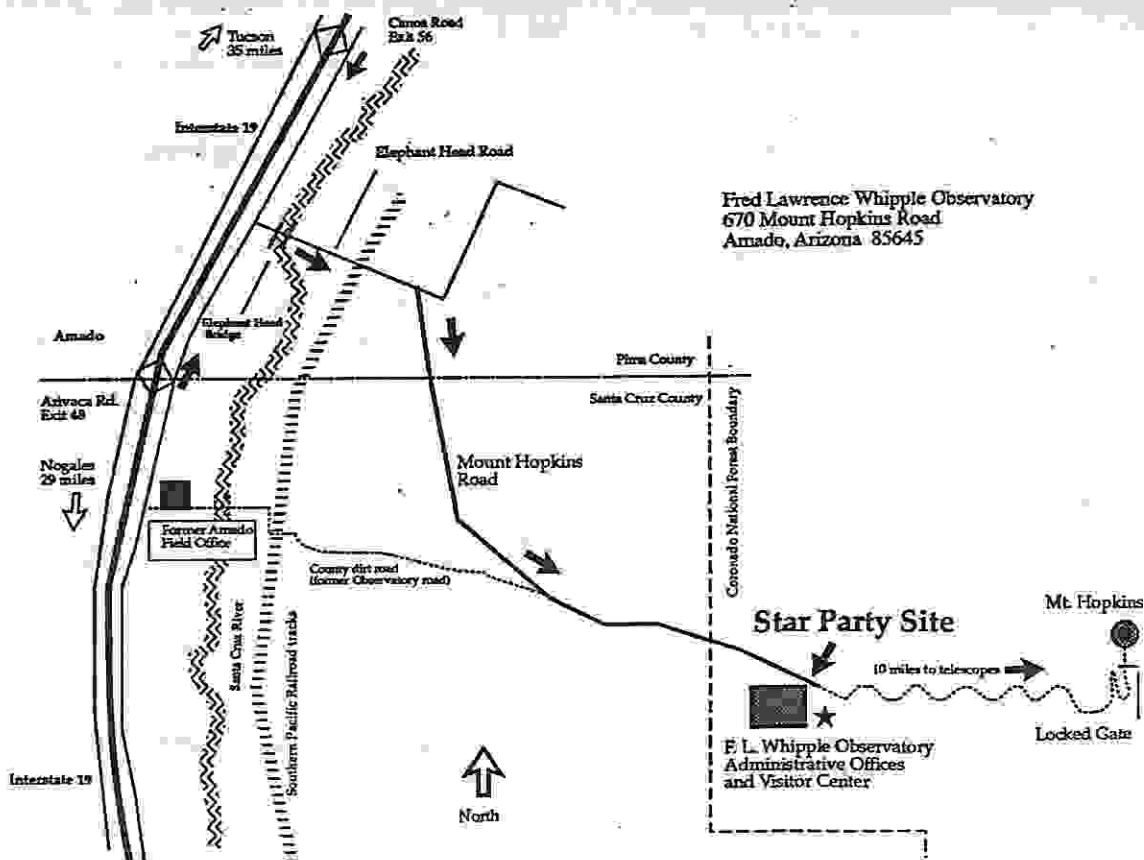
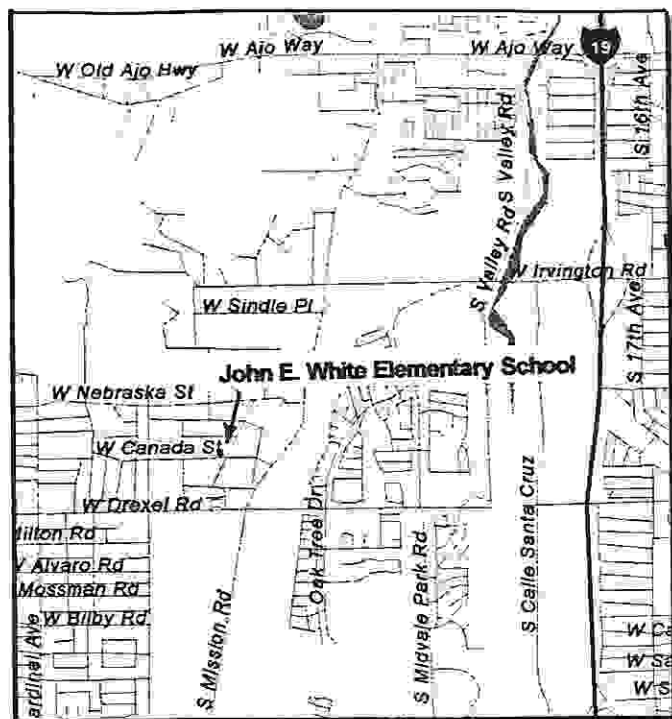
### **Amphi Middle School April 2 (Thursday)**

About fifty 8<sup>th</sup> graders and their families will be attending this star party. Six (6) scopes will be required. The school is located at 315 E. Prince Rd. (corner of 1<sup>st</sup> Ave. and Prince). Set-up at 6:30 pm, viewing at 7:00 pm.

### **Project ASTRO Star Party, Desert Museum April 4 (Saturday)**

About six to eight scopes will be needed for this end-of-year celebration for Project ASTRO. A pot luck dinner will be served at 6:00 pm at the Desert Museum's Education building followed by a slide presentation and then observing.

## Maps



## Observing Reports

## THE SHIP'S RUDDER

On these cool wintery March nights we see the cluster strewn starfields of Monoceros, Puppis, and Vela, just above the southern horizon. The constellation of Puppis represents the stern section of Argo Navis an ancient constellation. In modern times Argo Navis was split up into four separate groups containing Carina the keel, Vela the sails, and Pyxis the Mariner's compass. If you imagine that this great ship is sinking into the horizon, Puppis would be high out of the sea with its rudder exposed in the air. At the position of the rudder is the splendid 4th magnitude binary star, *k* Puppis.

The two pure white stars that make up *k* Puppis have nearly identical magnitudes of 4.5 and 4.6. Both of them are young hot B-type stars with spectra of B6V and B5IVa. These stars are quite a bit more luminous than our Sun with luminosities of about 120 suns. Both are two times larger than our Sun in diameter. Their temperatures would also be quite high, being about twice as hot as the Sun's 6000°K surface temperature. The distance to this pair is around 330 light years, making the projected separation of this 9.9" pair about 1000 A.U.

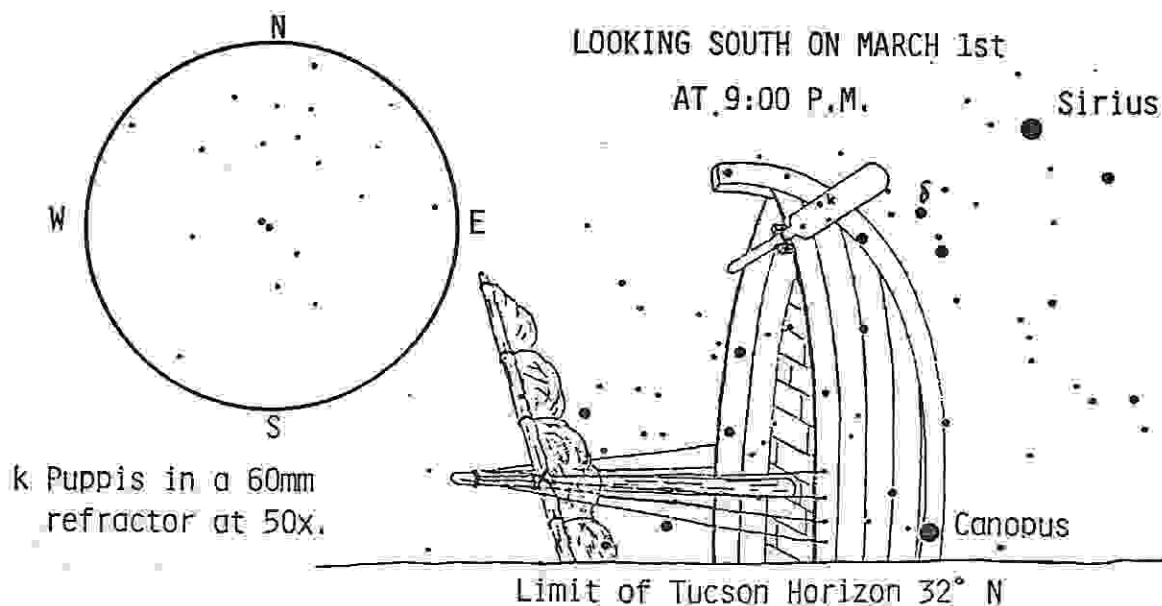
The current P.A. of 318° makes this pair line up northwest by southeast. The two stars have remained fixed since being first measured in 1826, but appear to be a common proper motion pair.

Although my 60mm telescope will resolve this pretty duo at 35x, I prefer to boost up the magnification to 50x, to put a little distance between the two stars, and get some inky black sky for a good contrast effect. On a frosty winter's night this pair gives me the impression of two white sparkling diamonds on the blackness of outer space.

To locate *k* Puppis, start at Sirius, alpha (α) Canis Majoris and head southsoutheast down the back of the dog to 2nd magnitude Wesen, delta (δ) Canis Majoris. Now go east for 7° until you come to 4th magnitude *k* Puppis. The coordinates for *k* Puppis are R.A. 07h 38m 49.7s, Dec. -26° 48' 13".

This is one of the prettier sights in our winter skies, so don't neglect this fine duo in the Puppis Milky Way starfields.

By Jeff Brydges



**TAAA Board of Directors Meeting - February 12, 1998**

Location: N305 Steward Observatory

Officers/Members in attendance: Ingrid Saber, Dave Reynolds, Teresa Lappin, Dave Harvey, John Kalas, Gary Rosenbaum, Bob Schwartz, Rudy Poklar, Bob Goff.

Call to Order: 7:05pm

Agenda:

Events/ Meetings:

Star Parties:

March 2: Esperaro Middle School  
March 10: Picture Rocks Retreat  
March 20: WOW Star Party - Aqua Caliente  
March 21: Smithsonian Star Party  
March 28: Catalina State Park TAAA Star Party & Picnic

Meetings:

March 6: General Membership - Demo Meeting - Eyepieces and Swap Meet  
Beginners Lecture: Bob Gent - IDA  
March 12: Executive Board Meeting

March General Membership Meeting Plans:

The March 6th General Membership meeting will consist of a couple "demonstrations" about eyepieces and variable stars. There will also be a swap meet. Details will be published in the March Newsletter.

4th Avenue Street Fair:

TAAA won the lottery for a booth at the 4th Avenue Street Fair to be held on March 20, 21 & 22. Teresa turned over organization of TAAA manpower recruitment to John Kalas who will take charge of the event.

SMART 98 Plans:

On March 28th the Girls Scouts will hold their annual "Science, Math And Related Technologies" (SMART) program at the Pima College Desert Vista Campus. The program is designed to give students in the grade range from 2nd to 9th a demonstration of science-related materials and careers. The meeting will be held indoors and outdoors and the TAAA has been asked if we can participate with some telescopes and displays.

Catalina State Park TAAA Star Party and Spring Picnic:

Teresa spoke about the planned Club picnic and Star party to be held at Catalina State park on March 28th. Members should arrive about 4 pm for the picnic and observe until midnight when the park will close.

AZ Theater Co. Group Outing:

Teresa spoke about a group discount that was available for club members to see a current play put on by ATC that dealt tangential with astronomy. The discount applied to a group of 10 or more. The expressed concern that the relevance of the play to astronomy was in question and decided to turn down the discount.

Treasurer's Report:

Tabled due to the treasurer's absence.

Total Land & Telescope Fund: \$36,059.05 (As of November 1, 1997)

Financial Committee Report:

Following the approval by the General membership the financial committee will solicit one more financial advisor to speak to the board and make recommendations as to possible avenues of investing the club's land and telescope fund. After this second presentation the board will make a decision as to the placement of funds for investment purposes.

Polishing Machine rental by AXE:

Plans to move the TAAA mirror polishing machine to AXE offices have been postponed until Bob Goff consults Dean Ketelsen about the equipment and manpower required to move the device.



**TAAA Board of Directors Meeting - 2/12/98 (cont.)****Kitt Peak 50" News:**

Dave Reynolds spoke on his continuing efforts to acquire access to the Kitt Peak 50" telescope for educational and club use.

**Public Star Party:**

With the failure of negotiations with the Desert Museum, the club has backed off on plans for a Spring Public star party at this location and is now considering a fall star party at either Kitt Peak or Old Tucson.

**TIMPA:** Tabled. **Dues Structure:** Tabled. **TAAA Mail Explorer:** Tabled. **TAAA Shirts/ Caps:** Tabled.

**April Events:**

Reminder: The April TAAA General Membership meeting will be held in conjunction with Steward Observatory's Aaronson Memorial Lectureship lecture. Club business will be discussed after the Aaronson Lecture time permitting.

Reminder: The annual TAAA Club picnic will be held at the Vega-Bray Observatory on April 19th.

**Social Committee:**

Dave Reynolds made a suggestion that a Social Committee be appointed to handle plans and arrangements for the TAAA 1998 Christmas Party.

Meeting Adjourned at 8:55 pm.

**Desert Skies Classified**

**FOR SALE:** C5+ with mint optics. Includes hard carrying case, field tripod, wedge, dew shield, prism diagonal, and 25mm eyepiece. \$1400 firm. Contact Frank at (520) 825-5540 or e-mail: [fcathell@aol.com](mailto:fcathell@aol.com) (3/98)

**FOR SALE:** Classical 6 inch dia. f8 newtonian reflector, excellent optics, dobsonian mount. \$500. with mount. If interested, will consider selling tube assembly separately. Call Duane Niehaus at 797-4189. (5/98)

**FOR SALE:** New 3 inch dia. Unitron refractor with alt-azimuth mount, tripod, leg brace, 8x30mm finder, three 1-1/4 in. eyepieces (40mm = 30 power, 18mm = 67 power and 9mm = 133 power) and 1-1/4 in. star diagonal. Call Jeff Brydges at 888-0591. (5/98)

**FOR SALE:** Meade 90mm refractor, alt-azimuth mount, aluminum tripod, 10mm Orion Explorer II eyepiece. \$425. Call Chris Lancaster at 750-9463 or e-mail: [clancaster1@compuserve.com](mailto:clancaster1@compuserve.com) (6/98)

**WANTED:** 6mm or 7mm .965" dia. eyepiece. Call Gilbert Friedman at 571-1662. (6/98)

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 John Kalas at 620-6502 or email at [jckalas@aol.com](mailto:jckalas@aol.com).

# SWAP MEET

# MARCH 6<sup>TH</sup> MEETING