

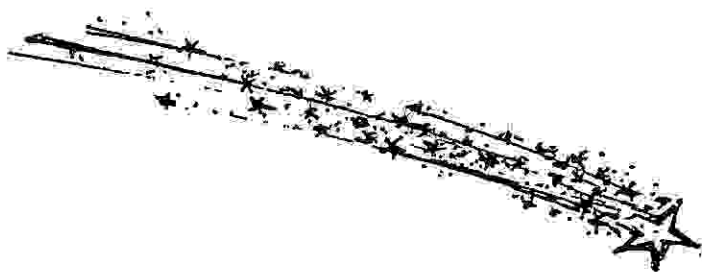
Desert Skies

JUNE 1991



The Comet of 1812, as seen from the Pont Neuf in Paris,
from a contemporary French engraving

ANNUAL TAAA PICNIC & STARPARTY JUNE 15!!!!

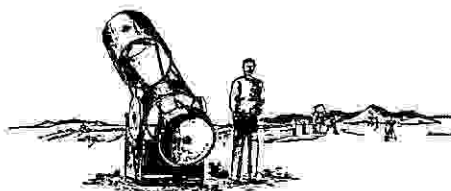
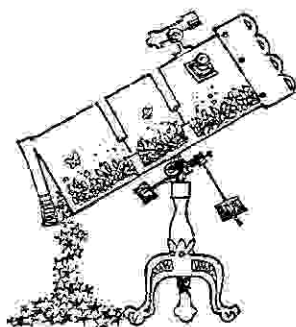


GENERAL MEETING - Friday, June 7, 7:30 P.M. at Steward Obs. lecture room.
Rob Hubbard, from National Solar Observatory,
will present a talk on "Solar Oscillations".

EXECUTIVE MEETING - Thursday, June 13, 7:30 P.M. at Flandrau Planetarium.

STAR PARTIES - Saturday, June 8 - Empire Ranch .

ANNUAL TAAA PICNIC & STAR PARTY! - Saturday, June 15, 4 P.M. at Vega-Bray Observatory
(owned by Ed & Pat Vega - see map).



You, too, can write articles for **DESERT SKIES!**

Send them to the editor by the 20th of the month.
4632 E. 14th St., Tucson, AZ 85711 or LPL via UA campus mail

TAAA EXECUTIVE

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Vice-President	Terri Lappin	790-5053
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Desert Skies Publishing Guidelines

- *All articles, announcements, news etc. must be submitted by the 20th of the month.
- *Materials received after that date will appear in the NEXT issue.
- *All submissions are retained by the editor unless prior arrangements are made.
- *Articles, artwork, and photos should be camera ready. Photos should be screened.
- *We will not publish slanderous or libelous material!

Send articles, announcements etc. to Desert Skies c/o Dolores Hill 4632 E. 14th St., Tucson, AZ 85711 (phone: 325-9820) OR Lunar & Planetary Lab, U. of A. (621-6951).

MEMBERSHIP IN THE TAAA

Individual Membership	\$20.00
Family Membership	\$25.00
Senior Citizen (over 60)	\$18.00

Sky & Telescope subscription (optional) \$18.00

Rates for membership in the TAAA are given above. Members can subscribe to Sky & Telescope at the time of membership renewal, saving over 25% off the cost of a regular subscription. The subscription term must match your membership period. Send one check, made payable to Tucson Amateur Astronomy Association, to cover both membership and subscription to: TAAA, P.O.Box 41254, Tucson, AZ 85717. It is best to pay your dues 2-3 months before your membership actually expires.

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. a) Decide if you want Sky & Telescope, then add \$18 to your membership rate.
b) Include Sky & Telescope's renewal notice, if possible.
3. Write one check, payable to TAAA.
4. Send it to TAAA, P.O.Box 41254, Tucson, AZ 85717.

Call the Treasurer if you have any problems.

ANNUAL TAAA PICNIC & STARPARTY JUNE 15!!!!

The TAAA's Annual Picnic will be held again this year at the Vega-Bray Observatory near Benson (see map). Mr. Colin Maybury and Mrs. Marcia Maybury from New South Wales, Australia, will be there to give a slide show on "Astronomy Down Under".

Let's hope for clear skies since the most spectacular 3-planet gathering of the decade occurs this mid-June. This grand conjunction of Mars, Venus and Jupiter in the constellation of Cancer will have the Beehive Cluster (M44) and a thin crescent moon nearby. This is also the peak date of the June Lyrids, and the day after the peak of the Alpha Scorpiids meteor shower. A possible Cepheid shower also occurs around this date and Theta Ophiuchids shower extends up to the 16th.

Bring your telescope and binoculars!



ITEMS WANTED OR FOR SALE.....

If YOU have place an ad and sell the item(s) or no longer wish to run it, please call Dolores or Rik Hill at 325-9820 (home) or 621-6951 (work). Otherwise the ad will continue to appear. Thanks.

LOST: 25 mm, 0.96" Celestron eyepiece at Grand Canyon Star Party.
Call Mike Thompson at 621-4085.

FOR SALE: 2.4" Unitron refractor with equatorial mount, uni-hex, 2 oculars & storage box. Call Jeff Bridges at 888-0591.

FOR SALE: Criterion Solar Prominence Viewer with occulting disc sets for instruments of 1250mm and 2000mm focal lengths. \$300 O.B.O.
Contact Steve Edberg, 163 Starlight Crest Dr., La Canada, CA 91011.

FOR SALE: 2" Rack & pinion Novak focuser with 1 1/4" adapter- mint condition (never used).....\$90.00. Call Ray Wallace at 294-1197.

TELESCOPES AND MIRRORS TESTED by Bob Goff.....Call 790-1452.

NEW! WANTED: Rack & Pinion eyepiece focuser, 1 1/4" I.D. May be brass, aluminum, chrome..... Call Gilbert Friedman at 571-1662.

FOR SALE: Yashica 35mm SLR camera/50MM lens...\$150. Call Patrick Craig at 792-4980. (NOTE THIS IS A NEW PHONE #!)



Eleven Club members made the trip to the Canyon and a great time was had by all. It was clear on 7.5 nights out of the 9, the skies were quite dark and the seeing very good. We had over 950 visitors over the nine nights and 1200 during our limited daytime hours for solar and Canyon viewing. As any of our members can attest, the crowds we attracted were very friendly and patient during the occasional long waits in line. They were amazed by views of M13 and Omega Centauri, the supernova in NGC 4527, scads of galaxies and on one night, double shadow transits for a pair of Jovian moons! We also attracted photographers from Sunset and Arizona Highways magazines, as well as the interest of Sky & Telescope for running a few paragraphs about what we did. Keep your eyes open and let me know if you see anything.

The Park Service seemed very happy with our job, and we have already made some discussions concerning next year's bigger and better event. Dark of the moon is about the first week of June in '92, so start making your plans now! In the meantime, many thanks to our Club members who worked hard in making it a success - Rudy and Carol Rostash, Kacie Johnson, Vivian Lewis, Teresa Lappin, Gary Rosenbaum, Bob and Valerie Goff, Gene Fioretti, Mike and Val Thompson, Jan and Paul Spaeth, and Michael Terenzoni.

- Dean Ketelsen 293-2855



RTMC - The Arizona Connection



The Riverside Telescope Maker's Conference met over the Memorial Day weekend near Big Bear, California. Making their first Riverside visit were TAAA members Andy, Laura and April Meyer. Also attending were Bob and Valerie Goff, Dean and Vicki Ketelsen, Derald Nye, Gary and Gretchen Hall, and David Levy. David was the keynote speaker Saturday night and gave a rousing talk about his adventures in astronomy, including some detective work with some of Clyde Tombaugh's early observations. He had planned an author's signing party for his books on The Night Sky - a User's Guide, and Clyde's biography, but they were both sold out by Saturday night!

At the swap meet, the club did pretty well with the surplus optical glass that was sold. Seven blanks, each 12" X 1.25" were sold for \$650, including one IOU.

At the awards on Sunday night, David won the Warren Estes Award for his telescope Minerva, which has undergone some recent work. Minerva is mounted on a bench where David now "spin-casts for comets" from his Grandfather's favorite chair. The award was for the use of simple or inexpensive materials. Congratulations David!

It appears that TOMA, the Telescope Optical Manufacturer's Association, formed only last year, has died an early death. Formed to develop optical standards in manufacturing and advertising, it suffered from a lack of leadership and drive. This year, with most of the optical manufacturers missing, after a talk by Bob Goff showing video of Schmidt Cassegrain testing, an enthused crowd met to form a new organization. It is envisioned to be an advocacy or lobby group for commercial telescope users. It is hoped that eventually manufacturers might seek out this organization's seal of approval for their optical testing and advertising. If you have any interests in joining the organization or what direction should be taken, contact Bob Goff or myself, both charter members of this yet to be named group.

-Dean Ketelsen 293-2855



OBSERVER'S REPORT

Star Parties: Regular

June 8 Empire Ranch
June 15 TAAA Picnic, 4pm, BRING
YOUR SCOPES, special guests
will be Colin and Marcia
Maybury from New South Wales,
Australia

I would like to thank our new Executive for giving me an opportunity to try my hand as Chief Observer. In the way of a little self indulgence I'd like to use this first installment to give you my qualifications for this esteemed post.

I've been interested in astronomy since I was 12. I was a member of the Grand Rapids (Michigan) Amateur Astronomy Association during the years it was constructing its observatory - housing two telescopes, a 12.5" Newtonian (huge in the late 60's) and a 6" refractor. I ground and polished my first mirror (6", f/8) during that time. Unfortunately, an untimely move to Chicago, high school, girls, then college competed for my time. Finally after landing a job in beautiful Tucson, getting married (to a wonderful woman) and starting a family (April's 5 years old) I got back into astronomy. On a family outing to Flandrau Planetarium for a children's show, I became hooked again. Now 4 years and another telescope later (8", f/6 this time) I'm writing this article.

Now on to deep (space) things. A number of star parties occurred this past month. A star party at a possible 30" site 14 miles south of Tombstone, though not well attended, allowed for the opportunity to tour the Coma-Virgo galaxy cluster. I heartily recommend a romp through this area. Rarely does one see four bright galaxies in a 1.5° field of view - M59, M60, NGC4647, & 4638. An inspiring sight in a 6-8" scope (Stephen's Quintet has nothing on Coma-Virgo!). A beautiful finder chart for this part of the sky can be found in the February, 1955 (yes '55) Sky and Telescope, pp 147-151. I'll try to have copies available at the June meeting. As a side note, keep in mind that the U of A's Science Library has issues of all the popular, and not so popular periodicals, back to the time of the Big Bang!

A public star party at Sabino Canyon brought out a reasonable crowd. With everything from 120mm battleship binoculars to an 8" Tri-schiefspiegler to look through no one was disappointed. Jupiter looked good that evening and even gave us a shadow crossing to keep thing interesting.

I was a bit late arriving at our regularly scheduled star party, May 11, at Empire Ranch. But once there I was treated to a fireball with a beautiful trail, however short lived. Radiant? I guess I was too excited to notice! I also had a great view of M51 through Jim Wilmot's Meade 10" LX6. He was using a 55mm Plossl eyepiece - I could tell this even in the dark just from the wonderful eye relief it gave for this ol' "four-eyes"!

And now for a few words from Terri, who, I must add, should have all of our respect for the hardwork and dedication she has shown as Chief Observer for the past **THREE** years.

The Grand Canyon star party was a great deal of fun! I'm not sure how many TAAA members actually went but we were able to cover the entire nine day period with daytime and evening observing. No one from Phoenix came but a few tourists decided to visit the canyon during that week because we were going to have telescopes there! Someone even brought their telescope and set up right along side us to help out!

There is talk of doing this again next year and I'm all for it! The canyon is a great place to observe from.

It wasn't as dark as I had expected but nearby lights could be the reason. The elevation (about 7000 feet) got us above a lot of the atmosphere so images were steady. Detail on Jupiter really stood out! The Red Spot was extremely pale (more of a White/Yellow Spot) but was still easy to see. One night we were treated to two satellite shadow transits at the same time! During the day Dean had his big binoculars set up on the sun. He had sunspot filters over both lenses, but still some people were afraid to look through the eyepieces. Many people were foreigners so there was a communication barrier but those who looked got a nice view of the sun. When the clouds blocked the sun, tourists could see the canyon through Dean's binoculars.

I mention clouds and there were a few around during my stay at the canyon, but others were not so lucky--the Friday before there was a touch of snow, and then a few days after my visit Bob Goff said there was a blizzard with strong winds and blowing snow!!!

I want to thank Andy Meyer for taking on the wonderful position of Chief Observer. Please give him your support, encouragement, and most of all--let him know what you are observing! If something is of special interest to you, volunteer to give a short talk about it. It has been a pleasure serving as Chief Observer for the past three years or so and want to thank all who helped me to learn something about the night sky.



DARK SKIES for June 1991 (in MST):

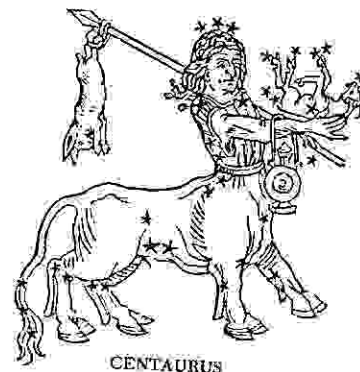
S/S	Jun.	1/2	9:04pm - 10:52pm
S/M	Jun.	2/3	9:04pm - 11:24pm
M/T	Jun.	3/4	9:05pm - 11:53am
T/W	Jun.	4/5	9:06pm - 12:22am
W/T	Jun.	5/6	9:06pm - 12:51am
T/F	Jun.	6/7	9:07pm - 1:21am
F/S	Jun.	7/8	9:08pm - 1:54am
S/S	Jun.	8/9	9:08pm - 2:33am
S/M	Jun.	9/10	9:09pm - 3:18am
M/T	Jun.	10/11	9:10pm - 3:36am
T/W	Jun.	11/12	9:10pm - 3:36am
W/T	Jun.	12/13	9:11pm - 3:36am
T/F	Jun.	13/14	9:11pm - 3:36am
F/S	Jun.	14/15	9:55pm - 3:36am
S/S	Jun.	15/16	10:36pm - 3:36am
S/M	Jun.	16/17	11:12pm - 3:36am
M/T	Jun.	17/18	11:44pm - 3:36am
T/W	Jun.	18/19	12:14am - 3:37am
W/T	Jun.	19/20	12:44am - 3:37am
T/F	Jun.	20/21	1:16am - 3:37am
F/S	Jun.	21/22	1:50am - 3:37am
S/S	Jun.	22/23	2:27am - 3:37am
S/M	Jun.	23/24	3:09am - 3:38am
M/T	Jun.	24/25	none
T/W	Jun.	25/26	none
W/T	Jun.	26/27	none
T/F	Jun.	27/28	none
F/S	Jun.	28/29	none
S/S	Jun.	29/30	9:14pm - 9:26pm
S/M	Jun.	30/1	9:14pm - 9:56pm
M/T	Jul.	1/2	9:14pm - 10:25pm
T/W	Jul.	2/3	9:14pm - 10:53pm
W/T	Jul.	3/4	9:14pm - 11:22pm
T/F	Jul.	4/5	9:13pm - 11:53pm
F/S	Jul.	5/6	9:13pm - 12:27am
S/S	Jul.	6/7	9:13pm - 1:08am

Times listed are for Tucson, Arizona when
(1) Moon is below the horizon
(2) Sun is >18° below the horizon
(astronomical twilight)

Andrew J. Meyer

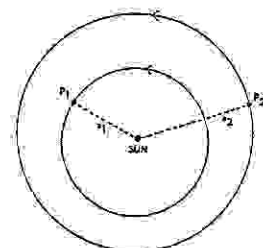
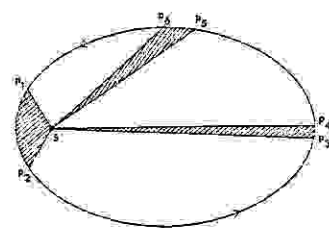
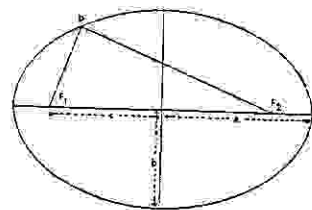


De la Diversité des Comètes



CELESTIAL CALENDAR for June 1991 (all times are in MST):

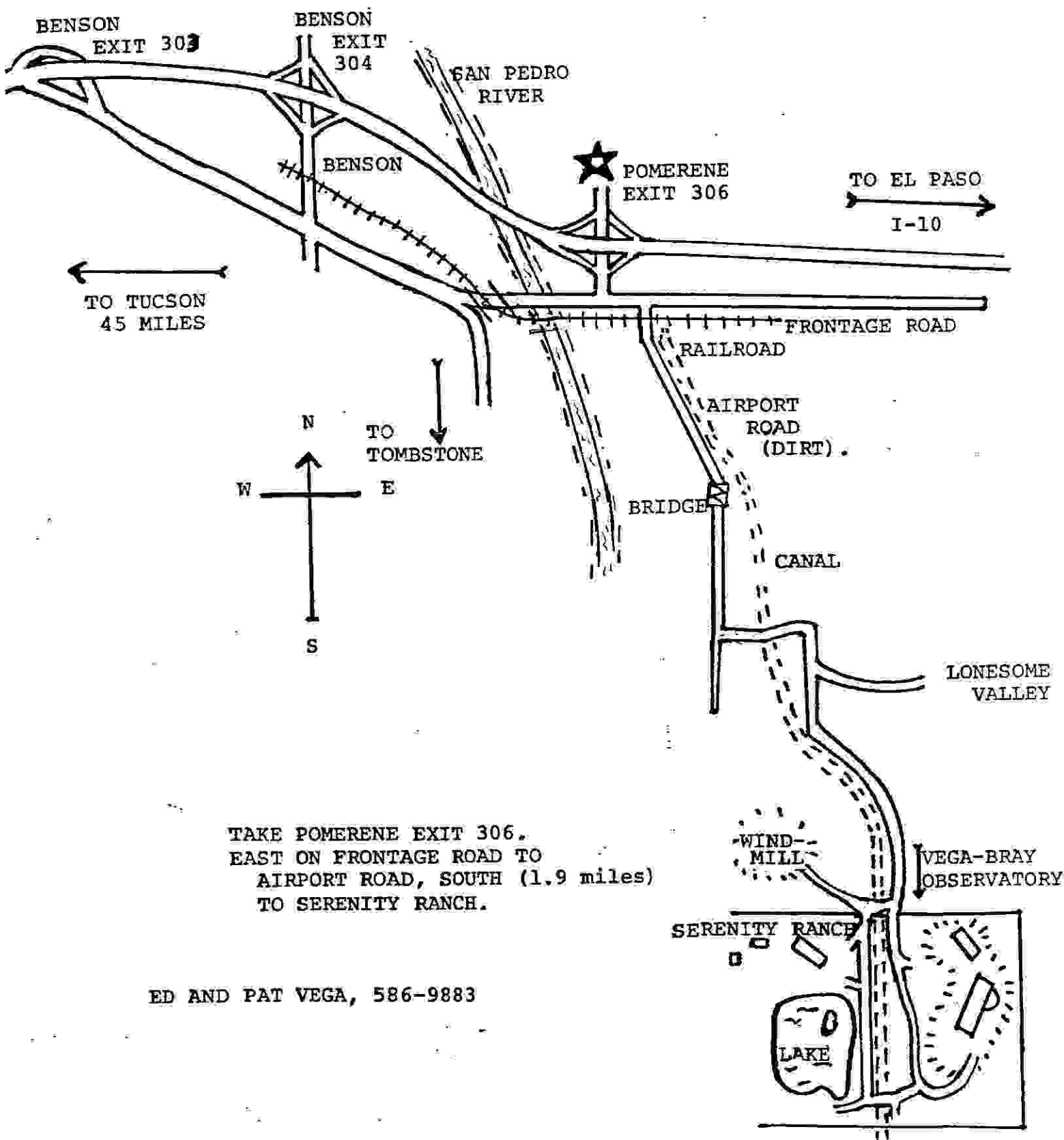
- S Jun. 1 Dedication of Lick Observatory, 1888
- S Jun. 2 Moon passes 2° N of Saturn, 7am
- M Jun. 3 Tau Heculid meteors, slow, ZHR 15-18
- T Jun. 4 Mercury 5.4° S of the Pleiades, 14° from the Sun in the morning sky.
- W Jun. 5 Scorpiid meteors, radiant in sky all night
LAST QUARTER MOON, 8:31am
- T Jun. 6 1st humans to occupy space station, Soyuz 11, 1971
- F Jun. 7 TAAA General Meeting, Steward Obs. Auditorium, 7:30pm,
Ron Hubbard - National Solar Obs. on solar oscillations
- S Jun. 8 TAAA Star Party, Empire Ranch
Librid meteors, seen only in 1937, radiant in SE Libra,
ZHR may be 10
Mars at aphelion, 1.6660au from Sun, 6pm
- S Jun. 9 Mercury 5.3° N of Aldebaran, 11pm
- M Jun. 10 Mercury at ascending node through ecliptic plane, 10pm
- T Jun. 11 Vega 1 arrives at Venus, 1985
- W Jun. 12 NEW MOON, 5:06am, beginning lunation 847
Moon at perigee, 56.1 Earth radii, very high tides when
perigee coincides w/ new Moon
- T Jun. 13 The equation of time is 0, 3pm
Venus is at greatest elongation east, 45.4° from Sun, 3pm
Mars 0.64° N of Jupiter, 10pm
- F Jun. 14 Moon at descending node (longitude 109.1°), 1:35am
Alpha Scorpiid meteors, some fireballs, ZHR 5
Earliest sunrise, 5:17am
- S Jun. 15 TAAA Annual Picnic, Vega-Braye Obs, 4pm, bring your
telescope! See map elsewhere
Moon passes 4° S of Venus, 1pm
Mercury at perihelion, .3075 a.u. from Sun, 2pm
Moon passes 3° S of Jupiter, 3pm
Moon passes 4° S of Mars, 5pm
Close grouping of Venus, Jupiter and Mars
June Lyrid meteors, ZHR 8-10, peak 8pm
- S Jun. 16 Mercury at superior conjunction w/ Sun, passing into
evening sky
- M Jun. 17 Venus 1.2° N of Jupiter, 4pm
- T Jun. 18 FIRST QUARTER MOON, 9:19pm
- W Jun. 19 Leslie Peltier visually discovers Nova CP Lacertae, 1936
- T Jun. 20 Ophiuchid meteors, ZHR 8
- F Jun. 21 Summer Solstice, 2:20pm
- S Jun. 22 Pluto's moon Charon discovered by James Christy, 1978
- S Jun. 23 Venus 0.26° N of Mars, 5am
- M Jun. 24 Fred Hoyle, English astronomer, born 1915
- T Jun. 25 Mercury at greatest latitude N of the ecliptic, 7° , 7pm
- W Jun. 26 FULL MOON, 7:58pm, penumbral eclipse
- T Jun. 27 Moon at apogee, distance 63.7 earth-radii, 12am
Moon passes 0.3° S of Uranus, 10am
Moon passes 1.1° S of Neptune, 5pm
- F Jun. 28 Moon at ascending node, (longitude 288.9°), 12:15am
- S Jun. 29 Moon passes 2° N of Saturn, 11am
- S Jun. 30 Mercury 4.8° S of Pollux, 3pm



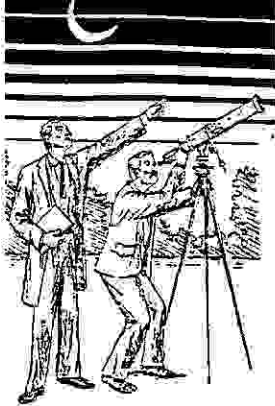


SERENITY RANCH AND BIOCHEMICALS

VEGA-BRAY OBSERVATORY



ED AND PAT VEGA, 586-9883



Astronomy Lifestyles: Health Care

An observer's physical condition is just as important as the condition of his or her equipment. Carrying out an observing program or doing routine planetary observing can be a real test of endurance for those who work during the day, take care of families in the evening, and try to get out to observe at night. These late night excursions can wreak havoc on our daily routines and place extra stress on our minds and bodies. There are several things you can do to improve your endurance and make observing more enjoyable.

A good start is a simple exercise program. If at this point you're considering saying, "I'm too tired for astronomy and I'm too tired for exercise", please don't. People who are in good physical condition tend to be more active and are able to remain so for longer periods of time. Pick something that fits into your daily routine and stay with it.

Along with exercise, you might want to improve your diet. The types of foods you eat have a lot to do with energy levels in your body. Vitamin and mineral supplements are also a good idea. Under stressful conditions your body becomes depleted of important nutrients. The immunity system also weakens during such times and you become more prone to illness.

There are negative affects on ourselves and, therefore our astronomy, from the use of sugar and caffeine as stimulants. Sugar gives quick boosts but they're followed by big letdowns as blood sugar levels go on roller coaster rides. Caffeine will certainly keep you awake but quality observation requires more than just being awake. The promotion is well made for dark adaptation and the need for the observer to be relaxed and comfortable. Caffeine works by stimulating the central nervous system and the heart and by constricting blood vessels which raises blood pressure. An observer with a hyper nervous system would appear to be ill-matched to the process of visual observation. Patience at the eyepiece and continuity in the nervous system are synonymous with good observing. If alcohol and smoking are to be avoided because they reduce oxygen levels in the blood system, why should we use a stimulant that is known to constrict blood vessels. I don't remember ever doing a satisfying drawing under the stimulus of caffeine. Observational astronomy is a passive activity in which results come from observing delicate and subtle features, not in scoring touchdowns.

There are substitutes for both the use of sugar and caffeine. In health food stores you can find such items as "power bars". These are similar to a candy bar but are filled with carbohydrates, vitamins, and minerals - all things the body needs to function efficiently. There are also numerous herbal energizers in capsule and liquid form. Some of the herbs in these are known to improve stamina and breathing capacity, thereby improving blood oxygenation. The herbal formulas work much smoother and you can bounce back easily. Since switching to these products, I don't find myself feeling burned out and exhausted the day after a big night of observing.

Our personal health care should not be considered a hobby separate from our astronomy. How well we take care of ourselves in the day can have as much affect on our observational capability as the telescope and techniques we use at night.

Michael E. Sweetman
SKY CREST OBSERVATORY



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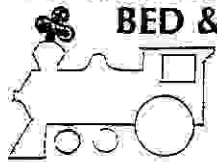
TS-24 is only offered as a site license:

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Crystal Lake Observatory
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CÉAD MILE FAILTE, an Irish Greeting-One Hundred Thousand Welcomes. . .

To the community of *Dragoon* named for the *United States Dragoons* who camped in the range during the 1850's. Two miles from the community lies the ruins of the *Dragoon Springs Butterfield Overland Stage Station*. And in the nearby *Dragoon* mountains, *Cochise Stronghold* holds the ghosts of the Apaches. Across this high desert rangeland runs the Southern Pacific railroad. ***Kelly's Whistlestop*** reflects the proximity to the S.P. line. Nestled between *Texas Canyon* and the *Dragoon* mountains, this B&B offers spectacular views, a temperate climate and the opportunity to enjoy country living.



Kelly's Whistlestop Bed and Breakfast is on 4 acres of land, elevation 4600 ft. The main house is a rammed earth passive solar structure. It is here in the dining room with 12 ft, high windows looking out to the mountains that your homemade breakfast is served. You are invited to sit in the living room with TV-VCR-Satellite or browse through the den-library. The B&B is a separate rammed earth structure consisting of two bedrooms; one with a queen size bed and the other with twin beds. The sitting area is warmed by a potbelly stove and offers a coffeemaker, refrigerator and sink for your convenience. The bathroom with shower is shared. A private sundeck and gas grill is available.

Information on restaurants and sightseeing available.

As a courtesy to all our guests, smoking is restricted to outside areas.

Children over 12 years of age are welcome.

Inquire about pets-dogs and cat are on the premises.

A corral is available if you wish to trailer your horse.

HOW TO FIND US:

From Tucson, take I-10 East, East of Benson as you enter *Texas Canyon*, take Exit 318, continue approximately 3 miles, a short right turn on Perry Road will lead you to ***Kelly's Whistlestop*** Sign and the rammed earth house on your right.

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This we want to share with you,

Katy & Jim Kelly
your hosts.

Reservations are not required but recommended

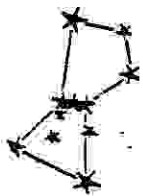
A deposit, 1/2 night lodging is requested. A refund is available with 3 day notice.

Check in 4-6 p.m. is suggested. Check out 12-1 p.m.

Price range \$45-55 with discount for longer occupancy.

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