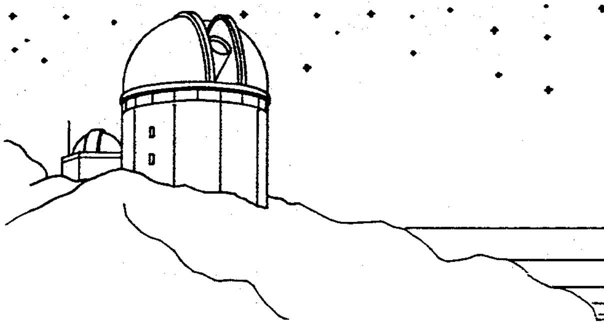
EPHEMERIS

OF THE SAN JOSE ASTRONOMICAL ASSOCIATION



JUNE 1987

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*        JUNE   6TH   8 PM                *
*          TOM GATES                      *
*     UFO'S - THE OTHER SIDE              *
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JUNE 6 UFO'S - THE OTHER SIDE WILL BE THE TOPIC OF THIS EVENINGS GENERAL MEETING FEATURING TOM GATES. 8 PM, LOS GATOS RED CROSS BUILDING.

JUNE 13 SJAA BOARD MEETING AT 7 PM, FOLLOWED BY THE INDOOR ASTRONOMY CLASS AT 8:30 PM. LOS GATOS RED CROSS BUILDING.

JUNE 20 FIELD EXPEDITION FOR ASTRONOMICAL OBSERVATION TO FREMONT PEAK. DUSK TILL DAWN

JUNE 27 FIELD EXPEDITION FOR ASTRONOMICAL OBSERVATION TO GRANT RANCH COUNTY PARK. DIRECTIONS INSIDE.

JULY 11 SJAA BOARD MEETING AT 7 PM, FOLLOWED BY THE INDOOR ASTRONOMY CLASS AT 8:30 PM. LOS GATOS RED CROSS BUILDING.

JULY 18 ANNUAL SJAA MEMBERSHIP PICNIC AT GRANT RANCH COUNTY PARK. NOON TILL ? BAR-B-Q PICNIC WITH STAR PARTY TO FOLLOW IN THE EVENING.

JULY 25 FIELD EXPEDITION FOR ASTRONOMICAL OBSERVATION TO FREMONT PEAK STATE PARK. DUSK TILL DAWN.

FIELD OF VIEW
BY: JOHN GLEASON

JUNE 6TH GENERAL MEETING

Our guest this evening will be Tom Gates whose topic centers around the subject of UFO's. Tom Gates is a well known and I might add an excellent speaker who has worked as planetarium program director at both the De Anza college and Morrison planetariums. (I believe that Tom still holds a position at the California Academy of Sciences) Unlike past UFO talks, this should prove to be a most informative if not entertaining evening. 8 PM Los Gatos Red Cross building.

July 18TH DATE SET FOR ANNUAL SJAA PICNIC

Ooooops, last month's Ephemeris picnic date was incorrect. The annual picnic will be held on Saturday, July 18th at Grant Ranch County park. Beginning at around noon we well be picnicing in the Rose Garden area next to the Ranger's house. Hamburgers, buns, condiments will be provided by the SJAA. Typically in the past, members have brought a hot or cold dish to share. A star party is planned to follow in the evening so bring your telescope. The picnic is always a festive event, and I encourage members to attend.

YOSEMITE GLACIER POINT STAR PARTY

In this month's Ephemeris you will find a handy registration form for this year's Yosemite camping trip. If you plan to attend, please fill out the form and mail it to your editor (address is on the back of the form). I must add that the camping trip/star party is not limited to 30 persons. We are just

limited to 30 persons camping for free in the group campsite. All others must make their own arrangements to secure additional camp sites in the Bridalveil Creek Campground. Those individuals in excess of the 30 person maximum will be contacted if I receive your registration form too late for the group campsite.

In the past this has been a wonderful weekend of sharing astronomy with a number of international guests as well as enjoying the dark skies of Yosemite. The park staff is asking that there be at least 1 telescope per vehicle so that we can accommodate a large number of guests. Last year we had over 400 visitors on Saturday night. We will be able to stay both Friday and Saturday nights, the Friday star party is unpublicized with Saturday billed as the "main event". The SJAA is also looking for someone to put on a slide show (about 20-minutes) that will start the observing session. If interested, please make a notation on the registration form. Amateur astronomers are asked to limit photography and personal observing until the public viewing is officially over at around midnight.

Telescopes are usually set up at Glacier Point between 7 and 8:30 P.M.. By special arrangements with the Park Ranger, you may be able to leave your telescope set up and aligned for both nights, but please check with the ranger upon arrival Friday evening. Usually we are asked to remove all equipment at the end of each observing session. We would also like to have 1 or 2 telescopes set up for solar observing during the day if possible.

During the day there are a multitude of activities that are available to everyone. Yosemite is a geologic wonderland with nature trails running throughout the park. Try a hike to the top of Sentinel Dome, or follow the trail out to the "fissures". Vernal and Nevada falls are wonderful half-day hikes. Because this trip is scheduled late in the year, the fire danger will no doubt be very high. Please, no smoking in the camping or in the star party areas.

TOOK TWO SHOTS, GOT NO DUCKS

At last month's Fremont Peak star party, I came across what appeared to be a set of three clacking duck feet. Yep, that's what they were. It seems that these "duck feet" were part of a bizarre tripod leveling scheme from our far east friends (?) at Takahashi. Here was just about the most totally useless telescope accessory that I have ever seen. I'm still laughing! Having all the appearances of 6-inch diameter duck feet, these oversized, hinged, cast aluminum plates were designed sit at the bottom of each tripod leg. Several hundred turns on the leveling screws only allowed for about 3/4" of leveling adjustment. I guess that the idea here is to begin your adjustments with the telescope already on a level surface.

The original tripod was designed without any leveling adjustment, yet the manufacturer had provided a bubble level on the tripod head. Talk about building in your after-market accessories! Clever people, these Japanese! The owner of the of these particular duck feet could not be found. Probably hiding out somewhere with a bag over his head in embarrassment. The last I had heard, the duck feet had flown back to Texas (Nautical) for the summer.

EMPLOYMENT OPPORTUNITIES

ORION Telescope Center is opening up a new astronomy store in Cupertino early this Summer. They are looking for full and part time positions as Customer Service Representatives. If you are interested, write to David English, Customer Service Manager, Orion Telescope Center, 421 Soquel Ave., Santa Cruz, CA. 95062.

GRANT RANCH STAR PARTIES

Once again the SJAA will be using Grant Ranch County Park as a close-to-home star party location. Located on Mt. Hamilton Road, take Hwy. 101 (any direction) to Alum Rock Road. Go east on Alum Rock and turn right onto Mt. Hamilton Road and follow it. As you decend into the first valley (Hall's Valley), Grant Ranch will be just a few hundred yards past the Quimby Road intersection. Watch for the entrance gate on your right. After sunset the parks front gate will be locked with the SJAA's combination lock. Use the sequence 4565 to open, but be sure to lock the gate behind you, coming or going. Follow the entrance road to the rear of the park. Here you will find a large, paved parking area where SJAA members have been allowed to set up equipment.

ASTRO ADS

FOR SALE: NEW C90 ASTRO TELESCOPE, complete with single arm fork mount, star diagonal, 2 eyepieces, 5 X 24 finder, dew shield. NEVER USED! Still in original shipping cartons. $400 or best offer. Contact: John Gleason 415-792-8248

YOSEMITE GLACIER POINT STAR PARTY -- SJAA CAMPING REGISTRATION FORM

Dear Members,

On the August 22nd weekend, the San Jose Astronomical Association has been invited to Yosemite National Park to present an evenings viewing and observation for park guests. The Park offers this opportunity to us to share our astronomical expertise under some of the most favorable observing conditions in California.

As coordinator of this years Glacier Point Star Party, I am asking that each participant complete and return this form to me, John Gleason. Everyone is invited to attend, but free camping space has been reserved for our group for no more than 30 persons in the Bridalveil Creek Campground. Sites will be in the group camp and will be available on Friday and Saturday night. If you wish to come earlier or stay longer, you will need to purchase a campsite. This is also true for persons in excess of the 30 which can be accommodated in the group camp.

Those in attendance are obliged to comply with a few rules set up by the park staff.

* A maximum of two adults per telescope.
* At least one telescope per car.
* No camping or sleeping at Glacier Point or in the parking lot.
* All vehicles are to be removed from the observing area after off-loading equipment at the observing site.

Name(s)_____

Address_____

Number of Persons in attendance (include any children)_____

Number of telescopes_____

Tentative arrival (day and time)_____

Signature_____

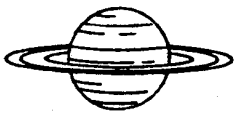
Telephone number_____

As verification of your registration, I will mail to you guidelines for participation. If the 30-person maximum has been reached, I will call you so that you can make arrangements to reserve a campsite outside of the group area.

San Jose Astronomical Association
3509 Calico Ave.
San Jose, CA. 95124

San Jose Astronomical Association
c/o John Gleason
5361 Port Sailwood Dr.
Newark, CA. 94560

THE CELESTIAL TOURIST SPEAKS
BY: JAY REYNOLDS FREEMAN



I had my first view through Kevin Medlock's magnificent 30-inch Newtonian, at the Fremont Peak Observatory Association site, a month or two ago. I had several immediate impressions of what was different on such "big iron", compared to the way we usually do things on smaller instruments.

To begin with, the view was marvelous. The instrument was loafing, running at a very low power under an only moderately dark and transparent sky, yet was substantially outperforming all the "small" 12- to 18-inch instruments that I have encountered. That is of course to be expected: Given good optics and reasonable conditions, large aperture is better than small aperture.

On that night, the observers were using an often-forgotten optical solution to part of the problem of finding objects in a large telescope: They were using an eyepiece whose focal length is too long for normal use with the instrument -- one that produced an exit pupil too large for the normal human eye. At f/4.7, this instrument should not normally be used with an eyepiece of longer focal length than about 32mm, and a more realistic low-power eyepiece might be a 20 or 25mm one. However, longer focal length eyepieces have bigger front lenses, and take in more of the sky. The 50mm Plossl that was in use, had almost twice as large a field of view as (eg) a 20mm Erfle, and was great for locating things.

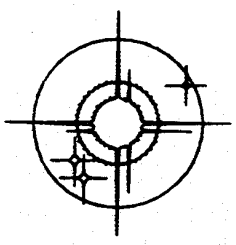
It seemed difficult to run the telescope with fewer than two people. The most useful finders were near the mirror cell, far from the main eyepiece. And the observer, precariously perched high on a ladder, was not in any case well situated to heave and push on the tube. It would in principle have been possible for one person to center an object in the large finder, then climb up the ladder to see if it was indeed in the eyepiece, but to do so would have taken a lot of scrambling around.

There ought to be a better way to do this. Owners of big Dobsons are generally resigned to climbing and pushing, but a driven and permanently mounted telescope has the opportunity to provide something more convenient. I'm sure there will eventually be a control paddle for slow motions on both axes, and I suspect the Association will put some handier finders at the upper end of the tube. But the main problem is the ladder itself. When I had to move the upper end of the tube more than about six inches, I generally wanted to climb down and reposition the ladder for greater stability. When you are twelve feet up on something rickety, there is no great temptation to lean! Even the distance between eyepiece and nearby finder is sometimes a little intimidating.

The right solution would be a powered observing chair with four degrees of freedom, namely horizontal motion (which is two degrees of freedom), height, and rotation about the vertical axis. Doing it right is probably expensive and clumsy, but there is plenty of opportunity for design ingenuity in figuring out a compromise solution.

Or maybe Kevin will get around to putting in the Cassegrain focus position.

Editor's note: You're right about the rickety ladder Jay, I hate it. Soon a new observing platform will be built, but I'm afraid that it will have a design leaning toward handling large groups of people instead of a fine adjustable observing chair as suggested. The telescope could indeed use a pair of finder scopes near the focusers. If anyone would like to donate a pair of finders for this specific purpose they should get into contact with Kevin Medlock or any of the FPOA Officers and Directors. -- JG



COMET COMMENTS
BY: DON MACHHOLZ

Three faint comets have been recovered recently. I'll also include notes on comet 1987h, which I forgot to report last month. Meanwhile, three bright comets grace our skies while Halley's comet continues to fade in the evening.

Comet connoisseurs will be interested in subscribing to the Comet Rapid Announcement Service (CRAS). Distributed bi-monthly are daily positions for comets and other solar system objects. Special notices are published upon discovery of comets brighter than magnitude 11. To subscribe, send legal-sized SAES's to " S. M. Smith/ (CRAS), 3701 W. 143rd St., Apt. 36, Cleveland, OH. 44111-3216

Periodic Comet Howell (1987h): A. C. Gilmore and P. M. Kilmartin of Mt. John Univ. Observatory in New Zealand recovered this comet on Mar. 6. Then at nuclear magnitude 18, the comet will brighten by perhaps five magnitudes over the next few months. It was closest the sun (1.61 AU) on Apr. 14 and has an orbital period of 5.9 years.

Periodic Comet d'Arrest (1987k): K. J. Meech and D. C. Jewitt recovered this comet from Kitt Peak on Mar. 31 at a very faint nuclear magnitude 23. It should be getting much brighter as it will be closest the sun in early 1989.

Periodic comet Reinmuth 2 (1987L): This comet was recovered on Apr. 11 at nuclear magnitude 19 by J. Gibson at Mt. Palomar. This return of the 6.72-year comet is favorable, but the comet is not expected to get brighter than mag. 13.

Periodic Comet Brooks 2 (1987m): A few hours later, Gibson also recovered this object at about the same brightness. This comet might reach mag. 12 by the end of the year.

EPHEMERIDES

DATE	R.A. (1950)	DEC	ELONG	MAG.	NOTES
			Comet Sorrells (1986n)		
05-25	22h 57.7m	+12° 17'	73°	9.8	We now know that this comet is in an
05-30	22h 49.5m	+12° 17'	80°	9.8	elliptical orbit, it will return in
06-04	22h 39.8m	+12° 12'	86°	9.7	39,430 years. It passes one degree
06-09	22h 28.4m	+12° 00'	93°	9.7	south of the star Enif on June 24 as
06-14	22h 15.0m	+11° 39'	101°	9.7	it moves through the morning sky.
06-19	21h 59.5m	+11° 08'	109°	9.7	At the beginning of June, Comet
06-24	21h 41.8m	+10° 23'	117°	9.6	Sorrells will be 180 million miles
06-29	21h 22.0m	+09° 22'	126°	9.6	from both the earth and sun, moving
07-04	21h 00.3m	+08° 06'	135°	9.6	at 18 miles per second.
			Comet Nishikawa-Takamizawa-Tago (1987c)		
05-25	18h 49.7m	-43° 42'	139°	6.9	Comet N-T-T is brighter than I had
05-30	17h 14.0m	-44° 16'	155°	7.1	suggested, as these updated magnitude
06-04	15h 52.1m	-40° 27'	159°	7.5	estimates show. It is moving away
06-09	14h 56.8m	-35° 07'	150°	8.0	from both the earth and sun after
06-14	14h 22.0m	-30° 15'	139°	8.5	passing 51 million miles from us in
06-19	14h 00.0m	-26° 24'	129°	9.0	late May. It is now in the evening
06-24	13h 45.3m	-23° 28'	121°	9.5	sky, starting the month in the Milky
06-29	13h 35.7m	-21° 14'	113°	9.9	Way and ending up among the galaxies.
07-04	13h 29.4m	-19° 33'	107°	10.3	Its orbital period is 3,214.4 years.
			Comet Wilson (1986L)		
05-25	08h 25.3m	-23° 34'	78°	5.8	After attaining naked-eye visibility
05-30	08h 32.4m	-18° 41'	73°	6.2	to Southern Hemisphere observers,
06-04	08h 38.2m	-14° 57'	69°	6.6	this comet moves nearly due northward
06-09	08h 43.2m	-12° 02'	64°	7.0	into our evening sky. On June 4
06-14	08h 47.7m	-09° 43'	60°	7.3	Comet Wilson will be 129 million
06-19	08h 51.9m	-07° 51'	55°	7.6	miles away from both the sun and us,
06-24	08h 55.8m	-06° 20'	51°	7.9	with both distances increasing.
06-29	08h 59.5m	-05° 04'	47°	8.2	This should be an easy binocular
07-04	09h 03.1m	-04° 01'	43°	8.4	object-get out and see it now.
			Periodic Comet Halley (1982i)		
05-25	09h 45.3m	-05° 04'	88°	13.7	Now fading in the western sky after
05-30	09h 45.6m	-04° 50'	83°	13.8	sunset, the curtain closes on visual
06-04	09h 46.1m	-04° 37'	79°	13.8	observation of this comet by most
06-09	09h 46.8m	-04° 28'	74°	13.9	amateurs. Halley's is 6.0 AU (over
06-14	09h 47.7m	-04° 20'	70°	14.0	one-half billion miles) from the sun,
06-19	09h 48.8m	-04° 14'	65°	14.0	and is still active-a one-magnitude
06-24	09h 50.1m	-04° 10'	61°	14.1	outburst occured in late April. For
06-29	09h 51.5m	-04° 08'	57°	14.1	2000 coords, add 2.5 min. to RA and
07-04	09h 53.0m	-04° 07'	53°	14.2	subtract 15' from Dec.

SEEKING COMETS

Here are some exceptions to the "rules" of naming comets.

If Smith discovers a comet that proves to be periodic (orbital period of fewer than 200 years), it is known as Periodic comet Smith. If he discovers another periodic comet, then his first one becomes Periodic comet Smith 1 and his second becomes Periodic Comet Smith 2.

If a husband and wife team discover a comet, are both of their last names used? No. As an example, when Eugene and Carolyn Shoemaker find a comet, it is simply named Comet Shoemaker, not comet Shoemaker-Shoemaker.

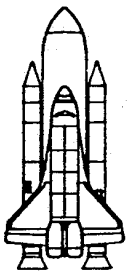
A hyphen (-) is used in a comet's name to separate the discoverers. Sometimes, however, the discover has a double name, so the hyphen is dropped form the comet name to show only one discoverer.

For example, last year Stephen Singer-Brewster discovered a comet. It is known as Comet Singer Brewster. In 1926, Josep Comas Sola (correct spelling) found a short-period comet now known as Periodic Comet Comas Sola. In 1968, John Bally-Urban and Patrick Clayton found a comet. Bally dropped the last part of his name so the comet is known as comet Bally-Clayton.

George van Biesbroeck's comets are called Comet van Biesbroeck. Similar Treatment is given to comets found by Robert Van Arsdale, H. Van Gent, and C. van Houton. Sidney van den Bergh's comet is known as Comet van den Bergh.

D. du Toit's comets are known as Comet du Toit, with similar usage for comets found by R. de Kock and Francesco de Vico. The famous periodic comet found by d'Arrest is known as Periodic Comet d'Arrest.

SPACE PROGRAM UPDATE
BY: BOB FINGERHUT



SPACE SHUTTLE RECOVERY EFFORT IS PROGRESSING

The redesign of the Shuttle solid boosters is complete and several of the new features have undergone sub-scale testing. The first full-scale firing is scheduled for May. The resumption of flights has been changed by NASA to April 1988 due to the addition of a tank test and a flight readiness firing. A recent government and contractor management assessment has predicted that NASA will not be ready until September 1988 though.

SPACE STATION PROGRAM IS SHAKY BUT STILL ALIVE

Another power play by the Department of Defense, on the eve of negotiations with the international partners, almost caused the withdrawal of the Euorpeans, Japan and Canada from the program. Negotiations were put off until May. On April 16th a meeting was held between NASA, the State Dept. and the Defense Dept. The Defense Dept. backed down because NASA threatened to go to the President if the military held firm on its demands. Many people feel that this issue is not over yet. In the mean time, on April 24th, NASA issued requests for proposals for space station hardware after reaching agreement with Congress to make several station program changes, including an upgrade in electrical power from 50 to 70 Kw early in the project. The deployment of the station was also accelerated by about 6 months. First element launch is now targeted for January-March 1994, with man-tended capability scheduled for January-March 1995, and permanently manned capability in the fourth quarter 1995.

THE VALUE OF MAN IN SPACE IS PROVED AGAIN

The first attempt on April 5th to dock the Kvant x-ray astrophysics module with the USSR's MIR space station was not successful. A second attempt on April 9th resulted in a docking but electrical connections were not made. On April 12th, two cosmonauts took a space walk to fix the problem. They manually separated the two spacecraft by about a foot and removed a small white bag that the ground crew had forgotten to remove. the docking was the then completed. A Progress resupply tanker has since docked with the Kvant module, making the first 4-vehicle hookup on space.

U.S. AND USSR HAVING LAUNCH PROBLEMS

An Atlas Centaur launch of a Fleet Satellite Communications spacecraft failed when the booster was hit by lighting on March 26th. The soviets lost a Proton booster with 3 large navigation satellites on April 24th. It was the second

time in three months that the Proton, the world's largest operational booster has failed. The problem is with the fourth stage.

FIRST NAVSTAR SATELLITE DELIVERED

The first Navstar global positioning system satellite has been delivered to the Air Force. It will be stored until the new Delta 2 booster is available in Oct. 1988

AN OVERVIEW OF OBSERVING SITES
BY: DON MACHHOLZ AND RICH PAGE

Are you looking for a small site, not far from San Jose, with very little traffic? Then this one is for you! It is above the Lexington Reservoir, on a small, one-laner called Weaver Rd.

This is 15.7 miles *30 minutes) from the intersection of Blossom Hill Rd. and Camden Ave. You then take Hwy. 17 south to Alma Bridge Rd., and turn left here. After winding part way around Lexington Res. for 3.2 miles, you get to Soda Springs Rd. Turn left here. Follow this curvey, sometimes narrow road for 4.0 miles. At this point you'll notice a small road called Weaver road on your right. Take it. Although there are a few places along this road on which to set up a telescope, the place we visited in the largest turnout, 0.84 miles from the beginning of the road. If you continued another 1.0 miles you'll get to the end of the road and the only house you're likely to see up here.

Our site is small, measuring about 45 feet E-W by 50 feet N-S. The surface consists of small rocks and packed dirt. It is not level, falling slightly to the north, where Weaver Rd. marks the boundary. To the south is a dirt road, cabled-off. In all, about five vehicles and telescopes can fit here.

The horizon is flat from the NW through the west and to the SSE with the exception of a small hill 70-yards to the west. (You could drive up this hill but it's barely large enough to fit a small car.) The horizon gradually rises due to a ridge in the east, reaching its highest point of 25 degrees in the ENE. By setting up your telescope in various parts of the site you can change your local horizon by only a few degrees.

This site sits at about 1600 feet elevation. This is above the haze in Santa Clara Valley, but not always above the low clouds which form after midnight. Wind could be a problem, especially if it rushes out of the NW, as it sometimes does. Light pollution is strongest in the NW-NE in the direction of San Jose. The Milky Way is plainly visible, and the limiting naked-eye magnitude is about 5.8. A fair number of aircraft are visible, especially to the west.

Recently we were at the site for three hours and only two cars came by. This is the least amount of traffic you're likely to find at any public observing area. While we saw no animals on Weaver Rd., on Soda Springs Rd. we passed by a couple of baby (wild) pigs and a deer.

You have probably seen darker skies than these, yet considering the short commute time and the quietness of Weaver Rd., this might become one of your favorite sites.

SJAA MEETING AND STAR PARTY LOCATIONS

GENERAL MEETINGS

Once a month the SJAA holds a General Meeting at the Los Gatos Red Cross building in Los Gatos California. The large meeting room has kitchen facilities and large slide projection screen. This is also the location for the SJAA's "Indoor Star Parties", informal sessions where members gather to share their astronomical interests. Whatever your interest, astrophotography, deep sky observation, telescope making, or just arm chair observing, you'll find a friendly atmosphere at all of our meetings.

The Red Cross building is located at 18011 Los Gatos-Saratoga Rd. From Hwy 17 take the Hwy 9 (Saratoga) exit and continue west up the Los Gatos-Saratoga road for about 1.5 miles. Turn right at Rose Ave. Then turn right immediately into the parking lot of the Red Cross building. Doors open at 7:45 PM, with General meetings beginning at 8 PM. General Meetings are held on the 4th saturday of each month.

INDOOR STAR PARTIES

Each month there are several saturday evenings set aside for informal gatherings of amateur astronomers to share their common interest in astronomy, to "talk shop", or to simply enjoy the company of friends. Members are encouraged to bring in telescopes and accessories to share with the group. Typically there will be several telescopes operating in the parking lot or there will be a slide show of recent astrophotography and star party events in progress in the meeting hall. The SJAA also holds it board meetings during this time as well as an introductory astronomy workshop that is conducted once a month. Indoor Star Parties are held at the Los Gatos Red Cross Building.

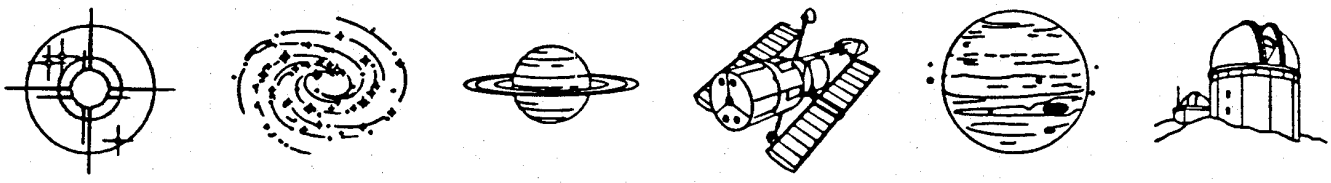
HENRY COE STATE PARK

Take Hwy 101 south towards Morgan Hill and take the East Dunne exit. Continue east towards the hills (around and past Anderson Reservior) for about 12 miles to the park. Past the park entrance you will see old ranch type buildings on the right and a horse trough. The gate (on the left) is locked but the club combination is 4565. Always lock the gate after yourself. If arriving after dark, please park outside the gate and hike in first to find an observing site before dark, please. Just a short distance up a hill beyond the gate is where the SJAA sets up equipment.

FREMONT PEAK STATE PARK

Take Hwy 101 south towards Salinas. Then take Hwy 156 east (San Juan Bautista exit) for two miles to a yellow flashing light. Turn right and go about 1/4 mile to where the road reaches a "Y". Stay left for about 25 yards and then go right. (Watch closely for the Fremont Peak sign) Follow the canyon road for about 11 miles up into the park. The SJAA sets up in Coulter Camp. It's visible on your right as you drive up onto the main area of the park. There is usually a lot of astronomical activity here every clear new moon weekend. This is also the location of the FPOA's public observatory. Fremont Peak stands 3000 ft above sea level. Arrive early if you are setting up equipment. 30 to 40 telescopes are not uncommon at Fremont Peak.

EPHEMERIS is published monthly by the San Jose Astronomical Association, 3509 Calico Ave., San Jose California 95124. Contributors are welcome to submit articles for publication. These should be typed and submitted no later than the 12th of the previous month. All submissions should be sent directly to the editor, John Gleason, 5361 Port Sailwood Dr. Newark, CA. 94560.



SAN JOSE ASTRONOMICAL ASSOCIATION MEMBERSHIP APPLICATION

MEMBERSHIP ONLY: $ 10 MEMBERSHIP/S&T: $ 24.00 JUNIOR (UNDER 18): $ 17.00

Name _____

Address _____

_____

Telephone (____) _____

Please bring this form to any SJAA meeting, or send to:

Jack Peterson, Treas.
San Jose Astronomical Association
1840 Yosemite Dr.
Milpitas, CA. 95035

[Phone: (408) 262-1457]

Please check type of membership and if new or renewal.

Membership Only____ Membership/S&T____

Junior (Under 18)____

New____ Renewal____

Questionnaire (optional)

What are your astronomical interests (e.g. astrophotography, deep-sky observation, telescope making, etc.)? _____

_____

_____

_____

Do you own a telescope? _____ If so, what kind?

_____

Is there any specific area of astronomy that you feel qualified to help others with? _____

_____

_____

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