

# EPHEMERIS

OF THE SAN JOSE ASTRONOMICAL ASSOCIATION.



## APRIL 1988

\*\*\*\*\* APRIL 2ND 8 PM \*\*\*\*\*

\* DR. MARTIN WALT \*  
\* "PROSPECTS FOR THE U.S. \*  
\* SPACE PROGRAM" \*

- APRIL 2 GENERAL MEETING 8 PM. DR. MARTIN WALT, DIRECTOR OF RESEARCH AT LOCKHEED'S PALO ALTO RESEARCH LABS: PROSPECTS FOR THE U.S. SPACE PROGRAM.
- APRIL 9 FIELD EXPEDITION FOR ASTRONOMICAL OBSERVATION TO FREMONT PEAK STATE PARK. DUSK TILL DAWN.
- APRIL 23 ASTRONOMY DAY. PUBLIC STAR PARTY TO BE HELD AT BRANHAM LANE PARK, 4 TO 10 PM.
- APRIL 30 BOARD MEETING AT 6:30 PM. INTRODUCTORY ASTRONOMY CLASS AT 8:00. NOTE THAT IS THE 5TH SATURDAY; THE CLASS WAS MOVED DOWN TO ACCOMMODATE ASTRONOMY DAY.
- MAY 7 8TH ANNUAL ASTRONOMICAL AUCTION. THIS YEAR WILL FEATURE A FLEA MARKET DURING THE AFTERNOON, SILENT AUCTION FOR LARGE OR SPECIALIZED ITEMS, AND THE TRADITIONAL AUCTION IN THE EVENING. MORE DETAILS INSIDE.

### FIELD OF VIEW BY: JOHN GLEASON

#### APRIL 2ND GENERAL MEETING

Please join me in welcoming as this evenings speaker Dr. Martin Walt. Dr. Walt is director of Lockheed's Palo Alto research labs. With the Space Shuttle due to launch late this year, interest in the "new" U.S. space program will no doubt become a major media topic in the months to come. What are the future prospects for the United States in space? Are the Soviets really that far ahead? This interesting and informative presentation should answer a lot of our questions concerning the uncertain future of America in space. 8 PM, Los Gatos Red Cross.

#### BOARD ELECTIONS!

Board Member elections were held during the March General meeting. Your new Board Members are: Connie Fleenor and Brian Zehring. Both replace Bob Fingerhut and Joe Sunseri who have resigned their board positions. Re-elected were: Jack Peterson and Gene Cisneros.

#### ASTRONOMY DAY!

Come and join the SJAA on April 23rd for national Astronomy Day. This year the SJAA will set up telescopes for the general public at Branham Lane community park in south San Jose. Program will run from 4 to 11 pm. Contact Tom Ahl or Jim Van Nuland for additional program details. This is a good opportunity to show-off your astronomical expertise, and turn others onto Astronomy!

#### 8TH ANNUAL ASTRONOMICAL AUCTION

The 8th annual Astronomical Auction will be held on May 7th at the Red Cross building in Los Gatos. Enclosed in this months Ephemeris you will find a flier describing all of the final details of the auction. As in the past, early registration will certainly save a lot of confusion and reduce the last minute

rush that always occurs on auction day. Follow the directions on the back of the flier and mail your registration information directly to Jim Van Nuland.

The auction is a major bay area astronomical event, often with several hundred people in attendance. What will you find at the auction? Telescopes, mountings, tripods, eyepieces, lenses, mirror making kits, astrophotography equipment, and many, many, miscellaneous astronomical items.

#### OOPS!

It looks like the A-K portion of the membership list published in last months bulletin did not get printed. You will be happy to know that both the printer and the proof reader have been vaporized. You will find the A-K copy in this months issue.

#### ASTRO ADS

NOVICE ASTRONOMER is looking for a used Schmidt-Cassegrain telescope with tripod, wedge, and standard accessories. Must be at least 8" in aperture and in mint condition. George Falotico, 408-438-2142 evenings and weekends. 3/88

C90 SPOTTING SCOPE (orange) in mint condition with case. Included with scope are star diagonal, 12, 18, and 30mm eyepieces. Also: porro prism, barlow lens and 9-21mm zoom lens eyepiece. Plus; Celestron photographic tripod. Best Offer! Contact: Hal Zangari, 415-365-1843. 3/88

WANTED: Did you photograph comet Bradfield in October during its close encounter with M10? If so, I would like to speak with you about obtaining a copy of your photographs. Please call George Falotico at 408-226-5575 evenings and weekends. 3/88

76MM REFRACTOR with 1250mm focal length, equatorial mount, 4,6,& 20mm eyepieces with sun & moon filters, tripod, barlow lens, erecting prism, storage box. Asking \$90. Contact: Byron Ryono (415) 949-4470 2/88

FIRST SCOPE 80 Refractor. 80mm aperture, 910mm focal length (39 inches long). 26mm 1.25" ocular with diagonal. Sturdy wooden tripod with alt-azimuth adjustment. Like new! Asking \$299 or best offer. Phone: "Al" 408-267-9432 or leave message. (San Jose) 2/88

MINT CONDITION CELESTRON Super C8 Plus with Starbright coatings and all factory accessories, including wedge and field tripod, carrying case, 8 x 50 polar alignment finder scope, two eyepieces, piggyback mount, etc. Additional accessories include: Celestron quartz dual axis drive corrector, declination motor, dew shield, counterweight set, off-axis guider and Jim's Mobile electric motofocus. Asking \$1500. Contact: Bob Mein (408) 373-1965 days, (408) 649-0758 eves, weekends. 2/88

#### COMET COMMENTS BY: DON MACHHOLZ

Three of last month's comets have faded, leaving only Comet Liller brighter than magnitude 11. Three new comets have been found by professional astronomers, all are expected to main faint.

Comet Wilson, which was at naked-eye visibility last year at this time, has undergone a major change. Observations now show that the nucleus has split, the secondary portion appears nearby (12 arcseconds) and about two magnitudes fainter than the primary nucleus, which is stellar at mag. 17. Presently the coma of Comet Wilson is mag. 13.5 and it is nearly four hundred million miles away in the constellation Gemini. It has been determined that Comet Wilson split within a week of Aug. 31, 1987, more than four months after it was closest to the sun at 110 million miles. It is not known why an otherwise-normal comet would pick this late time and far distance to split up.

Comet Shoemaker (1988b): Carolyn and Eugene Shoemaker found this comet on photographic plates taken Jan. 23, it was confirmed three weeks later. This is their twelfth comet; once again they used the 18" Schmidt at Mt. Palomar. The comet is mag. 16 and was closest the sun at a distance 5.0 AU in March 1987.

Comet Maury-Phinney (1988c): Alain Maury and Jeff Phinney found this comet on plates exposed for the Palomar Sky Survey. At discovery (Feb 15) it was three degrees away from the location of the previous comet find, in Leo Minor. It was closes the sun late last year at 1.9 AU and mag. 16.

Periodic Comet Hartley 3 (1988d): Malcom Hartley found this, his eight comet, on plates exposed Feb. 19. We now know that it was closest the sun last Aug. at 2.4 AU and is now mag. 17. It will return in 6.8 years.

## Comet Liller (1988a)

03-25	00h 39.5m	+27°32'	27°	6.8	Comet Liller is technically in
03-30	00h 45.6m	+32°11'	29°	6.7	the morning sky, but polar pos
04-04	00h 52.8m	+37°02'	32°	6.6	-itions mean it's up all nite.
04-09	01h 01.6m	+42°06'	35°	6.6	At mid-month it's 85 million
04-14	01h 12.7m	+47°24'	38°	6.6	miles from the sun and twice
04-19	01h 27.6m	+52°55'	42°	6.7	that from the earth. It was
04-24	01h 48.3m	+58°36'	46°	6.8	closest the sun in late March
04-29	02h 19.1m	+64°19'	50°	6.9	so this month it may display a
05-04	03h 08.0m	+69°39'	54°	7.1	tail. It'll be visible in bin-
05-09	04h 27.8m	+73°47'	58°	7.3	oculars through May.

## SEEKING COMETS

Here's a few things I've learned about the press coverage following a comet discovery:

Members of the TV media seemed more competitive and unprofessional in 1978 than they did in 1985 and 1986. In the earlier years there was more a rush to cover the story in an entertaining way with little attention to the details. TV crews consist of three people: the reporter, the camera person and the sound person. For a live show there's a fourth person in their million-dollar van. Live shows are not rehearsed.

Acting skills are not required, but the TV crew usually asks you to pretend you're setting up to look for comets while they film you from all angles. Newspaper people usually conduct thorough interviews, as do the magazine reporters. Seldom, however, do they read their completed version back to you before publishing it. Also, if they want a picture of you- the smaller operations will ask you if you have any photos of yourself with the telescope, the larger publications send out a separate photographer at another time. This photographer wants you to wear your observing clothes on a hot afternoon and shoots 36 to 108 photos in about a half-hour. Every photographer wants to shoot a picture down the telescope tube while you're looking through the eyepiece. And while doing this they explain: "We want to be different than the other guys!"

Only about half of the interviews written by freelance writers ever get printed. Almost every article or new report contains at least one error.

While we're at it, let's debunk a few myths with more observations:

You do not get many pictures of your comet. I have two photos of each of my three comets, they're small scale astrometric shots.

Except for the comet award, (which I'll discuss next month), there is little money to be made in this hobby. Successful comet hunters are as poor as the average amateur astronomer.

Non-astronomical friends will not get up at 4 AM to see your comet.

When you find one comet people think it's probably an accident. After your second find they begin to think you're serious about comet hunting.

People don't recognize you as you walk down a street after finding a comet.

All in all, being practical-minded, I've found that much remains the same after a comet find. The experience could even disappoint those who were led to believe that finding a comet would lead them out of despair of just plain mediocrity to a life of fame and riches.

Actually, I like it better just the way it is.

## MARCH STARRY NIGHTS BY: RICHARD STANTON

METEORS - A minor visual shower, the Sigma Leonids, will achieve maximum this month on the 17th. The average speed of the meteors from this shower is around 20 km/s (some 44,000mph). As with all minor showers, the count per hour is very unpredictable. The Lyrids, a major shower, will reach maximum on the 22nd. The single observer hourly count is around 15 at maximum. The Lyrids are among the faster of the meteors, clipping along at about 48 km/s, approximately 107,000 mph. I wonder how much gas they burn up at that speed? (I know, I know...)

**DAYLIGHT SAVING TIME** - According to the Uniform Time Act of 1967 and a little helpful (?) legislation in 1986, it's time for us to gleefully "Spring Forward" an hour this month. ON the first Sunday in April, the 3rd, at 2 a.m. (that's 0-200 hours for your technical types) we're supposed to advance our clocks one hour. Of course this means that we can all spend Sunday and Monday being late for everything. Hey, let's all spend Sunday and Monday being late for everything. Hey, let's all get together at Denny's and Complain! To convert Universal Time to Pacific Daylight Time deduct 7 hours and correct that date as necessary. ON the other hand you could still deduct 8 hours and then spring forward 1. Or you could...

**GRAZES, OCCULTATIONS & APPULSES** - On April 23rd at 22:41 PDT the 7 day old moon with 51% illumination will occult Gamma Cancri, ZC 1308, a 4.67 magnitude star. The Lunar Dark limb will occult the star at Position Angle 108 degrees. The next day at 21:47 PDT, the 7.5 magnitude star ZC 1402 will graze the Lunar limb. Both of these events are well positioned for observation from the greater San Francisco Bay area.

**LUNAR FEATURES** - April brings the Lunar Sunset Terminator to the Straight Wall on the 10th at 00 hours UT and to the crater Plato two hours later at 02 UT. The 24th at 21 hours the Sunrise Terminator crawls across the Straight Wall and on the 25th at 01 hours will creep into the Plato crater. The night of the last Full Moon I was taking albedo measurements of Grimaldi & Riccoli, so where were you? I'll bet you can't guess which night last month has the best seeing conditions.

**VENUS** - This is a perfect month to launch a Venus Observing Program. The planet is riding high in the western evening sky and will achieve maximum altitude this month. Shining this month at magnitude -4.4 the planetary disc will grow from 22 arc seconds to 32 arc seconds in the latter days. The disc shows .5322 illumination in early April and by the end of the month will shrink to .3424 illuminations which should show some cut cusp views. Active planetary observers use everything from 60mm refractors and up through usually minimum aperture of 4 inches is best. Don't miss the fine article on the Venus Ashen Light Program in the March issue of Sky & Telescope.

**MINOR PLANETS** - April continues to be a good month for asteroid observing and photographing. Everybody should spend at least one session in their life trying to track down an asteroid.

04 VESTA - diam. 538 km, mag. 7.6, motion .27°

Apr. 08	R.A. 07:57,	Dec. +25:45
18	08:07	+25:19
28	08:18	+24:44

09 METIS - diam. 151 km, mag. 9.9, opp. 4-26

Apr. 09	R.A. 14:29,	Dec. -08:57
19	14:20	-08:22
29	14:10	-07:48

14 IRENE - diam. 158 km, mag. 9.5, motion .23°

Apr. 09	R.A. 11:40,	Dec. +19:19
19	11:35	+18:51
29	11:33	+17:56

**DEEP SKY** - Spring is a nice time of the year to visit with an old friend or make a new one. This month I'm going to travel to Coma Berenices and check up on the "Black Eye" galaxy. This is a spiral galaxy hanging out at some 20 to 25 million light years from us. Despite its distance it shines at magnitude 8.8 and shows an angular size of about 7.5 x 3.5 arc minutes. According to Burnham's the spiral arms show a smooth and uniform texture thinly defined by dusky bands. In the central hub of the galaxy a huge dust cloud appears to blot out the stars leading to the name "Black Eye". The visual observation of the central dark mass is controversial among various observers but should be

within the reach of a good 6 inch or larger. Using higher magnification than usual for deep sky objects may help to darken the field and increase the visibility of the "Black Eye".

### SPACE PROGRAM UPDATE BY: BOB FINGERHUT

#### PRESIDENT REAGAN'S NATIONAL SPACE POLICY RELEASED

The policy calls for NASA and other federal agencies to maintain a balanced program that will provide international leadership into the 21<sup>st</sup> century. The policy calls for manned flight "beyond earth into the solar system" but leaves it up to a future president to commit to a lunar base or manned Mars project. The policy calls for a technology development program called Pathfinder that would develop the technology needed to conduct these missions.

The policy states that the government will purchase "commercially available space goods to the fullest extent feasible" and will not conduct operations of its own that deter commercial space activities. In this area NASA has been directed to lease an orbiting space facility "suitable for research and commercial manufacturing that is financed, constructed, and operated by the private sector".

The policy also addresses remote sensing. It says that the U.S. will "encourage the development of commercial systems that image the Earth from space competitive with, or superior to, foreign-operated civil or commercial systems". This removes restriction limiting civilian image resolution to 10 meters, which had inhibited commercialization of Landsat type satellites.

#### SHUTTLE DISCOVERY IN PROCESSING FOR AUGUST LAUNCH

Reinstallation of thermal protection system tiles and blankets is almost complete. Oxygen propellant line disconnect actuator delivery was scheduled for March 11. Flight certification of the actuator is scheduled for early May. High-pressure fuel turbopumps for the main engines is scheduled for delivery March 25. Discovery is scheduled to be towed to the Vehicle Assembly Building on May 18 and rolled out to launch Pad 39B on May 24. A flight readiness firing of the main engines is scheduled for June 15.

#### SPACE STATION PARTNERS HEARING AGREEMENT

The European Space Agency (ESA) and Canada have reached an agreement on the interagency memorandum of understanding governing cooperation. Final details of the multilateral intergovernmental agreement is being worked out. No agreements have been reached with Japan and their badges for access to technical program information has been cut off.

#### ARIANE PUTS 2 SATELLITES IN ORBIT

An Ariane 3 was launched March 11 by the ESA. It carried 2 communication satellites to geosynchronous orbit.

#### JAPANESE ORBIT A COMMUNICATIONS SATELLITE

An H-1 booster was launched on February 19 placing its satellite into geosynchronous orbit.

#### NASA'S FY 1989 BUDGET REQUEST

President Reagan has submitted a budget request of 11.5 billion for FY 1989, an increase of \$2.5 billion over FY 1988. The request includes \$967 million to begin full-scale development of the space station, \$27 million to begin work on the Advanced X-ray Astrophysics Facility, \$100 million for the Pathfinder program to develop technology for future manned lunar and Mars missions, \$88 million to initiate development of an advanced shuttle solid rocket booster to increase payload by 15,000 lb, and \$10 million for development of an extended duration orbiter. The comet rendezvous - asteroid flyby spacecraft was not approved. Before you get too excited, you should know that outgoing presidents often propose high NASA budgets that the incoming president and congress will not approve. This is no exception.

#### BOOSTER FOR TITAN 4 TESTED

The second test of a seven segment strap on solid motor was tested Feb. 14 just south of San Jose California. Initial data showed that the test was successful but during disassembly it was found that parts of the carbon-carbon nozzle were missing. The problem is being analyzed. First launch of a Titan 4 was scheduled for late this year.

# SJAA 1987/1988 MEMBERSHIP ROSTER

WILLIAM E TOM	P.O. BOX 8664 1260 BUTTERFLY DRIVE 660 LOS TRANCOS ROAD	SAN JOSE PORTOLA VALLEY	NICK DANIEL C. GREGORY W.	SANTA CRUZ P.O. BOX 6161 41 VENTURA STREET
ALLAN DAVE & MARY	354 BLOCK AVENUE 711 RIVER FALLS DR.	SALINAS SAN JOSE	EDWARDS BOB	HALF MOON BAY 1282 PAMPAS DRIVE
JERRY & ELAINE PETE	1184 ABBOTT AVENUE 3005 BRENT COURT	MILPITAS SAN JOSE	EISELT JAMES	1562 PARKVIEW AVENUE 1948 PERONE CIRCLE
ROBERT L STEVEN T	4911 CAMDEN AVENUE 45580 PARKHEAD CT	PAUL GEORGE F	ENDS EVANS	20800 HOMESTEAD #16C 6639 HOUNDSHAW WAY
DAVID & ILENE KURT	451 MARIL WAY 1520 SANTA MARIA	HERMAN SAN JOSE	FALOTICO FERRIER	23533 TREVIEN TRAIL 1265 FARRINGTON DR
RICHARD PAUL	14666 BERRY WAY 1919 GARDEN DR #203	DAVID ROBERT	FERRY FINGERHUT	340 RIO VERDE PL #4 MILPITAS
JIM BARRY & CAROL	4804 ALVINA ROAD 11 W RIVERSIDE DR #14H	DAVID THOMAS E.	FRAYNE FREEMAN	4658 BURNISIDE DRIVE P.O. BOX 2779
TRUDY E. LOGAN M.	13201 NE SALMON CRK AVE 47 PETER COUTTS CIR	JAY RON	FRITZ GALLARDO	16300 OLD RANCH ROAD 536 WOOL DRIVE
RICHARD BILL	20433 MONTALVO ROAD 693 VALLEY WAY	RONALD M VICKY	GEDDES GENSLEY	PAC 0239 BX 37301 1571 DORCY LANE
BENRITTO BISHOP	1740 VALLEY VIEW 585 DARLTHOUT AVENUE	MIKE GILROY	GERMUND GIBBS	2242 LEVONE WAY 461 BURGESS DRIVE #6
JOSEPH ROBERT H.	BLACK BORUCKI	KENNETH B. H. WILLIAM	DIMPLE GOODWIN	816 LOGAN COURT 1486 MEDALLION DRIVE
WILLIAM J THOMAS E	BOTT'S 93 LITTLE BEAR WAY	DAVID G. DONALD W.	GOODWIN GRABSKI	2113 BOHANNON DRIVE 446 MILLPOND DRIVE
MARC RALPH	BRADLEY 10395 JUDY AVENUE	ARNOLD F. PAUL L.	GRANDADOS GRAVES	1491 GOLDENLAKE ROAD 1391 ANTWERP LANE
JOHN W CARL D. R. BRYAN	BROWN BURKHART CALDWELL	STEVE BILL	GREENBERG GREGG	P.O. BOX 292 1744 STARBUCK DRIVE
ROBERT B. CHARLES B.	CARLSON CARTER SR	ANDREW WOLFGANG	GUDAS HANISCH	10310 BROADVIEW DR 1815 CLEVELAND AVE
BARRY MICHAEL	CERVO CHRISTOPHERSON	RONALD L. GARY L.	HANSEN HARNAGEL	10941 MIGUELITA RD 1106 ALLSTON WAY
JOHN & JANE EUGENE L. WANE	CINCOTTA CISNEROS	JIM HARRELL JR	HARRIS HERSCHKORN JR	94087 910 W REMINGTON 9-B
SUSAN CRAG W. GEORGE R	CLARK COLVIN	MARTY HARRIS	HEWITT 1255 ECHO VALLEY DR	146 LAS ASTAS
DAVID E. COOK	15840 E ALTA VISTA 2237 DORVAL DRIVE	JOHN A. ROBERT E.	HODGES HOGAN	18711 HARLEIGH DRIVE 856 JASMINE DRIVE
COUCHMAN CROCKER	264 BLOSSOM HILL RD 1638 GLENHURST DRIVE	J.C. LEE N.	HORNIE HOGLAN O.D.	127 HEATH STREET 1080A SARATOGA ROAD
MRS. ELIZABETH CURZON	1131 COMPASS LN #112 3830 MAGNOLIA DRIVE	JEFF FREDERICK G.	HOLLOWAY HOLLAND	17345 GROSVENOR CT 122 SUNSET DRIVE
PETER DAMISCH	19720 CHARTERS AVE P.O. BOX 231747	CHARLES HOTCHKISS	HORNIE HOWELL	6328 ALTMON DRIVE 1489 SAN MARCOS DR
RICHARD G DAVIS	1045 MAZZONE DRIVE 306 CASITAS BULEVAR	BERKELEY BERNARD U.	JONES JENSEN	23449 SUNSET DRIVE 2240 TIOGA DRIVE
RICK DAY	1512 MOORPARK AVE #1 2090 SO WEST EXP #90	BERNARD U. BRETT D.	JOHNSON JOHNSON	345 MANILA DRIVE 1512 MOORPARK AVE #1
BRIAN DECKER	2090 SO WEST EXP #90 1123 WESTERN AVENUE	DELWIN R. GERALD L.	JOHNSON JOHNSON	1512 MOORPARK AVE #1 1304 CHERRY COURT
GEORGE JOHN	12272 VIA RONCOLE 2410 WOODLAND AVENUE	DON	JONES JINELL	1014 KATRINE COURT 743 SANTA RITA AVE
WILLIAM R MICHAEL	5271 DUPONT AVENUE 22577 SAN JUAN ROAD	EDWARD EDWARD	KINNEY KINNEY	22408 BALUSTROL CT 3504 WHITE CLIFF CIR
DICKINSON WINIFRED & GARY M.	1128 ALLSTON COURT 1595 LAURELMWOOD #59	STEVEN M DAVID	KLAUSNER KOLLER	969 E EL CAMINO REAL #6107 P.O. BOX 7457
DONNELLY	1579 HEATHERDALE 500 CORTE CABANIL	MICHAEL HOWARD	KUHLMANN KEVIN	2329 PENTLAND WAY 1013 BIRD AVENUE
				920 W WASHINGTON AVE SUNNYVALE

The  
San Jose Astronomical Association's

**8<sup>th</sup>** ANNUAL  
**Bay Area**  
**Astronomical**  
**Auction**

Will be:



Saturday May 7th

at the Los Gatos Red Cross bldg.

16011 Los Gatos - Saratoga Rd.

Doors will open at 1:00 PM

Swap-Meet 2:00 - 5:00 PM

Auction 6:00 pm - 10:00 PM

---

Please pre-register all items to be auctioned

The 8th annual Bay Area Astronomical Auction is approaching, so now is the time to start looking around for those items not earning their space, or brought back from Riverside, or whatever is astronomical or telescope-making related that you would like to earn some \$ from.

Pre-registration makes it easy. Just fill in the form below or a copy of it. List each different item you have. If there are several of one item, use a single line with the quantity shown. Indicate a minimum bid, even if you wish to let it go really cheap. Indicate the % of the selling price going to the SJAA (minimum 10%). If you wish you may make an outright donation which is now TAX DEDUCTABLE. All proceeds go to further public education in astronomy.

Next, and most important, MAIL the completed form to Jim Van Nuland at 3509 Calico Ave., San Jose, Ca. 95124. You may wish to keep a copy for your files. Jim will assign you a bidder/seller and item numbers, and return the form to you promptly. If you omit a SASE Jim will assign numbers but hold the form for your pickup at the auction. There will be little time to number everything then, so please send a SASE with your pre-reg form.

You will now have the numbers to label each item before the day of the auction. Use self adhesive labels and please indicate the minimum bid on each item.

To accommodate the increasing volume of "good stuff" we will have a Flea Market or Swap-Meet in the afternoon from 2:00 to 5:00 pm. The auction will run from 6:00 pm until we finish.

Items having a realistic minimum bid of \$5 or so probably should be swap-meet material rather than the main auction as time is limited.

Items of limited or highly specialized application, even if valued above the \$5, should be considered for the swap-meet. A silent bid option will be available, where a sheet is attached to the item and bids are written there. A higher bid is entered and the previous deleted. Results of the silent auction will be made final at the break and the winning bidders announced. The high ticket items such as complete telescopes should be entered in the silent auction.

## DIRECTIONS TO THE AUCTION

Take HWY 17 (880) South towards Santa Cruz. Take the Los Gatos-Saratoga Rd (HWY 9) exit and continue West about 6/10 Mi. Turn right on Rose Ave. then another immediate right into the parking lot. The address is 16011 Los Gatos-Saratoga Rd.

Doors open at 1:00 pm. a \$1:00 donation is requested for registration  
to buy or sell. Refreshments will be available.

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. Guest speakers are invited to give talks on a wide range of astronomical topics which have included equipment and slide presentations. 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 0.6 miles. Turn right at Rose Ave. Then turn right immediately into the parking lot of the Post Office and Red Cross building. Doors open at 7:45 PM, with General meetings beginning at 8 PM. General Meetings are currently held on the 1st Saturday of each month.

## INDOOR STAR PARTIES

Occasionally there are a few 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 its board meetings during this time as well as an introductory astronomy workshop that is conducted once a month.

## FIELD EXPEDITIONS

On the Saturdays closest to the New Moon, the SJAA will conduct a "Star Party" for astronomical observation at a designated location. Several times a year these star parties are held close to San Jose while others are held as far away as Yosemite national Park. Watch the EPHEMERIS for star party locations.

## FREMONT PEAK STATE PARK

The most popular of locations for bay area amateur astronomers is Fremont Peak State Park. Located 70 miles south of San Jose near the town of San Juan Bautista, Fremont Peak rises nearly 3000 ft. above the valley floor. For two decades amateurs have gathered at the "Peak" during New Moon weekends for serious deep sky observing and astrophotography. To get to Fremont Peak for San Jose, take Hwy 101 south towards Salinas. Then take Hwy 156 east (San Juan Bautista exit) for 3 miles to a yellow flashing light. Turn right and go about 1/4 mile to where the road reaches a "Y". Veer 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 first drive onto the main area of the park. Expect to find a lot of astronomical activity here every clear New Moon weekend. Arrive early if you are setting up equipment. 50 to 100 telescopes are not uncommon at Fremont Peak during the summer months.

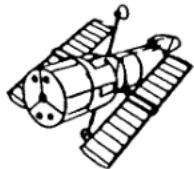
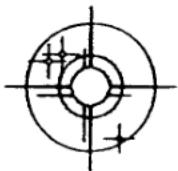
\* EPHEMERIS is published monthly by the San Jose Astronomical  
\* Association, 3509 Calico Ave., San Jose California 95124.  
\* Contributors are welcome to submit articles for publication. These  
\* should be typed and submitted no later than the 12th of the previous  
\* month. All submissions should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

## OFFICERS

\* PRESIDENT: Tom Ahl..... 408-268-3927  
\* VICE-PRES: Robert Fingerhut..... 408-263-4455  
\* SECRETARY: Jim Van Nuland..... 408-371-1307  
\* TREASURER: Jack Peterson..... 408-262-1457  
\* EDITOR: John P. Gleason.....

**BOARD OF DIRECTORS**

BOARD OF DIRECTORS	
* Paul Mancuso.....	408-946-0738
* Jack Peterson.....	408-262-1457
* Bob Fingerhut.....	408-263-4455
* Tom Ahl.....	408-268-3927
* Gene Cisneros.....	408-923-6800
* Joe Sunseri.....	408-224-8693
* Steve Greenberg.....	209-239-2154
* Duncan Munroe.....	408-448-5361
*****	



### SAN JOSE ASTRONOMICAL ASSOCIATION MEMBERSHIP APPLICATION

MEMBERSHIP ONLY: \$10      MEMBERSHIP/S&T: \$26      JUNIOR (UNDER 18): \$18

Name: \_\_\_\_\_

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

Address: \_\_\_\_\_

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

Telephone (\_\_\_\_) \_\_\_\_\_

Telephone: (408) 262-1457

MAKE CHECKS PAYABLE TO "SJAA"

Please check type of membership and if New or Renewal

Membership only  Membership/S&T  Junior (Under 18)  New  Renewal

SJAA EPHEMERIS  
3509 CALICO AVE.  
SAN JOSE, CA. 95124

NON-PROFIT ORGANIZATION  
U.S. POSTAGE PAID  
PERMIT NO. 5381  
SAN JOSE, CALIFORNIA

TIME VALUE - DATED

NEWS MATERIAL