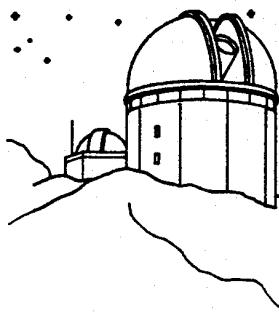


EPHEMERIS

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 44,000 mph). 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 21st 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	ACEVES II	P.O. BOX 8644	2-2811 EAST CLIFF DR P.O. BOX 6161
TOM ALLAN	AHL	1260 BUTTERFLY DRIVE	SANTA CRUZ SAN JOSE
DAVE & MARY	ALCORN	660 LOS TRANCOS ROAD	HANFORD CIR
JERRY & ELAINE	AMBROSE	354 BLOCK AVENUE	VENTURA STREET
PETE	ANDERSEN	711 RIVER FALLS DR	PAMPAS DRIVE
ROBERT L.	ANZELLOTTI	1184 ABBOTT AVENUE	PARKVIEW AVENUE
STEVEN T.	ASHFORD	3005 BRENN COURT	1562 PERRONE CIRCLE
DAVID & ILENE	BALBO	4911 CAMDEN AVENUE	1948 PERRONE CIRCLE
KURT	BARANDWITZ	45580 PARKMEADOW CT	20800 HOMESTEAD #16C
RICHARD	BARNHART	451 MARTEL WAY	4639 HOUNDSHAVEN WAY
PAUL	BARRETT	1520 SANTA MARIA	25533 TREEVIEW TRAIL
JIM	BARTON	1466 BERRY WAY	1265 FARRINGTON DR
BARRY & CAROL	BALMIGARDT	1919 GARDEN DR #203	340 RIO VERDE PL #4
TRUDY E.	BEAMAN	6804 ALVINA ROAD	6858 BURNSIDE DRIVE
RICHARD	BELL	111 W RIVERSIDE DR #14M	P.O. BOX 2779
LORAN M.	BELLEVILLE	13201 NE SALMON CRK AVE	SANTA CRUZ
BILL	BENNETT	47 PETER COUTTS CIR	LOS GATOS
PAT A.	BERRITTO	20433 MONTALVO ROAD	MILITIAS
JOSEPH	BISHOP	693 VALLEY WAY	WASHINGTON
ROBERT H.	BLACK	1740 VALLEY VIEW	SAN JOSE
WILLIAM J.	BORUCKI	595 DARTHOUT AVENUE	SAN JOSE
THOMAS E.	BOTTS	1196 SESAME DRIVE	SAN JOSE
MARC	BURKHART	93 LITTLE BEAR WAY	SAN JOSE
RALPH	BENSON	9016 HYDE AVENUE	CAMPBELL
JOHN W.	BRADLEY	1039 JUDY AVENUE	6130 OLD RANCH ROAD
CARL D.	BROOKMAN	12581 PASED CERRO	16300 OLD RANCH ROAD
R. BRYAN	BROWN	777 S MATHILDA #282	536 WOOL DRIVE
ROBERT B.	BURKHART	867 CANFIELD COURT	PAC 0239 BOX 37301
CHARLES B.	CALDWELL	1590 PEACOCK AVENUE	1571 DORCEY LANE
JOHN R.	CARLSON	1270 LODESTONE DRIVE	2242 LEMDENE WAY
GARY	CARTER SR	1055 WOODDUCK AVENUE	461 BURGESS DRIVE #6
MICHAEL	CERVO	1250 FREONT AVENUE	816 LOGAN COURT
JOHN & JANE	CHRISTOPHERSON	1042 CEDAR GABLES DR	1486 MEDALLION DRIVE
EUGENE L.	CINCOTTA	35609 GAYLEN PLACE	2113 BOHANNON DRIVE
WANE	CISNEROS	15800 E ALTA VISTA	446 MILLPOND DRIVE
SUSAN	CLARK	2237 DORVAL DRIVE	1491 GOLDENLAKE ROAD
CRAG W.	COLVIN	264 BLOSSOM HILL RD	1391 ANTIERP LANE
GEORGE R.	CONGDON	1638 GLENHURST DRIVE	1498 MULBERRY LANE
DAVID E.	COOK	1131 COMPASS LN #112	1500 NARROW LANE
CHUCK	COOPER	3830 MAGNOLIA DRIVE	1508 PINEWOOD LANE
MRS. ELIZABETH	COUCHMAN	19720 CHARTERS AVE	1515 PINEWOOD LANE
PETER W.	CROCKER	P.O. BOX 23747	1522 PINEWOOD LANE
PETER W.	DANISCH	BOX 4684	1530 PINEWOOD LANE
RICHARD G.	DAVIS	1045 MAZZONE DRIVE	1538 PINEWOOD LANE
BRION	DAVIS	306 CASITAS BULEVAR	1546 PINEWOOD LANE
RICK	DAVIS	1512 MOORPARK AVE #1	1554 PINEWOOD LANE
DAY	DAVIS	2090 SO WEST EXP #90	1562 PINEWOOD LANE
DECKER	DAVIS	1123 WESTERN AVENUE	1570 PINEWOOD LANE
DEIWERT	DAVIS	12272 VIA RONDOLE	1578 PINEWOOD LANE
DELANEY	DAVIS	2410 WOODLAND AVENUE	1586 PINEWOOD LANE
WILLIAM R.	DELLINGER	5271 DUPONT AVENUE	1594 PINEWOOD LANE
MICHAEL	DHUYE	2257 SAN JUAN ROAD	1602 PINEWOOD LANE
DANIEL B.	DICKINSON	1128 ALLSTON COURT	1610 PINEWOOD LANE
WINIFRED &	DIETZ	1595 LAURELWOOD #59	1618 PINEWOOD LANE
GARY M.	DOLEN	1579 HEATHERDALE	1626 PINEWOOD LANE
PATRICK M.	DONNELLY	500 CORTE CABANIL	1634 PINEWOOD LANE
NICK	DODUKAS	95155	1642 PINEWOOD LANE
DANIEL C.	DRESSER	95120	1650 PINEWOOD LANE
GREGORY W.	EDWARDS	94025	1658 PINEWOOD LANE
BOB	EDWARDS	93603	1666 PINEWOOD LANE
JAMES	EHR	95111	1674 PINEWOOD LANE
DAVID	EISELT	95035	1682 PINEWOOD LANE
PAULA	ENDS	95121	1690 PINEWOOD LANE
GEORGE F.	EVANS	95124	1698 PINEWOOD LANE
HERMAN	FALOTICO	94539	1706 PINEWOOD LANE
DAVID	FERRIER	95035	1714 PINEWOOD LANE
ROBERT	FINGERHUT	95125	1722 PINEWOOD LANE
THOMAS E.	FRAYNE	95124	1730 PINEWOOD LANE
JAY	FREEMAN	94011	1738 PINEWOOD LANE
RON	FRITZ	94011	1746 PINEWOOD LANE
VICKY	GALLARDO	95023	1754 PINEWOOD LANE
ROBERT	GEDDES	98686	1762 PINEWOOD LANE
RICHARD	GENDRY	94305	1770 PINEWOOD LANE
STANFORD	GENSLEY	94070	1778 PINEWOOD LANE
SARATOGA	GERMUND	95051	1786 PINEWOOD LANE
SANTA CLARA	GERND	95051	1794 PINEWOOD LANE
MILFORD	GILROY	48042	1802 PINEWOOD LANE
SAN CARLOS	H WILLIAM	94070	1810 PINEWOOD LANE
SUNNYVALE	HILL	94087	1818 PINEWOOD LANE
SAN JOSE	HODGES	95136	1826 PINEWOOD LANE
CUPERTINO	HODGIN	95014	1834 PINEWOOD LANE
SAN JOSE	HODGINS	95014	1842 PINEWOOD LANE
CUPERTINO	HOGG	95014	1850 PINEWOOD LANE
SARATOGA	HORN	95070	1858 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	1866 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	1874 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	1882 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	1890 PINEWOOD LANE
SARATOGA	HORNAGEL	94087	1898 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	1906 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	1914 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	1922 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	1930 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	1938 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	1946 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	1954 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	1962 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	1970 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	1978 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	1986 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	1994 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2002 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2010 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2018 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2026 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2034 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2042 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2050 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2058 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2066 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2074 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2082 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2090 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2098 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2106 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2114 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2122 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2130 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2138 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2146 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2154 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2162 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2170 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2178 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2186 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2194 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2202 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2210 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2218 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2226 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2234 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2242 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2250 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2258 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2266 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2274 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2282 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2290 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2298 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2306 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2314 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2322 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2330 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2338 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2346 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2354 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2362 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2370 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2378 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2386 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2394 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2402 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2410 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2418 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2426 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2434 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2442 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2450 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2458 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2466 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2474 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2482 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2490 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2498 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2506 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2514 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2522 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2530 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2538 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2546 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2554 PINEWOOD LANE
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SAN JOSE	HORNAGEL	94087	2602 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2610 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2618 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2626 PINEWOOD LANE
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SAN JOSE	HORNAGEL	94087	2650 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2658 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2666 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2674 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2682 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2690 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2698 PINEWOOD LANE
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SAN JOSE	HORNAGEL	94087	2714 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2722 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2730 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2738 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2746 PINEWOOD LANE
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SUNNYVALE	HORNAGEL	94087	2770 PINEWOOD LANE
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SAN JOSE	HORNAGEL	94087	2794 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2802 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2810 PINEWOOD LANE
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SAN JOSE	HORNAGEL	94087	2842 PINEWOOD LANE
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SAN JOSE	HORNAGEL	94087	2858 PINEWOOD LANE
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SAN JOSE	HORNAGEL	94087	2890 PINEWOOD LANE
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SUNNYVALE	HORNAGEL	94087	2914 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2922 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2930 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2938 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2946 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2954 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2962 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2970 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	2978 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	2986 PINEWOOD LANE
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SUNNYVALE	HORNAGEL	94087	3010 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	3018 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	3026 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	3034 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	3042 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	3050 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	3058 PINEWOOD LANE
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SUNNYVALE	HORNAGEL	94087	3074 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	3082 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	3090 PINEWOOD LANE
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SAN JOSE	HORNAGEL	94087	3242 PINEWOOD LANE
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SAN JOSE	HORNAGEL	94087	3258 PINEWOOD LANE
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SAN JOSE	HORNAGEL	94087	3274 PINEWOOD LANE
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SUNNYVALE	HORNAGEL	94087	3298 PINEWOOD LANE
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SAN JOSE	HORNAGEL	94087	3322 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	3330 PINEWOOD LANE
SAN JOSE	HORNAGEL	94087	3338 PINEWOOD LANE
SUNNYVALE	HORNAGEL	94087	3346 PINEWOOD LANE
SAN JOSE	HORNAGEL		

The
San Jose Astronomical Association's

8th 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.

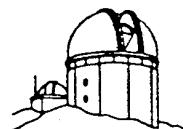
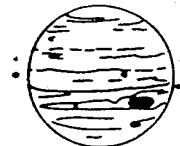
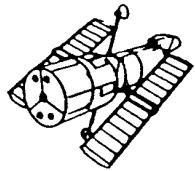
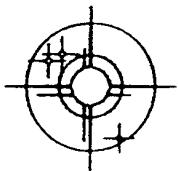
* EPHEMERIS is published monthly by the San Jose Astronomical *
* Association, 3509 Calico Ave., San Jose California 95124. *
* Contributors are welcome to submit articles for publication. These *
* should be typed and submitted no later than the 12th of the previous *
* month. All submissions should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

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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

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