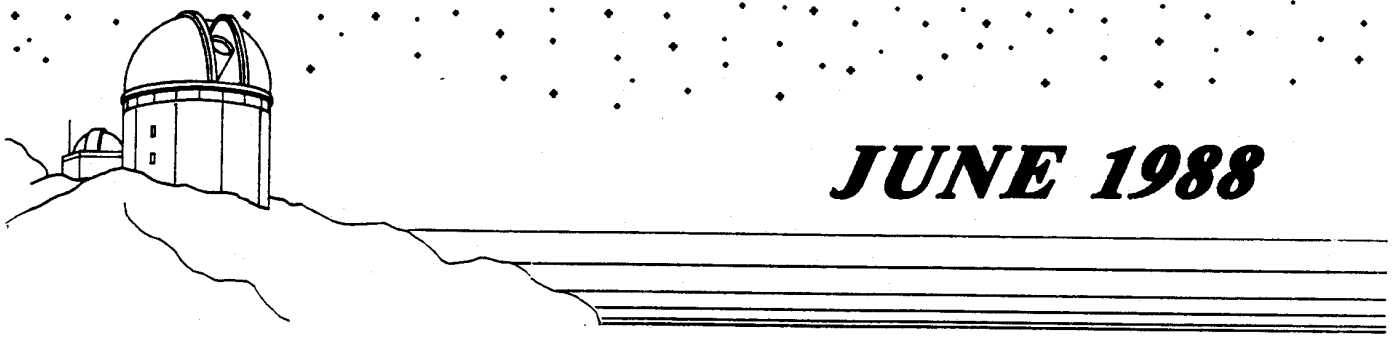
EPHEMERIS

OF THE SAN JOSE ASTRONOMICAL ASSOCIATION.



JUNE 1988

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* JUNE 4TH *
* THE SJAA PRESENTS: *
* CLAUDE EVERSON *
* GRAVITY PROBE - B *
****

JUNE 4 GENERAL MEETING. GRAVITY PROBE - B WITH CLAUDE EVERSON, LOCKHEED PROGRAM MANAGER. LOS GATOS RED CROSS BUILDING. 8 PM.

JUNE 11 FIELD EXPEDITION FOR ASTRONOMICAL OBSERVATION TO GRANT RANCH COUNTY PARK. SUNSET, 8:23 PM, 4% MOON RISES AT 4:01 AM.

JUNE 18 FIELD EXPEDITION FOR ASTRONOMICAL OBSERVATION TO FREMONT PEAK STATE PARK. SUNSET, 8:26 PM, 22% MOON SETS AT 11:56 PM.

JUNE 25 BOARD MEETING AT 6:30, WITH THE INTRODUCTORY ASTRONOMY CLASS TO FOLLOW AT 8 PM. HOW TO USE SETTING CIRCLES WILL BE FEATURED IN TONIGHT'S CLASS.

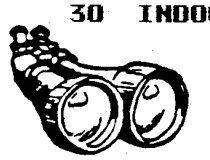
JULY 2 SJAA ANNUAL PICNIC AND INSTALLATION OF OFFICERS. GRANT RANCH COUNTY PARK, IN THE ROSE GARDEN NEAR THE OFFICE BUILDINGS.

JULY 9 STAR PARTY AT GRANT RANCH. THIS IS TO PROVIDE SUPPORT TO THE CUPERTINO PARKS & RECREATION WHO IS PUBLICIZING IT AS A PUBLIC OBSERVING SESSION. CHECK WITH PAUL MANCUSO FOR ADDITIONAL DETAILS. SUNSET 8:25 PM, 12% MOON RISES AT 2:42 AM.

JULY 16 FIELD EXPEDITION FOR ASTRONOMICAL OBSERVATION TO HENRY COE STATE PARK. SUNSET, 8:22 PM, 10% MOON SETS AT 10:21 PM.

JULY 23 BOARD MEETING AT 6:30 PM, INTRODUCTORY ASTRONOMY CLASS AT 8:00 PM. THE RED CROSS BUILDING.

JULY 30 INDOOR STAR PARTY AT THE RED CROSS BUILDING. 8 PM.



FIELD OF VIEW
BY: JOHN GLEASON

GRAVITY PROBE - B

An experiment to test part of Einstein's General Theory of Relativity. Will the spin axis of the world's most round objects (gyros) be affected by the earth's gravitational field? The position of the gyros spin axis will be measured relative to a star using a telescope whos structure is made of quartz and is held together by optical contact. The whole spacecraft is kept at cryogenic temperatures by an envelope of liquid helium.

The experiment was thought up at Stanford University 25 years ago and the spacecraft is being built by Lockheed for NASA.

YOSEMITE STAR PARTY

The SJAA pilgrimage and star party at Yosemite National Park is on August 19-20. The Yosemite trip is always a highlight of the summer, as the skies are utterly incomparable, the daytime scenery likewise. The first-quarter moon

will interfere until nearly midnight, but this allows us to show it to the public, who is, of course, the reason we are there. After the moon sets, you will be treated to some of the finest skies in the US.

Only 30 persons can be accommodated in the group campsite; more are welcome but will have to reserve and pay for camping space. Some members receive their bulletin much later than others, so, in order to try to give everybody an equal chance, Jim Van Nuland will accept reservations by telephone starting at 10:00 AM on June 13. Earlier calls will be accepted but will be put on the waiting list. Letters will be accepted if postmarked on or after June 13, but phone calls will be given priority. This latter is necessary because Jim wants to be able to tell callers where they stand.

On July 18, Jim will begin reconfirming reservations so as to form the final list, which must be mailed to the Park by August 1. You may call on the 18th to reconfirm and/or find out if you have been advanced to the final list. Change after the list is made will be slightly difficult, so please plan carefully. Jim Van Nuland - 408-371-1307.

ASTRONIMICAL SOCIETY HAS NEW HOTLINE NUMBER

The Astronomy News Hotline sponsored by the Astronomical Society of the Pacific has a new number: 415-337-1244. The 24-hour recorded message (which has been in continuous operation since 1976) tells of new discoveries in astronomy, special sky events, or other items of interest to stargazers and armchair astronomers. The Hotline is written and produced by astronomer Sherwood Harrington of the A.S.P. staff and is changed each week. There is no surcharge on the calls -- callers pay only the charges for calling the number from their location.

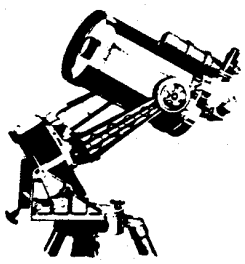
A.S.P. SOLICITING NOMINATIONS FOR 1989 AMATEUR ACHIEVEMENT AWARD

The Astronomical Society of the Pacific is soliciting nominations for its Amateur Achievement Award to recognize outstanding contributions to the field of astronomy made by an amateur. The international award includes a plaque and a $250 cash prize.

Nominations may be made in writing by any individual or group. Nominees must not be employed in the field of astronomy in any professional capacity. Previous winners include Frank Bateson (New Zealand), George Alcock (United Kingdom), Ben Mayer (U.S.), and Robert Evans (Australia).

Letters of nominations should include a concise statement (about 100 words) highlighting the qualifications of the nominee for the award. The letter should also be accompanied by a longer description of the nominee's contributions, including (when possible) publications, news clippings, a biography, etc. There is no special form to fill out.

All nominations will be read and evaluated by the Awards Committee of the Astronomical Society of the Pacific. The final decision will be made by the A.S.P. Board of Directors. Nominations should be sent by August 31, 1988 to: Amateur Award, Astronomical Society of the Pacific, 390 Ashton Ave., San Francisco, CA. 94112.



PRESIDENT'S MESSAGE
TOM AHL - SJAA

NATIONAL ASTRONOMY DAY - 23 APRIL, 1988

This year National Astronomy Day was held at Branham Lane Park, the same site that was used for our Halley's Comet Public showing two years ago and also the site to be used for our Mars Watch this September, October, and November.

I arrived shortly after 3 PM and found Jim Van Nuland and Paul Mancuso already set up. Paul was observing the sun with his 3 1/2" Questar. Two sunspots were visible. Paul Barton showed up about 4 PM (with Lady, the observing Canis Majoris Cocker Spaniel). At first it looked as if the clouds were going to win out but by 6 PM the sky had cleared up sufficiently enough to promise us a good night.

With 'scopes ranging from an 80 mm refractor up to a 17.5" Dobsonian reflector, there were numerous objects to see even though the moon dominated the sky. There was even a occultation observed as the moon passed through Cancer.

I would like to thank the following members for donating their time, telescopes and talent: Jim Van Nuland, Jack Zeiders, Fred Holland, John Johnson, Paul Mancuso, Larry Parmeter, Paul Barton, Shelly McAlease, Bob Fingerhut, Rick

Sarrica, Robert Wolbert, and Paul Summers. A special thanks to Don Grabski for providing the copies and distribution of the fliers.

Estimates were that between 50 and 75 people showed up to look through the telescopes. As our expertise grows in organizing these affairs so should the attendance. Next year we hope to hold National Astronomy Day at more than one location easily accessible to the general public.

REPORTER AT LARGE (+ CUB REPORTER)

At the April Board Meeting I took John Gleason's suggestion from the May Ephemeris and established a position titled "Reporter-at-large". Don Grabski volunteered for the job is also a new Board Member, Brian Zehring, volunteered to be "Cub Reporter-at-large" assisting Don. Their duties will be to submit write ups on the various activities that the SJAA is involved with. Also, they will be calling on members of the club to poll their ideas, remarks, and suggestions for possible future activities and goals you might want the Board to consider.

SCHOOL STAR PARTY ACTIVITIES

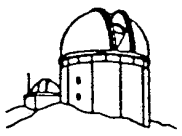
Since the beginning of this year, our club has been involved with 6 school activities involving Astronomy. For two of these activities I went to Jr. High Schools and assisted the teachers by giving lectures on Astronomy and Telescopes. The other activities, we set up telescopes. In each case the response has been overwhelming, with the teacher involved asking us to come back again.

What our club is all about is to make the general public aware of Astronomy and how simple it is to observe the skies. The best way to accomplish this is to set up these star parties for neighborhood schools and Parks & Recreation Departments. We also plan again on holding these public observing sessions at parking lots such as Kmart and other shopping centers, especially with Mars making its closest approach in 17 years this fall.

This is leading up to a request for volunteers to make contact with schools, shipping centers, and community centers in your neighborhood. Tell them about your club (the SJAA) and the talent available (and telescopes, too) to put on public observing sessions. Have them either contact Jim Van Nuland (the club Secretary) or you can be the liaison and notify a Board Member in order to schedule a session.

There is no greater enjoyment than to see and hear the responses from first time observers as they catch a glimpse of Saturn's Rings or the moons of Jupiter or the polar ice caps of Mars. Help spread our enthusiasm of Astronomy.

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



Henry Coe State Park, situated east of Morgan Hill, offers the astronomer a variety of sites with dark skies and relative quiet. This large park, over 13,000 acres in size with forty miles of hiking trails, offers a lot more than dark skies.

From the corner of Blossom Hill Rd. and Camden Ave. the Park is 59 minutes and 34.3 miles away. Take Hwy 101 south to E. Dunne Ave. Exit here and head east, the park is 12.3 miles and 27 minutes away. You'll wind up some hills, over a ridge and to the south end of Anderson Res. In about 15 minutes you'll be at the park's gate. When the SJAA holds a star party, we set up on a hill which is to your left as you pull around to the Ranger's station. The observing area is 70 yards up on your right side. It measures 100 X 60 feet and slopes down slightly to the south. A tree in the SSE obstructs the view in that direction, otherwise the horizons are flat to the east and west, and about 15 degrees high in the north and south. The ground surface ranges from packed dirt to small gravel. Restrooms are down at the ranger's station. You can drive up this hill and, if it's not too crowded, set up your telescope near your vehicle. When there is no star party, this area is locked and unavailable to us.

On non-star party nights, two options are available. One is to go to one of the 20 campsites and set your telescope up at the camping area or at one of the small parking areas within 100 yards distance. Horizons are good, especially to the E, S, and W. Other campers may be a problem, but general camp lighting is at a minimum. Overnight camping at one of these sites costs $6.00/night.

The other option is to observe from an area known as the "Group Parking Lot",

also known as the "Overflow Lot". Campers and hikers park their cars here; it is on the right side of the road, just as you enter park property and one-half mile before you reach the Ranger Station and Park Gate. If you use this area you are asked to register first, pay the $6.00, and write "Overflow Parking Lot-Astronomy" on the pay envelope. If this area is locked, ask a ranger to open it up for you.

This area is large- 150 x 90 feet. It is level and the surface is small gravel and dirt. A tree and a small restroom sit on the south end. The horizons are 14 degrees high in the NE, dropping to 4 degrees in the E., a tree to the south, then flat through the W., rising to 12 degrees in the N. Winds can be bad here. Cars on the main road cast headlights in this direction, but they are few after dark. Light pollution is worst in the NW (San Jose) and there is some from Gilroy in the SW-S. The rest of the sky is very dark, with the Milky Way easily visible.

The elevation of all these sites is 2600 feet, above most fog and haze. This park has an astronomy history of its own, Doug Berger co-discovered a comet from here in July, 1975. Daytime activities here include a museum, hiking trails, horseback riding and fishing. For more information call the Park at (408) 779-2728.

JUNE STARRY NIGHTS
BY: RICHARD STANTON

METEORS - We have only one minor meteor shower during June, the Tau Herculids. Maximum for this shower is June 3rd but the shower actually runs from May 19th to June 14th. These puppies mosey along at some 15 kilometers per second, perhaps the slowest of all the annual showers. Once again the moon will be out in near full regalia to keep you company during the maximum.

SOLSTICE - Summer will officially begin on June 21st at 03:57 UT. That's June 20th at 20:57 PDT. The Summer Solstice occurs each year when the sun is at its greatest angular distance north of the celestial equator. It is also the day of the longest daylight hours which should keep our solar observing members happy.

MINOR PLANETS - This month highlights three asteroids for your entertainment (or frustration) depending on your point of view. By the way, if you are intrigued by this subject, I have just completed Clifford Cunninghams'"Introduction to Asteroids" and highly recommend it to anyone with a serious interest in asteroids.

21 Lutetia, Opp. June 01, diam. 115 km., mag. 9.9

JUN	08	16:27.7, -20:58
	18	16:17.9, -20:52
	28	16:10.1, -20:50

43 Ariadne, diam. 85 km., mag. 9.5, daily mot. .301°

JUN	08	16:06.5, -22:40
	18	15:58.8, -21:44
	28	15:54.4, -20:57

2 Pallas, diam. 608 km., mag.9.5, daily mot. .213°

JUN	07	20:48.5, +17:22
	17	20:45.9, +18:00
	27	20:41.5, +18:19

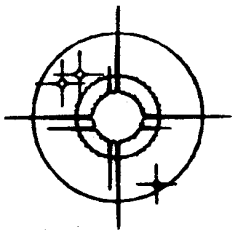
As a matter of interest, 43 Ariadne is among the asteroids with the greatest difference in brightness between opposite sides as it rotates every 5.751 hours.

LUNAR TERMINATOR - For our "Sundowners" the lunar terminator (the demarcation line between night and day) as it wonders across the face of the moon, the Straight Wall will fall under its spell on June 8 at 0 hours U.T. and on the crater Pluto two hours later. The terminator will again fall on the Straight Wall on June 22 around 15 hours and on Plato on June 23 at 01 hours U.T.. To convert Universal Time to Pacific Daylight Time, simply deduct 7 hours.

SATURN - For me the most enchanting object of the night sky is Saturn. The

ringed planet will achieve opposition during June on the 20th. Opposition is when the object and the sun are diametrically opposed, with the earth between the two. Saturn will be shining at its brightest at magnitude +0.0 and will show a disc diameter of 18.32 arc seconds. The ring diameter will extend out to 41.40 arc seconds. I will never forget my first view of this glorious planet through a telescope and the spark that it lighted in my soul. I urge you all to share this "beauty of the night" with your friends and neighbors as it meanders near the very heart of our galaxy in Sagittarius.

Good observing until next time.



COMET COMMENTS
BY: DON MACHHOLZ

Comet Liller remains above our horizon for the first half of the night, while Periodic Comet Temple 2 is in our sky all night long. No new comets have been found, but one faint returning comet has been recovered.

Periodic Comet Finlay (1988f): A. Gilmore and P. Kilmartin of Mt. John Observatory in New Zealand recovered this comet on Apr. 21 at nuclear magnitude 17. Its orbital period is 7 years and it is unfavorably placed on this visit. It isn't expected to get brighter than mag. 13, and even then it will remain within 40 degrees of the sun.

EPHEMERIDES

DATE	R.A. (1950)	DEC	ELONG	MAG	NOTES
		Comet Liller (1988a)			
05-24	09h 28.5m	+67°53'	68°	8.0	This comet is three
05-29	10h 11.8m	+62°13'	70°	8.3	months past peri-
06-03	10h 40.2m	+56°24'	71°	8.6	helion but its still
06-08	11h 00.2m	+50°47'	72°	8.9	putting on a good
06-13	11h 15.5m	+45°33'	72°	9.2	show. By mid-June
06-18	11h 27.7m	+40°45'	72°	9.5	it is 145 million
06-23	11h 38.0m	+36°22'	71°	9.8	miles from both the
06-28	11h 46.9m	+32°24'	70°	10.1	earth and the sun.
07-03	11h 54.9m	+28°48'	68°	10.4	It should be visible
07-08	12h 02.2m	+25°32'	67°	10.7	to us through July.
		Periodic Comet Tempel 2 (1987g)			
05-24	15h 52.8m	+03°57'	155°	10.9	This comet has an
05-29	15h 47.8m	+03°58'	153°	10.7	orbital period of
06-03	15h 42.8m	+03°48'	150°	10.5	only 5.29 years.
06-08	15h 38.0m	+03°27'	147°	10.3	You'll now find it
06-13	15h 33.5m	+02°54'	143°	10.1	not far from M 5.
06-18	15h 29.7m	+02°10'	138°	9.9	It should be closest
06-23	15h 26.7m	+01°14'	134°	9.8	the sun in mid-Sept.
06-28	15h 24.6m	+00°07'	130°	9.6	at 1.38 AU and mag.
07-03	15h 23.6m	-01°09'	126°	9.5	7.5- a binocular
07-08	15h 23.7m	-02°34'	122°	9.4	object.

SEEKING COMETS

Since comets began being named after their discoverers (229 years ago) until the most recent find (1988d) there have been 779 comets discovered, confirmed, and named. Some of these are periodic comets which have returned several times since found; considering these additional visits there have been roughly 1250 cometary apparitions since 1759.

Examining these 779 comets, how many people have had their name affixed at least to one comet? When we subtract the comets named after artificial satellites (12), mountains (3) and those comets called "Great Comet" or something similar, we find 326 individuals with a comet named after them. Only 40%, or 129 persons have had their name attached to two or more comets and 84 have found at least three. A mere 59 individuals have discovered four or more

comets.

Getting back to these 326 persons, do we find any two with the same name? Yes, this happens six times. These names each belonged to two different people, unrelated and usually living decades and miles apart: Rumker, Thiele, Jones, Shajn, Wilson, and Mitchell. Amazing, half of them, the last three, belonged to a male and female, rare in a field in which so few women are represented.

While no one with a name beginning with an "X" has ever had a comet named after him, 36 individuals with a last name beginning with an "S" have their name on a comet. The letter "B" was second with 35 names.

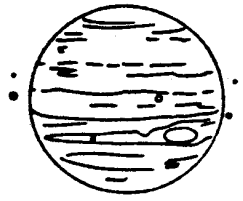
Finally, here is a list of those who have their names on the most number of comet, along with their location and years of comet discoveries:

26 comets:	Pons, Jean	France	1801-1827
21 comets:	Brooks, William	U.S.A.	1883-1911
16 comets:	Barnard, Edward	U.S.A.	1881-1892
14 comets:	Swift, Lewis	U.S.A.	1862-1899
13 comets:	Tempel, William	France, Italy	1859-1877
13 comets:	Bradfield, William	Australia	1972-pres.
12 comets:	Shoemaker, C. and E.	U.S.A.	1983-pres.
12 comets:	Honda, Minoru	Japan	1940-pres.
12 comets:	Mrkos, Anton	Czechoslovakia	1948-pres.
12 comets:	Giacobini, M.	France	1896-1907
12 comets:	Messier, Charles	France	1759-1798
11 comets:	Borrelly	France	1873-1912
10 comets:	Peltier, Leslie	U.S.A.	1925-1954
10 comets:	Winnecke, F.	Germany	1854-1877

Next in line we have Charles Perrine (Lick Observatory, 1895-1907) with nine comets. Having found eight each is Robert Harrington- who found them on Palomar Sky Survey plates- and Malcolm Hartley who is presently working at Siding Spring Observatory in Australia.

These counts do not include the "independent discoveries" sometimes made but not credited. This occurs when poor communication or slow comet confirmation allows many discoveries to be made by those still unaware of the new comet.

THE PRETORIA EYEPIECE - again!
BY: JIM VAN NULAND



Last month in this space I discussed the recently-invented Pretoria eyepiece, specifically designed to eliminate coma and astigmatism in fast Newtonian telescopes. At that time, I believed that the Pretoria might not be useful in scopes other than fast Newtonians. I've since learned better.

In reply to my letter to him, Bob Cox (optical expert and holder of one of three prototype Pretorias) points out that it is not correct to think of the Pretoria as "introducing negative coma" -- rather, it corrects the coma. The eyepiece might be re-optimized for slower systems, but in practice the deference would not be worth the trouble. He states that, in good conscience, one can recommend the Pretoria for use in virtually all telescopes.

There is another product from the same designer: A barlow that compensates much the way the Pretoria ocular does. It is 1.25" format, 3 power, and only 2.5" long. It would allow a fast scope to operate well at high power (provided it was well collimated), instead of stopping down and losing resolution. Trails by Tucson club members reported outstanding performance.

ASTRO ADS

C-90 SPOTTING SCOPE with multi-coated corrector - 1 month old. All standard accessories plus dew cap, large accessory ring, and 1.25" star diagonal. Perfect optical and mechanical condition. Velbon camera tripod with spring loaded pan head, like new. All for $430. Eyepieces! 28mm Erfle $30, 40mm Kelner $15, 9mm Ortho $25, 7mm Ortho $22, 40mm Meade Super Plossl $60. All eyepieces in perfect condition. Contact: Jim Molinari, 255-7030 or 727-2438 (work). 6/88

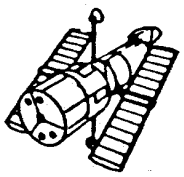
CELESTRON 8 with tripod and wedge. Accutrack 3119 Drive Control, dec motor, 8 X 40 finderscope, piggy back mount, dew cap, weights, star diagonal, 9mm,18mm, 20mm eyepieces, fine tune latitude adjuster, star bright coating. $1250 or best offer. Contact: Robert Scott (408) 265-6101. 6/88

10-INCH COULTER F/4.5 Newtonion reflector. With Novak spider and secondary, massive German equatorial mounting (portable), very solid with setting circles, felt lined, spring loaded saddle rings, 40lb hardened steel counter weight, modified DS-16 RA drive. Dec motor on modified tangent assembly. Complete with Telrad finder, Celestron 8 x 50 right angle illuminated polar finderscope, 32 mm Televue Plossl, 18mm Kelner eyepieces, telextender for projection photography, 12.5 mm cordless illuminated eyepiece, low profile Lumicon easy guider, light pollution filter, Lumicon dual-star dual-axis drive corrector. A outstanding, very stable telescope for astrophotography. All components break down into easily transportable pieces. $2000 Contact: Dan Beck, Day: 408-438-2900 M - Th, Home after 7 pm: 408-338-3001. 5/88

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

SPACE PROGRAM UPDATE
BY: BOB FINGERHUT

SHUTTLE TESTING CONTINUES



The third of six full scale shuttle solid motor tests was conducted on April 20th. All of the joints held tight in spite of a deliberate induced flaw in the J-seal flap. The J-seal flap had a defect that was twice the size of one that could exist and not be detected. The J-seal did not seal off as expected but the first of three redundant O-rings did not leak. This condition is considered acceptable. Another of many sub scale tests are planned for May 9th. The TDRS satellite for the next launch was ready for shipment to Florida on May 7th. The launch date for the next shuttle flight has been postponed by about 3 weeks to August 25th. Expect a further delay into September. These delays are not due to technical problems but are due to many minor delays that have added up.

SPACE STATION FACES BUDGET CRISIS

A House budget resolution that was passed could cut $1 billion from NASA's FY 1989 budget. If not reversed it could kill the space station says NASA administrator James Fletcher. If the station survives, NASA plans to select a name in June. Names under consideration are; Earth Star, Freedom, Independence, Jupiter, Minerva, Olympia, Pilgram, and Starlight. Do you have a favorite? NASA is studying crew rescue plans for the space station. The options range from ground based to station docked vehicles. The purchase of an additional orbiter is one option. A recommendation will be made to NASA in June.

NEW COMET FLYBY PROPOSED FOR EUROPE'S GIOTTO

Newly completed studies show that the spacecrafts high resolution camera may have survived its close flyby of Halley's comet in 1986. The possibility of the spacecraft exploring comet Grigg-Skjellerup on July 10, 1992 is being discussed. A decision will be made at ESA's June meeting.

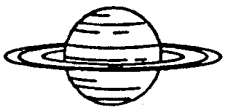
JAPAN CONSIDERING COMET FLYBYS IN 1996 - 1998

Up to four comet flybys are possible with the two spacecraft that Japan launched toward Halley's Comet in 1985. Sakigake could pass within 10,000 Km of comet Honda-Mrkos-Pajdusakova on Feb. 4, 1996 and 1 million Km of Giacobini-Zinner on Nov. 1998. Suisei could pass within 1 million Km of comet Tempel-Tuttle in Feb. 1998 and close to Giacobini-Zinner on Nov. 24, 1998.

USAF SELECTS ATLAS CENTAUR AS MEDIUM LAUNCH VEHICLE

A new version of the Atlas Centaur was selected to launch geosynchronous defense communications satellites. A contract was awarded for 11 rockets and there is an option for 20 more. The rockets capability will be 6100 lb. to geosynchronous transfer orbit starting in 1991 for $40 million per flight. There are now commercial customers for Delta, Atlas, and Titan expendable rockets.

THE STAR CLASS
BY: JACK PETERSON



The SJAA is called on from time to time to bring our telescopes to schools and other institutions for learning to hold a one evening class under the stars. These are coordinated usually with a teacher or faculty advisor which is teaching astronomy in their regular daily classes. That evening we will meet them in the school parking lot or sometimes on the basketball court. For about two hours the students can observe the astronomical objects that many of them have only seen in pictures. For many, this is the first time ever looking through a telescope!

So far this year we have been called five times to bring our telescopes for an evening class. One especially comes to mind. Last March we were called by Mrs. Henninger of James Lick High School to hold an evening "Star Class". Bob Fingerhut, Duncan Munro, Paul Barton, and myself brought our C8's and set up at the edge of the soccer field.

As the evening twilight faded into darkness, we looked at the brighter objects. This time it was Venus and Jupiter. The students could see that Venus had a quarter phase just like the Moon and that Jupiter has banded clouds with four visible moons. As it got darker, they were able to see star clusters like the Pleiades, double stars, and the Great Orion Nebula. Each object was described as to what they were and how they came to be. The OOS! and AAHS! said it all as these students were gaining a new knowledge of the wonders of the heavens. About 10 PM we packed up our equipment and the students thanked us for coming.

Another Star Class at the Sylvandale School was attended by Jim Van Nuland who brought his "Superb 8-inch Newtonian". Paul Mancuso brought his 5" f/14 refractor. Tom Ahl brought a 6" RFT. Bob Fingerhut, Duncan Munro and I brought our C8's. We stayed later than usual because the eager students wanted to know more as they gathered around Jim Van Nuland as he explained the planets and the Solar System. Tom Ahl explained everything else!

At the Castillero Middle School, Jack Zeiders brought his newly built 17" Dob-Newtonian. Tom Ahl brought his 13" fork mounted open tube Newtonian that he just recently finished building. Duncan Munro and I brought our C8's, Brian Zehring brought his Dobsonian-Newtonian, and Jim Van Nuland brought (your guessed it), his "Superb 8".

I feel kind of privileged to be able to attend these "Star Classes". Just when you think you've bummed out and nothing is getting across to the students they get together and send you a thank you note.

This activity is not for just a few club members that are selected to attend these activities. Anyone in the club and their friends can attend. If you would like to go to the next "Star Class" call me or let any of the Board Members know that you would like to help out. For new members this is an excellent opportunity to get out and learn the constellations and get to know the other club members. You don't even have to own a telescope. Just come out and have some fun.

Thank you for coming to our star party.

It was the best star party yet. Thanks for showing us the constellations and planets. I am really interested in the stars now.

Thanks alot for your time. It was fun.
Thanks Again
Cissy Taylor
Jami Fisher

Thanks for sparing some of your time
to come and show us the stars and
the constellations. It was quite a mem-
orable event. Thank very much.
Rachel Sales

Thanks for coming last night. I enjoyed myself very much. Thanks again!
Mari [illegible]

Thank you
Job Ramos

Thank you very much for taking the time to show us about the stars!
Thanks again,
Jesse Ramirez

Thanks for coming
Michelle Vieira

Thanks for coming to our star party.
Michelle Bumb

Thanks for lending your time with us.
Rosalie Poybal

Thank you
N.S. Sanchez

Thanks for showing us the planets and constellations. I had a good time.
Lizeth Carvalho

Have a nice Day!
Elvis BX

the dust around the stars WERE WOW! AMBER

Thanks for coming and showing us the stars.
Thanks Alot!
David

THE CELESTIAL TOURIST SPEAKS
BY: JAY REYNOLDS FREEMAN

At the club star party at Fremont Peak on May 14, the sky was extremely transparent, giving an excellent opportunity to view objects close to the horizon. Mercury was well-placed for observing in the evening twilight: I viewed it through apertures of fourteen to thirty inches. None showed any trace of detail on the half-full disc, but even a much smaller instrument would easily have showed the disc itself. Many experienced observers have never never bothered to look for this tiny sun-baked world at the times when it is easy to see. With tongue in cheek, I reminded several people that you are not allowed to look at deep-sky objects until you have chased down all the planets first; it's a matter of touching all the bases. Mercury is actually pretty easy; Pluto will be more challenging.

Later in the evening I chanced to look at a remarkable object near the southern horizon. Most everybody agrees that he globular cluster M13 is Hercules is the finest example of its class in "northern skies", but even from our sites at roughly 37 degrees north latitude, there is a substantial chunk of heavens visible that most of the older observer's guides associate with Australia, South Africa or Tahiti. The object I have in mind is the magnificent globular cluster Omega Centauri, which never rises more than about seven degrees above the horizon at Fremont Peak. You can't see it at all from the Coulter Camp area - the hill gets in the way - but I happened to be at the thirty-inch site at the right time, when several binocular observers were wondering about the fuzzball above the trees to the south.

The cluster was magnificent, easily visible to the naked eye. Even though less than ten degrees up, it appeared brighter to the naked eye than does M13 when the latter is at the zenith. Through 20 X 80 binoculars, it was a real "wow" object, seeming to span a third of the field of view, densely packed with stars and richly luminous. For my money, M13 has been dethroned.

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I had great fun being impromptu huckster at the SJAA auction in early May. These events have been very successful, but with hindsight, I think there are a few failings that might reasonably be addressed. Most of what sells at the club auction is relatively inexpensive equipment useful to an observer who is at least moderately experienced. The market for more expensive stuff is so small that there probably won't be even one potential buyer for any given item at the auction. In some sense that is not too much of a problem - word does get around of who has what, and people with costly goodies usually don't mind taking a little extra time and effort to find a buyer.

But it is sad to see equipment go begging that would be wonderful for beginners. Small refractors of 50 or 60 mm aperture are excellent instruments for kids who are just getting into astronomy, and perhaps for some grown-ups too; but the people who might most benefit from them probably haven't heard about the club yet - or their parents haven't. The instruments seem never to sell,yet I am sure that their owners would be happy to be rid of them. If you own one of these instruments, you might want to keep your ears open for friends or fellow employees who might need a telescope in the family. Or if you are feeling generous, perhaps you could give it to a school and take a tax deduction. (That might not even be so generous - these little telescopes rarely sell at the club auction for more than a small fraction of their original purchase price; a deduction for a substantial part of the purchase price might be worth almost as much as the likely selling price at the auction.)

There is another frustrating problem with the auction: More than once I have had the experience of wanting something that was for sale at the last auction, or of encountering someone who wanted it, and have never been able to remember who had offered what. Maybe we ought to prepare a catalog of all the telescopes and other major items that did not sell at the auction, and make it available during the next year, as a service to buyers and sellers alike. The records are computer-readable, so it shouldn't be too hard to draw up such a list. It wouldn't necessarily have to be widely distributed, like the Bulletin, though that might be practical if there weren't too many things. But if all the club members and auction attendees had a way to track down items that did not sell, we all might benefit.

SJAA MEETING AND STAR PARTY LOCATIONS

GENERAL MEETINGS

Once a month the SJAA holds a General Meeting at the 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 it 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.

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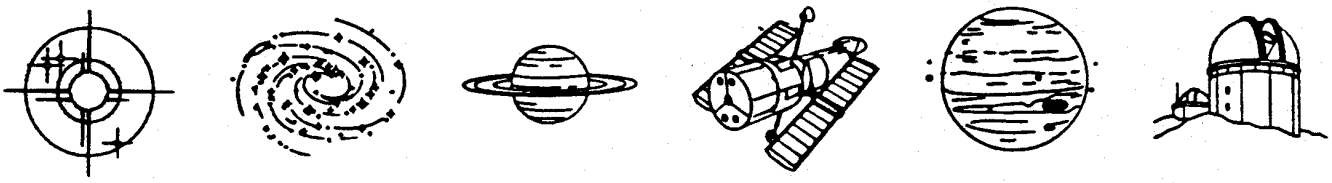

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San Jose Astronomical Association
1840 Yosemite Dr.
Milpitas, CA. 95035

Telephone: (408) 262-1457

Please check type of membership and if New or Renewal

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