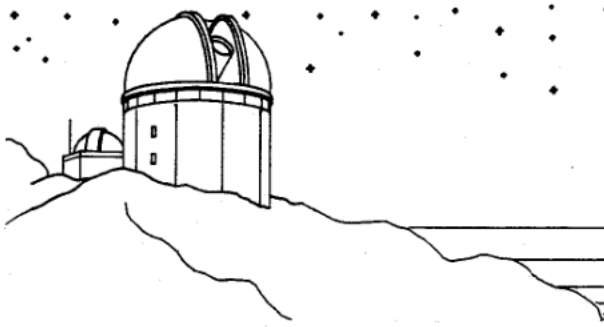
EPHEMERIS

OF THE SAN JOSE ASTRONOMICAL ASSOCIATION

JUNE 1985



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* **** JUNE 1ST ****
* "THE CELESTIAL TOURIST SPEAKS"
* BY: JAY FREEMAN
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JUNE 1 GENERAL MEETING AT THE LOS GATOS RED CROSS BUILDING. "THE CELESTIAL TOURIST SPEAKS". JAY FREEMAN WILL PRESENT US HIS THOUGHTS ON OBSERVING, TELESCOPES, AND AMATEUR ASTRONOMY.

JUNE 8 INDOOR STAR PARTY AT THE LOS GATOS RED CROSS BUILDING. DOORS OPEN AT 8 PM. SLIDES FROM THE RIVERSIDE TELESCOPE MAKERS CONFERENCE WILL BE SHOWN AS WELL AS ASTROPHOTOGRAPHY FROM THE PAST MONTHS.

JUNE 15 FIELD EXPEDITION FOR ASTRONOMICAL OBSERVATION (FEAO) AT GRANT RANCH COUNTY PARK.UPPER AND LOWER SITES. DUSK TILL DAWN.

JUNE 22 BOARD MEETING AT PAUL MANCUSO'S HOME. 8 PM.

JUNE 29 ANOTHER INDOOR STAR PARTY AT THE LOS GATOS RED CROSS BUILDING. DOORS OPEN AT 8 PM.

JULY 6 NO ACTIVITY SCHEDULED DUE TO THE HOLIDAY WEEKEND.

JULY 12/13 STAR PARTY AT YOSEMITE NATIONAL PARK, GLACIER POINT. MEMBERS OF THE SJAA WILL BE SET UP AT GLACIER POINT FOR FRIDAY AND SATURDAY EVENING STAR PARTIES. PLEASE CONTACT THE EPHEMERIS EDITOR (415) 790-9250 BY 6/15 IF YOU WISH TO ATTEND. CAMPING WILL BE AT BRIDALVEIL CAMPGROUND.

JULY 13 THERE WILL ALSO BE A CLOSER-TO-HOME STAR PARTY THIS SATURDAY NITE AT FREMONT PEAK STATE PARK. DUSK TILL DAWN.

JULY 20 ANNUAL CLUB PICNIC AND EVENING STAR PARTY AT GRANT RANCH.

DEEP SKY NOTES
BY: STEVE GOTTLIEB

Though the summer Milky Way with its gaseous nebuale and star clusters is now prominently rising in the southeast, let's first bid farewell to the Spring galaxies with a look at a favorite of mine - M101.

For those without setting circles, this huge face-on Sc galaxy can be easily located by star-hopping from Mizar through a string of four mag. 5 and mag. 6 stars towards the southeast.

M101 was discovered by comet hunter Pierre Mechain on March 27, 1781. His description was as follows: "Nebula without star, very obscure and very large, 6 to 7 minutes in diameter, between the left hand of Bootes and the tail of Ursa Major. Difficult to distinguish with the wires lit."

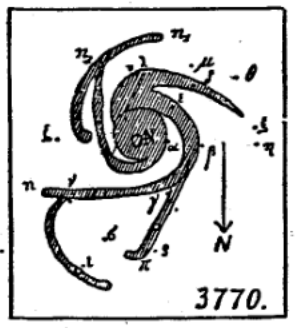
Though its total visual magnitude is 7.8 according to the SECOND REFERENCE GATAOLG OF BRIGHT GALAXIES, the light is spread out over a 30' x 30' region yielding a mean surface brightness of only 14.7! In fact, due to the lack of contrast in light polluted skies, M101 is a difficult object with my 13.1" from my from lawn in El Cerrito. Yet, in dark skies the glow is obvious in just an 8 X 50 finder.

At 100X, my C8 reveals a small bright core surrounded by a large pale circular glow. A couple of faint stars are superimposed north and northwest of the core. Use of a fairly low power and averted vision will best bring out the faint outer glow from the low surface brightness arms.

With my 13.1", this galaxy reveals a suprising wealth of detail. At Fremont Peak on May 14, 1983 a look at 88X revealed a chaotic spiral structure with 2 main arms broken into a number of distinct sections. Switching to 166X and 220X, the arms appeared clumpy and four nebulous "knots" were observed. These condensations are huge HII regions first observed by lord Rosse with a 72" and entered in the NGC with separate designations of NGC 5447/5449/5450/5451/5453/5455/5458/5461/5462/5471.

An excellent photo clearly revealing these knots can be found in Burnham's CELESTIAL HANDBOOK on page 2001. This photo is orientated with north to the right and east at top. The two most easily observed regions were NGC 5447 and 5462 visible 5 cm. lower left of the nucleus and 4 cm. above the nucleus on the Burnham photo. Visually these knots were similar to faint (about mag. 14), compact galaxies and each must be individually scrutinized at a moderately high power (15X - 20X per inch). NGC 5458 (2 cm. left of the nucleus on the photo) was barely non-stellar and NGC 5461 (located 3 cm. upper left of the nucleus) was the most diffuse of the knots.

Once a condensation was located and observed, I switched back to 88X to sketch its position within the overall structure for later photographic confirmation. You may want to compare the Burnham photo with the Rosse sketch of 1851 below.



FIELD OF VIEW
BY: JOHN GLEASON

SJAA GETS TAX EXEMPT STATUS

After 30 years, the San Jose Astronomical Association has finally received its tax exempt status. What does this mean to you? First, it means that the EPHEMERIS can now be mailed under non-profit organization rates. Second, your membership dues and contributions are fully tax deductable. Care to make a donation? Please contact any of the SJAA's board members for more information.

PARDON MY TYPO

A special thanks to all of you who gave me the positive feedback for the May EPHEMRIS. It took about 6 months to get settled into the monthly production of our newsletter and the format before you today. Essentially the only remaining problems are the few typographic and spelling errors that don't get cought before printing. I'll be working on this problem with new word processing software in the future. As for this bulletin, it has been done entirely on a new Hewlett Packard 110 computer and ThinkJet printer. Your editor may be loosing access to the HP3000 at work as well as the Laser Printer, so I wanted to try this system out. You will probably notice that the print type is slightly larger, making it just a little easier to read.

CLUB TELESCOPES

David O. York (408) 947-7573, currently has the clubs 14" Dobson telescope. If you want to use it, then please let him know.

George Dewart has the clubs 6" telescope and says that it can be picked up any time. And, you can contact him at (408) 257-6658.

The SJAA is still looking for the 12" reflector and a 2.4" refractor telescope. If anyone has one of these telescopes, could you please contact one of the SJAA board members or the Ephemeris editor.

YOSEMITE TRIP

There is still time to sign up for the July 12th/13th Yosemite Star Party. So that the park staff can reserve campsites for us, I will still need to send a list of those attending by 6/15. Call John Gleason, (415) 790-9250 and leave a message about the number of people and autos in your party. Thanks

MEMBERSHIP RENEWALS

SJAA members should have received their subscription renewal cards in the mail from SKY and TELESCOPE Magazine. These cards and renewal checks made out to SJAA,should be sent to Bob Fingerhut, 340 Rio Verde Pl., #4, Milpitas, Ca. 95035. Members who have not renewed by the end of June, stand to loose their subscripton's to Sky and Telescope and issues of the Ephemeris.

ASTRONOMICAL AUCTION SUCCESS

One hundred and fifty hungry bargain hunters attended the SJAA's 5th annual Astronomical Auction on May 11th. A variety of items ranging from Space Shuttle tiles to a C11 telescope went up for auction with the SJAA realizing over $600 towards operational costs and observatory fund. Remember, that those portions of sales that were donations to the SJAA are tax deductable! Everything went extremely well, with many items aready pre-registered. Can you believe it? The computers worked without any problems this year making for the smoothest running auction ever. As in previous auctions, eyepieces seem to be a big favorite. But many of the bigger items that don't usually sell well went in a fury of bidding. Kevin Medlock, our ephemeral auctioneer, provided his usual wit and "I love junk!" comentary. Jim Van Nuland and Jack Zeiders manned the terminals. Chris Pratt, Jack Peterson, and Dave Ambrose helped with item coordination. It was nice to see many new faces at the auction this year. Many of whom were visitors at the SJAA display in Valco Park on Astronomy Day.

CID CAMERA

Bruce de Graaf says that the CID Camera needs more work to get it to function properly with a regular television monitor. The original camera was stolen from his home last year and has been replaced with a newer model. Bruce tells me that he travels in a highly eccentric orbit. However, he can usually be contacted by sending a message to the following coordinates: (408) 578-6446. Bruce said that he would try and put together a little information package about the camera, its operation, and what remains to be done to get it working. Any Astro Hackers out there? Thank you for the update Bruce.

EQUIPMENT

I wasn't planing a big report this month. Usually the Riverside conference previews a lot of new telescopes and accessories that I was going to review next month. But on the other hand.....Celestron is considering a 20" telescope and is asking for your inputs. Of course a telescope of this size would probably be above the $20,000 mark. Many years ago Celestron sold a 22". I only know of one of these telescopes in operation, and that one is up at Incline Village, Lake Tahoe. The move up to larger aperture brings up an important point. At what price portability? The current C14 is at the limit of size and portability for most people (including myself). I would much rather see Celestron put R&D dollars into the refinement of their current model line. Here are a few suggestions:

1. Fix the Byers/Celestron worm drive. The drive error is no better than the older spur gear system. (speaking from 600 hours of experience behind the guiding eyepiece)

2. Beef up or shorten the fork arms on all of the telescopes. Much of the telescopes instability is due to the weak fork arms. When Kevin Medlock added rigidity to my C8 drive base, it only amplified the problems with the forks. The slightest touch on the telescope sends it oscillating for many seconds. Ever wonder why your tripod came with rubber feet? Try it once without them. The oscillation problem is worse without the rubber feet. This problem did not occur with the older sand cast tripods. Does anyone out there want to get rid of their Celestron 10? (short, hollow, sand cast forks!)

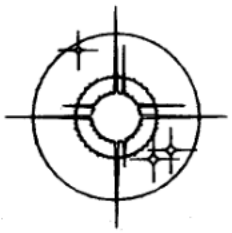
3. Paint options would be nice. Black may be okay on the smaller scopes, but C11's and C14's don't need to be radiating heat all night. This could be refered to in the future as the Celestron "Dew Catcher". An all white telescope with gray trim would be quite attractive. The telescopes manufactured by ASKO (see S&T Ads) are good examples of this. Remember that white radiates heat during the day, retains heat during the evening. This would reduce your chances of dew-up on those evenings of high humidity, but would not eliminate it entirely. You would still need a dew shield of some kind. Not offered as an accessory by Celestron for the 11 or 14.

4. Meaningful accessories! A computerized equitorial mount is meaningless to someone who can't name 20 deep sky objects, the constellations of the Zodiac, or know the difference between a full and a new moon. (well two out of three isn't bad). Meade instruments took a big step forward when they introduced the LX3 with built in quartz drive, DC to AC inverter, and drive corrector. We also had to wait for J.M.I. to come out with a decent electric focusing motor for the Schmidty scopes.

5. Leave the optics alone! The current sets of optics coming from Celestron are quite good. They are certainly better than those found in the telescopes of just a few years ago. The silver coatings option is by far the best inprovement to the optical system. Side by side comparisons between silver and aluminum coated optics indeed show an increase in overall light gathering ability, especially of faint extended objects. Claims of silver coated C11's performing the same as aluminized C14's keep pouring in.

Don't get me wrong about these suggestions. I have been using Celestrons since 1974 for observing and astrophotography. And I will probably continue to do so for many years to come. These telescopes opened up a whole new era in amateur astronomy and have probably done more to introduce new people to astronomy than any other instrument. While we may have to suffer with the "jiggles" for a time. The idea of being able to fit a 14" telescope into a Porsche is nice!

COMET COMMENTS
BY: DON MACHHOLZ



Two more returning comets have been recovered, bringing the years's total to three. This is a low figure for this time of the year, perhaps more comets will be discovered or recovered during the summer.
Two comets are visible to us: Comet Shoemaker (1984f) is in our southern evening sky, and Comet Halley is behind the sun. In our "What Goes Around Comes Around" section we'll look at updated orbital elements for Halley's today, and at some of the recent booklets about Halley's.

Periodic Comet Russell 1 (1985b): On April 9, J. Gibson recovered this comet from Mt. Palomar. The comet was near mag. 20, it is not expected to get any brighter than magnitude 17.

Periodic comet Honda-Mrkos-Pajdusakova (1985c): This was a most unusual recovery- Three amateur astronomers from Australia visually picked up this comet. On March 23, Maurice Clark and Andrew Pearce observed it, but they could not be sure of the observation. It wasn't until Apr. 18 that Clark re-observed it. All doubt was removed when Clark, Pearce and James Athanasou saw it again on Apr. 19. They used a 41 cm (16") reflector, the comet was mag. 10-11 and diffuse. It is expected to stay on the opposite side of the sun from us and is therefore not expected to become favorably placed.

PERIODIC COMET GIACOMBINI-ZINNER (1984E)

Moving through the "Summer" Milky Way, this comet holds a steady elongation as it moves northward. It was recovered a year ago, it now brightens rapidly in the morning sky. Watch this comet as it developes. The nucleus may be pancake-shaped and unstable, it may split. This comet is responsible for the Giacombinid meteors (Oct. 9)

DATE	R.A. (1950)	DEC	ELONG.	MAG.
05-25	20H 36.2	+29'35'	98'	12.8
05-30	20H 46.0M	+32'06'	98'	12.6
06-04	20H 56.2M	+34'42'	98'	12.3
06-09	21H 07.1M	+37'21'	97'	12.1
06-14	21H 18.8M	+40'02'	97'	11.8
06-19	21H 31.5M	+42'44'	96'	11.5
06-24	21H 45.6M	+45'25'	95'	11.3
06-29	22H 01.3M	+48'04'	94'	11.0
07-04	22H 19.3M	+50'39'	93'	10.7
07-09	22H 40.0M	+53'06'	92'	10.5

COMET SHOEMAKER (1984F)

Now in the evening sky and appearing to slow down, this comet is diffuse and appears 1' to 2' across. Although it is far south, try to get out to see this one!

DATE	R.A. (1950)	DEC	ELONG.	MAG.
05-25	12H 31.9M	-37°02'	131°	11.3
06-04	12H 05.5M	-35°42'	119°	11.3
06-14	11H 45.4M	-34°19'	107°	11.4
06-24	11H 30.8M	-33°07'	95°	11.5
07-04	11H 20.7M	-32°14'	85°	11.6

WHAT GOES AROUND COMES AROUND - HALLEY'S

On June 12, Halley's Comet is five degrees south of the sun as it passes from the evening to the morning sky. It will then be 434 million miles from the sun and 341 million from the Earth. Halley's is presently moving toward the sun at 41,083 miles per hour, or just under one million miles a day! The comet, whose photons fall on you each day, will remain near the sun (as seen from Earth) during June. Visual observatons resume in late-July. At that time it will be a difficult object, magnitude 14 and 35 degrees from the sun.

For those of you with computer programs for comet ephemerides, here are the orbital elements for Halley''s Comet from D. Yeomans, it is IHW Orbit #18, updated from the orbit I presented in the March issue.

Peri date: 1986 Feb. 09.44148
Arg. of Peri.: 111.84661°.
Incination: 162.23933°.
Epoch: 1986 Feb. 19.0.
Peri. Dis. (q): 0.5870993 AU.
Ascending node: 58.14398°.
Eccen.: 0.9672727

For magnitude, a study of the 1910 appearance, conducted by Morris and Green and published in the "Astronomical Journal" in 1982, give:

Pre-perihelion: Absol. Mag.= 5.47, "n"=4.44.
Post-perihelion: Absol. Mag.= 4.97, "n" = 3.07.

Recently we've seen a few booklets published which deal exclusively with Halley's Comet. Here's how you can get them.

An information packet is available for $4.00 from: Astronomical Society of the Pacific, Comet Packet Dept., 1290 24th Ave., San Francisco, CA. 94122

A 36-page booklet entitled "The Comet Handbook" can be obtained for $5.50 from: The Comet Handbook, P.O. Box 12484, Portland, OR. 97212-0484

A 32-page booklet ("Mr. Halley's Comet") costing $2.00 is being sold by: Sky Publishing Corp., 49 Bay State Rd., Cambridge, MA. 02238-1290

Each of the above three booklets adequately cover Halley's Comet for most observers. Two more detailed handbooks: "The Halley Comet Handbook" ($5.25) and "Halley Watch Amateur Observers Manual" ($9.95) are available from:

Herbert A. Luft, P.O. Box 91, Oakland Gardens, N.Y. 11364

And this is just a small sample of the booklets now out!

CALICO OBSERVATORY
BY: JIM VAN NULAND

Weather and malfunctoning alarm clock have conspired to prevent Spot observing, so single observation since recovery of the Spot last month.

May 15 was cool and clear, with Jupiter nearing the meridian as dawn approached. With Venus and a very old moon in the east, it was a lovely sky. Despite the very turbulent air, I was able to obtain a good timing, and to get a good look a the Spot at 305x using the apodizing screen. Without the screen, there was no detail whatever on Jupiter.

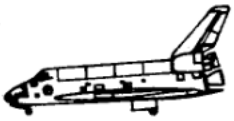
The Spot seems to have resumed its traditional football shape, and remains rather yellow with a slightly darker outline. The dent in the south edge of the søuthern equatoral belt is quite distinct, and readily leads the eye to the proper place. After that, patient watching is rewarded by moments when the Spot is very nicely seen. With steady air, it should be very easy to see.

I have had zero reports from you, the readers. Jupiter is rising earlier now, so there are more opportunities. Let me know of your results, expecially if you are using an instrument smaller than 8 inches, and I will report it here. Indicate the aperture and magnification used, and what the conditions were.

Clear Skies, Jim Van Nuland, 3509 Calico Avenue, San Jose, CA. 95124

Great Red Spot on Meridian PDT										
da	mo	d	h	m			mo	d	h	m
Sa	6	1	4	36	am	F	6	21	1	5 am
Tu	6	4	1	59	am	Su	6	23	2	44 am
Th	6	6	3	39	am	Tu	6	25	4	19 am
Sa	6	8	5	15	am	F	6	28	1	43 am
Tu	6	11	2	52	am	Su	6	30	3	21 am
Th	6	13	4	30	am	Tu	7	2	5	5 am
Su	6	16	1	52	am	W	7	3	0	57 am
Tu	6	18	3	32	am	F	7	5	2	31 am
Th	6	20	5	14	am	Su	7	7	4	13 am
						Su	7	7	11	59 pm
						W	7	10	1	37 am
						F	7	12	3	19 am

SPACE PROGRAM UPDATE
BY: BOB FINGERHUT



SPACELAB 3 COMPLETES MATERIALS /LIFE SCIENCE MISSION

The shuttle orbiter Challenger landed at Edwards AFB with the spacelab onboard, after extensive experimentation in space. Highlights of the flight included:

1. Crystals grown in fluid - 3 large triglycine sulfate cyrstals were to be produced for use in infrared detection. Initial porblems were overcome and 2 crystals were produced.

2. Crystals grown from vapor - A single mercuric oxide crystal was to be produced for x-ray and gamma-ray detection. After modifying procedures to stimulate growth the crystal was grown.

3. French crystal growth experiment - Mercury iodide crystals were grown to study nucleation characteristics.

4. Drop dynamics - A failed power supply was bypassed allowing the study of the use of sound waves to manipulate fluids in zero-g.

5. Geophysical fluid flow cell - The instrument was used to simulate atmospheric dynamics of the Sun, Jupiter, and Earth. It generated a lot of video film data but also experienced intermittent shutdowns.

6. Atmospheric chemistry - The instrument returned detailed data on atmospheric chemical constituents in the upper atmosphere which should help answer questions about Earth's ozone delpetion and potential greenhouse effects. Loss of an insulating gas in a laser caused the instrument to be shut down after 19 of 60 planned data takes.

7. Auroral observation - Solar activity created an intense geomagnetic storm on 30 April. The aurora was so large that the Challenger flew through it. Observations were about 3 times per 12-hour wørk shift. An ion detection experiment did not function properly.

8. Wide - Field Camera - This experiment had to be abandoned due to a bent mechanism in the shuttle airlock.

9. Animal-holding facility - Two squirrel monkeys and 24 rats were carried on the flight. One of the monkeys had trouble adapting to zero-g, as do about half of the astronauts, but was active and eating well again about mid-way through the flight. A much publisized problem was encountered with control of food crumbs and animal feces when the cages were opened for feeding and cleaning.

10. Urine monitoring system - Only calibration runs were made because of a problem in which the system would frequently spill water placed in it.

11. Small satellite deployment - The Nusat, Northern Utah Satellite, designed for radar calibration was deployed from a getaway special conister on the first day of the flight. The Glomar satellite, built for the Defense Advanced Research Projects Agency, failed to deploy from its canister.

12. Motion Sickness - The effects of space motion sickness on the astronauts was studied. The use of bio-feedback techniques to control it were evaluated.

IN ORBIT REPAIR OF LEASAT PLANNED

NASA has developed a plan for bypassng the sequencer and ordering the Leasat to fire its booster to transfer it from shuttle orbit to geosynchronous orbit. The repair would be performed during mission 51-I in August. A spacewalk would be needed to retrieve and repair the satellite. Another Leasat is planned for launch on mission 51-I.

FOURTH SHUTTLE ORBITER DELIVERED

The Atlantis was delivered to Kennedy Space Center April 13th. First launch is scheduled for the 26th of September.

SPACELAB D1 DELIVERED MAY 1 FOR OCT. 16 LAUNCH

The D1 mission to be launched on the orbiter Columbia, is a dedicated German flight. It consists of experiments in the fields of botany, biology, medicine, life sciences, materials, boundary layer effects and navigation.

INFRARED TELESCOPE IN 747 SP PROPOSED

NASA has funded a feasibility study for placing a 3.0 - 3.5 meter telescope in a 747sp aircraft by 1989.

NASA - NOAA DISPUTE SETTLED

NOAA wanted to launch Tiros-N weather satellites on refurbished Air Force Titan boosters. NASA felt that removing the launches from the shuttle would raise costs and undermine the shuttle program. The settlement transfers to NASA all budget authority for launches and for modification of NOAA K, L, and M spacecraft. Launches will be on the space shuttle. NOAA would also provide environmental remote sensing instruments for a polar orbiting platform to fly in conjunction with the U.S. space station.

SOUND SUPPRESSION SYSTEM TESTED AT VANDENBERG AFB

The test was conducted with the space shuttle orbiter Enterprise stacked on the launch pad. It was successful.

MEDICAL HORMONE PRODUCED ON FLIGHT 51-D IN FLIGHT 51-D IN APRIL

The electrophoresis experiment processed 100% of the sample during the flight. Enough was produced to begin testing. The hormone which has not yet been identified could be on the market by 1988. McDonnell Douglas has requested that a payload specialist, Robert Wood, be assigned to mission 61-B in November. That will be the first mission with a payload bay mounted processing system.

CLUB TELESCOPES

The SJAA maintains three telescopes for the use by its members. Loan periods are two months, and all arrangements must be made between the person wanting to borrow the scope and the person having it. If your two months are up and no one indicated an interest in borrowing the telescope at that time, it's yours until someone does. All that is asked is that a board member or bulletin editor is notified when a telescope chanages hands.

CONCERNING WANT ADS: All SJAA members and friends may place astronomical related ads in the Ephemeris free of charge. All ads will run for two months unless the editor is notified otherwise. Please submit by sending to "EPHEMERIS", 5361 Port Sailwood Dr., Newark, Ca. 94560.

MORE FIELD OF VIEW
BY: JOHN GLEASON

ASTRONOMY DAY

Nearly 500 people stopped by the SJAA's Astronomy Day display at Vallco Park Shopping Mall in Cupertino. Paul Mancuso brought along his 5" refractor and a 6" relfector. Jack Peterson manned the slide show, Bob Fingerhut answered questions about his 16" reflector, and your editor informed people about how to take photos through the telescope with the help of my astrophotography display. I am very happy to say that several of the people that we met were also at our astronomical auction.

This was the only time that I can recall, that the SJAA's Astronomy Day celebration was held inside of a building, instead of out in the parking lot. Over all it was a huge success and I hope to see many new faces at our next general meeting. Many people are into astronomy but had no idea that the San Jose organization existed. They certainly do now!

There was also a lot of interest in Halley's, and I was particularly surprised to here people tell me that they knew that it was not going to be easily seen. Still there were others who are expecting it to "shoot across the sky" in a blaze of fire.

All together it was a fine day. I only wish that more members could have participated in the display.

CROWDED PEAK

One of the biggest gatherings of amateur astronomers in the bay area happened on May 19th at Fremont Peak State Park. Over 100 automobiles and motor homes, along with nearly 300 astronomical observing types crowded into the observing areas Saturday evening. Even the upper parking lot, normally empty, was filled with cars and telescopes.

So why the big gathering? Probably people had read about the fine summer weather we had the month before. Or has comet mania already struck the Bay Area? Well neither the weather or comet were good. Halley's was lost in the solar glare. And, with sunset, in came the fog! The fog did roll out an hour later, but relative humidity remained at around 90%. Now even though newtonion owners do not have much of a problem with mirrors dewing over, eyepieces tend to fog up rather quickly when a hot eyeball gets close to the field lens. This was the case all evening. By 1 AM, only Bob "I'll do it myself" Fingerhut's 16" was in operation. Despite a failed drive motor, Bob still impressed us all with some fine views through this telescope. The Coma cluster of galaxies was most interesting.

Kevin Medlock brought along his new Celestron 4" fluorite refractor. Mounted to a pre-Polaris equatorial mounting that was attached to a very stable wood tripod, the telescope yielded the finest airy disks that I have ever seen. This was accomplished by using a 4mm (I now know why they made these) Brandon eyepiece combined with a 2x Dakin barlow lens. The resulting 450X split double stars beautifully. Hardly any light was seen in the outer diffraction rings. Just a solid airy disk! And...."Where's the color?".

It sure did change my mind about refractors. If you were into double stars, then this just might be the telescope for you. A quick turn to M13 brought me back to reality. There is certainly no substitute for aperture here. I've looked at M13 through too many large telescopes to appreciate a view through a 4". Nevertheless, it would be nice to mount one of the fluorite's to the back of my C14. The best of both worlds?

Kevin and I did contemplate stacking barlow lenses to yield 1800x, but someone else has already done this.

Later I was able to make a direct comparison with the 4" fluorite vs a 4" achromat. Both telescopes are being sold by Celestron. The non-fluorite scope was mounted on the new Polaris equatorial. Even though this is a larger mounting than what Kevin was using, the telescope suffered from a lot of vibration. The key here is the tripod design. Kevins massive hardwood tripod is not only beautiful but stable. His 4" damped out in 1 sec. The non-fluorite took around 5 seconds. The result of a cheap and flimsy tripod. Optically the views were quite different. The non-fluorite scope yielded star images that were quite yellow and had very prominant diffraction rings. Not nearly as much light in the airy disks as in the fluorite. You get what you pay for!

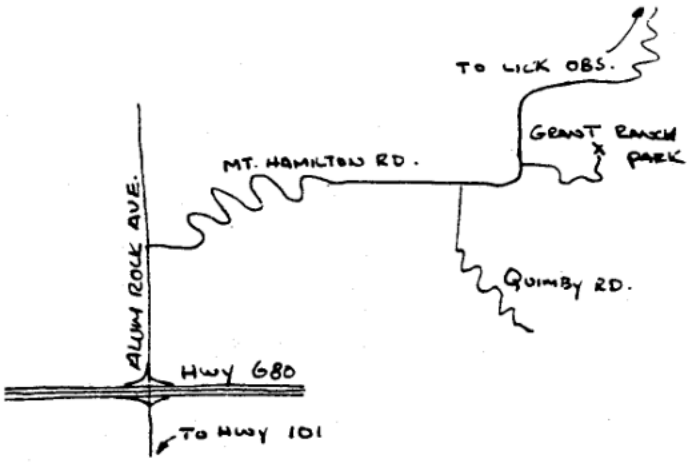
Jim Eiselt suffered from a problem clock drive in his C11. Seems that the whole mechanism fell apart inside the drive base. Definitely not the kind of thing you want to have happen in the middle of an hour long exposure. While helping Jim with the drive, I noticed that the worm gear support was similar to that in my Super C8. The one that was modified by Kevin Medlock. Sure enough, Celestron had adapted Kevin's design for production units, patterned after a C11 prototype drive base he had done for them a few years back. The biggest surprise was that this was news to Kevin!

GENERAL MEETINGS:

General Meetings are held once a month at the Los Gatos Red Cross building, Los Gatos California. This is also the locaton for the SJAA's "Indoor Star Parties". The building is located at 18011 Los Gatos-Saratoga Rd. From Hwy. 17 south, take the Hwy 9 (Saratoga) exit and continue up Los Gatos-Saratoga road for about 1.5 miles. Turn right at Rose Ave. Then turn right immediately into the parking lot of the Red Cross building. MEETINGS BEGIN AT 8 PM.

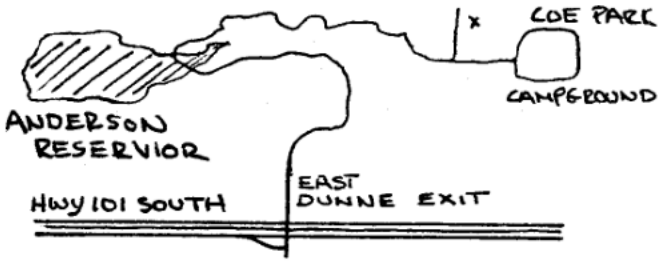
GRANT RANCH COUNTY PARK:

This site is becoming a popular one for the SJAA so come and try it out. Located on Mt. Hamilton Road, take Hwy 101 (either direction) to Alum Rock Rd. Go east up Alum Rock Rd. and turn right onto Mt. Hamilton road and follow it. Grant Ranch is just past the Quimby road intersection. After sunset the parks front gate will be locked with the SJAA's combination lock. Use the sequence 4565 to open, but be sure to lock the gate behind you, coming or going. There are two gates, the lock may be on the exit gate, if so, enter the park from this gate. There is also an observing area further up the Mt. Hamilton road that is also part of the county park. Contact the SJAA for directions.



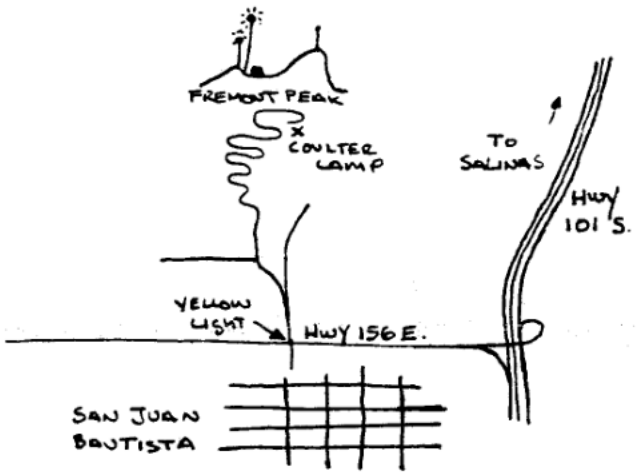
HENRY COE STATE PARK:

Take Hwy 101 south towards Gilroy and take the East Dunne exit. continue east towards the hills (past Anderson Reservior) for about 12 miles to the park. Past the park entrance you will see old ranch type buildings on the right and a horse trough. The gate (on the left) is locked but the club combination is 4565. Always lock the gate after yourself. If arriving after dark, please park outside the gate and hike in first to find an observing site before driving in. Parking lights only after dark, please.



FREMONT PEAK STATE PARK:

Take Hwy 101 south towards Salinas. Then take Hwy 156 east (San Juan Bautista exit) for two miles to a yellow flashing light. Turn right and go about 1/4 mile to where the road curves slightly to the left and splits. Stay left for about 25 yards and then bear right. (watch for the Fremont Peak sign). Follow the road for about 11 miles up into the park. SJAA sets up at Coulter Camp. It's visible on your right as you drive up into the main area of the park. Parking lights only after dark, PLEASE!



EPHEMERIS is published monthly by the San Jose Astronomical Associaton, 3905 Calico Ave., San Jose, CA. 95124

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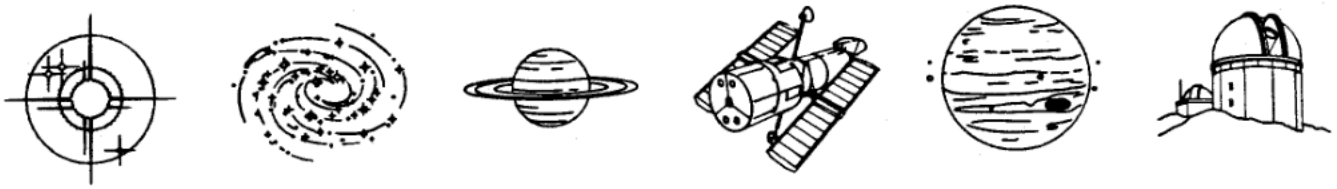

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Please bring this form to any SJAA meeting, or send to:
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Questionnaire (optional)

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

_____

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_____

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

_____

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

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