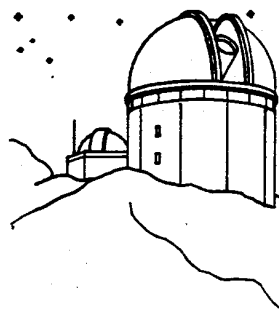


EPHEMERIS

OF THE SAN JOSE ASTRONOMICAL ASSOCIATION



SEPTEMBER 1988

*
* SEPTEMBER 3RD
* 2 PM SWAP MEET - 8 PM EQUIPMENT NIGHT *
* GET READY FOR COMET MACHHOLZ !!! *
*

- SEPT 3 SWAP MEET FROM 2 PM AT THE RED CROSS BUILDING, FOLLOWED BY THE ANNUAL SLIDE AND EQUIPMENT NIGHT AT 8 PM.
- SEPT 9 SPECIAL FRIDAY NIGHT ASTRONOMY CLASS AT FREMONT PEAK STATE PARK. MEET AT THE FPOA OBSERVATORY, 8 PM. REPLACES THE IN-TOWN MEETING.
- SEPT 10 FIELD EXPEDITION FOR ASTRONOMICAL OBSERVATION TO HENRY COE STATE PARK. DUSK TILL DAWN. SUNSET, 7:17 PM. NEW MOON
- SEPT 16-17 MARS WATCH, BRANHAM LANE CITY PARK, SAN JOSE. COME SHOW THE SKY TO THE PUBLIC! SUNSET 7:09 PM, 5-DAY MOON. MARS RISES AT 8:06. SATURN WELL UP.
- SEPT 24 SJAA BOARD MEETING AT TOM AHL'S HOUSE, 5:30 SHARP. THIS IS EARLY ENOUGH TO GET OVER TO BRANHAM LANE PARK BY SUNSET. 1260 BUTTERFLY DRIVE, OFF FIREFLY BETWEEN REDMOND AND CAMDEN.
- SEPT 30 MARS WATCH, BRANHAM LANE CITY PARK. SUNSET 6:46 PM, NO MOON, MARS US AT 6:52 PM.
- OCT 1 ERNIE PIINI REPORTS ON "ECLIPSE OVER BORNEO". SLIDES AND SOUNDS OF THE ECLIPSE OF MARCH 18.
- OCT 7-8 MARS WATCH, BRANHAM LANE CITY PARK. SUNSET 6:37 PM, NEW MOON. MARS UP AT 6:23 PM. SATURN IS WELL UP IN THE SOUTH.
- OCT 8 STAR PARTY AT FREMONT PEAK STATE PARK. SUNSET, 6:34 PM. NEW MOON. ASTRONOMICAL TWILIGHT ENDS AT 8:05 PM. MORNING TWILIGHT, 5:43 AM.
- OCT 15 STAR PARTY AT GRANT RANCH COUNTY PARK. SUNSET, 6:25 PM. 25% MOON SETS AT 9:23 PM, ASTRONOMICAL TWILIGHT WOULD END AT 7:56 PM. MORNING TWILIGHT, 5:49 AM.

FIELD OF VIEW
BY: JOHN GLEASON

NUMBER 4 FOR DON MACHHOLZ

On the morning of August 6th, the SJAA's own Don Machholz discovered his fourth comet! Discovered at magnitude 8.6, Comet Machholz (1988j) is inbound passing through the constellation of Orion in the early morning sky. (see enclosed ephemeris of comet positions) Don found the comet using his homemade 5-inch binoculars. On the morning of August 12 your editor had an opportunity to observe the comet with a 55mm fluorite refractor from a sierra location. At 4 am PST, the comet was an easy find, visible at around 8th magnitude. I estimate the size to be 3 to 4 arc minutes.

In late September, we'll pick the comet back up in the evening sky as it makes its way around the sun.

SEPTEMBER 3RD SWAP MEET AND EQUIPMENT NIGHT

We will hold a swap meet starting at 2 pm preceding the Slide & Equipment night on September 3rd. Bring the stuff you forgot to bring for the auction. Following the Swap meet at 8 pm will be our annual slide and equipment show-and-tell by the membership. Everyone is encouraged to bring in telescopes, equipment, and recent astrophotography to share with the group. If you don't, you'll be treated to yet another look at Jim Van Nuland's orange 4 1/4" telescope on the funny-looking pipe mount!!!

MARS WATCH - '88

The SJAA will be holding a long series of star parties in the Branham Lane park, to show Mars to the public. Specific dates are in the calendar. If you have not participated in public events, you are missing one of the big kicks in astronomy. Mars will be near opposition, closer to Earth than for many years. In addition, Saturn will be prominently featured, along with other celestial treats as available. Tell your friends and co-workers!

ASTRONOMY CLASS FIELD EXPEDITION.

A special Friday evening astronomy class will be held on September 9th. Jack Zeiders is planning a special program for those students of the class. The class will have exclusive use of the FPOA 30-inch reflector this evening. Don't miss it and mark your calendars. Formal program to begin around 8:30 PM.

FROM THE PRESIDENT BY: TOM AHL

PROJECT 2000

You all know about the 30 inch telescope at Fremont Peak and it's creator, Kevin Medlock. Well, once again Kevin has come up with another challenging project. In Australia there is a 70" mirror blank that is available for the paltry sum of \$34,000 (not including shipping).

We (both the SJAA and its Board of Directors) have been asked to pledge a \$1000+ to this project, if we are interested in a challenging endeavor that will take approximately 10 years (hence the title).

On August 6th we, the Board, had a meeting to discuss this possibility, and tentatively have decided to pledge not only \$1000 but also our support and any expertise (brains, brawn, whatever useful) to help Kevin bring this telescope to reality.

What we, the Board, ask you, the Members, is to give us your opinion (Pro or Con) as to whether or not you want the SJAA to be involved in this project. Not only to pledge a \$1000 but to also commit ourselves to dedicating our time, resources, and energies to see this project through. One of the considerations is whether or not to use our "Observatory Fund" to help finance this project. Also we will need you, the Members, to pledge what ever you can to a special fund, called "Project 2000" that when the mirror is here in Kevin's control, we will be able to help with the financing of the observatory project. We do not want money right now, just pledges in order to determine how much help our club can give Kevin and his coworkers.

Please contact any of the Board Members if you have any questions, comments or whatever concerning this project.

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

The foothills east of San Jose offer many astronomical sites. This month we'll examine one on the end of San Felipe Rd.

By air this site is only four miles south of observing locations at Grant Ranch Park, but it is not connected by road. To get to it take either San Felipe Rd. southeastward out of the Evergreen area of San Jose, or take Metcalf Rd. eastward off Hwy 101 in Coyote. (Those living north of these areas might find it quicker to take Hwy 101 south to Metcalf, rather than San Felipe, because San Felipe Rd. is long, curvey, and narrow in places.) These two roads meet at the three-way intersection. Take the third branch, this is called San Felipe too and heads eastward. After 0.5 miles you get to a "T", go left. This road heads north, at 1.6 miles it dead ends. This is the site.

You'll find yourself at a turn-around on a large flat plain. A range of hills is to your west, these run as high as seven degrees and help to block light pollution from San Jose. Another range runs to your east: it also rises to seven degrees. The horizons drop down to three degrees in your north and south. You are at 1065 feet elevation.

Set up on the left (west) side of this area, next to the white fence. The owner (residing at 8825 San Felipe Rd) has given us permission to use this area for astronomical observation, as long as we don't block the driveways or get too loud. The fence measures 50 feet long, this allows room for about three to five cars and instruments. The surface is level, made of small gravel and paved road. Two residences, one east and one west, are several hundred yards away. They have been informed that we may be here to star-gaze.

At night this is a dark site, darker than Grant Ranch Park, and nearly as dark as Henry Coe Park. The Milky Way is plainly visible. Light pollution runs from the west to the north, and there is some in the south. The low horizons help to make this an impressive site. There should be very little traffic here, but occasionally a car will come down here to turn around. Fog could be a problem on some nights.

All in all, this small site is good for astronomy. If you want a quick trip to see Mars in dark skies, or photograph a galaxy or star field, this could become one of your favorite sites.

SEPTEMBER STARRY NIGHTS BY: RICHARD STANTON

METEORS - Only one Minor Shower will reach maximum this month. The South Piscids on Tuesday, September 20th. The reported speed of these meteors is a modest 26 kilometers per second. Independent of any shower, on a dark night well away from city lights, an overall average of seven meteors per hour can generally be noted. Unless you take the time to backtrack to the radiant source of these sporadic meteors they are easily counted in with other recognized showers. Check it out sometime when you're having one of those sleepless nights and then write it up for the Editor over your "sunrise" cup of coffee.

SOLAR ECLIPSE - On September 11th there will be an Annual Solar Eclipse in the southern Hemisphere. A Solar Eclipse of any type can only occur at the New Moon, when the moon is interposed between the Earth and the sun. Whether an eclipse is Total or Annular depends upon the distance of the moon from the earth at the time of eclipse. When the Moon is closer to the Earth its angular diameter is large enough to "totally" eclipse the disc of the sun. When the time of eclipse finds the Moon slightly farther from the Earth the angular diameter of the Moon is a little smaller than the angular diameter of the sun and during eclipse there is a small solar ring (annulus) around the darkened moon. Anybody care to guess why it's called an (annular) eclipse? Always said that we amateur astronomers were smarter than the average bear.

ECLIPSE FOLKLORE - Among the Cakchiquel, one of the tribes of the Maya, a solar eclipse is far more dangerous than a lunar eclipse as it brings forth the evil spirits from the bowels of the Earth to seize the people. The first tribal obligation of the people during a solar eclipse is to run to the tops of nearby hills and with every noisemaker available produce the loudest cacophony possible. The noise is supposed to help the sun during its time of weakness to restore its strength and drive the evil spirits away. (By the way, that's pronounced Cakchiquel.)

EQUINOX - The Autumnal Equinox brings us the beginning of Autumn (want another etymological test?) on September 22nd at 12:29 Pacific Daylight Time. The equinox actually occurs when the center point of the sun lies precisely on the Celestial Equator. The celestial equator is a projection of the Earth's equator out into space. On the day of an equinox the sun rises exactly due East of your location and sets exactly due West and is therefore a perfect time to follow the ancient rites and correlate these points to some topographical marking on your horizon. On the equinoctial days at the Castillo in Chichen Itza, about an hour before sunset, an undulating shadow line is cast from the northwest corner of the building on the western side of the north stairway which has a serpent head on the lower end of the balustrade. The slithering shadow body writhing from the serpent's head creates quite an impression. You can recreate this event by tying a really large snake to your telescope leg and inviting your friends and loved ones over for a quick look at the the sun.

OCCULTATIONS - This will be a good month for our members who are into Occultation Timings as the moon goes dancing among the Pleiades. At 11:27 and 11:42 PDT on the evening of September 1st the bright stars 19 and 20 Taurus

will respectively reappear on the lunar dark limb. The will reappear at Position Angles 290 and 256 in the referenced sequence. 19 Taurus, Taygeta, is a 4.4 magnitude star and 20 Taurus, Maia, is a 4.0 star. The moon will be 20 days old at some 70% illumination. While this may be a Thursday night, it doesn't take long to set up binoculars provided you don't get them caught in your jammys. GOOD OBSERVING UNTIL NEXT TIME!!!

COMET COMMENTS BY: DON MACHHOLZ

Periodic Comet Temple 2 remains visible in the evening sky. Meanwhile, one new comet has been found and two other have been recognized on images taken last October.

Solar Max Mission 1 and Solar Max Mission 2 (SMM 1 and SMM 2): These two comets have been found on data recorded from this satellite last October. Both comets were probably from the Kreutz Sungrazer Group, and they could not be detected as they receded from the sun. SMM 1 was at perihelion on Oct. 6.1 and reached mag. 0 in the two recorded images. SMM 2 was at perihelion on Oct. 18.0 and reached mag. -2 in three images. Both were undetected from earth.

Comet Machholz (1988j): I discovered this comet on Sat. Aug. 6, in the morning sky at mag. 8.6. Motion was to the east at 1.4 degrees/day. I was using my 5" homemade binoculars at 29X. The sweeping time since my third comet discovery (May 1986) was 475.5 hours. At this writing no orbit has been computed.

Periodic Comet Tempel 2 (1987g)

DATE	R.A. (1950)	DEC	ELONG	MAG	NOTES
08-22	16h 18.0m	-18°30'	97°	9.1	This comet will be
08-27	16h 29.9m	-20°18'	96°	9.1	closest the sun on
09-01	16h 42.8m	-22°01'	94°	9.0	Sept. 16 at 128 million
09-06	16h 56.7m	-23°38'	92°	9.1	miles. That distance
09-11	17h 11.6m	-25°08'	91°	9.1	and its distance from
09-16	17h 27.5m	-26°30'	90°	9.1	earth (89 mill. mi.)
09-21	17h 44.2m	-27°43'	89°	9.2	both increase after
09-26	18h 01.6m	-28°45'	88°	9.2	that date. It will
10-01	18h 19.7m	-29°36'	87°	9.3	set before midnight
10-06	18h 38.3m	-30°14'	86°	9.4	by month's end.

Comet Machholz (1988j)

DATE	R.A. (1950)	DEC	ELONG	MAG	NOTES
08-12	05h 16.2m	+00°12'	63°	7.8	This prelim. orbit on
08-17	05h 54.4m	-00°17'	59°	7.2	IAU Cir. 4637 shows
08-22	06h 38.9m	-00°48'	52°	6.5	the comet closest the
08-27	07h 29.1m	-01°15'	44°	5.7	sun on Sept. 17 at 0.15
09-01	08h 22.7m	-01°30'	36°	4.9	AU. N. Hemisphere
09-06	09h 17.2m	-01°19'	26°	3.8	observers lose it in
09-11	10h 11.6m	-00°28'	17°	2.2	morn. twilight by 9/6.
09-26	13h 20.6m	+04°48'	19°	3.5	In late Sept. we'll
10-01	14h 11.5m	+04°33'	27°	5.0	pick it up in the
10-06	14h 56.7m	+03°50'	34°	6.0	evening sky.

SEEKING COMETS

We have seen that some years produce many comets while other years produce few comets. When we study new discovery numbers in small groupings (ie: the number of comets found each year) discrepancies seem to appear. In larger groupings these peaks and valleys smooth out.

We have also seen that the number of comets found each year has been on a

gradual rise for the past few centuries. Better and more thorough comet hunting techniques account for this.

Now we're going to group the data into five-year intervals and study the number and percentage of comets found by amateurs, and the satellite finds.

In the table below we see each five-year period, the number of amateur, professional and satellite finds, the total number of new comets found, and the percentage of comets discovered by amateurs. The satellite category includes those even if also found by professional and amateurs, it also includes the SMM 1 and the SMM 2 comets described above.

YEAR	AMAT.	PRO.	SAT.	TOTAL	% AMAT.
1950-4	8	15	0	23	34.8%
1955-9	11	8	0	19	57.9%
1960-4	10	8	0	18	55.6%
1965-9	15	12	0	27	55.6%
1970-4	8	19	0	27	29.6%
1975-9	20	25	1	45	44.4%
1980-4	12	25	11	48	25.0%
1985-88j	15	22	2	39	38.5%
TOTALS	99	135	13	247	40.1%

We see that amateurs have found about 40% of all new comets, the variance being +/- 18%. Perhaps 20% of the professional-found comets could have been discovered by amateurs if the professionals hadn't found them. These are objects such as Comet West, Comet Kohoutek and Comet Wilson. But most professional-found comets remain faint and would always be beyond the range of amateurs' scopes. Generally, therefore, the professionals do not "steal" comets that would have been found by amateurs.

Do amateurs still have a role in cometary astronomy? At the 1988 WAA Awards Banquet, three of the top five awards were given to amateurs involved in comets. The fourth award was presented to an amateur working in both comets and variable stars, and the fifth award went to a variable star observer.

The number of comets found by satellites has depended upon the type of satellite in orbit. IRAS found six new comets in eight months. These were roughly 90 degrees from the sun and ranged from magnitude 6 to 17.

The six Solwind comets, found between 1979 and 1984, were all Sungrazers. All crashed into the sun. These were detected because the satellite scanned only the solar region. Each was "discovered" after the demise of the comet, and in no case was the comet observed from earth. All of the comets are from the Kreutz group. The satellite was destroyed in a "Star Wars" test in Sept. 1985.

The two Solar Max Mission Comets are also from the Kreutz group and were not observed from earth. The SMM satellite observes only the solar vicinity. find these. As for the professional discoveries, the Shoemaker program has made a difference in recent years, but again we can suspect a variance in the number comets.

ASTRO ADS

MEADE 2080 with tripod and wedge. This is a fully equipped 8-inch catadioptric telescope with lenses, motor, and many accessories. It is not a stock telescope, but a special instrument provided by the vice president of Meade for astrophotography by personal request. It has superfine resolution and the best optics available for its size. It comes with case, dew heater, many Erfle, Plossl, wide-angle, etc. eyepieces. Best offer. Call Dave Klausner, 737-5260. 9/88

SKY & TELESCOPE collection for sale. 340 issues of S & T from years 1944 through 1978. Mostly fair to excellent condition. The whole lot will go for \$295. However, if anyone cares to make an offer above this figure will be given preference. Shipping anywhere in the continental USA is included in the price. Interested parties who wish to communicate further on the matter may write to: William Hunkins, 124 Columbia Heights, Brooklyn, NY, 11201. Or you may phone at (718) 625-3600, preferably Monday evenings, 8 - 9 PM EST, Saturday

afternoon or evening before 9 PM EST, or Wednesday evening, 6 - 6:30.

FOR SALE - Celestron SP-C6 complete with Celestron Dual Axis drive, 26mm, 13mm, and 6mm eyepieces. Also, Parks 2x barlow and Cannon T-adapter, carrying cases (2) - \$875 or best offer. Celestron 10 X 50 binoculars - \$80. Contact Jim at P.O. Box 988, Pittsburg, CA. 94565 or 415-625-2832. 8/88

EMPLOYMENT OPPORTUNITY - Finial Technology is a start-up company developing the first Laser Turntable. They are seeking an optical systems engineer with 5+ years of experience in the design and development of optical systems. Ideally, you have had hands-on experience with the development of laser diode based optical systems and understand how to specify, mount, and align standard optical components. They are looking for a self starter who can take a lead role in the current product as well as future products. Please send your resume to: Finial Technology, Inc. 707 East Evelyn Ave. Sunnyvale, CA. 94086 8/88

WANTED -- Celestron C14 tripod. (Not over \$100.) 3-inch Cassegrain telephoto/spotter w/tripod, \$100. Contact: Nick Doukas 408-462-0209 7/88

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

SPACE PROGRAM UPDATE BY: BOB FINGERHUT

SUCCESSFUL TEST OF SHUTTLE ENGINES

The engines of the space shuttle Discovery were fired for approximately 20 seconds on August 10th. This flight readiness firing, on the launch pad, was a major milestone in the effort to restore the shuttle to flight status. A launch in late Sept. or Oct. now appears likely. Before the launch there must be one more full up test of the redesigned solid propellant motors. This test is now scheduled for late August. Also, a leaky fuel line in an orbital maneuvering engine pod must be repaired. At this time a decision has not been made as to whether the repair can be made on the pad or if the shuttle will have to be rolled back into the vehicle assembly building.

FATE OF THE SPACE STATION "FREEDOM"

The House and Senate joint Appropriations Subcommittees overseeing NASA have agreed to a Fy '89 funding of \$900 million for the space station. That is only \$67 million less than originally requested. This may seem like a victory, but the subcommittee stipulated that only \$385 million will be available until May 15th. This is to give the next president time to re-evaluate the program. In early August George Bush declared his strong support for the development of the space station. A Michael Dukakis campaign position paper states that he supports a technologically sophisticated space science and engineering laboratory. But, he would examine alternatives including a station that need not be permanently manned.

In other station news: The name "Freedom" has been chosen for the space station. Also the multinational signing ceremony for the agreements with the international partners is scheduled for late September.

FIRST TITAN 4 READY FOR LAUNCH

The first Titan 4, an unmanned launch vehicle with slightly more payload capacity than the shuttle, is on Pad 41 at Cape Canaveral. The first launch of Titan 4 is scheduled for October.

SOVIETS TARGET MARS FOR EXPLORATION

The Soviets launched probes on 200-day Mars trajectories on July 7 and 12. Each probe has a Phobos lander and a Mars orbiter. The Soviets have fixed 1994 for their next Mars mission. They plan to deliver a heavyweight payload including a large Mars rover. They also plan a sample return mission in the 2000-2005 period and a manned Mars mission in 2005-2010. (Then it will truly be the "Red" planet! - ed.)

NEW IDRIA DARKNESS BY: MARK MATTOX

Deep within every amateur astronomer is the desire to find the darkest, lightless, obscure observing site. I am always interested in finding a darker site. It's as if I am never satisfied. I always think that it might be slightly clearer over the next rise. With this desire in my conscious, I was informed by Don Machholz and Rich Page of Gerry Rattley's New Idria site. Veteran SJAA members may remember this locale, however for myself it was a new opportunity to satisfy my goal. Gerry first published his findings in the April Ephemeris of 1982. By following the directions you can understand the remote nature of this site. New Idria is about 25 miles north of Coalinga, 30 miles east of King City, and 40 miles west of nowhere. Actually, take US 101 to Gilroy and exit on to California 25 into Hollister. Continue on 25 past Tres Pinos into the town of Paicines, 13 miles outside of Hollister. Here turn left onto country road J1. Then it's 30 miles on J1 till you reach Panoche Road. At this point J1 turns off to the left, but you won't really notice it, just keep going straight on Panoche Road 24 more miles into New Idria.

After much deliberation I convinced Don to make an effort and go down to New Idria. On the evening of July 15 both Don, his wife Laura, and I started off for Gerry's elusive site. Since it was a Friday night both 101 and 25 were jammed with cars, but once on the county road traffic just disappeared. After about 25 miles through valleys and cattle ranges the sky slowly darkened to a jet black. The Milky Way was rising over a range of mountains and from the truck it was breathtaking. We were just over half way there and already the sky looked better than Fremont Peak. It was eerie because it was so dark. Rarely would we pass a ranch house which would lonesomely shine by itself. By the time we came into New Idria we had not seen a single car for over 54 miles of county back roads.

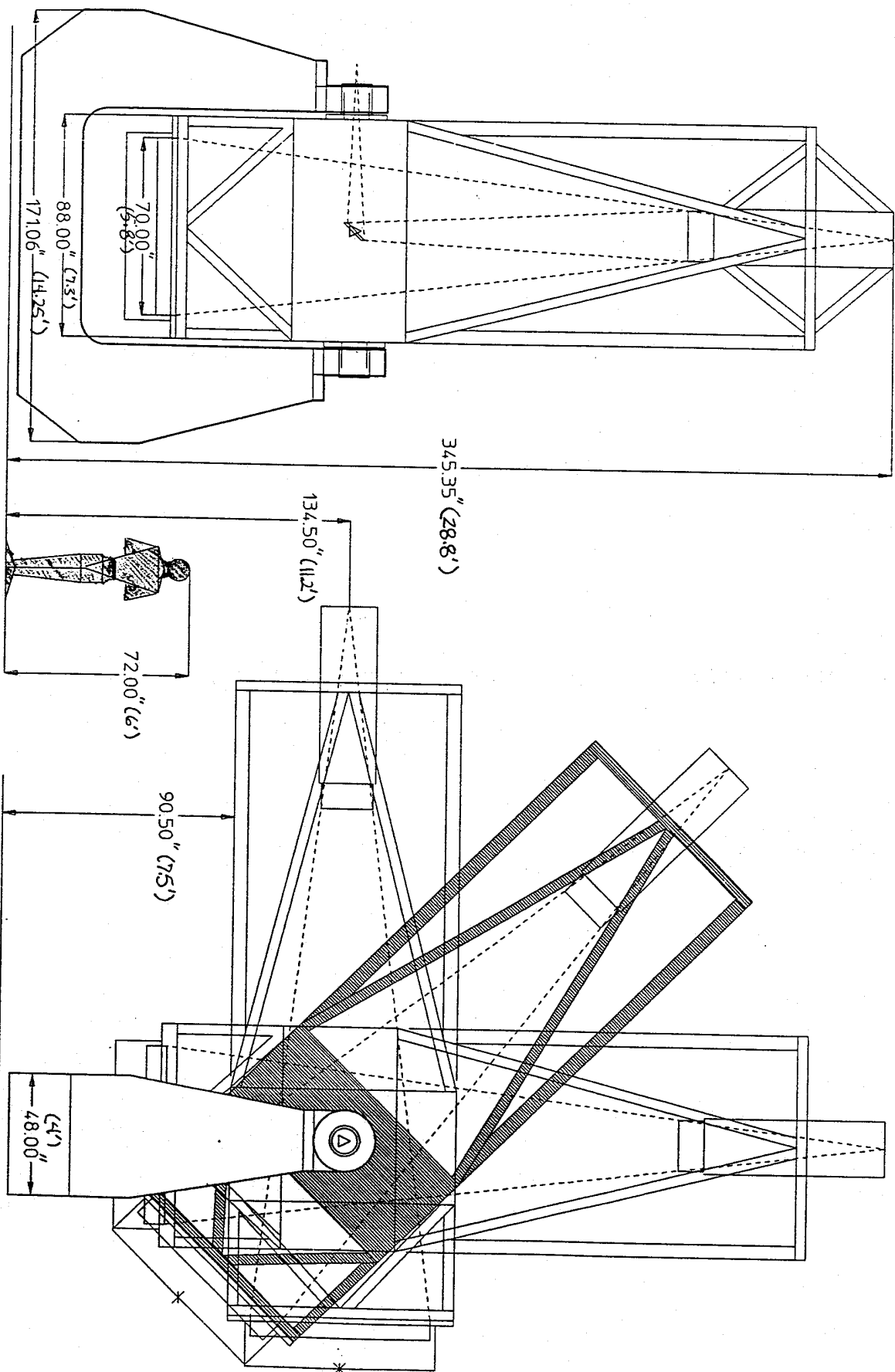
New Idria was once a quicksilver mining town in the 1800's. Now it's just a ghost town with about 10 old locked-up and run-down buildings. Needless to say there were no street lights. The road becomes dirt right at the edge of town and proceeds to go straight up. It is here where a large permanent sign states "ROAD CLOSED". Unintimidated I drove by, shifting into 4 wheel drive. The trail was steep and full of large holes and deep ruts. Even though Don and Laura were managing in their 2 wheel drive truck, 4 wheel drive was certainly helpful, if not essential. After about 3 and a half miles of this, we came across a fork in the trail where there was a large ominous sign stating "WARNING! SOIL, WATER, AND AIR CONTAIN ASBESTOS". This was encouraging. We came 120 miles to breath asbestos (no-one said observing was safe). Well this was certainly fulfilling my goal of finding an obscure, desolate location. I was just hoping the sky was worth the effort. We turned left at the fork and continued looking for what Gerry described in the Ephemeris article as a large flat area. Some 30 minutes later we were beginning to wonder if Gerry's site still existed. After a couple of attempts to find a clearing we eventually made it to a summit where we called off the search for Gerry's site and set up.

The darkness was stunning. There was not a ground source of light to be seen! Nothing! The only source of light was the Milky Way and natural sky brightness. Breathtaking isn't the word; magnificently the Milky Way glowed showing itself in places I had never seen and had only heard of. Scorpius was immersed in a light cloud of stars, and Cygnus was ablaze with detail from a naked eye North American to its spectacular star cloud. This was beyond the shadow of any doubt the darkest sky I had ever seen. Even darker than the Sierras. I asked Don if this was as dark as New Zealand? He paused for a moment and said "This is darker than New Zealand". I pointed my 12.5 inch Dobsonian at all the familiar Milky Way M objects. Ultra high contrast made these objects look like photographs made with 2415. Quickly I went on to the Pegasus galaxies. Tremendous structure and dark lanes in NGC 7331, along with all its satellite galaxies made a most impressive view. Stephan's Quintet was easy, and NGC 1 and 2 were not difficult either (however NGC 7839 was not detected). Brightly pronounced spiral arms and structure in NGC 7479, and and edge on impression of NGC 7814 with just a hint of dust dazzled my senses. Everything I looked at was different than I had previously seen. Every object was accented by very high contrast yielding sharp crisp views. The site was truly spectacular, but the drive had taken its toll. We were all a bit shaken from the trip, but awed by the desolation and darkness.

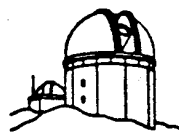
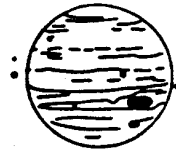
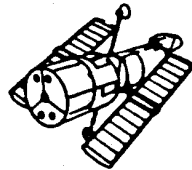
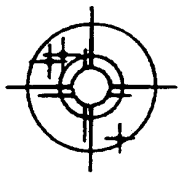
The New Idria site definitely satisfied my desire for a dark, obscure observing locale. It lived up to all of my expectations. Stated simply, it was the darkest observing site I've found to date. However the disadvantages are numerous. The drive from San Jose is over 3 hours, 1 hour in first gear or 4 wheel drive. One expects dark sites to be obscure, but this site may be a little too obscure. The terrain is dirt and rock with some desert shrubs; one has to be careful of snakes and scorpions. Also if something were to go wrong

LARGE AMATEUR TELESCOPE PROJECT
BY: JACK ZELDERS

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1 - 8 MI (70')



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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

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