

the san jose amateur astronomers

SSAA

John P. Gleason
Editor
241-1058

may '77

CALENDAR OF EVENTS:

May 6: Olinder Center, 7:30 P.M.

The general meeting this month will feature James Vorderbrueggen, who will speak about an amateur built observatory in Oregon. This is also the night that the membership will vote on the constitutional amendment to change the clubs name from the San Jose Amateur Astronomers, to the San Jose Astronomical Association.

May 7: Los Gatos Red Cross, 8:00 P.M.

May 13: Board Meeting, Jim Van Nuland's home, 8:00 P.M.

May 14: Henery Coe State Park, dusk till dawn F.E.A.O.

This months field expedition for astronomical observation. See map for location. The club now has its own lock in use during scheduled observing sessions. To gain access to the sight a club member may open the gate with the combination. The lock has gray tape around it, and the combination is 4565.

May 21-22: Big Bear Weekend

The Ninth Annual Riverside Telescope Makers Conference.

May 28: Saratoga High School

The in valley star party for those who do not wish to attend the field expeditions in the mountains. Observers will use the North parking lot. Arrangements have been made to have the lights turned off.

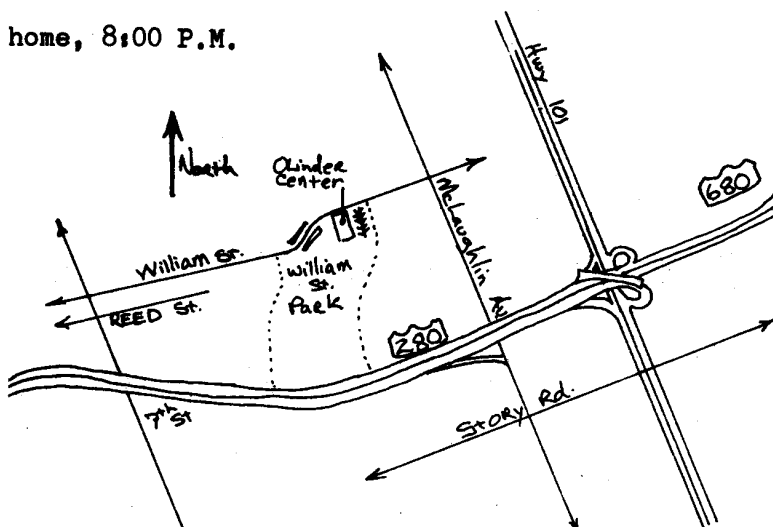
June 3: Olinder Center, 7:30 P.M. Elections and Slide Night

This is the annual meeting where board members are nominated and elected. If you are interested in a board position, please contact the nominating commity. The members are: Bob Malm 941-1343, John Rhodes 969-2615, Dr. Gregory 258-6095. This is also the club's spring slide and print exposition. This will give you a chance to show off all the astronomical slides and prints you have acquired recently.

June 10: Los Gatos Red Cross, 8:00 P.M.

June 11: Board Meeting, Ed Schell's home, 8:00 P.M.

The San Jose Amateur Astronomers meet on the first friday of every month at 7:30 P.M., Olinder Center, William's Street Park, San Jose, California.



PAST EVENTS

April 2 was Astronomy Day-1 at the McKee and Jackson K-Mart. 10 telescopes were set up for public viewing, but only a few shoppers ventured over to our poor parking lot location. It was like being inside an open star cluster, with dozens of mercury vapor lights blazing in the night around our telescopes. Several students from Dr. Gregory's Astronomy class were there and were impressed with views of Saturn, double stars, and the Moon. Where were the rest of the club members?

April 3 was Astronomy Day-2 at the Rosicrucian Museum. This was also the evening of the partial lunar eclipse. Although only a handful of club members were represented, the evening was an overall success. About 500 interested people arrived to view the eclipse. The amateur astronomers were kept busy answering questions and directing the lines of people around the 4 telescopes. Lines of 45-50 people were not uncommon at each telescope during mid-eclipse.

Fremont Peak State Park was the sight of another A.A.N.C. star party on April 16. Many of the club's members were there along with others from the Chabot Telescope Makers Workshop, San Mateo Astronomical Society, and the San Francisco Sidewalk Astronomers. John Dobson's 24" telescope was there which provided us with breathtaking views of galaxies, star clusters, and nebula. The highlight of the evening was the observation of the planet Pluto by Pete Arebalo with his 3½" Questar. This observation was confirmed by Jerry Ratlley, Jack Zeiders, and myself. I wouldn't have believed it if I hadn't seen it. The 14th magnitude planet was winking in and out during periods of good seeing. Many new club members were at the peak for the first time and were impressed with the sky conditions. Hope to see you there again in the summer months ahead.

The club's Skyline star party fell victim to bright skies and poor seeing. Jim Van Nuland reports that because of the sky conditions few galaxies were seen but the globular and open star clusters were quite fine, especially M 22. Jim was finally driven out by wind and cold at 2:30 A.M.

News Flash!

The State Park District likes our Skyline observing site so well, they have decided to turn it into a roadside park. Club members have found that the area where we have set up in the past has been dug up and will be replaced by picnic tables. This will cut off access to our cars and telescopes, making the site impossible to use. The new parking lot will be paved, but this will no doubt prove to be unsuccessful as an observing area due to the often heavy traffic on highway 9 at night. This is a most unfortunate situation since the club has used this site for many years and has provided us with many memorable observations.

Bay Area Planetarium Guide

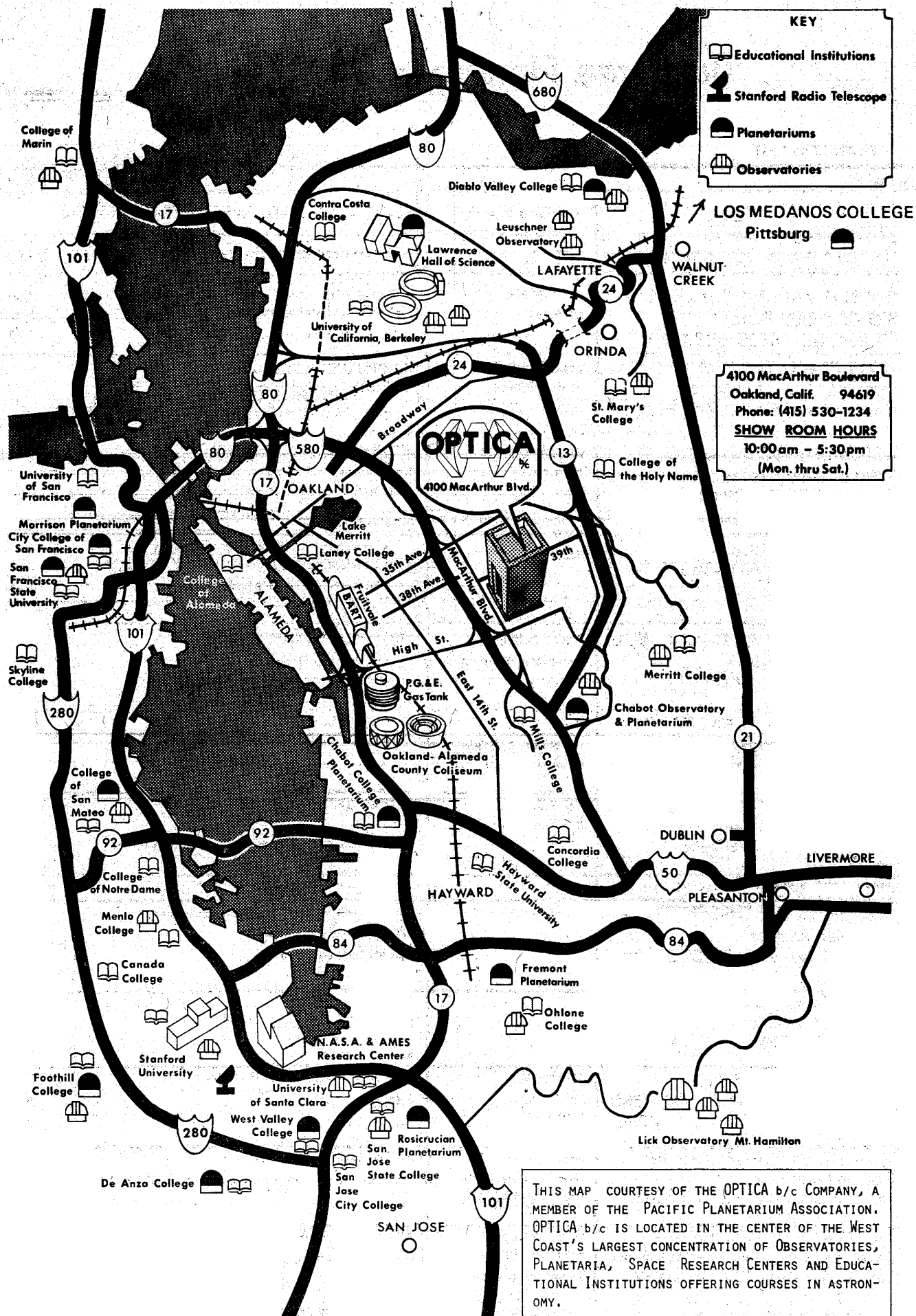
Spring 1977

PLANETARIUM	TIMES	PROGRAM TITLES & DATES
East Bay		
CHABOT COLLEGE 25555 Hesperian Blvd. Hayward 94545, 782-3000 x 417	Fri 7:30 & 8:30 PM Sat 2 & 3 PM Free, res.	STARS OF THE SPRING SKY - Fri 7:30PM, Sat 2PM April 8 to June 18 THE LONELINESS FACTOR - Fri 8:30PM, Sat 3PM
DIABLO VALLEY COLLEGE 321 Golf Club Road Pleasant Hill 94523, 685-1230	Fri 7:30 PM Free, res.	POETRY AND THE STARS April 1 - 29 THE EXPANDING COSMOS May 13 to June 10 Also telescope viewing
HOLT PLANETARIUM Lawrence Hall of Science U.C. Berkeley 94720, 642-5132	Sat & Sun, 1:30, 2:30, 3:30 PM \$.75-1.75	FINDING YOUR STAR; STONEHENGE; THE RED PLANET MARS In rotation each day Also "Star Games" - an interactive exhibit
LOS MEDANOS COLLEGE 2700 E. Leland Road Pittsburg 94565, 439-2181	Sat 2 & 3:15 PM Free, res.	MOTHER EARTH - Sat, 2 PM March 5 to April 30 THE MOON - Sat, 3:15 PM
ROTARY CHABOT 4917 Mountain Blvd. Oakland 94619, 531-4560	Fri & Sat, 7:30 PM \$.25-.50, res.	THE LEGACY Mar 4-May 28 (closed April 15-16, 22-23) THE LONELINESS FACTOR June 3 to July 30 Also telescope viewing and museum
South Bay		
MINOLTA - DE ANZA COLLEGE 21250 Stevens Creek Cupertino 95014, 996-4814	Thurs. 7:30 PM Sat & Sun, 3:00 PM \$.75-1.50	THE FINAL JOURNEY EYE SEE THE LIGHT SHOW ---Call for time and price --- 255-3333
ROSICRUCIAN PLANETARIUM Park Avenue and Naglee San Jose 95191, 287-9171	Fri 7:30 PM Sat & Sun, 1, 2:30, 4 PM, \$.50-1.00	THE BRILLIANT UNIVERSE Apr 14 to May 30
WEST VALLEY COLLEGE Allendale at Fruitvale Saratoga 95070, 379-9415	Fri, 7:30 PM \$.50, res.	SPACESHIP EARTH Apr 15 to May 20 THE PEOPLE---Legends of the American Indians May 27 to June 17
Penninsula and San Francisco		
CITY COLLEGE OF S.F. 50 Phelan Avenue San Francisco 94112, 239-3242		Monthly star parties with planetarium program, telescope, and guest speaker. Call for time and date.
COLLEGE OF SAN MATEO San Mateo 94402 574-6256 or 6268		Phone for information.
FOOTHILL COLLEGE 12345 El Monte Road 948-8590 Los Altos Hills 94022, x 288	Fri 7:30 PM Sat 12 Noon \$.75-1.50	THE MOON TO DATE - Fri & Sat Thru Stargazer June
MORRISON PLANETARIUM Golden Gate Park San Francisco 94118, 752-8268	Daily, 2 PM Wed. & Thurs. 8 PM Sat & Sun 12:30, 2, 3:30, \$.50-1.50	A UNIVERSE OF COLOR Mar 25 to Jun 12 LASERIUM --- Call for times and price, 835-3849
S.F. STATE UNIVERSITY 1600 Holloway Avenue-Phys. Sci. San Francisco 94132, 469-1852	Wed., 12 Noon Free, res., Phone for Ticket Information	THE EMPEROR'S HEAVENS Apr 20 to (Chinese Astronomy) May 25

res. = reservations advisable
children under 6 generally not admitted

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ASSOCIATION

For further information contact
Larry Toy, 782-3000



Membership Renewals

Your yellow Sky and Telescope renewal cards will be in your mail box soon. Be sure to give them along with your \$15 membership fee to John Rhodes, Treasurer. \$10 for junior membership, under 18. Make checks payable to "San Jose Amateur Astronomers".

News Notz

Prepared by Ed Schell

Only three Meteorites have had their orbits before impact calculated and all three orbits were within Jupiter's orbit, suggesting they were from the Asteroid Belt. Science News, Apr. 2

First observational evidence of support for the theory that shockwaves from supernovas trigger the birth of new stars.

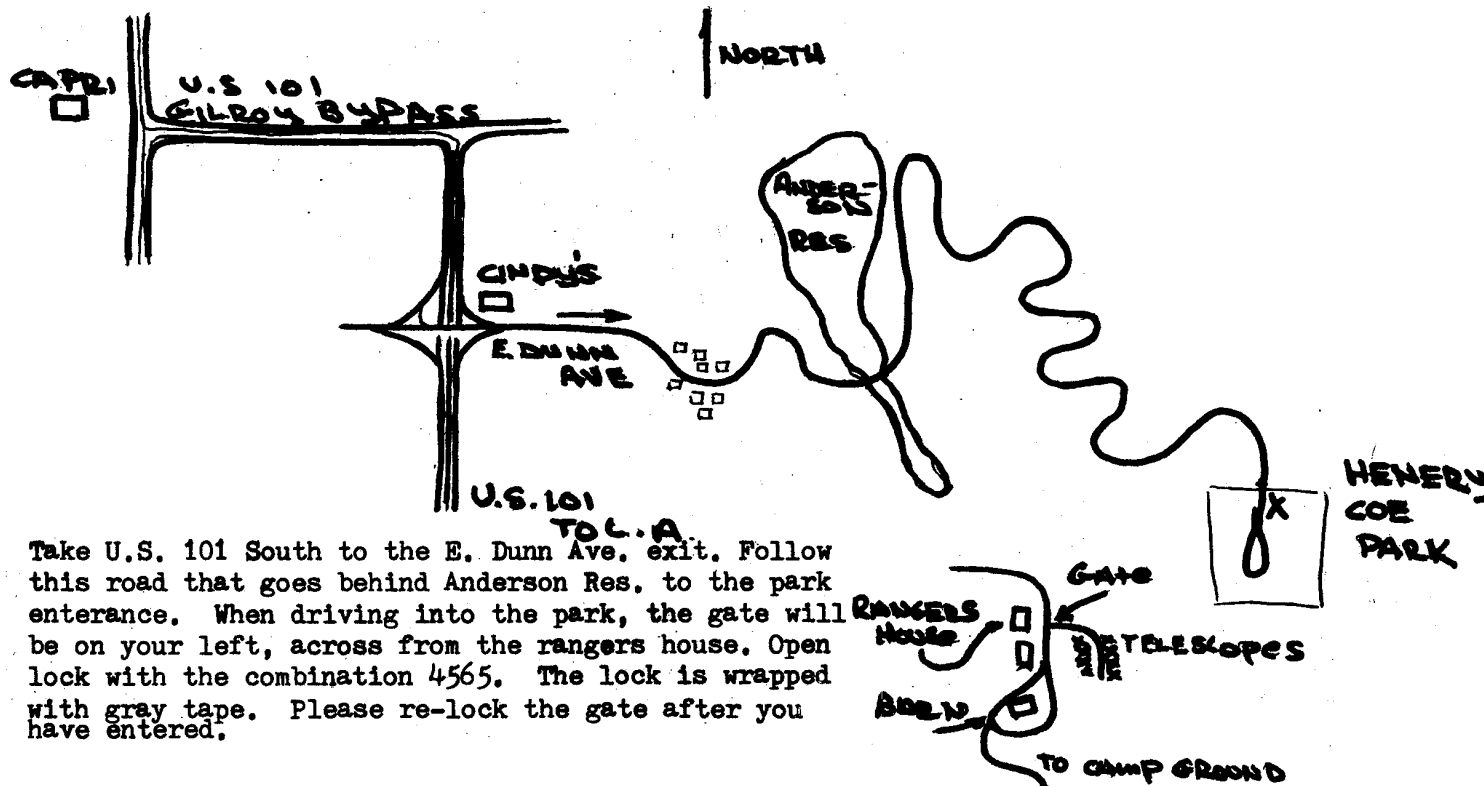
Science News, Apr. 2

Nova Sagittarii 1977 was discovered on March 27 at a magnitude of 9.3. (1950 R.A. 18h 35m, Dec. -23° 25') Brightened to magnitude 8.8 on March 31. Reported as magnitude 8.8 on April 4.

IAU Circular 3055, 3057

The Space Telescope has been redesigned to a 2.4 meter f/24 cassegrain with a predicted cost of \$435 million. It is due to be launched sometime in the fourth quarter of 1983 into an orbit 300 nautical miles above the Earth.

Physics Today, Apr. 77



rattley rattles

As most of you are already aware, our organization is currently in the process of requesting from the University of Santa Clara the use of and operation of its observatory. The prospects of being granted this request look favorable at the present time, but actual use and/or operation of the observatory may not be realized for another six months. Anyhow, this should not postpone our thoughts as to what this will mean to our society and to the Observatory of the University of Santa Clara.

The main dome of this observatory, located on the University grounds in Santa Clara, houses a 16-inch Alvan Clark refractor, which is currently standing idle due to lack of anyone to provide for continuing use of it. An article on the history of this instrument prior to 1941 when the University of Santa Clara bought it can be found in the June 1972 issue of Sky & Telescope, pages 364-6, however I know next to nothing except rumors about its history after it was placed in its present home. Our society has used this observatory for a meeting and an observing session, April 5, 1974, which proved to be a very successful event. The telescope was quite impressive and preformed very well optically even though mechanically it was showing signs of disuse. It is a fine instrument, and needs to be used.

Our society has proposed to use this observatory for three main purposes: (1) for a meeting place for our societies events, (2) for public and educational observing sessions, and (3) for special programs and projects in astronomy. Repair and restoration of the telescope to usable condition as well as certain modifications, such as electric drives, have been proposed and not as yet denied. The University so far seems to like or favor all of the afore mentioned proposals. We have only been warned that if we are granted use of the observatory, we will be expected not to use it for strictly personal use and we are to to not misuse or disuse the facilities and that our society should always clean up after itself. We already operate in this way, so this should present no immediate problem.

One thing that I personally would like to see our society do right from the start of our use and operation of the observatory is to maintain a journal. I would also like to see all observatory correspondence go out on observatory stationary and possibly an observatory bulletin of some kind, but these can be discussed later. The journal should be a must though. Some of the programs and projects that have been discussed as possibilities so far are astrophotography, double star measures, variable star brightness estimates, planetary observations, occultation and eclipse timings, comet observations, and education. Also a darkroom may be possible and maybe even a mirror making class.

If any of you has any ideas that you feel should not wait, or have an outstanding interest in this matter, feel free to contact myself or any other board member after the general meetings or at star parties, but your best opportunity to discuss this topic at any length will be at our Red Cross gatherings. Now is the time to have your ideas voiced and heard.

Next topic; our next meeting is going to be designated as a special called meeting for the purposes of voting an a proposed change to our constitution. This bulletin is to serve as the 5 day prior written notice to such a special meeting as required by our constitution, art.3, sect.4. The proposed change is as follows:

delete: title; "BY-LAWS OF SAN JOSE AMATEUR ASTRONOMERS INC."
 add: title; "BY-LAWS OF SAN JOSE ASTRONOMICAL ASSOCIATION INC."
 delete: article 1, section 1; "The name of this corporation
 shall be the San Jose Amateur Astronomers."
 add: article 1, section 1; "The name of this corporation shall
 be the San Jose Astronomical Association, hereinafter to be referred
 to as SJAA."

Our primary reason for requesting this name change at this time is to get rid of the word amateur from our name because in recent years the word amateur has picked up some slightly negative connotations, and we feel that we need to present ourselves in a more organized and semi-professional manner when we are dealing with such organizations as the University of Santa Clara. There are other arguments for and against the proposed constitutional change which will be presented at the next meeting, then you will be given a chance to voice your opinions. A 2/3 vote of those present is required in order to pass the proposal.

Last topic; the ninth annual Riverside Telescope Makers Conference. This event is going to take place on May 21, 22 this year . . . Saturday noon until Sunday noon . . . at Camp Oakes, located east of Big Bear City on Highway 38 at Lake Williams Estate Road, 50 miles northeast of Riverside in the San Bernardino Mts (7300 ft elevation). There is a dining room, a dormitory (bring your own bedding), and a camping area (for camping and telescopes). There are hotels and such in nearby towns, I have some phone numbers if you need them. The cost of the conference this year is as follows:

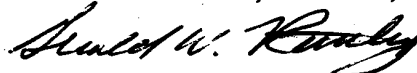
Camping with 4 meals per person	\$ 16.50
Camping (no meals) 2 persons	4.00 per night
50¢ for each additional person (limit: 2 add. persons)	
Dormitories with 4 meals per person	16.50
Outside lodging persons wishing to have the 4 meals	16.50
Registration, per person	1.50

There are no hook-ups at the camp. \$4.00 camping fee is per night, so if you want to get there a day early, it may cost you extra to stay there. No meals will be served in the dining room other than lunch and dinner Saturday and breakfast and lunch Sunday. All reservations for Camp Oakes and the Conference will be handled by the Riverside Astronomical Society and full payment must be in by May 10, 1977. The address to send payment to is:

Clifford W. Holmes
 8642 Wells Avenue
 Riverside, Ca. 92503
 (714) 689-6893

Several members from our society are planning to attend this one. Let's hope we all get some good pictures, both astronomical, and of the telescopes and the conference for showing at our June slide night.

Astronomically Yours;



occulting zone

LUNAR OCCULTATIONS

Apr	PDT*	Mag	Ill	El	CA	PA	Star, Notes
29	10:41:42D	4.5	85+	51	49N	69	
<u>May</u>							
20	9:50:53D	5.7	8+	6	81S	108	ZC0944
21	9:57:18D	8.8	14+	13	38N	50	
	10:12:46D	8.3	15+	10	75S	118	
22	9:18:11D	8.0	22+	29	62S	132	Deep twilight
23	11:15:47D	5.7	31+	13	81N	98	
24	9:17:25D	8.5	40+	43	74N	94	SAO117767
	11:10:11D	8.6	41+	22	84N	104	
	11:48:18D	8.5	41+	14	45N	65	
27	8:41:57D	6.5	72+	50	41N	64	Twilight
28	0:17:25D	6.9	73+	28	39N	61	A.M. Time
31	1:28:23D	5.3	97+	31	70S	129	A.M. Time
<u>June</u>							
4	0:39:49D	4.0	91-	21-72S	95	P Sgr	
	1:53:32R			30 86S	252		

* Times are PM except as noted.

ZC0944: 6.2, 6.2 mags, 0.27" @ 137 deg.

SAO117767: I've no information on this Aitkin star.

Once again you'll need to save this article until late in the month for some fine occultations, esp. ZC0944 on the 20th. This disappearance should be a pretty step. It's low in the sky, so try low or medium power if seeing isn't good. Let me know how you like it.

TABLE HEADINGS: Time: The times are for my station; actual time will vary several seconds, and more for small cusp angles. Mag: The composite magnitude of the star. Ill: Percent illumination of the moon. + indicates waxing; -, waning. El: Elevation of the moon. CA: Cusp Angle. Measured at center of moon, from the indicated north or south cusp, along the limb to the star. Always less than 90 deg. Negative indicates star is on lighted limb. PA: Position Angle. Measured from north point on the disk, toward east, to the star. 90 deg = east limb, etc.

SATURN

The tables of Saturn's moons are calculated using a constant scale, that at mid-month. That's why there are slight differences between the months. The figure of Saturn is also to scale, and is slightly smaller than last month.

VIII often falls off the page, but I included it so you can compare with the figure in Sky & Scope.

The scope sizes are guesses; if your sky is dark a smaller aperture will suffice. Satellites close to the planet are more difficult. Advise me of your findings and I will update the table.

<u>Num.</u>	<u>Name</u>	<u>Mag.</u>	<u>Scope</u>	<u>Period</u>	<u>Num.</u>	<u>Name</u>	<u>Mag.</u>	<u>Scope</u>	<u>Period</u>
I	Mimas	12.1	10"	0.94d	V	Rhea	9.7	3"	4.52d
II	Enceladus	11.6	8-10"	1.37	VI	Titan	8.2	2"	15.97
III	Tethys	10.6	6-8"	1.89	VII	Hyperion	13.0	10"	21.32
IV	Dione	10.7	6"	2.74	VIII	Iapetus	10-13	6-8"	79.92

5 2 Mon. II 5S, 13W III 6N, 19E IV 5S, 27W V 5N, 29W VI 24S, 73W VIII 15S, 162W	5 9 Mon. I 2S, 13W III 6S, 6E IV 7N, 24E V 1S, 36E VI 14N, 90E VIII 15S, 29W	5 16 Mon. I 0N, 14E II 3S, 9E III 2S, 22W IV 8S, 17W V 3S, 39W VI 7S, 90W VIII 10S, 114E	5 23 Mon. II 0N, 17E III 7N, 6E IV 9N, 8E V 6N, 39E VI 7S, 77E VIII 2S, 224E	5 30 Mon. II 3N, 17E III 2S, 19E IV 8S, 2E V 9S, 35W VI 15N, 54W VIII 6N, 273E
5 3 Tue. II 3N, 11W III 6S, 16W IV 2S, 23E V 10S, 31W VI 28S, 47W VIII 15S, 145W	5 10 Tue. II 1S, 17W III 5N, 10W IV 1S, 27W V 12N, 23E VI 22N, 76E VIII 14S, 8W	5 17 Tue. I 2N, 14E II 4S, 16W III 4N, 22E IV 4N, 28E V 12S, 12W VI 17S, 88W VIII 8S, 132E	5 24 Tue. I 0S, 13W III 7S, 2W IV 6S, 26W V 11N, 1E VI 4N, 90E VIII 1S, 236E	5 31 Tue. III 0N, 21W IV 8N, 20E V 10S, 11E VI 4N, 78W VIII 7N, 273E
5 4 Wed. II 4N, 15E III 7N, 13E IV 8N, 3W V 8S, 18E VI 28S, 15W VIII 16S, 128W	5 11 Wed. III 4S, 13E IV 6S, 12E V 5N, 27W VI 27N, 51E VIII 13S, 13E	5 18 Wed. I 3N, 12E III 5S, 21W IV 3N, 20W V 2S, 35E VI 24S, 72W VIII 7S, 150E	5 25 Wed. I 1S, 14W II 1N, 15W III 7N, 2W IV 0S, 26E V 2S, 39W VI 14N, 90E VIII 1N, 245E	6 1 Wed. I 0S, 13E II 2S, 18W III 1N, 22E IV 3S, 28W V 5N, 39E VI 7S, 90W VIII 8N, 273E
5 5 Thur. III 7S, 10W IV 8S, 19W V 7N, 38E VI 24S, 20E VIII 16S, 109W	5 12 Thur. II 1S, 16E III 3N, 16W IV 9N, 11E V 10S, 33W VI 27N, 17E VIII 13S, 34E	5 19 Thur. II 3N, 17E III 6N, 19E IV 8S, 1W V 12N, 25E VI 28S, 46W VIII 6S, 167E	5 26 Thur. I 3S, 12W II 5N, 12E III 6S, 6E IV 7N, 9W V 12S, 14W VI 22N, 76E VIII 2N, 254E	6 2 Thur. I 1N, 14E III 2S, 22W IV 5S, 17E V 12N, 3E VI 17S, 88W VIII 9N, 271E
5 6 Fri. II 3S, 17W III 7N, 6E IV 3N, 28E V 11N, 4W VI 17S, 52E VIII 15S, 90W	5 13 Fri. I 3S, 3E II 5S, 10W III 2S, 19E IV 6S, 27W V 9S, 16E VI 23N, 20W VII 15N, 121E VIII 12S, 54E	5 20 Fri. I 4N, 3E II 5S, 1E III 6S, 16W IV 8N, 22E V 6N, 26W VI 28S, 14W VII 26N, 30W VIII 5S, 183E	5 27 Fri. II 3S, 12E III 5N, 10W IV 9S, 14W V 3S, 33E VI 27N, 50E VIII 3N, 260E	6 3 Fri. I 3N, 13E II 1N, 17E III 4N, 22E IV 9N, 5E V 1S, 38W VI 24S, 72W VIII 10N, 268E
5 7 Sat. I 1N, 12W II 5N, 2W III 7S, 2W IV 4N, 18W V 3S, 39W VI 7S, 76E VII 30S, 1E VIII 15S, 70W	5 14 Sat. I 2S, 8E II 2N, 13W III 0N, 21W IV 1S, 25E V 7N, 38E VI 15N, 53W VII 22N, 117E VIII 11S, 74E	5 21 Sat. I 4N, 2W II 2S, 18W III 7N, 13E IV 2S, 28W V 9S, 34W VI 24S, 21E VII 18N, 59W VIII 4S, 197E	5 28 Sat. I 4S, 4W II 4S, 15W III 4S, 14E IV 5N, 28E V 11N, 26E VI 27N, 16E VII 31S, 14W VIII 4N, 267E	6 4 Sat. I 3N, 10E II 6S, 6W III 5S, 20W IV 7S, 24W V 12S, 16W VI 28S, 46W VII 18N, 120E VIII 11N, 263E
5 8 Sun. I 1S, 14W II 2N, 18E III 7N, 2W IV 9S, 4W V 12S, 10W VI 4N, 90E VIII 15S, 50W	5 15 Sun. I 1S, 12E II 5N, 14E III 1N, 22E IV 7N, 6W V 11N, 2W VI 4N, 78W VIII 10S, 94E	5 22 Sun. III 7S, 9W IV 5S, 15E V 9S, 14E VI 17S, 53E VIII 3S, 212E	5 29 Sun. III 3N, 16W IV 3N, 22W V 7N, 24W VI 23N, 20W VIII 5N, 270E	