

Predictions

March 1978

- Feb. 25 Indoor star party, 7:00 pm. Los Gatos Red Cross.
- Mar. 3 General Meeting, Mark Twain High School, 7:30 pm.
17421 Farley Rd. West, Los Gatos.
Max Hunter, Program Manager for the Space Telescope at Lockheed will give a talk on the subject with questions and answers afterwards.
- Mar. 3&4 AANC sponsored star party at Fremont Peak.
- Mar. 4 SJAA sponsored public star party for West Valley.
Astronomy classes at Sanborn Canyon Park.
- Mar. 10 Board of Directors Meeting, 8:00 pm. Penny Pinschmidt's house, 16385 Peacock Ln. Los Gatos.
- Mar. 11 Star party at Henry Coe State Park; dusk to dawn.
- Mar. 18 Astronomy Day public star party at the Rosicrucian Museum. Information will be available at the March General Meeting or contact Gerry Rattley.
- Mar. 25 Indoor star party, 7:00 pm. Los Gatos Red Cross.
- Apr. 1 Indoor star party, 7:00 pm. Los Gatos Red Cross.
- Apr. 7 General Meeting, Mark Twain High School, 7:30 pm.
17421 Farley Road West, Los Gatos.
James (Mike) Ryan, President of the San Mateo County Astronomical Society will give a presentation on the Sitmar Eclipse cruise in 1977. He has slides of on-board activities and the eclipse.
- Apr. 7&8 AANC sponsored star party at Fremont Peak.
- Apr. 14 Board of Directors Meeting, 8:00 pm. Ed Schell's place, 152 Carlton Ave. #4, Los Gatos.
Map next month.
- Apr. 22 Indoor star party, 7:00 pm. Los Gatos Red Cross.
- Apr. 29 Indoor star party, 7:00 pm. Los Gatos Red Cross.

(I noticed that all activities listed above, except for star parties, take place in Los Gatos..... perhaps LGAA?)

The San Jose Astronomical Association

BLURBS

The club's 4 $\frac{1}{4}$ " telescope is available for anyone who wants to use it. Contact John Rhodes, Jack Zeiders, or Cathy Pinheiro. And if someone has information about the club's 2.4" refractor, please tell John or Jack.

The newest McGlaulin is due on March 5th. Nancy says Squirrel is very jealous but is making nests for the new "kittens". More information same time, same place next month.

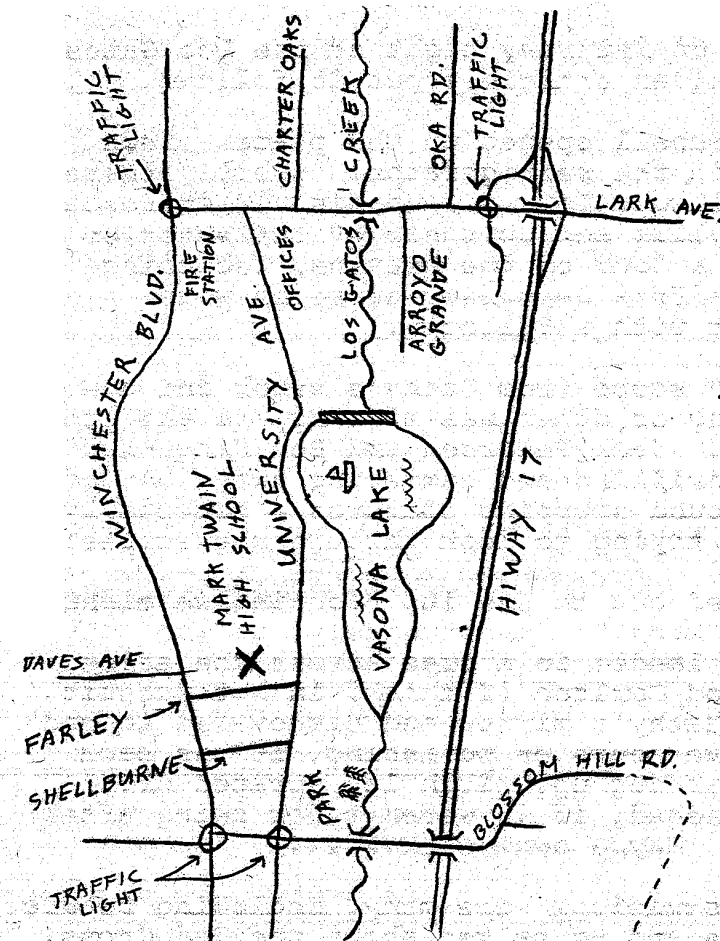
The February 25th indoor star party at the Los Gatos Red Cross should be an informal planning session for the Astronomy Day public star party at the Rosicrucian Museum.

Editorial

This is my sixth bulletin and the end of my agreement with the Board to be Editor. At the last meeting it was renewed, so I'll be around for another six months, at least.

The opportunity is right to thank all the people who have helped make these last six bulletins possible. Those who have contributed the most are Gerry Rattley, Jim Van Nuland and Ed Schell. Thank you for the double star lists, Rattley Rattles, Red Spot Predictions, reports on star parties, News Notez, Royal Society quotes, articles, maps, illustrations, and help with folding, stapling and stamping; John Rhodes, President's Message, labels, and just general support; Cathy Pinheiro, history articles; Jack Zeiders, advice and brine shrimp; Allen Meyer, Astro-physical Journal abstracts; Doug Berger, AANC page; Debbie Moore, board meeting notes; Suzanne Lowd, report on our first meeting at Mark Twain; Dr. Gregory, support and backing; Dr. Therkelsen, use of his college test questions; Wakanta Longhorn Breeders Assn., donation of dry transfer lettering (rubbies) and printing; Bob Fingerhut, always making sure I have my check on time; my mother, who helped with typing and last-minute proof-reading; plus Jeff Moad of the Los Gatos Times-Observer for advertising the club's local events. Those who contributed ads helped, also - they make great filler space! And last but not least, I thank all the people like Norm Neinchel whose advice and comments were helpful and reassuring.

Perry E. Finschmidt



GENERAL CLUB MEETINGS

1ST FRIDAY OF EACH MONTH 7:30 pm.

MARK TWAIN HIGH SCHOOL
17421 FARLEY RD. WEST
LOS GATOS

DIRECTIONS FROM SAN JOSE

1. GO SOUTH ON HIWAY 17
2. TAKE THE LARK AVE EXIT
3. TURN RIGHT (WEST) ON LARK FOR 2 BLOCKS (CROSS THE CREEK)
4. TURN LEFT (SOUTH) ON UNIVERSITY AVE. (JUST BEFORE THE WINCHESTER LIGHTS)
5. GO PAST THE LAKE ON THE LEFT AND THEN SOME APARTMENTS ON THE RIGHT
6. TURN RIGHT ON FARLEY RD. (1ST STREET) THERE ARE SMALL SHOPS ON THE CORNER
7. TURN IN THE 3rd DRIVEWAY ON THE RIGHT (THE SCHOOL IS SET BACK FROM THE ROAD)

FARLEY RD. AND THE DRIVEWAY HAVE NOT BEEN REPAVED YET.
THE SCHOOL ISN'T FINISHED

EVERYONE WELCOME

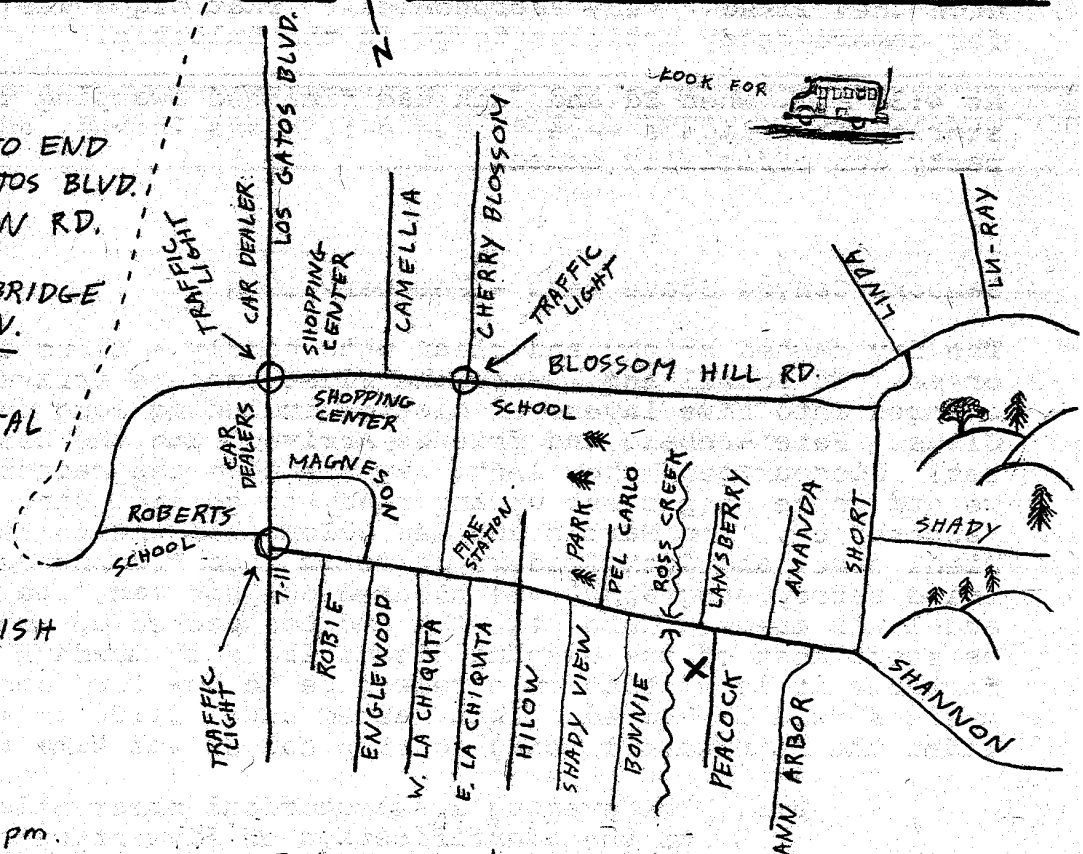
FROM SAN JOSE
SOUTH ON HIWAY 17
TAKE LARK AVE. EXIT
LEFT (EAST) ON LARK TO END
RIGHT (SOUTH) ON LOS GATOS BLVD.
LEFT (EAST) ON SHANNON RD.
ABOUT 3/4 MILE
JUST PAST NARROW BRIDGE
RIGHT ON PEACOCK LN.
2nd HOUSE ON RIGHT

ABOUT 2 1/4 MILES TOTAL
FROM FREEWAY

POSSIBLE PARKING
PROBLEM

BEWARE OF THE FISH

BOARD MEETING
MARCH 10 8:00 pm.



PENNY PINSCHMIDT'S
16385 PEACOCK LN. LOS GATOS

IF LOST, CALL
356 4330

JACK, IS THIS OK?

History

Because of the many things that went on Saturday night at the Los Gatos Red Cross indoor star party Feb. 18th, an article about it follows.

The evening started at 6:30 when Ed Schell opened up the place. Soon, hot water was on the stove and coke in the refrigerator. Shortly thereafter, a student from West Valley College, Tom, set up his new Astroscan 4 $\frac{1}{4}$ " telescope. Carlton Perry and Phyllis set up their 6" reflector on their new mount. They gave everyone a tour of the heavens, including the two officers from the County Sheriff's Dept. who drove in with lights and all! Naturally, they left with a Bulletin!

Jack and Cathy dug out the club's 4 $\frac{1}{2}$ " scope from Cathy's trunk and attempted to put it together. Something or other was missing, so the project was dropped soon after it began. Jack Petersen and Bob Fingerhut worked on Bob's C8 telescope mount, drilling and hammering away. At odd times during the evening, Ed went around snapping pictures - especially outside with flash when everyone was trying to look through the scopes!

Somebody sighted a UFO and all charged out to see it, figuring we might have a "close encounter of the third kind." Unfortunately, it was only a plastic bag lit with a candle. It landed in a tree across the street (Saratoga Ave.) with Jack Petersen and Carlton (I think) in hot pursuit. John Rhodes and Jack Zeiders tested Cathy's mirror and discovered it had a badly turned edge. After about five hours of polishing, it was back to fine grinding. Ugh! Some grit was dug up, pitch lap scraped off, and away they went. When it was finished, if it weren't for being after 11:00, they'd have made another lap. Maybe next week.....

Lots of slides were looked at and discussions were many, including future plans for club activities. Gary Rice and Ed talked about the Red Cross, and Cathy, Jack and Phil Hermsmeyer traded ideas on different kinds of dogs they liked. Very astronomical! That night was also the deadline for camera-ready articles to go in the Bulletin.

At 4:30 A.M. when Ed and Jack had finished swapping their aviation/war stories, the lights were turned off, doors locked, and the indoor star party was officially ended.

Sanborn Canyon State Park - February 11th

The day dawned bright and clear with hardly a cloud in the sky until 3:30 or so. Ed Schell and I were the first ones to arrive, and I promptly changed into five layers of clothes including long underwear from Santa Claus. Pete Arebalo and friends arrived with the clouds just after sunset. Discouraged, they left. By the time the raindrops started falling, we had three scopes set up and ready to go including Jim Van Nuland's "superb" 8". Ron Martin and Les DeLong had theirs as well. Marshall Diehl came, and Jack Zeiders drove in from Fremont Peak where he had tried astrophotography. He cleared out his van, and Jim, Marshall, Ed and I all crammed into it. Ron and Les packed up and left. The rest of us spent most of the evening discussing such mundane things as how comfortable it is sitting on a telescope to how loud different kinds of music should be played. This lasted until 11:00 or so, when it was decided the rain wasn't going to stop and it was time to go home.

P.S. The evening's astronomical observations were limited to the identification of five stars and three planets.

Notes from the board meeting in John Rhodes' motor home at Mark Twain on February 3rd. As reported by Debbie Moore.

Began - 11:00 P.M.

Six board members, thirteen people total, plus a cat (our mascot for the evening) were present - John Rhodes presiding.

Speakers for future general meetings were discussed plus a possible general meeting at the Foothill Planetarium.

The SJAA delegate for the AANC reported that the average dues for clubs receiving Sky and Telescope are \$12-15.

It was decided to use Mark Twain High School as the official club meeting place at least through June, and the treasurer was directed to pay the small fee involved.

The calendar dates were set through May.

Meeting ended and the cat was rudely awakened from a member's lap at 11:40 P.M.

"I think this is the shortest board meeting we've ever had." - Jim Van Nuland

News Notez by Gerry Rattley

A last minute decision was made to retarget Pioneer 11 to go by Saturn outside the ring system. This new trajectory is one which will be used to find out information for the Voyager 2 spacecraft use in the future (Saturn-Uranus tour)


Science News, Dec. 10

(Note: Don't fret, even though Pioneer 11 will not go between Saturn and it's rings, the close encounter in 1979 should still prove to be quite exciting.)

Carlton Perry has built a modified version of the inverted fork mount in the Jan. 1978 issue of Astronomy magazine. His mounting looks much like the one in Astronomy but has teflon bearings instead of u-bolts, and triangular blocks for supports. Anyone interested in this simple and easily built mounting can contact Carlton or see the mounting at a future Red Cross meeting.

Red Spot Predictions

With the improving weather, a couple timings have been made, so the attached data may be a bit more accurate. Remember that a fudge factor from zero to 10 minutes has been subtracted to prevent anticipation. If you are doing timings, please contact me so I can give you the data for comparison with theory.


Jim Van Nuland.

Great Red Spot on Meridian PST

| Da | Mo | d | h | m |
|----|----|----|----|-------|
| Tu | 2 | 28 | 7 | 32 PM |
| Th | 3 | 2 | 9 | 13 PM |
| Sa | 3 | 4 | 10 | 49 PM |
| Su | 3 | 5 | 6 | 43 PM |
| Tu | 3 | 7 | 0 | 28 AM |
| Tu | 3 | 7 | 8 | 27 PM |
| Th | 3 | 9 | 10 | 5 PM |
| Sa | 3 | 11 | 11 | 39 PM |
| Su | 3 | 12 | 7 | 37 PM |
| Tu | 3 | 14 | 9 | 16 PM |
| Th | 3 | 16 | 10 | 53 PM |
| Su | 3 | 19 | 8 | 26 PM |
| Tu | 3 | 21 | 10 | 1 PM |
| F | 3 | 24 | 7 | 36 PM |
| Su | 3 | 26 | 9 | 8 PM |
| Tu | 3 | 28 | 10 | 45 PM |
| F | 3 | 31 | 8 | 22 PM |

More History

General Meeting, February 3.

The meeting got started a little late to allow for people finding our new location. John Rhodes asked how many people found this school closer than Olinder, and a majority raised their hands. Between that and the 11:00 closing deadline (instead of 10:00 at Olinder), it was agreed to meet at Mark Twain High School for awhile.

According to a survey of other clubs including a Sky and Telescope subscription in their dues, \$17.00 was not out of range. After mentioning this, John Rhodes introduced the evening's program by recommending Kodak's Plates and Films booklet and briefly explaining the interactions of photons and electrons when film is exposed. Kevin Medlock and Jack Zeiders then described the development and use of their vacuum cold camera, followed by Bob Fingerhut's description of his Celestron (plug type) cold camera. The contrast between untreated film and film that had been cooled was impressive. Gerry Rattley concluded the program by describing his experiences in sensitizing film with nitrogen and hydrogen gas. Thanks, guys, for a great program!

----by Suzanne Lowd

Some new Observations made by Signor Cassini concerning the two Planets about Saturn, not long since discover'd by the same.

One of these 2 Planets, which is distant from the Center of Saturn 10 diameters and a half of his Ring, maketh his revolution about Saturn in 80 days. He was discover'd at the Parisian Observatory, A.1671, about the end of Oct. and in the beginning of Nov. in his greatest Occidental digression, and after many cloudy days he ceased to appear, for a reason which was then unknown, but hath been discover'd since. For, after that many revolutions of his small Planet had been observ'd, he was found to have a period of apparent Augmentation & Diminution, by which period he becomes visible in his greatest Occidental digression, and invisible in his greatest Oriental digression.

It is certain, that this vicissitude of Augmentation and Diminution, of appearing and disappearing, doth not befall him upon the account & by reason of the variation of his Distance from the Earth and from the Sun: For, besides that in one revolution of this Planet about Saturn, he varies not the hundredth part of his distance; his most sensible diminution appears then, when being in the upper part of his circle he descends towards the lower part, approaching to the Sun and the Earth.

Philosophical Transactions, March 25, 1677
The Royal Society of London

| | | | | | | | | | | | | |
|--|---------|--------|----|------|-----|----|-------|------|-----|-----------|------|----|
| A | 730 | Cyg | 20 | 24.0 | +59 | 26 | 7.1- | 7.3 | A+A | - close - | 84 | 3 |
| A | 610 | Del | 20 | 26.6 | +06 | 59 | 9.2- | 9.4 | G | 324 0.4 | 207 | 4 |
| A | 1675 | Del | 20 | 28.8 | +15 | 38 | 7.5- | 7.5 | A+A | - close - | 48 | 2 |
| L | 35 | Del | 20 | 30.6 | +13 | 46 | 10.3- | 10.8 | K | 280 0.5 | 160 | 4 |
| β | 151,AB | β Del | 20 | 35.2 | +14 | 25 | 4.1- | 5.1 | F | 5 0.6 | 27 | 1↓ |
| -- β Del will next be widest in 2004; $\theta=356^\circ$; $\rho=0''6\frac{1}{2}$ | | | | | | | | | | | | |
| Hu | 200,AB | τ Cap | 20 | 36.5 | -15 | 08 | 5.8- | 6.5 | B | - close - | 122 | 4 |
| Kui | 99 | Del | 20 | 37.1 | +04 | 47 | 8.8- | 9.8 | K | 317 0.4 | 42 | 3↓ |
| β | 64,AB | Del | 20 | 42.6 | +12 | 33 | 9.1- | 9.3 | G | 163 0.6 | 119 | 3 |
| OΣ | 413,AB | λ Cyg | 20 | 45.5 | +36 | 18 | 4.7- | 6.1 | B | 16 0.9 | 391 | 4 |
| J | 194,AB | Del | 20 | 47.0 | +11 | 13 | 10.2- | 10.2 | K | 198 0.6 | 128 | 4↓ |
| B | 997 | Mic | 20 | 47.7 | -31 | 27 | 8.8- | 9.5 | F | 339 0.4 | 175 | 4↑ |
| Σ | 2729,AB | 4 Aqr | 20 | 48.8 | -05 | 49 | 6.4- | 7.2 | F+F | 10 1.0 | 168 | 2↓ |
| A | 751 | Cep | 20 | 52.5 | +59 | 07 | 7.4- | 7.7 | F+A | - close - | 56 | 2 |
| β | 367,AB | Vul | 20 | 52.9 | +27 | 54 | 8.6- | 9.0 | G | 118 0.5 | 102 | 3 |
| Σ | 2737,AB | ε Equ | 20 | 56.6 | +04 | 06 | 5.9- | 6.2 | F+F | 286 1.1 | 101 | 1↓ |
| Kui | 102 | Equ | 20 | 57.6 | +07 | 19 | 6.3- | 7.7 | A+F | - close - | 53 | 3 |
| Σ | 2744,AB | Aqr | 21 | 00.5 | +01 | 20 | 7.0- | 7.5 | F | 127 1.4 | 3055 | 4 |
| Σ | 2758,AB | 61 Cyg | 21 | 04.7 | +38 | 30 | 5.5- | 6.4 | K+K | 146 29.0 | 653 | 4 |
| OΣ | 527 | Equ | 21 | 05.5 | +04 | 57 | 6.9- | 8.4 | A | - close - | 195 | 4 |
| Ho | 152 | Vul | 21 | 10.4 | +28 | 08 | 9.2- | 9.3 | F | 134 0.2 | 240 | 5 |
| Hu | 767 | Peg | 21 | 11.1 | +15 | 47 | 6.9- | 6.9 | A+A | - close - | 34 | 2 |
| OΣ | 535,AB | δ Equ | 21 | 12.0 | +09 | 48 | 5.3- | 5.4 | F+F | - close - | 6 | 1 |
| A | 883,AB | Aqr | 21 | 12.1 | -01 | 02 | 8.1- | 8.1 | A | - close - | 78 | 3 |
| φ | 329 | Ind | 21 | 12.2 | -53 | 28 | 6.6- | 6.6 | A | - close - | 21 | 3 |
| H I | 48 | Cep | 21 | 12.7 | +64 | 12 | 7.1- | 7.3 | G+G | 252 0.7 | 84 | 2↓ |
| AGC | 13,AB | τ Cyg | 21 | 12.8 | +37 | 50 | 3.9- | 6.3 | F | 143 0.8 | 50 | 1↓ |
| -- τ Cyg will next be widest in 2022; $\theta=176^\circ$; $\rho=1''0$ | | | | | | | | | | | | |
| β | 163,AB | Equ | 21 | 16.2 | +11 | 22 | 7.2- | 8.7 | G | 248 0.4 | 76 | 2↓ |
| A | 617 | Equ | 21 | 18.9 | +10 | 07 | 7.7- | 7.7 | F | - close - | 12 | 3 |
| A | 764 | Cep | 21 | 20.9 | +57 | 21 | 8.4- | 9.6 | G | 1 0.8 | 203 | 4↓ |
| Hu | 371 | Peg | 21 | 33.2 | +24 | 14 | 6.7- | 7.2 | A | - close - | 174 | 5 |
| β | 1212,AB | 24 Aqr | 21 | 36.9 | -00 | 17 | 7.4- | 7.7 | F | 234 0.3 | 49 | 2↑ |
| -- 24 Aqr will next be widest in 2000; $\theta=275^\circ$; $\rho=0''5\frac{1}{2}$ | | | | | | | | | | | | |
| Kui | 108 | 77 Cyg | 21 | 40.4 | +40 | 51 | 6.1- | 6.3 | B+A | - close - | 27 | 2 |
| Σ | 2822,AB | μ Cyg | 21 | 41.9 | +28 | 31 | 4.7- | 6.1 | F+F | 298 1.8 | 507 | 3↓ |
| β | 989,AB | κ Peg | 21 | 42.4 | +25 | 25 | 5.0- | 5.1 | F | - close - | 12 | 1 |
| HdO | 296 | Ind | 21 | 51.5 | -62 | 07 | 6.5- | 6.7 | F | - close - | 27 | 2 |
| β | 75,AB | Peg | 21 | 53.1 | +10 | 39 | 8.4- | 8.9 | G | 225 0.6 | 314 | 4 |
| φ | 307 | δ Ind | 21 | 54.5 | -55 | 14 | 5.3- | 5.3 | F | - close - | 12 | 2 |
| Σ | 2863,AB | ξ Cep | 22 | 02.3 | +64 | 23 | 4.6- | 6.6 | A+G | 276 8.0 | 3800 | 5 |
| Σ | 2909,AB | ζ Aqr | 22 | 26.3 | -00 | 17 | 4.4- | 4.6 | F+F | 226 1.8 | 856 | 3↑ |
| Kr | 60,AB | Cep | 22 | 26.4 | +57 | 27 | 9.4- | 10.9 | M+M | 176 2.6 | 44 | 1↑ |
| Σ | 2912 | 37 Peg | 22 | 27.4 | +04 | 11 | 5.7- | 7.0 | F | 118 1.0 | 140 | 2↓ |
| Hu | 1320 | Lac | 22 | 30.8 | +49 | 08 | 8.4- | 8.4 | F | - close - | 61 | 4 |
| Σ | 2924,AB | Cep | 22 | 31.6 | +69 | 39 | 6.6- | 7.0 | F+A | 86 0.5 | 226 | 4↓ |
| Ho | 295 | Lac | 22 | 36.5 | +44 | 03 | 7.7- | 7.7 | F+F | - close - | 30 | 3 |
| Ho | 296,AB | Peg | 22 | 38.4 | +14 | 17 | 6.4- | 6.7 | G+G | 23 0.3 | 21 | 2 |
| -- Ho 296 will next be widest in 1993; $\theta=57^\circ$; $\rho=0''5$ | | | | | | | | | | | | |
| Σ | 2934,AB | Peg | 22 | 39.4 | +21 | 10 | 8.7- | 9.7 | G | 70 1.0 | 520 | 4 |
| β | 1146 | Peg | 22 | 46.1 | +30 | 50 | 7.7- | 8.4 | B | - close - | 162 | 3 |
| HdO | 301 | PsA | 22 | 47.2 | -33 | 04 | 7.0- | 7.2 | A | - close - | 27 | 2 |
| Ho | 482,AB | Peg | 22 | 49.0 | +26 | 08 | 7.5- | 7.5 | A | 39 0.3 | 243 | 3 |
| A | 632 | Cep | 22 | 50.0 | +57 | 27 | 8.2- | 9.0 | K | 169 0.8 | 98 | 3↓ |
| β | 382,AB | Lac | 22 | 51.4 | +44 | 29 | 5.8- | 7.8 | A+F | 206 1.1 | 107 | 2 |
| Hu | 987 | Peg | 22 | 53.2 | +15 | 31 | 9.1- | 9.3 | G | 88 0.7 | 191 | 4 |
| OΣ | 484,AB | Cep | 22 | 54.6 | +72 | 34 | 7.6- | 8.5 | A | - close - | 129 | 3 |
| Hu | 1335 | Gru | 22 | 55.7 | -45 | 47 | 8.4- | 8.5 | G | 226 0.4 | 87 | 4↑ |
| OΣ | 536,AB | Peg | 22 | 56.0 | +09 | 05 | 7.2- | 7.3 | G+G | - close - | 26 | 2 |

| | | | | | | | | | | | | | |
|----------|---------|--------|----|------|-----|----|-------|------|-----|---------|-----|-----|----|
| OΣ | 483 | 52 Peg | 22 | 56.7 | +11 | 28 | 6.1- | 7.4 | F | 301 | 0.7 | 286 | 4 |
| Hu | 398 | Peg | 22 | 59.9 | +18 | 20 | 9.0- | 9.3 | G | 231 | 0.4 | 292 | 4 |
| A | 417,AB | 83 Aqr | 23 | 02.6 | -07 | 58 | 6.2- | 6.2 | F | - close | - | 22 | 1 |
| A | 1238,AB | Peg | 23 | 06.3 | +10 | 41 | 8.0- | 8.2 | F | - close | - | 72 | 4 |
| OΣ | 489,AB | π Cep | 23 | 06.3 | +75 | 07 | 4.7- | 6.7 | G | 335 | 1.1 | 147 | 3 |
| β | 992 | Cep | 23 | 13.7 | +63 | 50 | 8.2- | 8.4 | F | 31 | 0.2 | 480 | 4 |
| β | 182,AB | Aqr | 23 | 14.5 | -14 | 06 | 9.0- | 9.2 | F | 45 | 0.7 | 90 | 4↓ |
| β | 79,AB | Psc | 23 | 15.0 | -01 | 48 | 8.4- | 10.0 | G | 25 | 1.5 | 388 | 4 |
| Hu | 400 | Peg | 23 | 15.1 | +18 | 02 | 7.0- | 8.4 | F | - close | - | 172 | 4 |
| β | 80,AB | Psc | 23 | 16.3 | +05 | 08 | 9.1- | 9.7 | K | 317 | 0.9 | 92 | 2↓ |
| Σ | 3001,AB | o Cep | 23 | 16.6 | +67 | 50 | 5.0- | 7.3 | K+F | 218 | 2.9 | 796 | 5 |
| Hu | 95 | Aqr | 23 | 19.3 | -12 | 33 | 10.4- | 11.7 | G | 316 | 0.4 | 173 | 4 |
| Hu | 295 | 97 Aqr | 23 | 20.0 | -15 | 19 | 5.9- | 6.1 | A+A | 105 | 0.4 | 63 | 2↓ |
| β | 1266,AB | Peg | 23 | 28.0 | +30 | 33 | 8.0- | 8.0 | F | - close | - | 49 | 2 |
| Wirtanen | | DQ Peg | 23 | 29.3 | +19 | 38 | 10.7- | 13.2 | M+M | 110 | 3.9 | 178 | 5 |
| Hu | 298 | Psc | 23 | 29.7 | +06 | 49 | 7.6- | 7.7 | F | - close | - | 31 | 2 |
| β | 720 | 72 Peg | 23 | 31.5 | +31 | 03 | 5.9- | 5.9 | K | 262 | 0.4 | 425 | 4 |
| λ | 492 | Scl | 23 | 33.0 | -27 | 46 | 6.8- | 7.8 | F+G | 288 | 0.5 | 76 | 3 |
| Hu | 1325 | Peg | 23 | 37.6 | +12 | 42 | 10.2- | 12.9 | G | 344 | 0.6 | 343 | 4↑ |
| Mul | 4 | And | 23 | 38.7 | +45 | 57 | 7.8- | 8.1 | F+F | - close | - | 20 | 2 |
| OΣ | 507,AB | Cas | 23 | 46.2 | +64 | 36 | 6.8- | 7.5 | A | 316 | 0.7 | 713 | 4 |
| A | 424 | Peg | 23 | 47.3 | +27 | 24 | 7.5- | 8.0 | F | - close | - | 113 | 3 |
| Slr | 14 | Phe | 23 | 47.8 | -51 | 59 | 8.5- | 8.7 | G | 196 | 0.7 | 180 | 3↑ |
| Σ | 3050,AB | And | 23 | 56.9 | +33 | 27 | 6.5- | 6.7 | G+G | 311 | 1.7 | 814 | 5↑ |
| Hld | 60 | And | 23 | 58.9 | +39 | 22 | 9.2- | 9.6 | G | 183 | 1.0 | 227 | 4 |
| β | 733,AB | 85 Peg | 23 | 59.6 | +26 | 49 | 5.9- | 9.0 | G | 242 | 0.8 | 26 | 1 |

-- 85 Peg will next be widest in 1982; $\theta=261^\circ$; $\rho=0''.8$

The following short list are additions to the preceeding list of binary stars or are improvements on those listed already. All of these are computed from orbits published after 1970. The source of these new orbits was in most cases the I.A.U. commision 26 circulars of information. An asterisk (*) following a stars name indicates an improved orbital possition, the rest are new.

| Star | | 1950 pos | $m^1 - m^2$ | sp | θ | ρ | P |
|---------------------|--------|----------------|-------------|-----|----------|--------|--------|
| I 263 | Tuc | 01 20.5 -69 59 | 7.5- 8.0 | F | 223 | 0.5 | 214 4 |
| β 453* | Cas | 01 41.7 +56 52 | 10.1-10.4 | G | 70 | 0.5 | 238 4↑ |
| A 3009 | Lep | 05 03.6 -13 59 | 8.1-10.4 | G | 228 | 1.1 | 217 4 |
| A 2768 | 34 Sex | 10 40.0 +03 51 | 6.7- 8.8 | F | 334 | 0.2 | 78 3↑ |
| Σ 1606 | CVn | 12 08.3 +40 10 | 7.3- 7.9 | A | 265 | 0.4 | 327 4↓ |
| Σ 1687,AB*35 | Com | 12 50.8 +21 31 | 5.3- 7.3 | G | 163 | 1.1 | 510 4↑ |
| Σ 1819* | Vir | 14 12.8 +03 22 | 7.7- 7.8 | F+F | 239 | 0.8 | 213 3↓ |
| Cor 197,AB | Nor | 16 21.6 -49 02 | 8.0- 8.2 | G | 108 | 1.7 | 311 4 |
| β 1251 | Her | 17 39.7 +15 58 | 5.9-11.5 | F | 140 | 0.9 | 123 3↑ |
| β 1127 | Her | 18 01.1 +44 14 | 7.4- 9.3 | F | 80 | 1.1 | 337 4 |
| O Σ 363 | Dra | 18 39.8 +77 38 | 7.6- 7.8 | F | 163 | 0.2 | 251 4↓ |
| Σ 2454 | Lyr | 19 04.2 +30 22 | 8.5- 9.7 | K | 279 | 1.2 | 687 4 |
| Schj 22* | Sgr | 19 25.4 -12 15 | 8.0- 8.3 | G | 107 | 0.6 | 172 3 |
| β 172,AB | Aqr | 22 21.5 -05 05 | 6.6- 6.6 | A | 277 | 0.3 | 190 3↓ |
| β 1147 | 2 And | 23 00.3 +42 29 | 5.1- 8.8 | A | 335 | 0.4 | 77 2 |
| A 2100 | Psc | 23 54.2 +04 27 | 7.4- 7.9 | F | 194 | 0.2 | 83 3↓ |



ASTRONOMICAL ASSOCIATION OF NORTHERN CALIFORNIA

Doug Berger
AANC President
879-D 143rd Avenue
San Leandro, California
94578

Dear AANC Member:

At the start of my second term as president of the Astronomical Association of Northern California, I would like to share a few thoughts with you on how things went last year, and what we have to look forward to in 1978.

The year 1977 was a good year for the AANC. Our membership expanded to 19 with the addition of two new members - SPACE: The Final Frontier and the Rosicrucian Planetarium.

If you were one of the people lucky enough to attend the 1977 AANC/NASA Joint Conference on Astronomy, you will agree that this was one of the best meetings to date. The varied range of subjects covered by the many speakers, and the in-depth tours arranged by the NASA/Ames staff made the meeting both interesting and informative.

With a total of 23 stations in both northern and southern California, Astronomy Day 1977 was a big success. Over 7000 people came out to view the lunar eclipse, Saturn and other celestial objects. I would like to invite you to help set up an observing station in conjunction with this year's Astronomy Day which will fall on Saturday, March 18. To participate, please contact your club Astronomy Day coordinator or any AANC board member. Also participating this year will be the Astronomical League with its 160 clubs across the country, and the WAA.

1977 was also a good year for the AANC sponsored Star Parties held atop Fremont Peak. Your AANC delegate will provide you with the dates for this year.

The AANC will be holding its 1978 conference jointly with the Western Amateur Astronomers, the Association of Lunar and Planetary Observers, and the Astronomical Society of the Pacific at the University of California - San Luis Obispo July 27-30. With this many organizations taking part, the meeting will undoubtedly be a success. Hope you can make it.

As you have seen, 1977 was a year to be remembered in west coast astronomy. With your participation, I am sure that 1978 will be even better.

Sincerely yours,

San Francisco Astronomical Association
Eastbay Astronomical Society
San Mateo Astronomical Society
Peninsula Astronomical Society
San Francisco Sidewalk Astronomers

Stockton Astronomical Society
Telescope Makers Workshop
San Jose Astronomical Association
Astronomical Society of Nevada
Morrison Planetarium

Tamalpais Astronomical Society
City College of San Francisco
Holt Planetarium/Lawrence Hall of Science
Sonoma County Amateur Astronomers
Rosicrucian Planetarium

Space Microwave Laboratories
Optica b/c
Geophysical Labs & Research
SPACE: The Final Frontier