

sjaa ephemeris

march '81

- March 6-7 Annual SJAA Messier Marathon at Loma Prieta Peak. See Observations and Don Machholz's article on the Marathon for more information and directions.
- March 6 New Moon
- March 7 The San Mateo Astronomical Society presents Robert Truax speaking on Project Private Enterprise-the Volks Rocket, at Cañada College in San Mateo. The SJAA has been invited to attend. Information and directions are in Observations.
- March 14 SJAA General Meeting to be held in room S-34 (across the courtyard from the planetarium) at DeAnza College in Cupertino. 8:00 pm. This will be a NASA film night, with "Flight Without Wings", "Four Rooms-Earth View", and "The Dream That Wouldn't Down, (the life of Robert Goddard)" being shown. Bring your family and friends.
- March 20 Full Moon
- March 20 Board meeting at Bob Fingerhut's, 340 Rio Verde Place, #4, Milpitas. 263-4455. 8:00 pm. Everyone is welcome!
- March 21 Indoor star party at the Los Gatos Red Cross building, 18011 Los Gatos-Saratoga Rd, Los Gatos. 7:30 pm on. Everyone is welcome to attend. There is an on-going telescope makers' workshop. To get there take Hwy 9 exit off Hwy 17 and continue for a mile up Los Gatos-Saratoga Rd. The building is on the right with parking in the lot in back. Beware of telescopes!
- March 28 Indoor star party, Los Gatos Red Cross building, 7:30 pm on.
- April 3-4 Messier Marathon at Loma Prieta Peak. This is the second half of the optimum moon 'window' for this annual SJAA event.
- April 4 New Moon
- April 11 General meeting at DeAnza College, Cupertino, room S-34. 8:00 pm. Speaker to be announced.
- April 17 Board meeting at Jim van Nuland's, 3509 Calico Ave., San Jose'. 371-1307. 8:00 pm. Everyone welcome.
- April 18 Indoor star party at the Los Gatos Red Cross building. 7:30 pm on. Everyone welcome.
- April 25 Indoor star party, Los Gatos Red Cross building. 7:30 pm on. This will be a fund raising auction night. Details in Observations.
- May 2 SJAA Star Party at Henry Coe State Park.

Kevin Medlock, president 654-6796

Denni Frerichs Medlock, editor 654-6796

Observations

Once again it's time for the annual SJAA Messier Marathon, organized by Don Machholz and this year being held on two weekends in March and April. Those of you who attended the February general meeting were treated to a talk on the Messier Marathon as only Don can give it—expertly entertaining! The Marathon is a great opportunity for even the beginning observer to get out and share a few evenings with other amateurs in chasing down the sometimes elusive 'M' objects. Don has a well planned program for observing order available as well as registration forms for the AANC's Messier Club for those who are interested. To get to Loma Prieta Peak take Hwy 17 south towards Santa Cruz. Exit at Summit Road go east for 5.3 miles to the first stopsign. Go left up Mt. Blanche Rd. After 3.2 miles the roads turns to dirt. The observing site is another 1.2 miles along. Dress warmly and be prepared to accomplish a lot of observing!

For those who can't face an early spring night out observing but would like to do something astronomical that weekend, the San Mateo Astronomical Society has invited the SJAA to hear Robert Truax speak at their general meeting March 7 at Canada College in San Mateo. Bob Truax is a well known rocket expert, responsible for much of the post-WWII rocket advancement for the military in the U.S. Presently, he is involved in building and promoting project Private Enterprise, an effort to build and launch a privately supported rocket and astronaut into space. Besides a general progress report, he will present slides and movies of the recent test firings. To reach Canada College from San Jose, take Hwy 280 to Farm Hill Rd, exiting east. Take the first traffic light left and enter campus. Follow road to campus center. The meeting will be in the Choral Room, located at the corner of the main road and small parking area. The meeting starts at 7:45 pm.

"Do you always have riots at your board meetings?"
Jerry Jones

Some topics the board members have been discussing lately have included a new members packet, including a membership card, maps, and list of activities. Gerry Rattley is working on a new brochure for passing out at SJAA public activities like the upcoming Astronomy Day, this year being held on May 9th. Other activities in the planning include a SJAA program for the Spring DeAnza Day, a community activity held annually at DeAnza College. Last year's SJAA participation was a huge success, with slide shows on-going, solar scopes available during the day, and a large public star party in the evening. If any member would like to participate in the decision making of the SJAA the board meetings are open to new people and new ideas. And, no, there aren't often riots at the board meetings!

Because the Red Cross may soon be asking the SJAA for help with the maintenance of their building (we pay nothing for the use), it was decided at the February board meeting to have the April 25 indoor star party be an astronomical auction. It will be held two ways: If you have something you would like to donate to the club to be sold the entire going price will go towards the maintenance fund. If you have something you'd like to sell you may tag the starting bid onto it and the club will take 10%

of anything you get over that tagged price. This editor has been to a few astronomical auctions and they can be interesting and fun. So, drag out that old pair of binoculars, old astronomy books, camera equipment, out-dated film, four legged tripod, dented eyepiece, etc., and bring it to the April 25 indoor star party to help the club defray the cost of our usage of the Red Cross building. (I suggested we auction off the club library but nobody seemed to go for that idea....)

The January 31 indoor star party beginner's night was more of a success than anyone expected. About thirty people showed up to view and talk about examples of star charts, clothing, observing techniques and equipment that make being an amateur astronomer enjoyable. In the parking lot over six telescopes were set up and, for once from Los Gatos, we had clear, steady skies and a good star party. In Chris Pratt's 12" the Orion Nebula was as green as a good planetary nebula, with fringes of pink visible. Patty Winter started on her Messier list that night also, and many other viewers were shown objects available in the winter sky with a medium size scope.

The on-going telescope makers' workshop is going full grind. At the February 21 meeting saw all the counters and most of the tables filled with people in various stages of work. Aaron Haws saw the collimation of two years of work with a beautiful view of the moon as first light for his six-inch Newtonian. Congrats! With the enthusiasm that's being shown at the workshop it won't be too long before others see first light through their own hand made telescopes.

Included in this month's bulletin are articles by Don Machholz, Jay Freeman, Jim van Nuland, Bobby Fingerhut, and a set of star riddles by Dave and Mary Ambrose. I've also included the information and registration form for the Riverside Telescope Makers Conference. When Jay handed me his article he noted that he didn't have any ideas on what to title it, seeing that it had started out as a Sanborn star party report and got carried away, so I titled it for him. I think Jay should become (or is becoming) the Walter Scott Houston of the SJAA. Anyhow, many thanks to the contributors this month. Bulletin deadline for April's bulletin will be March 20.

Denni

For sale: Celestron 8", fully equipped, 2 months old. Cost \$1200, asking \$700. Call Richard Kelly evening or weekends at 268-8572

New Bulletin Subscriber: Harry Leitner
425 Hazelwood Dr.
So. San Francisco 94080

Change of Addresses: Tom A. Palmer
7248 Saffron
Citrus Heights, 95610

Fred L. Eatock
885 Lonna Ln.
Cupertino 95014

The following letter was sent to the officers of the Astronomical Association of Northern California and a copy of this bulletin is being sent to every member society of the AANC. This represents the recent decision of the SJAA board regarding the leveling of dues by the AANC to its member clubs. The SJAA board felt that the general membership should be aware of the changes of the club's policy concerning the AANC.

the san jose astronomical association

SJAA

Mike Ryan, President,
Astronomical Association of
Northern California

January 27, 1981

At its regular meeting of 1981 January 16, the Board of Directors of the San Jose Astronomical Association considered the matter of payment by the SJAA of Dues to the AANC. The Board wishes to draw to the AANC's attention and to the attention of AANC member clubs, the following points:

- I) That, upon its founding, it was the stated intention of the AANC to discontinue dues upon the attainment of financial stability;
- II) That the AANC presently holds in excess of \$3000, having shown a profit in excess of \$1000 on the 1980 conference;
- III) That the SJAA and most other member clubs operate on budgets having little or no reserve funds.

In light of these points, the Board of the SJAA has reached the following conclusions:

- a) That dues for 1981 shall not be paid to the AANC, the matter to be reconsidered for 1982 dues;
- b) That the SJAA supports, and continues to support, the activities of the AANC connected with astronomy and public education, to wit, Astronomy Day, the Messier Club, and the AANC Conference.

Furthermore, the SJAA respectfully makes, to the AANC and to its member clubs, the following recommendations:

- 1) That dues be suspended for the year 1981, and refunded to those member clubs that may already have paid;
- 2) That the matter of dues be addressed on a year-to-year basis, assessing dues when needed for the support of the astronomical and educational goals of the AANC.

Passed by voice vote of the Board of Directors, San Jose Astronomical Association.

James H. Van Nuland,
Secretary, SJAA

cc: Gerald W. Rattley,
Secretary, AANC

Messier Marathon Reminder

Once again, the Messier Marathon is being held the evenings of March 6 and 7. In either of these all-night sessions, 109 of the 110 Messier objects should be visible. In addition, two (or three) comets will be observable, as will Jupiter and Saturn, plus a host of other deep-sky objects not included in the Messier list. I will be at Loma Prieta Mountain in the Santa Cruz Mountains, weather permitting. Should it be cloudy, I'll try to get up there to observe sometime shortly before or after these dates. April 3 and 4 also look good for the Marathon, and should the March dates be clouded out, I'll be there in April. See you there!

Don Machholz

Comet Comments

As we enter Springtime, no new comets have been reported. Two previously observed comets fade in the West and three others still remain visible. Positions follow.

Comet Meier (1980q)

Date	R.A.	Dec.	Mag.	
2-25	17:24.2	+21°48'	9.9	Moving away from the sun but towards the earth, this comet moves from Hercules to Bootes. It's diffuse, but fairly bright.
3-07	17:07.1	22 28	10.0	
3-17	16:43.2	23 09	10.0	
3-27	16:11.6	23 31	10.1	
4-06	15:33.9	23 08	10.1	

Comet Panther (1980u)

2-21	19:29.	+70°24'	8.6	This comet passes very close to the north pole, then into the evening sky. A tail has been observed on this one. Be sure to see it.
3-01	19:42.	78 36	8.6	
3-09	20:40.	87 30	8.7	
3-17	07:19.	82 54	8.8	
3-25	07:39	73 42	8.8	

Comet Borrelly

2-25	02:05.8	+11°21'	9.	Moving towards the sun in the evening sky, this comet appears brighter than predicted, henceforth these updated rough magnitude estimates. It appears diffuse and featureless.
3-07	02:33.5	17 19	9.	
3-17	03:03.0	22 48	10.	
3-27	03:34.4	27 42	10.	
4-06	04:07.9	31 54	10.	

Great Comets: Comet West (1975n, 1976 VI): This comet became one of the brightest and most spectacular comets of the century. Discovered by Richard West of the European Southern Observatory in November, 1975, on photos taken in August of that year. In late February, 1976, the comet was visible in the daytime. In the following weeks it was visible in the pre-dawn sky, with a couple of tails - each as long as 25 degrees. Additionally, in late February the nucleus of the comet split into four parts. Comet West, one of the finest ever, will return in at least 15,000 years.

Don Machholz
(408) 448-7077

The star party scheduled for February 7 at Sanborn Canyon was clouded out. About half a dozen club members met inpromptu at the Los Gatos Red Cross that evening for conversation and mirror making. Perhaps we should plan to have regularly-organized inpromptu Red Cross meetings when star parties are cancelled.

Notwithstanding February's run of scruffy weather, I got in some good observing. The night of Monday the second saw dark, clear sky and no dew at Fremont Peak. Although there was no low lying fog to turn off the lights from Salinas and Santa Cruz, I went hunting for some unusual faint fuzzies, and seem to found one of them: Maffei 1. This is a large nearby elliptical galaxy, close enough to be within the local group of galaxies, but (as evidenced from the Doppler shift) not gravitationally bound to the local group. The reason why few people have heard of it or seen it is that it's only a few degrees away from the plane of the Milky Way, and is therefore heavily obscured by interstellar dust. An article in the March, 1971 issue of Sky and Telescope states that if there were no obscuration, Maffei 1 would be a naked-eye object, with visual magnitude 5.8. The dust adds about 5.2 visual magnitudes, resulting in $m_v = 11.0$ for the entire galaxy. With five magnitudes of dimming, the outer parts of the galaxy are certainly very dim, but it seemed to me that perhaps the nuclear region might be visible, perhaps at $m_v = 13$ or so. Sky and Telescope gave 1950 coordinates of $2^h 32.6^m$, $+59^\circ 25.8'$, in Cassiopeia, which I plotted up on my AAVSO Atlas; and also showed a few pictures to give some idea of what the field was like.

And I found it! At 71X, 122X, and 196X in the Celestron 14, I saw a blur of haze a few arc-minutes in diameter, seen through an asterism or loose cluster of about ten stars. The bunch of stars shows on the Sky and Telescope photographs. Maffei 1 was not a terribly difficult object for the C-14 -- perhaps it can be seen in a smaller telescope.

I also looked for Maffei 2, another heavily obscured galaxy in Cassiopeia, but even though I could identify the field precisely, I could not see it. Perhaps I'll try again some night when the fog is in on the coastal plain.

Both Maffei galaxies gained some attention when first discovered, because all that obscuration makes them much brighter in the near infrared than in visible light. However, they were both discovered on photographs made in visible (red) light, and certainly are not solely detectable in the infrared.

Later in the week I did some observing from my home: I looked at a lot of galactic clusters in Gemini, Monoceros, and Puppis. Does everybody know about NGC 2264, the Christmas-Tree Cluster? This very young galactic cluster is located at the fifth-magnitude variable star S Monocerotis, at $6^h 38.2^m$, $+9^\circ 57'$ (1950 coordinates). The cluster is an easy finder object, and is very pretty in just about any telescope. Those with large exit pupils and dark sky may also see some nebulosity therein. And, yes, it does look like a Christmas tree.

I found a place in Puppis where I could just about get four galactic clusters into the field of a low-power eyepiece at once. There are NGC 2567, 2571, and 2587; centered at about $8^h 20^m$, -30° (1950 coordinates). All are shown on the Skalnate Pleso Atlas. In my six inch hand-braced Newtonian at 36X, they span the gamut from "pretty well resolved" to "caint see nuthin but a blur".

And as Messier Marathon time sneaks stealthily upon us, I suggest the following challenges for those to whom more conventional Messier observing has become passe': First, observe all the Messier objects in numerical order. Second, observe all the Messier objects in a single night without reference to star charts. Am I serious about these challenges? Of course I am!

Shuttle Countdown

by Bob Fingerhut

Since the space shuttle Columbia went to pad 39A, Decmeber 29th., several test milestones have been met. The following list shows the status and work that remains.

	Scheduled Completion
<input checked="" type="checkbox"/> Shuttle/pad interface validation	Jan. 10
<input checked="" type="checkbox"/> Umbilical plugs-out test	Jan. 17
<input checked="" type="checkbox"/> Ground power-out test	Mid Jan.
<input checked="" type="checkbox"/> Auxiliary power unit fluid servicing	Late Jan.
<input checked="" type="checkbox"/> Main propulsion system serial autoloa and detanking tests	Late Jan.
<input checked="" type="checkbox"/> Auxiliary power unit hot-fire	Early Feb.
<input checked="" type="checkbox"/> Hazardous fluids servicing	Early Feb.
<input checked="" type="checkbox"/> Dry countdown demonstration test	Feb. 15
<input checked="" type="checkbox"/> Flight readiness firing	Feb. 20
<input type="checkbox"/> Mission verification test	Late Feb.
<input type="checkbox"/> Remove hypergolics and repair external tank insulation	Early March
<input type="checkbox"/> Post-flight readiness firing maintenance and test	Early March
<input type="checkbox"/> Additional external tank hydrogen loading test and hypergolic reloading	Mid March
<input type="checkbox"/> Final shuttle systems test	Late March
<input type="checkbox"/> Final launch readiness verification test	Late March
<input type="checkbox"/> Mission 1 countdown	April 7

The key propellant autoloa and detanking test was completed but resulted in damage to the insulation and external tank. This will take seven to ten days to repair, delaying the launch to about April 7.

The flight readiness test firing took place successfully February 20, with all three engines functioning for a full 20 seconds under at least ninety percent flight thrust. Steering nozzles also acted without problem.

REAGAN DECIMATES CIVILIAN SPACE PROGRAM

by Bob Fingerhut

President Reagan's budget plans call for the gutting of the civilian space program. The cuts are : 1981, \$96 million, 1982, \$629 million dollars. His program cuts would involve:

*Canceling the Venus orbiting, imaging radar mission

- *Canceling the gamma ray observatory
- *Canceling the National Oceanic Satellite System
- *Deleting funding to retain the option for a fifth space shuttle orbiter
- *Delaying by six months the production schedule of the fourth space shuttle orbiter. (This orbiter was earmarked for the military. He will have to give the military additional priority on the other three.)
- *Deleting a thermatic mapper instrument for the fourth Landsat D-class spacecraft
- *Deleting funding to collate operational Landsat data archival and dissemination capabilities at the NASA Goddard Space Flight Center
- *Cancelling the Ames Research Center's numerical aerodynamic simulator (This is a super computer for study of aerodynamics, atmospherics, fluid flow, and physics.)

I urge you very strongly to write the president, your senator, and representative to oppose these acts.

The addresses are:

President Reagan
The White House
1600 Pennsylvania Ave.
Washington, D.C. 20500

Senator (Cranston or Hayakawa)
U.S. Senate
Washington, D.C. 20510

Congressman (Your Congressman)
U.S. House of Representatives
Washington, D.C. 20515

The chairman of the subcommittees that oversee NASA's budget are listed below. Please write to them, too.

Senate

Senate Appropriations Subcommittee- Sen. Jake Garn
Subcommittee on Science, Technology, and Space of the Senate
Commerce Committee- Sen. Jack Schmitt

House of Representatives

HUD-Independent Agencies Subcommittee of the House Appropriations
Committee-Rep. Edward P. Boland
House Authorization Subcommittee- Rep. Ronnie Flippo
House Authorization Committee- Rep. Don Fuqua

STAR RIDDLES

by Dave & Mary Ambrose

Name these stars of legend. Answers next month.

- * I am known among seamen as the Dragon's Tail
- * I was believed to have ruled the affairs of the Heavens, the leader of the Persian Guardians of the Heaven, and the Heart of the Lion, the Royal Star.
- * I was, in the days of the Akkadians the Pole Star, but also was I the first ever to have its picture taken.
- * I am the bull's eye which follows the Pleiades
- * I am the Lodestar

(The following is a reduced version of the original form)



RIVERSIDE TELESCOPE MAKERS CONFERENCE

Plan now to attend the 13th Annual Riverside Telescope Makers Conference on May 22nd, 23rd, 24th, and 25th, Friday evening thru Monday morning, Memorial Day weekend. It will be held at Camp Oakes, 5 miles east of Big Bear City on Hwy 38 in the San Bernardino Mountains. Elevation 7300 ft.

WEEKEND LODGING: This year two plans are offered:

7 meals and lodging (or camping) is \$29.00 per person. The seven meal plan begins Friday evening and ends with Sunday evening meal

5 meals and lodging(or camping) is \$26.00 per person. The five meal plan begins with the Saturday noon meal and ends with the Sunday evening meal.

An a la carte breakfast will be available Monday morning at a small cost.

All dining and lodging reservations must be received by May 10, 1981

CAMPING: Camping is \$3.00 per person per night for all ages. If you have paid for meals you may camp on the grounds or use the dorms. All bedding must be brought with. The dorms are heated.

REGISTRATION FEE: The registration fee is \$2.00 for all persons.

ARRIVAL TIME: Because of prior committments, no one will be allowed on the grounds before 1:00 pm Friday, May 22nd.

SPEAKERS: We are requesting abstracts of paper for presentation at the conference. Please include a time estimate with submittal. Contact Cliff Holmes, 8642 Wells Ave., Riverside, Ca. 92503.

SWAP MEET: The swap meet will be held 4:00 to 6:00 pm Saturday.

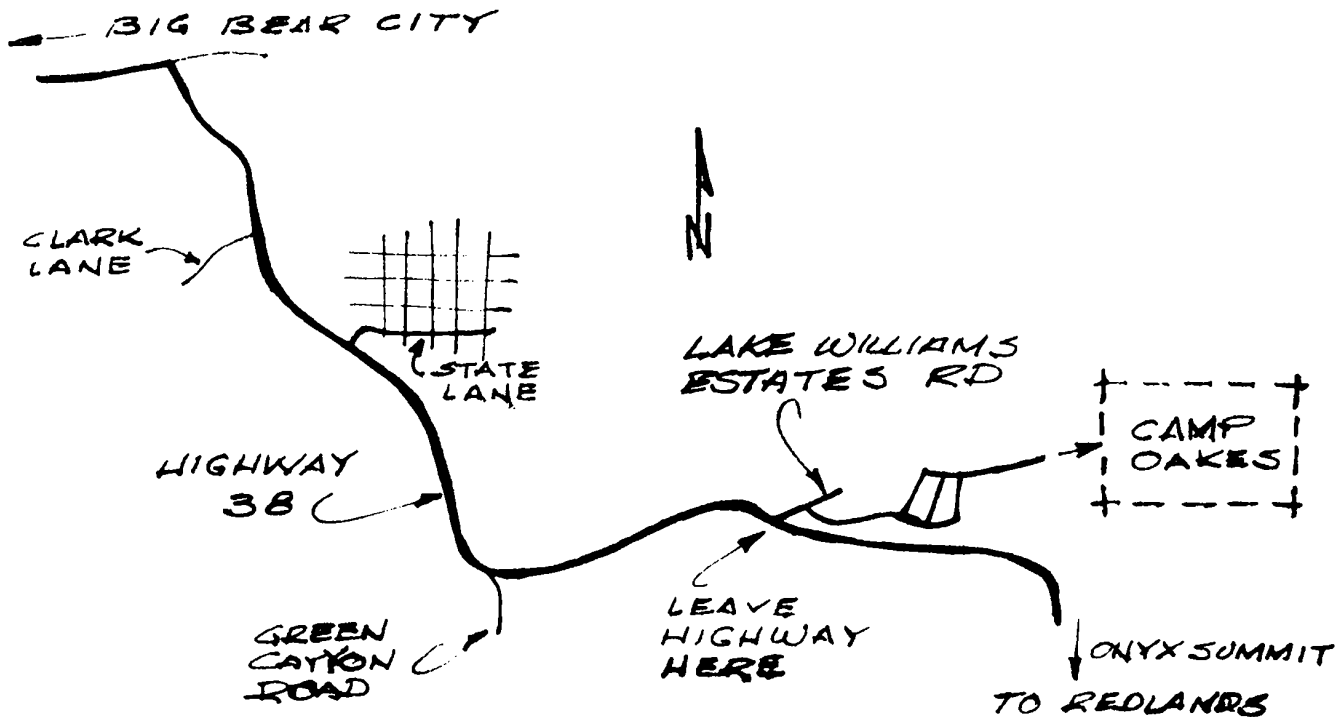
CHILDREN'S PROGRAM: A children's program will be presented by David Levy of Tuscon for young people ages 6 to 12.

DOOR PRIZES: This highly popular activity will continue as before.

MERIT AWARDS: This year merit award certificates and engraved plaques will be awarded for displays and telescopes with novel design, exceptional craftsmanship, and the use of related equipment.

Commercial exhibitors will be on hand, the pool and lake will be open, and no pets, please.

THE CONFERENCE GOES ON....RAIN, OR SHINE, OR SNOW!!



RTMC REGISTRATION FORM

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP CODE _____

NUMBER IN PARTY _____

REGISTRATION FEE, \$2.00 PER PERSON _____ X \$ 2.00 = _____

MEALS & LODGING- 5 MEALS, \$26.00 _____ X \$26.00 = _____

7 MEALS, \$29.00 _____ X \$29.00 = _____

CAMPING, \$ 3.00 PER PERSON/NIGHT _____ X \$ 3.00 = _____

PROCEEDINGS, \$ 8.00 PER COPY _____ X \$ 8.00 = _____

Make checks payable to : TOTAL \$ _____

RIVERSIDE TELESCOPE MAKERS CONFERENCE

Please send remittance to:

RIVERSIDE TELESCOPE MAKERS CONFERENCE
8642 WELLS AVENUE, RIVERSIDE, CA. 92503
PH: 714-689-6893