

SJAA EPHEMERIS



THE MACHHOLTZ MARATHON

Don made an appearance at the March SJAA meeting to tell us all about the Messier Marathon — how to do it, how it was done in the past, what to expect.

The bad news was, if you want to see them all in a single night, it's going to mean traveling further south than the Bay Area. The good news is, he didn't think a quarter-or-less moon (either way) is a problem getting the job done.

It was an **outstanding** talk, in true Machholtz fashion: information, wit and anecdotes laced together in a snug fit; one of the best presentations seen since Don's last visit, and all the more impressive since he was ill that day (but, topnotch hunter he is, a little thing like that didn't stop him).



MAY

- 1 Houge park star party. Sunset 7:57 pm, 37% moon sets 1:24 am.
- 2 Astronomy Day (previous Houge night is our designated event).
- 2 Beginning Astronomy class "Lunar Observing" with David North at Houge Park, 8 pm
- 9 General Meeting at Houge Park, 8 pm. Speaker John Dobson!! Open board meeting 6:30 pm.
- 22 Houge park star party. 8:15 pm, 10% moonrise 4:38 am.
- 22-25 Riverside Telescope Maker's Conference
- 23 Star party at Fremont Peak, Coe. Sunset 8:14 pm, no moon.

JUNE

- 5 Houge park star party. Sunset 8:25 pm, 85% moonset 3:53 am.
- 6 General Meeting at Houge Park, 8 pm. Open board meeting 6:30 pm.
- 13 Astronomy class at Houge Park, 8 pm. Deep-sky observing with Mark Wagner.
- 19 Houge Park star party. Sunset 8:31 pm, 21% moon rises 3:15 am.
- 20 Star parties at Fremont Peak, Coe. Sunset 8:29 pm, 12% moonrise 3:57 am.
- 26-27 SJAA weekend at Yosemite National Park.
- 27 Star party at Fremont Peak. Sunset 8:29 pm, 18% moonset 11:13 pm.

Please note that SJAA insurance only covers SJAA members at SJAA sponsored events.

24 hour News and Information:

SJAA Hotline: (408) 559-1221

Web Address: [http://](http://www.seds.org/billa/sjaa/sjaa.html)

www.seds.org/billa/sjaa/sjaa.html

MESSIER MARATHON REPORT

Jay Freeman

I wonder where everybody went. Amateur astronomers in the southern San Francisco Bay area had been planning a Messier Marathon for Saturday, March 28, 1998, for months, but I went to the two major sites without seeing so much as another person, much less another telescope.

The day began fairly clear in Palo Alto, but weather reports revealed thunderstorms around the Bay — one location had marble-sized hail.

I headed for Fremont Peak, arriving at the end of twilight, but clouds encroached. There were also occasional lightning flashes from the south, but the storm was too far off to hear thunder.

Somewhat before 9 PM I left, and drove to the other planned Messier Marathon site, Henry Coe State Park. The ground was wet, but the sky was clear, so I set up the Meade 127 ED refractor that I had brought with me. I acquired this instrument last autumn, but with weather and all, I had only set it up three times before. Seeing and transparency were not particularly good, so I did not do a complete polar alignment or attach the drive

See Messier, p. 2

Messier, from p. 1

controller and battery. I just roughly aligned the mount and pushed the telescope around by hand, loafing at 57x.

That is a fine magnification for Messier objects: I logged 40 of them in less than an hour's observing. M97 showed the eyes, the Sombrero showed the dust lane and central bulge, M44, M67 and M40 were resolved, and a couple of globulars were granular and would likely have resolved with more magnification. The telescope was capable of going well beyond the Messier catalog, even in such less-than-perfect sky: In Virgo, I was able to see NGC 4387 and 4388, tucked in below M84 and M86.

The night was calm and quiet, except for a chorus of coyotes singing cheerily in the distance. Soon I noticed more lightning flashes to the west — the first time I have logged electrical discharge as a significant contribution to light pollution — and the encroachment of more clouds made me suspect a storm was on the way, so I took down my telescope and left by midnight.

Yet the rain held off, so perhaps I should have stayed.

DOBSON AT SJAA MEETING

John Dobson will be speaking at our May 9 General Meeting. If that isn't enough to get you there, you should attend to find out why you should know who John is and what he has done for amateur astronomy. Also, it will be fun.

John also made a cameo appearance at our March meeting to hear Don Machholtz give an excellent talk on the Messier Marathon. If informal remarks after the main meeting are any indication, we can expect a very opinionated, witty, informative, and downright entertaining evening.

THE SHALLOW SKY

Akkana Peck

Planet-watchers in May will have to do their watching early in the morning.

Uranus and Neptune rise around midnight and are at their best in the early morning sky. Mercury, Venus, Jupiter, and Saturn are all low in the morning twilight.

On the morning of May 13, Mercury and Saturn will pass about a degree from each other, low on the eastern horizon; on the morning of May 29, Venus and Jupiter pass within half a degree. Mars remains too close to the sun to be observed; it reaches conjunction with the sun on May 12. The only planet rising much before midnight is Pluto, which reaches opposition on May 28.

April showers may bring May flowers, but there aren't many meteor showers in May; meteor watchers will have to content themselves with the Eta Aquarids, observable May 2-10 but peaking on the morning of the fifth. The moon on that date is well past first quarter, but sets at a little past 1 am, just when the dedicated meteor watcher gets rolling. These remnants of Halley's comet produce trails more frequently than most other meteor showers; some observers have estimated that as many as half of Eta Aquarid meteors leave trains. Expect somewhere around 20 meteors/hour.

ECLIPSE OVER THE PARAGUANA PENINSULA

Ernie Piini

With eclipses, it's either feast or famine. There are eclipses which must be chased in order to capture small bits of totality through the obscuring clouds, such as the March 9, 1997 Mongolian eclipse. There are others which come to you unobscured as did this February 26, 1998 Caribbean eclipse.

Only about a dozen people stayed with us at the church site while most of the group traveled north to El Pico to enjoy the ambiance of the large crowd expected on the beach. There the time of totality was predicted to be 3 minutes and 41 seconds. At our church site we sacrificed 14 seconds of time for the more important protection from the wind afforded by the structure of the church. We also avoided the hassle of coping with traffic congestion and massive crowds.

The church site had been discovered on eclipse eve by Richard and Sandy Lambert of Lakewood, California, as they attended Ash Wednesday services. The word of a windless site was passed on to Monsignor Royer who then met with the pastor of the church who allowed us to rope off a section of the front steps for our equipment.

When fully assembled, my system consisted of: the 3-way telescope (600mm, f/7) and mount (which I had developed for the 1973 Saharan Desert Eclipse and since modified many times), a C-90 telescope (1000mm, f/11) riding piggyback above the 3-way telescope, and a Canon ES-2000 camcorder, also riding piggyback. Over the years I have perfected a spe-

cially designed spot filter that captures the delicate but beautiful streamers of the corona.

The camcorder is a new addition to my system. It provides a clock display on video of the local time accurate to within one second.

The first bite of the moon at first contact occurred at 12:37:06 p.m. but it was an additional 7 seconds before we could detect it in our telescopes. The cement steps, the facade of the church, and no shade contributed to a temperature rise to 96°F at around 12:30 p.m., then began a welcome cooling due to the diminishing sunlight from the eclipse. As time ticked away toward second contact, I made corrections to my stepper motor drive, to keep the image of the crescent sun centered in my cameras and camcorder view finders. As the eclipse progresses, the thinning of the crescent sun makes it more difficult to keep the image centered.

Curious local Venezuelans gathered around our set-ups and enjoyed peering into our telescopes as the eclipsed progressed. Around 15 minutes before totality, the planet Venus became quite visible and stole the spotlight of events for the moment.

During those last 10 seconds I ran off a barrage of 19 exposures, capturing every one of Bailey's Beads (valleys on the moon where the last rays of sunlight shine through). The crowds around us roared as the "Diamond Ring" appeared momentarily, a large prominence appeared just above the diamond, a segment of the chromosphere flashed by too quickly, and the sun's pearly white corona blossomed to its fullest. What really amazed me was to see the planet Mercury appear as bright as Jupiter — the two just below the eclipsed sun — Mercury to the

left and Jupiter to the right.

My photographic results were all quite pleasing.

As usual, the eclipse went by too fast even though, after having to live with the 42 second eclipse in India in 1995, this eclipse of 207 seconds was pleasantly long!

The dry-wet bulb thermometer, mounted on the north side of my shipping crate pier, showed a temperature drop of 8°F measured just after third contact.

The humidity rose from 40% at 12:30 to 45% at third contact. During 17 of the 18 eclipses I have attended, the wind ceased during the eclipse. During this eclipse the wind decreased somewhat but was still noticeably strong. The other windy eclipse I measured was the early morning of the 1979 Northwest eclipse near Yakima, Washington. (There are things that eclipses will not do.)

I'm not much of a believer in good luck charms, but must say having Monsignor Royer (our direct connection to God) with us makes a big difference. I've been with him on three eclipse trips and each time we've had clear skies and a great show!

We at the church were so busy looking up at the marvelous show in the sky that we neglected to look down for shadow bands. Those light and dark bands of wavering light were probably running all around us and none of us bothered to take notice.

We enjoyed our last night at the Caracas Hilton with our usual gala post eclipse dinner party. At a previous dinner, Joel Harris had asked me if I would be writing a book about this eclipse. Joel has generously supported my book efforts in the past. At that time I said



See Eclipse, p. 4

Eclipse, from p. 3

no, a book is too much work but that I was going to produce a 30-minute TV show, like I had for the Mongolian Eclipse. Another expeditioner, on his way out of the dining room, thanked me for a previous copy of one of my books that he had received. He enjoyed reading it and it is now a part of his library. Well, that was enough to convince me to do it again; to write one about this eclipse trip. My personal editors, Joe Heim and May Coon, are willing to help. So what the heck — why not? Watch for it later this year.

...and from another part of the globe....

CARIBBEAN ECLIPSE '98

Terry Kahl

We left Port Everglades on February 23. A tornado that swept through Florida gave us some rough seas and I couldn't eat that evening.

The Stella Solaris is a 45 year old Greek ship that has been upgraded several times. It takes on about 600 passengers and a crew of 300. Ted Pedas, project coordinator, launched the concept of astronomy theme cruises more than two decades ago and is a pioneer in the specialty field of ocean-going science programs.

The enrichment programs were astronomy related and focused on the eclipse. We had an excellent group of lecturers on board. George Keene helped us out on a one to one basis.

Dr. Edward Brooks, our meteorologist, assisted the captain in finding the best site from which to view the eclipse. We were just about centerline.

We observed the BBC team filming Patrick Moore's *The Sky at*

Night video and the opportunity to purchase the edition devoted to the eclipse. Patrick's 75th birthday was celebrated on board.

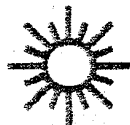
On eclipse day we had plenty of sunshine and plenty of room to set up. The ship went into a drift mode. The pools were emptied and air conditioners turned off to minimize vibrations. It felt like we were standing still.

I had my camera ready pointing 61 degrees up. I brought my 20/80 binoculars and had plenty of time to share them with my neighbors. The eclipse looked spectacular through them.

When it was over, the eclipse flag was raised and it was party time. The rest of the trip was also a lot of fun. Lights were completely off during the night on one side of the ship to be able to observe the sky.

I wished I had my telescope to see the southern hemisphere's goodies a bit better. The binocs showed the southern cross with its box of jewels fairly well.

If anyone is interested in more info on the Greek lines they can get in touch with me. Future trips are on Maya Equinox cruises and the Black Sea Eclipse cruise in 1999.



SUBMIT

Members are encouraged to submit articles for publication in the *SJAA Ephemeris*. Send articles to Dave North via e-mail to Timocharis@aol.com. Articles received by the tenth will be put in the following month's newsletter. Please include your name and phone number.

LUNACY

David North

This month's big news: the Beginning Astronomy Class on May 2 (Astronomy Day!) will feature a presentation by myself on *How To Observe The Moon*. This is not intended to be a history lesson, or selenology, but merely a presentation on practical observation for someone who actually wants to look at the thing.

There are a few tricks to it, and hopefully you'll leave with some ideas about your own lunar observation program.

We'll still be in a pretty good time for viewing the first quarter (convenient) phase of the moon, though as each month goes by, we get closer to a high new moon. So the first few days of this lunation will be the very best, though the entire first quarter (and a bit later) will be very good. This is a particularly good month to take a look at the early craters like Petavius, Atlas, Poseidonius and Fracastorius in particular. And for Apollo 11 fans, this is a great time of year to hunt for the small craters Armstrong, Aldrin and Collins — probably the best month of the year for the area of the landing (and Hypatia Rille is nothing to sneeze at).

May 1 offers a strong eastern libration, when the Maria (seas) in that area will be particularly visible again, so make sure you cruise the limb as well as the terminator when the month begins.

At full, the libration will favor the south very strongly. Craters such as Drygalski, Hausen and Amundsen will be making a particularly good presentation during those times when the terminator is down there, and you should even get a peek at massive Schroedinger. It's also an opportunity to get a glance at the polar zone, though you shouldn't expect to see any water (it's never lit!).

THE CELESTIAL TOURIST SPEAKS

Jay Freeman

On "The" Supernova:

I took time out for a long, thoughtful look at a transient object of a kind I never had seen before: I mean, of course, supernova SN1998S, in galaxy NGC 3877.

Supernovas are fascinating — "Star faw down an' go boom!" as a friend once put it. Gravity is pretty wimpy compared to the other so-called fundamental forces of physics, but it is relentless, and when all else fails, well, all else fails: The star resumes the contraction that was only briefly interrupted by its life on the main sequence and as a giant. The final collapse is energetic — it is not uncommon for a supernova to outshine everything else in its galaxy put together. How nice to have an opportunity to watch such a phenomenon from a safe distance. I don't have a red shift or distance estimate for NGC 3877, but I suspect that this horrendous space kablooie went off about the time the main characters of "Jurassic Park" were enjoying their first incarnation.

NGC 3877 is an easy target for a star hop. It lies a quarter degree south of Chi Ursa Majoris, which in turn is the brightest star in the area one Big-Dipper bowl-width south of the handle end of the bowl. 3877 is an obliquely-viewed spiral, whose long axis runs vaguely north/south. The supernova is clearly visible near the axis of symmetry, on the side away from Chi. It was very obvious in the six-inch at 97x, and I am sure that a smaller telescope would also

have shown the explosion. So don't miss the light show. It's cosmic. . .

On New Telescopes:

I think it's delightful we have so many interesting new telescopes that might be worth looking at, or even looking through. Not that I mind arguing about Meades and Tascos, you understand, but even for determined debaters such as myself, it is sometimes refreshing to have new material.

I personally do not have a strong feeling about place-of-origin issues in the amateur astronomy market, though I note in passing that most of the units I have owned were manufactured on Earth.

On Observing The Deep Sky:

Mallas was an extremely skilled observer . . . he had sense enough to try increased magnification regularly — a lesson it has taken many deep-sky observers, including me, a long time to learn — and it is evident from his sketches that at whatever magnification, he saw a great deal of detail in objects where less-skilled users of four-inch instruments would find only amorphous blobs.

I can certainly confirm that detail of that complexity can be seen with even such small apertures, and I think the great value of Mallas' work is to encourage beginners to develop the skills to detect it.

On Moving-Mirror Focus:

Moving the primary changes the location of the focal plane, and thereby facilitates using the telescope with accessories — notably cameras — for which the distance between the attach point and the desired focal position varies considerably from type to type. It's very frustrating to attach an expensive widget to an ex-

pensive telescope and then find the focuser won't quite turn far enough.

On April 1:

On the evening of 31 March 1998, I drove to Fremont Peak State Park, near San Juan Bautista, California, and shortly after midnight successfully attained a long sought-after observational goal of amateur astronomy, namely, visual detection of the 2.7 degree Kelvin black-body radiation left over from the Big Bang. Exceptionally clear sky in post-frontal weather conditions, coupled with dense fog obscuring the lights of cities and towns in the surrounding lowland, made the feat possible, though the sky was not as dark as I have seen from this site in years gone by.

I sat in the parking lot with a mask over my eyes for four hours of dark adaptation in preparation for the feat, meanwhile consuming five quarts of home-made bilberry jam further to sensitize my retinas. I raised the collar of my jacket over my head before starting to observe, and restricted my visual field by means of a binocular unit-magnification collimating device and light shield, carefully made from two toilet-paper tubes, duct tape, and a bottle of black ink. The radiation was really not that difficult to detect — I suspect I could show it to any experienced observer with a little coaching. It would be a cinch with binoculars. Unfortunately, I had forgotten to bring my new pair of premium-grade low-frequency bandpass light-pollution filters, so I could only log the asymmetry in the fireball as "suspected." Perhaps next time — but alas, suitable opportunities to report such an observation come but one day each year. . .

PERIODICAL PUBLICATION STATEMENT

SJAA Ephemeris, newsletter of the San Jose Astronomical Association, is published monthly, 12 times a year, January through December.

San Jose Astronomical Association
5380 Pebbletree Way
San Jose, California 95111-1846



EDITOR'S EXTRAS

David North

There was lots of big news for this issue, so it's hard to say where to start. Maybe with this month's May 9 meeting, where John Dobson will be speaking. I'm sure most of you have heard of the Dobson telescope design; his views on astronomy promise to be at least as controversial as his engineering approaches.

The April 4 swap meet was a fair success, running on schedule. One of the highest ticket items was the choice of auctioneers, with Jay Freeman getting the job by a nose. The swap and auction netted \$573.10 — in addition, SJAA raised \$84 for the eyepiece fund

through the raffle of a Herald-Bobroff AstroAtlas donated by Ed Erbeck. That's a fair showing for a non-astronomical year (thank you, El Niño!).

As is customary, there was no board meeting during Auction Month.

We have been informed, the check for \$5000 has been sent to FPOA, and received. FPOA is expecting other donations from various organizations and individuals, but they are not out of the woods yet.

FPOA's Donn Mukensnoble forwarded a note on the progress at Fremont Peak. All the drywall was removed from the Observing Room. Much of it was very wet at the bottom and several of the nails had rusted out.

The donation of \$5000 from the SJAA was accepted along with several other major contributions to the Repair Fund. Thanks to everyone again, for this has allowed approval for purchase of a new metal roofing and siding to cover the rolling roof.

Work continues on rebuilding the thresholds to the Meeting Room, strengthening of the deck in places, and replacement of the weather-stripping.

All this effort has pushed back the Opening Day for the 30" to late-May; however, the Observatory will present its solar program on Astronomy Day (May 2), along with a short slide presentation.

A planned "offsite" meeting on April 4 to discuss future plans for the facility and the park has been deferred until the storm damage has been repaired and the

Observatory is back in normal operation. This meeting will be rescheduled and is open to anyone in the astronomical community with ideas to present. Watch the mailing lists and FPOA Newsletter for further information.

Don can be contacted at dmuk@home.com or muk@interlink.com with questions, gripes, corrections or suggestions. Contact Rob Toebe fpniteowl@mail.jps.net to volunteer time and/or materials.

Some of you may have noticed that Akkana Peck has taken over the duties of writing the Shallow Sky column, handling the planets and other solar system activity. I will, however, still be handling the Moon duties under the title Lunacy until a good name occurs to me (or is submitted. . .).

And, of course, you won't want to miss this month's Beginning Astronomy class, as I will be covering the Moon (not with Sherwin Williams).



To Subscribe to/Unsubscribe from the SJAA Mailing List send mail to sjaa-request@seds.org with a blank subject line followed by a single text line that says "subscribe" or "unsubscribe"

COMET COMMENTS

Don Machholz

BOARD MEETING NOTES

Bill Arnett

The SOHO satellite has picked up three more comets, while a faint one was discovered during an asteroid search. That object, Comet C/1998 G1 (Linear) has a nuclear magnitude of 18 and is not expected to brighten.

The Hubble Space Telescope has determined that the nucleus of Comet Tempel-Tuttle is only about two miles across. This comet is responsible for the Leonid meteor shower each November.

Comet activity remains low this month. Comet Hale-Bopp remains deep in the southern sky—it is about 450 million miles from us. Comet Meunier-Dupouy, a bit closer, is in our morning sky.

Comet Hunting Notes: The SOHO satellite, which is in solar orbit and monitors the Sun, has discovered 44 comets. Forty-two of these are sungrazers; they go very close to the Sun. SOHO generally images them for only about a day or two, and then the comets merge into the Sun, never to be seen again. They have not been observed from the Earth. This satellite is presently our most active comet discoverer, finding about 20 new comets per year.

Ephemerides (for 0h UT)

C/1997 J2 (Meunier-Dupouy)

Date	R.A. (2000)	Dec.	El.	Sky	Mag.
05-02	22h19.5m	+30°55'	60°	M	11.6
05-07	22h22.5m	+30°49'	63°	M	11.6
05-12	22h25.1m	+30°41'	66°	M	11.6
05-17	22h27.3m	+30°33'	69°	M	11.6
05-22	22h28.9m	+30°22'	73°	M	11.5
05-27	22h30.1m	+30°10'	76°	M	11.5
06-01	22h30.8m	+29°55'	80°	M	11.5
06-06	22h31.0m	+29°37'	84°	M	11.5
06-11	22h30.6m	+29°15'	88°	M	11.5

C/1995 81 (Hale-Bopp)

Date	R.A. (2000)	Dec.	El.	Sky	Mag.
05-02	05h23.8m	-50°26'	75°	E	9.7
05-07	05h28.1m	-50°10'	75°	E	9.8
05-12	05h32.6m	-49°57'	75°	E	9.9
05-17	05h37.2m	-49°48'	74°	E	9.9
05-22	05h41.9m	-49°42'	74°	E	10.0
05-27	05h46.7m	-49°39'	74°	E	10.1
06-01	05h51.5m	-49°39'	74°	E	10.1
06-06	05h56.5m	-49°42'	74°	E	10.2
06-11	06h01.4m	-49°48'	74°	E	10.2

<u>Object:</u>	<u>Hale-Bopp</u>	<u>Meunier-Dupouy</u>
Peri. Date:	1997 04 01.1347	1998 03 10.4365
Peri. Dist (AU):	0.914008 AU	3.051015 AU
Arg/Peri (2000):	130.5787 deg.	122.6755 deg.
Asc. Node (2000):	282.4653 deg.	148.8429 deg.
Incl (2000):	89.4268 deg.	91.2731 deg.
Eccen:	0.995085	1.000760
Orbital Period:	~2500 years	Long Period
Ref:	MPC 30738	MPC 30738
Epoch:	1997 12018	1998 03 08
Absol. Mag/"n":	-1.0/4.0	4.0/4.0

The March meeting of the SJAA board of directors was held at Houge Park on 1998 Mar 14. The meeting was called to order at 6:30pm by outgoing president Jack Zeiders. All members except Mark Taylor and Bob Elsberry were present (Mark and Bob arrived later).

The first item of business was election of new officers. The board voted unanimously to retain Bob Elsberry as Treasurer and Jim Van Nuland as Secretary, and to appoint Dave North as the new Vice President and Ed Erbeck as the new President.

Jack then turned the meeting over to Ed.

The minutes of the previous meeting and the calendar which had been previously distributed to all members were approved. Dave North verified that John Dobson will be our speaker at the May general meeting.

There was no treasurer's report.

Kevin Medlock of FPOA gave a long report on the status of the observatory. The board voted unanimously to donate \$5000 from the observatory fund to FPOA to help repair the damage.

The meeting adjourned at 7:44.

DonM353259@aol.com.

Web Page: <http://members.aol.com/cometcom/index.html>

CC234XT 01-07-98 Don Machholz (530) 346-8963

CELESTIAL CALENDAR SEPTEMBER 1997

Richard Stanton

ACTIVITIES THROUGH OTHER CLUBS



(all times PDT)						
Lunar	Phases	Time	Date	Rise	Trans	Set
	FQ	03:04	03	12:59	19:54	02:06
	FM	07:29	11	20:20	00:58	06:27
	LQ	21:35	18	01:24	06:50	12:22
	NM	12:32	25	06:07	13:10	20:19

Mercury	1.03 A.U.			Mag. 2.0		
Date	Rise	Trans	Set	R.A.	Dec.	
07	05:07	13:04	20:05	01:19.1	+05:02	
17	05:01	11:37	18:15	02:07.9	+09:59	
27	05:05	12:03	19:03	03:12.5	+16:16	

Venus	1.06 A.U.			Mag. 4.6		
Date	Rise	Trans	Set	R.A.	Dec.	
07	04:20	10:25	16:30	00:16.9	+00:11	
17	04:10	10:28	16:47	00:59.4	+04:20	
27	04:01	10:32	17:04	01:42.8	+08:29	

Mars	2.49 A.U.			Mag. 1.3		
Date	Rise	Trans	Set	R.A.	Dec.	
07	06:09	13:09	20:10	03:01.7	+17:09	
17	05:52	12:59	20:06	03:31.0	+19:08	
27	05:36	12:49	20:03	04:00.5	+20:48	

Jupiter	5.35 A.U.			Mag. -2.3		
Date	Rise	Trans	Set	R.A.	Dec.	
07	03:45	09:34	15:23	23:27.6	-04:37	
17	03:11	09:01	14:52	23:34.1	-03:57	
27	02:35	08:28	14:21	23:39.9	-03:22	

Saturn	10.2 A.U.			Mag. 1.0		
Date	Rise	Trans	Set	R.A.	Dec.	
07	05:19	11:47	18:16	01:41.1	+08:04	
17	04:43	11:12	17:42	01:45.6	+08:29	
27	04:06	10:37	17:09	01:49.9	+08:52	

SOL Star Type G2V Intelligent Life in System?

(HOD = Hours of Darkness)

HOD	Dt	Rise	Trans	Set	R.A.	Dec.
06:37	07	06:04	13:04	20:05	02:56.3	+16:47
06:10	17	05:54	13:04	20:14	03:35.6	+19:18
05:47	27	05:48	13:05	20:22	04:15.7	+21:17

Astronomical Twilight	Begin		End	
JD 2,450, 940	07	04:23	21:46	
950	17	04:10	21:59	
960	27	03:59	22:12	

Siderealttime

Transit Right	07	00:00 =	13:52
Ascension at	17	00:00 =	14:31
Local Midnit	27	00:00 =	15:10

Darkest Saturday Night

23-May-98	
Sunset	20:19
Twilight End	22:07
Moon Set	18:02
Dawn Begin	04:03

TAC has reserved the Montebello site for every Wednesday, more or less indefinitely (weather permitting). It's a good idea to check TAC's web-page at <http://www.rahul.net/resource/TAC/> (mailing list archives) before going. There must be a permit holder present to use the facility. To get there, take Page Mill Road off 280 (or get to it via El Monte Road) until you're near the top. Montebello's sign will be visible on the left.

First quarter Friday star parties have become a "mobile" event, and checking TAC's web page is the best way to get times. Third quarter Friday star parties are at Van Meter school when the skies cooperate.

PAS opens Foothill Observatory for public viewing every clear Friday evening from 8:30 p.m. until 11:00 p.m. PAS operates a 16-inch reflector and a 6-inch refractor. Solar viewing is also held every clear Saturday morning from 10:00 a.m. until noon with a very nice filter setup. Both of these programs are outstanding, and all SJAA members are encouraged to check them out.

May

2 Solar program during Astronomy Day 10am-4pm, followed by night observation in the dome starting at 8pm.

8 PAS General Meeting 7:30pm at Foothill College "Peeking Into The Sun - Helioseismology from SOHO (!)"

13 PAS Board Meeting 7:30pm Foothill College Observatory

June

12 PAS General Meeting "Apollo 13 Accident" 7:30pm at Foothill College

17 PAS Board Meeting 7:30pm Foothill College Observatory

DIRECTIONS TO SJAA PLACES

Houge Park is in San Jose, near Campbell and Los Gatos.

From Hwy. 17, take the Camden Avenue exit. Go east 0.4 miles, and turn right at the light, onto Bascom Avenue. At the next light, turn left onto Woodard Road. At the first stop sign, turn right onto Twilight Drive. Go three blocks, cross Sunrise Drive, then turn left into the park.

From Hwy. 85, take the Bascom Avenue exit. Go north, and turn right at the first traffic light, onto White Oaks Road. At the first stop sign, turn left onto Twilight Drive. You will now be passing the park. Turn right at the first driveway, into the parking lot.

Henry Coe State Park is east of Morgan Hill.

From Hwy. 101, exit onto East Dunne Avenue. Continue for 12 miles, far past Andersen Reservoir, to the park, atop the ridge. The current SJAA site is the parking lot on the right about 1/2 mile before the main entrance. There is now a fee for use.

Fremont Peak State Park is south of the village of San Juan Bautista.

From Hwy. 101, about 11 miles south of Gilroy, take the eastbound Hwy. 156 exit. Run for 3.0 miles, to a traffic light, and turn right onto county Hwy. G-1. Follow G-1 for 12 miles into the park. Be careful to note the sudden "left/right jog" soon after the turn; signs are posted. There is a \$3 entrance fee.

Officers and Board of Directors

Pres Ed Erbeck 379-5413
VP David North 297-5257
Sec Jim Van Nuland 371-1307
Tres Bob Elsberry 226-4483
Dir Bill Arnett 947-8721
Dir Terry Kahl 629-0563
Dir Mike Koop 446-0310
Dir Bill O'Shaughnessy 984-3985
Dir Mark Taylor 737-9135

Ephemeris Staff

Editor David North 297-5257
Circulation Bob Brauer 292-7695
Lew Kurtz 739-7106
Layout Mrs. Crazy Ed
Proofing Bill Arnett

Mentoring Program Chairman

Ed Erbeck 379-5413

Activities Committee

Bill O'Shaughnessy 984-3985
Dave Smith 978-5503

Observational Astronomy Teacher

Jack Zeiders 281-0220

Observatory Committee

Bob Brauer 292-7695
David North 297-5257

School Star Party Chairman

Jim Van Nuland 371-1307

Telescope Loaner Program

Mike Koop 446-0310

Web Page

Bill Arnett billa@znet.com



TELESCOPE LOAN PROGRAM STATUS

Mike Koop

Current Scope Loans

These are scopes that have been recently loaned out. If you are interested in borrowing one of these scopes, you will be placed on the waiting list till the scope becomes available after the due date.

<u>No.</u>	<u>Scope Description</u>	<u>Borrower</u>	<u>Due Date</u>
3	4" Quantum S/C	Lew Kurtz	5/6/98
8	14" Dobson	Ralph Seguin	6/23/98
15	8" Dobson	David Kingsley	6/14/98
16	Solar Scope	Mike Koop	4/4/98
23	6" Newt/ P Mount	Alexander Koczur	6/14/98
26	11" Dobson	David Manley	6/20/98

Extended Scope Loans

These are scopes that have had their loan period extended. If you are interested in borrowing one of these scopes, we will contact the current borrower and try to work out a reasonable transfer time for both parties.

<u>No.</u>	<u>Scope Description</u>	<u>Borrower</u>	<u>Due Date</u>
1	4.5" Newt/ P Mount	Mark Cousins	5/24/98
2	6" f/9 Dob	John Paul De Silva	?
4	60mm Refractor	Del Johnson	Indefinite
6	8" Celestron S/C	Paul Barton	Indefinite Note 1
7	12.5" Dobson	Nick Tucci	2/11/98
9	C-11 Compustar	Paul Barton	Indefinite
18	8" Newt/ P Mount	Cecelia Yarnell	4/18/98
28	13" Dobson	Gennaro Sorrentino	5/1/98
29	C8, Astrophotography	Dean Sala	4/13/98 Note 2

Stored Scopes

These are scopes that are available for immediate loan, stored at other SJAA members homes. If you are interested in borrowing one of these scopes, please contact Mike Koop by email or at (408) 473-6315 for a scope pick up at any of the listed SJAA events.

<u>No.</u>	<u>Scope Description</u>	<u>Stored At:</u>
19	6" Newt/P Mount	Madhava Kidambi
21	10" Dobson	Nathan Hill
24	60mm Refractor	Ravi Tembhekar
27	13" Dobson	Dean Sala
30	7" f/9 Newt/Pipe Mount	David Manley

Waiting List

<u>No.</u>	<u>Scope Description</u>	<u>Standby</u>
6	8" Celestron S/C	Ravi Tembhekar
29	C8, Astrophotography	Michael Lagae
29	C8, Astrophotography	Alexander Koczur
16	Solar Scope	Nick Tucci
27	13" Dobson	Jeff Crilly
21	10" Dobson	Ann Hastings

Notes:

If you know how to contact John Paul De Silva please call or send mail to Mike Koop.

1. Scope #6 is in the shop for repairs. The secondary mirror has been resurfaced. The scope is assembled and a rough collimation has been preformed. A final collimation will be preformed once these clouds get out of the way, hopefully soon.

2. Scope Loan extended one month due to "El Nino".

Do you have some space to store a scope or two? Please E-mail Mike Koop, koopm@best.com. Thanks

All scopes are available to any SJAA member. To reserve a scope, please contact Mike Koop at (408) 473-6315.

San Jose Astronomical Association Membership Form

New ___ Renewal ___

Membership - \$15

Junior (younger than 18 years old) - \$6

Sky and Telescope - add \$27 to membership

(Sky & Tel will not accept multiyear subscriptions)

Make checks payable to "SJAA"

Bring this form to any SJAA Meeting
or send (along with your check) to

Bob Elsberry, Treasurer

San Jose Astronomical Association,
5380 Pebbletree Way

San Jose, CA 95111-1846

Telephone: (408) 226-4483

Name: _____

Address: _____

Phone: _____

e-mail address: _____

SAN JOSE ASTRONOMICAL ASSOCIATION
5380 PEBBLETREE WAY
SAN JOSE, CA 95111-1846

NON-PROFIT ORGANIZATION

U.S. POSTAGE PAID

PERMIT NO. 5381

SAN JOSE, CALIFORNIA