



# SJAA EPHEMERIS

## Good Night At Last

It's been a long winter with very few opportunities to get out under the stars. But finally, the last weekend in June offered up a real Fremont Peak delicacy: the fog rolled in and the sky got dark dark dark.

Some folks were clearly starting to think there would never be another nice night for South Bay astronomers...

Jay Freeman: "The night of 26 June, 1998, was indeed good. Uncommonly transparent sky combined with an incomplete layer of fog over the coastal plain from Santa Cruz to Monterey, California, to make the high sky quite dark. The North American Nebula was an easy naked-eye object, so much so that I could detect the "Gulf of Mexico" within it.

On the next evening I was at Fremont Peak again. Sky conditions were similar..."



continued on page 4, see Goodnight

## Net Delivery Of Ephemeris

Many of you may have noticed delayed delivery of the Ephemeris in recent months. The post office has been very slow, and no improvement in bulk deliveries is anticipated.

For immediate help with this problem, we will be publishing the Ephemeris earlier, which means moving up deadlines a bit and making the news older. But we don't see this as a long-term solution.



continued on page 2, see Ephemeris

## SJAA Activities Calendar

### August

- 1 Beginning Astronomy class "Planetary Observing" with Rich Neuschaefer. Houge Park, 8 pm.
- 8 General Meeting at Houge Park, 8 pm. Jose Olivarez, former Jupiter recorder for ALPO and now scientific director for Chabot Planetarium will present "The Wonders of Jupiter". Open board meeting 6:30 pm.
- 14 Houge park star party. Sunset 8:01 pm, 46% moonrise 0:39 pm.
- 15 Star party at Fremont Peak. Sunset 7:57 pm, 35% moonrise 1:25 am.
- 22 Star parties at Fremont Peak, Coe. Sunset 7:49 pm, no moon.
- 28 Houge Park star party. Sunset 7:42 pm, 40% moonset 11:32 pm.
- 29 September's General Meeting, Houge Park, 8 pm. Slide and Equipment Night. Bring your toys and images so we can all see the latest and greatest!

### September

- 11 Houge park star party. Sunset 7:22 pm, 60% moon rises dawn near 11:23 am.
- 11 First night of SJAA Yosemite Weekend (also 12th).
- 12 Beginning Astronomy class "Astrophotography" with John Gleason. Houge Park, 8 pm.
- 19 Star party at Fremont Peak, Coe. Sunset 7:08 pm, no moon.

24 hour News and Information:  
SJAA Hotline: 408-559-1221  
Web Address: <http://www.seds.org/billa/sjaa/sjaa.html>

PLEASE NOTE THAT SJAA INSURANCE COVERS ONLY SJAA MEMBERS AT SJAA SPONSORED EVENTS.

Rima Brayley  
d Editor et al

July 4th was a particularly fitting time to do some mooning: it's near the 29th anniversary of the first person, an American incidentally, to walk on the moon. It's usually good weather. And in particular, I had agreed to manage the public program on the 30-inch Challenger telescope on Fremont Peak -- a job nobody else is lunie enough to do.

Or at least, that's what I thought. It turned out quite a collection of hardened selenophiles showed up that night, with some "science" in mind: what aperture is required to see Rima Brayley (Rukl Page 19), which Antonin Rukl describes as "Narrow rille, not observable with small telescopes, length 240km." If nothing else, it would determine once and for all what is (and is not) a small telescope.

The intrepid crew included Rich "Refractor" Neuschaefer and William "Mr." Phelps (both with 180mm AP EDTs), Akkana "Kit" Peck with a 6" cave and a new 80mm f/7 Vixen refractor, Jay "Hacksaw" Freeman with his recently acquired 127mm Meade refractor, Sandra "Meteor" Macika with a Mag 6.9 Migraine, Jim "Shadow" Bartolini with his trusty 80mm Vixen f/long refractor on a new and sturdy homebuilt tripod, Jack Zeiders and the "Q Ship," a 7-inch Questar Mak, and of course the author pushing the 30-inch.

What did it look like?

I was not able to see the entire Rima Brayley all at once in any of the scopes.



continued on page 4, see Brayley

## The Celestial Tourist Speaks

Jay Freeman

### On Looking Hard:

Observations made at the limit of any telescope do not entail objects jumping out at you. You have to know exactly where to look, be well dark adapted, and use all the tricks. I sometimes say "If you don't look, you don't see," and I also try to point out that "looking" is a learnable skill which requires much knowledge, practice, and experience to do well.

### On Small Apertures and Deep Sky:

I lack sixteen objects of finishing a Messier survey with Refractor Red, my dayglow-hued 55 mm Vixen fluorite refractor, and it will probably be a couple months till I stay up and get the last few. Yet, I have decided to start a new program with that instrument: I am going to attempt the Herschel 400 list.

I must say "probably", because one object on the list -- NGC 1999 -- may not exist at all. Yet I have enough experience that an occasional non-existent object should not be too much of a problem...

This survey is unlikely to find me any amazing new vistas -- I have seen the Herschel 400 before, and all with substantially larger aperture than 55 mm. But it should be fun, and it will give me an excuse not to pack a big telescope to star parties when I am lazy. Perhaps it will also inspire folks who don't think deep-sky work is possible with a tiny telescope. I'll let you know how it goes.

### On high-power eyepieces:

Use more and more powerful ones, step by step, until it is clear that you are not getting any more benefit from the higher magnification. Reasons why you might not find higher and higher magnifications more and more useful include:

- (1) Air too turbulent (poor "seeing").
- (2) Tripod and mounting too jiggly.
- (3) Optics not good enough.
- (4) You are already using enough magnification to see all the detail.

In good seeing, with an excellent, well-mounted telescope, I might use magnifications roughly between one and two times the telescope clear aperture in millimeters (25 and 50 times the clear aperture in inches).

### On "Averted Imagination":

That's what it takes to see the elusive Elvis Nebula; that, and a sidereal drive that tracks at the King rate...

### Ephemeris, continued from Page 1.

To really cure the problem, we'd like to go to First Class Mail. Unfortunately, the cost is very high compared to our current method.

So, we'd like to change the way we do business a little bit, and deliver the Ephemeris three different ways: First Class Mail, via The Web, and via email for those who would like an electronic copy but don't like using the web, or don't have access. If we can get just a third of our members to opt for the electronic versions, it becomes practical to go First Class.

Stage 1 will be to remove Webbers from the paper mailing list. If

you would prefer to just view the web page (<http://www.seds.org/billa/sjaa/eph.html>) please email Bob Ellsberry ([rellsberry@netgate.net](mailto:rellsberry@netgate.net)) and let him know.

When we have the kinks ironed out, we'll proceed to Stage 2, establishing an email circuit.

We are not trying to twist anyone's arm to give up the paper Ephemeris. If you like it, just do nothing. You paid your membership and we encourage you to stay on the mailing list. On the other hand, if you seldom or never read the paper version since you access the web and see it weeks beforehand, why not consider helping out a bit?

## Editor's Extras

David North

We have some schedule oddities this month, as related by Jim Van Nuland:

"Best to mention that the "September" general meeting is being held a week early, on August 29. This is the traditional Slide & Equipment night. Bring your best and newest!

Yes, September has but three events! General meeting is advanced; and this is one of the few months with just 1 deep-sky star party. And the alteration of moon/dark at Houge calls for a 3-week jump after the 11th."

Our own Rich Neuschaefer will be handling the Beginning Astronomy Class this month, and it does begin the month: it's August 1st, 8pm, Houge Park. Rich is probably the most dedicated planetary observer in the club, familiar with a tremendous scope of scopes and equipment, so this should be an opportunity to really focus on the special problems and rewards of the shallow sky.

Though this approaches being "rumor," it appears there may soon be a new home for the C-11 PowerStar the club owns -- it is slated to become the backup scope at Fremont Peak, handling overflow from the 30-inch to augment the public programs, and should be available for SJAA members to use when a public program is not being presented. The details are still being worked out by the FPOA board and SJAA president Ed Erbeck; we'll keep you posted.

Board member Terry Kahl was inspired to start handing out her old astro publications at Houge star parties, as a way of letting folks with a new interest in amateur astronomy see what the publications are all about. She suggests you do the same with any magazines you might otherwise just toss out; if you don't have a chance to attend public events yourself, she'd be glad to "circulate" them for you (if they're not too old). Just bring them to a meeting or to a Houge Park event and she'll take them off your hands.

## Mooning

David North

We begin August one day past first quarter; rille heaven. This night and next, near the center of the Moon, you might hunt down rimae Hyginus, Ariadaeus, Triesnecker, Arzachel, Sulpicius Gallus, Calippus, Plato and the central rille of Vallis Alpes. As you can see, this can be a busy night for people who are fascinated by fine lines.

This may be the best viewing we get until near the end of the month, when we will get another first quarter Moon and day after, unless you like getting up very early in the morning.

For those of you who have been following librations, this is your last chance to get a reasonable view of Mare Orientale near the terminator on Friday the 7th. It's not as good a shot as last month (or even June) but might show a bit. Chances for a good view are actually better the day before, though the terminator will just be moving into it.

As the month begins, the Moon will be going lower in the sky each night until the 5th, after which it will begin a slow climb again. So you're likely to get your best views right up front, on the 1st and 2nd.

When "moonning," elevation is very important. And the Moon's elevation waxes and wanes each month, but on a changing schedule. This is one of those months where the prime viewing opportunities are neither very high nor very low, but due to high elevations... if you're a morning person, the very best times for viewing this month will be around the 18th, which will be a very late third quarter Moon. It's going to look its best just before morning twilight. If you haven't seen the "backward" Moon in the wee hours, this will be an excellent choice of "pre-days." I only do this when something wakes me up unexpectedly...

For "close approach" fans, Saturn will be very near the Moon (about two degrees separation) around 4 am on the 19th, so you could pull a double-header that morning.

Send me a note and tell me how it goes.

In other news, one of the more fun quotes I've seen regarding the Moon showed up last month in a note from Akkana Peck, "As for observing Orientale with a terminator: July will also have a good libration at about the right time, and perhaps the weather will be better. You know what Terminators say: "I'll be back."

If you did take a look on the 8th of July (told you so!) you were treated to an incredible view of the Orientale Basin, with the clearest look at the overall structure I've seen through a telescope. The crew that saw it (Akkana and Mark Taylor also made the pilgrimage) had to drive most of the way to Montebello to clear the fog, so I guess most folks in the South Bay missed this one. It was a plot on the part of the weathermen...



## Perseid Meteor Shower

This is the most popular meteor shower of the year due to the combination of high rates and fair weather in much of the northern hemisphere. Any meteor seen in the month of August stands a good chance belonging to the Perseid shower. A majority of activity is produced on August 11, 12, 13... unfortunately, 1998's activity will occur near a full moon. The best direction to face during these conditions is North westerly in the evening and gradually North and then Northeast as the night progresses. The brighter members of this shower produce long lasting trains.

## The Shallow Sky

Akkana Peck

Mercury, Venus, and Mars are all difficult to observe this month, nearly lost in the late morning twilight. Venus is gibbous, nearly full; Mercury passes through inferior conjunction on the 13th.

Jupiter rises about the time the sky gets dark, and will be observable all night. Unfortunately, none of the double shadow transits in August occur when the planet is well placed for California observers; but the giant planet should be showing a wealth of detail in its bands, and is always well worth observing.

For those with Java-enabled browsers, I have a web page <http://www.best.com/~akkana/jupiter.html> to predict Jupiter's satellite positions and transits, shadow transits, and the position of the Great Red Spot.

Saturn rises about an hour and a half after Jupiter. Its rings are as tilted as they're going to get this year, seventeen degrees, and should show well in any size telescope. Larger telescopes should show some banding on the surface of the planet.

Uranus and Neptune are both near opposition (August 2 for Uranus, July 23 for Neptune), though they are fairly far south and therefore never get very high above the horizon.

Rich Neuschaefer: "We couldn't see the water due to the fog. The seeing was quite good. I think it was about 7 to 8 on a 10 point scale most of the night."

Doug Snyder: "It was one of the better nights I've had at Coe - very quiet, dry, warm, steady air conditions and the fog did cover most of the valleys, but did not come up to the main park area."

Sounds like everyone, regardless of where they ended up on Saturday night, had some pretty decent skies for a change!"

Jane Houston: "Dennis Tye, another FPOAer and fellow SFAA member told me he thought the seeing on Mount Tam was better than Fremont Peak this night. The coastal fog totally obscured San Francisco and the airport. Below it looked like a Swiss glacier, where the bay should have been. Mounds of low white powder. Wow!

And to think the Sir Francis Drake party in 1579 called it "thick mists and

most stinking fog!" I liked it a lot last night!"

Mark Taylor: "It was a wonderful observing night at Fremont Peak on Friday, June 26!

The evening started out in the low 70s and only dropped to the high 50s. The entire night was free of dew and there was only an occasional light breeze.

And although there was a thick layer of fog covering the coast at sunset, it quickly disappeared. But as the night continued, a thin layer came back and blotted out much of the Salinas/Watsonville area, making things pleasingly dim.

I've seen some steadier nights at the Peak, but this one was pretty good. And as for darkness, I did a limiting magnitude check at 1am and was able to spot two mag 6.7 stars."

Akkana Peck: "I almost didn't go up to the Peak on Saturday. Seen from

down below, the thick fog looked like it was almost up to the level of the Peak, and I thought it was going to cover the peak and ruin the evening. But David thought it didn't look that bad and it was worth trying, so we drove up anyway.

A good thing! I'd been hearing for years about those magic nights when the fog covers the lights of the towns below, leaving the Peak in darkness; but in the couple of years I've been observing there, the weather patterns have been unusual, apparently, and I'd never seen it. Saturday night was one of those nights, with a warm inversion layer; it was cold and windy down in San Juan Bautista, but the Coulter parking lot was warm enough that I never bothered to put gloves on (which is saying something, since my hands get cold very easily).

Mark Wagner: "...the Peak was in old form Saturday night... fog below us over all the cities."

---

Brayley, continued from Page 1.

It was most constant in the 30-inch off axis (that thing eats thin rilles for a snack!) and in the APs, you had to wait a bit. The sky was not great, so sometimes it was there, and sometimes not. It looked like a thin, snaky line. The westernmost part was not at all visible except in the 30-inch, where only the barest hint showed.

That's it.

That's what we were there for.

That's why we're lunies.

Here are some comments from those present, including the Second Shift on Sunday night:

Robin Casady:

Several of us gathered at Fremont Peak, Sunday night for some lunar observing. There was an Astro-Physics 180, an Intes MK-91, a Takahashi TSC 225, and an AP 130 f/6.

I was not able to see Rima Brayley

in any of the scopes.

Jay Freeman:

When the seeing steadied, I saw a short, slightly curving line segment, less than one Brayley-diameter in length, located a bit north of Brayley, positioned and oriented as is Rima Brayley on the Rukl charts. I saw it only two or three times, for a few seconds at a time, in perhaps fifteen minutes of looking through my Meade at that specific area.

Rich Neuschaefer:

I caught glimpses of what I think was Rima Brayley near Brayley. It was a thin bright line that had similar meanders and a little more of the the rima a little farther north. The views were brief and I hope I wasn't accidentally playing connect the dots very small bright spots. It is one of those things that seemed very real

briefly but as the night and the terminator moved on I couldn't see the Rima meander so it makes me want to question my observation.

Akkana Peck:

There were several false alarms; it turns out that there's a wrinkle ridge near Brayley which looks very sinuous, just like the rima does in Rukl's drawing, except that it points the wrong way. Eventually several observers announced that they had spotted the rille in the 7" APs or in the 30" (still stopped down to 10"). I definitely saw a hint of something in the 30", and with great difficulty saw hints in the 7" scopes, but I definitely never saw that thin sinuous creek that appears on Rukl's chart 19, nor could I see any hint of the rille in smaller telescopes. I'm sure that better seeing would have helped, and I hope to try in future months.

## Activities Through Other Clubs

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.

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.

### August

- 14 PAS General Meeting "Photoshop Enhancement of Astronomical Images" with Chuck Vaughn. 7:30 pm at Foothill College
- 19 PAS Board Meeting 7:30 pm Foothill College Observatory

### September

- 11 PAS General Meeting 7:30 pm at Foothill College
- 19 PAS Board Meeting 7:30 pm Foothill College Observatory

In addition, PAS is having one more Foothill Park star party this year, Saturday August 29. As in past years, anyone bringing a "telescope" gets access to the park for free, and the Palo Alto residency requirement is waived.

Start time is at or before sunset; come early, bring supper, and enjoy the view. End time is around 11 pm; the park rangers will make the call (sometimes they decide to hang around and look thru the scopes themselves). Setup is on Vista Hill, with parking for astronomers on the inner/upper loop, which is blocked off to the public. The public parks on the outer/lower loop.

If you want to participate, just show up at the gate to Foothill Park (up Page Mill Road from 280) with your telescope and the ranger will let you in.

## AANC Autumn Astronomy Day

Jane Houston

Who: AANC, the Astronomical Association of Northern California (the umbrella organization for nearly 30 Northern California Astronomy clubs) invites all astronomy clubs nationwide to join with us in celebrating an Astronomy Day in Autumn.

What: Autumn Astronomy Day -- September 26, 1998 -- will be an opportunity for those with weather challenges, vacations, holidays or just bad luck or bad timing to celebrate astronomy and share our universe with the public! We'd like to make this an annual event - won't you join us?

When: September 26, 1998 - the Saturday nearest the September first quarter moon. An ideal time to look up!

Where: See our AANC website for regional club activities, venues and plans. Each club and observatory, planetarium or science center may may schedule their own events, or include Autumn Astronomy activities in their ongoing programs.

<http://www.lhs.berkeley.edu/SII/AANC/aanc.html>

Why: Why not?! Astronomy Day is everyday! Here is a chance to get back at the El Nino springtime big time, miss the traditional April/May weather problems we experience here in Northern California, and catch teachers and school kids at the beginning of the school year.

Contact for information, suggestions, publicity for your Autumn Astronomy Day events: Jane Houston, AANC Board of Directors:  
[Houstan1@ix.netcom.co](mailto:Houstan1@ix.netcom.co)



## Celestial Calendar Richard Stanton

Lunar	time				
Phase (pdt)	date	rise	trans	set	
FM	19:10 07	20:00	00:31	05:51	
LQ	12:48 14	23:58	06:46	13:41	
NM	19:03 21	06:05	12:59	19:47	
FQ	22:06 29	13:31	18:52	00:26	

Mercury	Dist: 0.63 AU			Mag: +1.8	
date	rise	trans	set	RA	Dec
07	07:20	13:48	20:17	09:46.9	+08:22
17	06:02	12:41	19:21	09:18.5	+11:20
27	05:10	12:00	18:51	09:15.0	+14:31

Venus	Dist 1.59 AU			Mag 4.0	
07	04:26	11:43	19:00	07:37.7	+21:39
17	04:46	11:55	19:04	08:29.1	+19:35
27	05:08	12:06	19:03	09:19.1	+16:34

Mars	Dist 2.43 AU			Mag +1.4	
07 04:17	11:37	18:57	07:32.5	+22:37	
17 04:09	11:25	18:41	08:00.1	+21:33	
27 04:02	11:13	18:23	08:27.1	+20:13	

Jupiter	Dist: 4.08 AU			Mag: -2.9	
07 21:58	03:57	09:53	23:52.9	-02:21	
17 21:17	03:15	09:10	23:50.0	-02:42	
27 20:35	02:32	08:25	23:46.3	-03:09	

Saturn	Dist: 8.90 AU			Mag: +0.7	
07	23:34	06:13	12:49	02:08.9	+10:19
17	22:55	05:34	12:10	02:09.2	+10:18
27	22:15	04:54	11:30	02:08.8	+10:13

SOL Type G2V	Intelligent Life in System ?
Hours of Darkness:	
07	06:15 13:13 20:12 09:08.3 +16:27
17	06:23 13:12 19:59 09:46.0 +13:27
27	06:32 13:09 19:46 10:23.0 +10:06

Astronomical Twilight	Begin	End
JD 2,451,032	07	04:35 21:51
042	17	04:47 21:35
052	27	05:00 21:18

Sidereal Time		
Transit Right	07	00:00=19:54
Ascension at	17	00:00=20:34
Local Midnite	27	00:00=21:13

Darkest Saturday Night:	22-Aug-1997
Sunset	19:53 PDT
Twilight End	21:26 PDT
Moon Set	20:23 PDT
Dawn Begin	04:54 PDT
Hours Dark	07:27

## Comet Comments

Don Machholz

The Lincoln Laboratory Near-Earth Asteroid Research Project has found four more comets. One of them, C/1998 M 5 (Linear), should be visible in our northern skies for the next year. Meanwhile, two more faint comets have been discovered by the Spacewatch program at Kitt Peak, one being visually found on an image-display monitor by J Montani.

The SOHO satellite found nine more comets, most being sungrazers. All disappeared into the solar vicinity. In late June, contact with the SOHO spacecraft was lost during a positioning maneuver. Hope is not lost, technicians are still working on it.

Comet Comments celebrates its 20th year with this, its 240th issue. It all began in August 1978 when I wrote my first regular comet article for the San Jose (California) Astronomical Association Newsletter. At the same time I also wrote an article suggesting a star party in March to find the Messier Objects-our first Messier Marathon. It was only a few weeks later-Sept. 12, 1978- that I discovered my first comet.

**COMET HUNTING NOTES:** The Edgar Wilson Award has been announced for amateurs who discover comets. A cash award of about \$20,000 will be distributed each June 12 among those finding comets during the previous year. The rules are few. The comet must be named after you and you must be using your own equipment in an amateur capacity. The discovery may be made by visual, photographic, or electronic means. The amount an individual receives depends upon the number of comet finds during the year. For example, in the past twenty years, an individual would have received between \$1500 and \$20,000 for a comet find.

### Ephemerides -- Epoch 2000, 0h UTC

C/1997 J2 (Meunier-Dupouy)						C/1995 O1 (Hale-Bopp)						C/1997 N1 (Tabur)					
Date	R.A.	Dec	EL	Sky	Mag	Date	R.A.	Dec	EL	Sky	Mag	Date	R.A.	Dec	EL	Sky	Mag
08-05	21h51.3m	+18°10'	143°	M	11.3	08-05	06h54.4m	-54°10'	76°	M	10.8	08-05	22h30.1m	+30°34'	128°	M	11.8
08-10	21h45.6m	+16°21'	147°	M	11.3	08-10	06h58.7m	-54°49'	77°	M	10.8	08-10	22h19.9m	+32°19'	130°	M	11.6
08-15	21h39.8m	+14°26'	151°	M	11.3	08-15	07h02.8m	-55°30'	77°	M	10.9	08-15	22h08.4m	+33°57'	131°	M	11.5
08-20	21h34.1m	+12°25'	154°	M	11.4	08-20	07h06.7m	-56°14'	77°	M	10.9	08-20	21h55.8m	+35°27'	132°	E	11.4
08-25	21h28.7m	+10°21'	156°	M	11.4	08-25	07h10.5m	-56°59'	78°	M	11.0	08-25	21h42.3m	+36°46'	132°	E	11.3
08-30	21h23.5m	+08°16'	156°	E	11.4	08-30	07h13.9m	-57°46'	78°	M	11.0	08-30	21h28.0m	+37°53'	131°	E	11.3
09-04	21h18.7m	+06°10'	153°	E	11.5	09-04	07h17.2m	-58°34'	79°	M	11.0	09-04	21h13.3m	+38°45'	129°	E	11.2
09-09	21h14.3m	+04°06'	150°	E	11.6	09-09	07h20.1m	-59°24'	79°	M	11.1	09-09	20h58.6m	+39°23'	126°	E	11.1
09-14	21h10.7m	+02°05'	145°	E	11.6	09-14	07h22.7m	-60°15'	79°	M	11.1	09-14	20h44.3m	+39°46'	123°	E	11.1

### Orbital Elements -- Epoch 2000.0

Object:	Hale-Bopp	Meunier-Dupouy	Linear
Peri. Date:	1997 04 01.1347	1998 03 10.4365	1999 01 24.00
Peri. Dist (AU):	0.914008 AU	3.051015 AU	2.11102 AU
Arg/Peri (2000):	130.5787 deg.	122.6755 deg.	089.452 deg.
Asc. Node (2000):	282.4653 deg.	148.8429 deg.	333.261 deg.
Incl (2000):	089.4268 deg.	091.2731 deg.	080.342 deg.
Eccen:	0.995085	1.000760	1.0
Orbital Period:	~2500 years	Long Period	Long Period?
Ref:	MPC 30738	MPC 30738	IAUC 6961
Epoch:	1997 12 18	1998 03 08	1999 01 24
Absol. Mag/"n":	-1.0/4.0	4.0/4.0	5.5/4.0



### 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 650/780-9645  
**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  
**Proofing** Bill Arnett 650/780-9645  
**Printing** Accuprint 287-7200  
**Mentoring Program Chairman**  
Ed Erbeck 379-5413

### Observational Astronomy Teacher

Jack Zeiders 281-0220

### Observatory Committee

Bob Brauer 292-7695

### School Star Party Chairman

Jim Van Nuland 371-1307

### Telescope Loaner Program

Mike Koop 446-0310

### Web Page

Bill Arnett billa@znet.com

### 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).

### Finding Fremont Peak

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. Take the second left, then a quick right to stay on the road! Follow G-1 for 12 miles into the park. Be careful to note the "left/right jog" about 1/4 mile after the turn; signs are posted. The park charges a \$3 entrance fee.

### Telescope Loaner Program Status

Mike Koop

All scopes are available to any SJAA member; contact Mike Koop by email or at (408) 473-6315.

### 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.

#	Scope Description	Borrower	Due Date	Note
6	8" Celestron S/C	Ravi Tembhekar	7/26/98	
8	14" Dobson	Ralph Seguin	6/23/98	
15	8" Dobson	David Kingsley	6/14/98	
21	10" Dobson	Ann Hastings	7/3/98	
23	6" Newt/ P Mount	Alexander Koczur	6/14/98	
24	60mm Refractor	Marlene Nylander	7/17/98	
27	13" Dobson	Jeff Crilly	6/28/98	
28	13" Dobson	Mark Stalions	8/3/98	
29	C8, Astrophotography	Michael Lagae	7/17/98	

### 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.

#	Scope Description	Borrower	Due Date	Note
1	4.5" Newt/ P Mount	Mark Cousins	5/24/98	
2	6" f/9 Dob	John Paul De Silva	?	0
4	60mm Refractor	Del Johnson	Indefinite	
7	12.5" Dobson	Nick Tucci	6/11/98	
9	C-11 Compustar	Paul Barton	Indefinite	
16	Solar Scope	Mike Koop	6/13/98	
18	8" Newt/ P Mount	Cecelia Yarnell	4/18/98	

### 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.

#	Scope Description	Stored by	Notes
3	4" Quantum S/C	Lew Kurtz	
19	6" Newt/P Mount	Marlene Nylander	
26	11" Dobson	David Manley	
30	7" f/9 Newt/Pipe Mount	David Manley	
31	8" f/8 Dobson	Paul Barton	1

### Notes:

0. If you know how to contact John Paul De Silva please call Mike Koop.
1. Doug Pena of San Jose has donated a 8"/f8 Reflector to the Loaner Program. Paul Barton has "Dobsonized" it for easy beginner use.
2. Do you have some space to store a scope or two? E-mail Mike Koop.

### 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

To Subscribe to/Unsubscribe from the SJAA Mailing List send email to

**sjaa-request@seds.org**  
with a blank subject line followed by a single text line that says "subscribe" or "unsubscribe"

## 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**