

SJAA EPHEMERIS

Letters From Project ASTRO Students

Paul Kohlmler

At the last school visit for Project ASTRO for this year I got a card from each student. Obviously the teacher triggered this activity but it was interesting to see which activities they talked about. The activity that was

mentioned most often and in the greatest detail was Comet Making. But a close second was the time I gave the class some hand warmers where a liquid turns into a solid after tweaking a metal disk. Many remembered the day we tried (and

mostly failed) to use a couple of solar scopes. Several mentioned the telescopes that I brought into class 7 months ago.

Another popular activity was the time we used spectrum glasses. I didn't bring any interesting lights that might show a Fraunhofer line but we did try different types of light bulbs. An activity we did in the computer lab was popular also.

The teacher must have mentioned that I'm just a volunteer and that I spent my own money on the class. One student gave me a dollar. Does this mean I'm not an amateur astronomer anymore?

Here are a few direct quotations. I took the liberty of fixing the spelling errors except for the one case noted.

"You taught me more about the solar system than I might ever know about it." Gee, I hope that's not true.

"I had a great time when you were here."

"I like what you did for us and I appreciate that."

"I'd like to thank you for everything you bought or gave us. I'm grateful(sic)."

"The space pictures were nice. My picture was cool. It was the planet Earth." These were some pictures that I printed as part of an "astronomy as art" kind of activity.

"Well my favorite thing is mostly everything. What's your favorite one?" Well, uh, probably reading these comments.

SJAA Activities Calendar

Jim Van Nuland

July

- 1** Houge Park star party. Sunset 8:32 p.m., 16% moon rise 2:41 a.m. Star party hours: 9:30 to midnight
- 1** Astronomy Class at Houge Park. 7:30 p.m.
- 2** Public star party at Coyote Lake Park. Sunset 8:32 p.m., 9% moon rise 3:17 a.m. Starts at 9:30
- 9** Dark sky weekend. Sunset 8:30 p.m., 12% moon sets 10:52 p.m.
- 9** FPOA Star-B-Que.
- 15** Houge Park star party. Sunset 8:28 p.m., 66% moon sets 1:17 a.m. Star party hours: 9:30 to midnight
- 16** ATM class at Houge Park. 7:30 p.m.
- 23** **General meeting** at Houge Park.. 8 p.m. Richard Crisp speaks on Astrolmaging.
- 28** ATM class at Houge Park. 7:30 p.m.
- 29** Astronomy Class at Houge Park. 7:30 p.m.
- 29** Houge Park star party. Sunset 8:18 p.m., 28% moon rise 1:17 a.m. Star party hours: 9:00 to midnight

- 30** Public star party at Coyote Lake Park. Sunset 8:19 p.m., 19% moon rise 1:57 a.m. Starts at 9:00

August

- 6** Dark sky weekend. Sunset 8:10 p.m., 4% moon sets 9:21 p.m. DST
- 12** Houge Park star party. Sunset 8:03 p.m., 51% moon sets 11:48 p.m. Star party hours: 9:00 p.m. to midnight.
- 13** ATM Class at Houge Park. 7:30 p.m.
- 20** **General meeting** at Houge Park. 8 p.m.
- 25** ATM Class at Houge Park. 7:30 p.m.
- 26** Astronomy Class at Hogue Park. 7:30 p.m.
- 26** Houge Park star party. Sunset 7:45 p.m., 44% moon rise 11:55 p.m. Star party hours: 9:00 p.m. to midnight.
- 27** Public star party at Coyote Lake Park. Sunset 7:43 p.m., 34% moon rise 0:40 a.m. Starts at 9:00

The Board of Directors meets at 6:00 p.m. preceding each general meeting. All are welcome.

24 hour news and information hotline: (408) 559-1221

<http://www.sjaa.net>

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"I hope that you've enjoyed being with us."

"Also how meteors and comets can be made by a lot of mixtures."

"Sorry that the class misused one of your items and broke it."

"It was nice meeting you. Good bye."

"When you gave us the calendar, I gave it to my mom for Christmas. She said it was cool." He's referring to the RASC Calendars that I passed out during the December visit. I told them that we were taking off the plastic wrap covering so they couldn't use it for "regifting" but someone didn't take the hint.

"Mr. Kohlmiller you were cool because you brought a lot of things from your house and showed us like, the zap pack when you snap the metal and the liquid turns into crystals."

"It was cool how you were talking about the electromagnetic spectrum."

"Now, I want to see space because it sounds fun and I'll learn too."

"All of us wanted to keep your completed comets until they all started to melt."

"I like what we did on Fridays when we had the soil thing that makes the comets or whatever it is."

"I'm going to give you something you need." A dollar bill was enclosed.

In an earlier visit, three students asked me for my autograph. That was unusual. Suddenly at 53 I'm finally a rock star.

I'm looking forward to continuing my partnership with my teacher-partner in the coming school year. I think next year I'll skip trying to explain the Hertzsprung-Russell diagram to fifth-graders but I hope I remember to capitalize on the "educational moment" more often.

SJAA Dues Increase Notice

Gary Mitchell

The Board has voted to raise the annual membership dues to \$20 (\$10 for Junior) effective August 1, 2005. It's been a good ten years since the dues have been raised.

As some of you may know, our costs have been going up. For example: the printing cost for the Ephemeris recently went up and our liability insurance premium went **way** up--more than triple. (Unfortunately, in our litigious culture, we must have the insurance in order to hold star parties, meetings, and classes.) Just those two items alone come to over \$15 per member! And that's not counting our hot-line, telescope loaner program, web page, beginning astro class, telescope making class, hosting Cal-Star, etc. We also help support Group 70, the International Dark Sky Association, Astronomical Society of the Pacific, etc.

No one likes having to raise the dues, but it's now beyond the break-even point. So, we can no longer just swallow the price increases.

We hope you'll understand and agree that at \$20 your annual membership is still a bargain.

If there's something new you'd like to see the club do (that won't cost too much), please let us know.

Directions to Houge Park

Houge (rhymes with "Yogi") 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.

SJAA Now Accepts PayPal

Rob Hawley

We have just made renewing your SJAA membership as easy as a few mouse clicks. No more having to hunt up an old Ephemeris to get the form. Now memberships can be renewed quickly using PayPal. The payment will be immediately transmitted to our treasurer and your renewal will be immediately transmitted to me.

Don't have a PayPal account - No problem. The site also accepts Credit Cards (but only if you don't have a

PayPal account).

We still will accept the paper forms mailed to the mailbox if you prefer using that method.

Some of you may have concerns about security. I have prepared a Q&A on this at

<http://home.earthlink.net/~robhawley/PayPal-for-SJAA-Security.html>

Food For Thought

Dave North

The Lunar Do(ugh)nut

Amid much fanfare from the SJAA mailing list, out came the telescope to get a rare look at the infamous Lunar Donut (or is that Doughnut? Either works, apparently).

Due to the referenced Seronik photo, it was easy to be sure we had the right feature. Ak thought it looked better the last time she saw it, and offered that we might have been a little late by starting at the official time.

Looks kinda like one of those coconut-covered donuts to me, Alan. (Alan Adler gave the heads-up for this event).

Of course the real fun is looking again the next day to see it ... well, not see it. This is one of the many fascinating and real "Transient Lunar Phenomena," things that really do change up there.

One of my favorites of this class is the monstrous walled plain Janssen, which can look incredibly huge and detailed when on the terminator. Within a few days, though: poof. Very hard to find if visible at all.

I can't report on not seeing the donut the next day, though. The event was on June 10, the deadline for this column!

More Baco Bits

Some years back I read a reference to the crater "Baco" in which the writer indicated this weird spelling was a latinization of Roger Bacon's last name.

Apparently it was common in those days to sign off on things with a latinate name, as it was the "Lingua Franca" (ironically) of stuffy publications.

Okay. Baco, Cato. I can buy that. So I filed it in my list of stupid facts and eventually repeated it.

But no.

“One of my favorites of this class is the monstrous walled plain Janssen, which can look incredibly huge and detailed when on the terminator. Within a few days, though: poof. Very hard to find if visible at all.”

I get this note from Bob Garfinkle:
"...about Baco vs. Bacon. In 1837, Mädler named the feature "Baco" for the English friar Roger Bacon (1214-94). He used the German spelling of "Baco" instead of the Englishman's English name Bacon or his Latinized name Rogeri Baconis. In 1932, the IAU adopted Mädler's naming of Baco, and that is the official name for this lunar feature."

Oh great!

The reason for this stupid name is even worse than the excuse given by the erroneous reference I read. It's simply because it was written down by some illiterate German. I mean, something was seriously wrong with these IAU clowns.

But why? I mean, why would a German spell someone's name (Bacon) as Baco? Auf Deutsch, Bacon is Speck (if babelfish is to be trusted). So it's not like that's how you spell "bacon" in Germany.

There doesn't seem to be a propensity toward names that end in O in Germany. One would more commonly

expect that from Italy or Spain.

Further, in reference to Roger Bacon in a German text we find this: "Die beiden Bacon in Archiv f. Gesch. d. Philos".

So it wasn't any common habit to do such a thing.

There you have it. We are stuck with an English guy's name misspelled by a German and approved by an international gaggle of folks who were probably half drunk and the other half asleep. If they were anything like Congress, they probably didn't even read what they approved.

It's a miracle we don't have Armstro up there, along with Aldri and Colli.

All I can say is it's a good thing for Tycho his name actually did end in o.

Bob also shed a little more light on last month's controversy:

"When you look at the nomenclature list on the USGS site, you'll quickly notice that most of the names are missing the honoree's full name. The original compiler I guess did not think this was important. This has led to some confusion where he didn't even take the time to look up the initials."

Perhaps we might include Ed (and Bill) Pickering in that list of confused issues ...

Should anyone wish to reference the maps and other scads of great information, they are available at <http://www.lpi.usra.edu/resources/mapcatalog/LTO/> and <http://www.lpi.usra.edu/resources/mapcatalog/LAC/>

Planets and Stars, and a Deep Impact

Akkana Peck

The beginning of July is a good month for watching planets near stars and star clusters. On the nights of July 2 and 3, both Mercury and Venus will pass less than a degree from the Beehive cluster (M44), making for a lovely evening twilight view in a telescope of nearly any size, or in binoculars. Obviously, this means Mercury and Venus are very close to each other throughout the early part of July: their conjunction will be on the night of the 6th, with about a degree and a half of separation between the two.

Mercury is visible in the early evening sky at the beginning of the month, showing a half phase, but it rapidly closes with the sun and dwindles to a crescent, becoming lost in the sun's glare by the middle of the month.

Venus, too, is low in the west during evening twilight, setting about an hour and a half after sunset, changing phase from nearly full at the beginning of July to gibbous by month's end.

Early risers get a good morning show, too. On the morning of July 2, the slim crescent moon, only a few days from new, will skim just south of the Pleiades. Then on the evening of the 29th, a slightly fuller

moon, just past third quarter, loops back around for another pass by the Pleiades, this time coming just over half a degree from the cluster.

Mars is still an object for morning observers; it rises a bit after midnight but doesn't get very high until morning twilight.

Saturn is lost in the sun's glare this

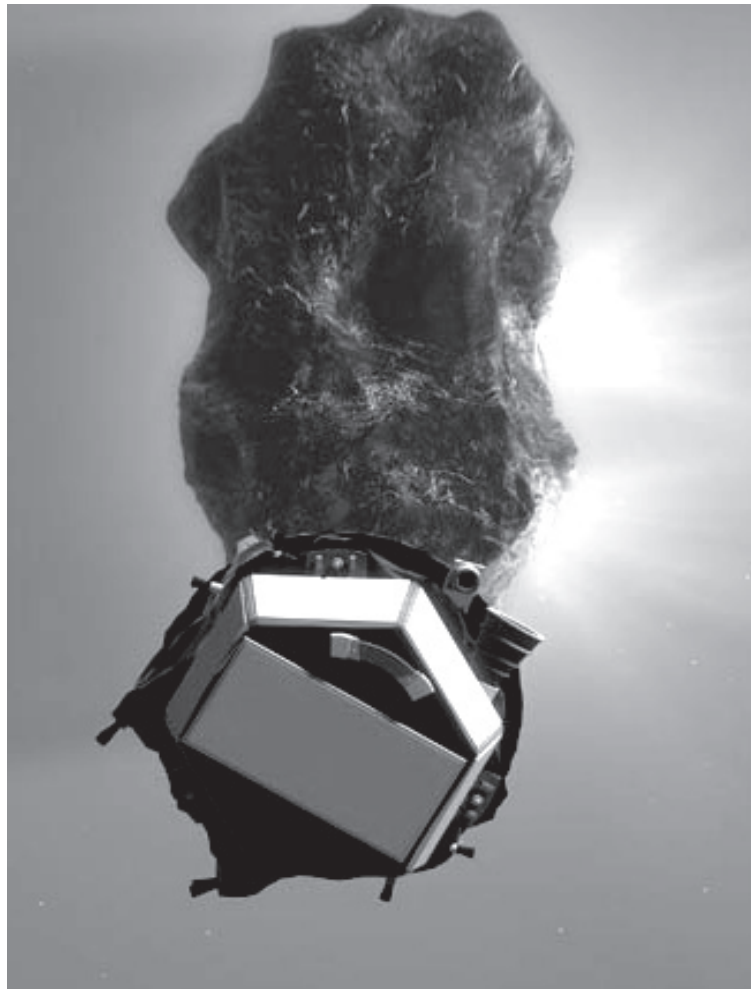
month.

Jupiter, of course, rules the roost. It's already high in the sky when night falls. Sometimes the best seeing on summer evenings is right at dusk before the sky gets fully dark, and Jupiter is so bright that it's a perfect target. Set up a scope around sunset and let it cool off while the sky darkens enough to find Jupiter—then enjoy! Try to hunt down those faint details in the bands, and look for turbulence around the great pink spot.

And, of course, watch Jupiter's Galilean moons!

The night of the 11th treats us to an early evening Jovian moon double transit, of Io, Europa, and both of their shadows starting at 7:35 pm (when Europa begins its ingress; Io, its shadow, and Europa's shadow will already be well on their way across the planet's disk by then). In July, of course, it's not dark yet at 7:35 (in fact, the sun doesn't set for another hour), but you may be able to find Jupiter anyway, if you set up somewhere shaded from the sun's direct glare and search with binoculars about 45 degrees up, just west of due south. (Or else I suppose you could cheat and use a computer-driven scope. But where's the fun in that?)

Neptune rises around the time the sky gets dark, with Uranus following about an hour later. They should be found fairly easily starting around midnight (for a challenge, try them earlier).



This picture shows Deep Impact approaching Comet Tempel 1. Impact should occur at 10:52 p.m. PDT on July 3rd. Part of the spacecraft will impact the comet at a speed of 23,000 miles per hour. The other part of the spacecraft, the Flyby segment, will pass 310 miles below. It has about 13 minutes to take images before it hits a deluge of particles from the comet. As of June 15, the high resolution camera is having trouble obtaining a good focus but engineers at JPL think they can rectify that problem with image processing software. The impact will be televised on NASA-TV and may include images from the spacecraft if the cameras are in good working order. The comet will be close to magnitude 9 before impact and could change (temporarily) to magnitude 6 as a result of the impact. Photo courtesy of NASA/JPL-Caltech.

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There's one more addition to this month's dance of planets and stars. On the evening of the 17th, the moon will pass in front of Antares, starting at 8:08 pm; the star should reappear at 9:00. This is the first bright star occultation we've had in a while, and should be fun to

*The moon occults Antares
on July 17th starting at
8:08 p.m. with
reappearance at 9:00 p.m.
PDT.*

watch. The moon will be nearly full, otherwise I'd suggest checking whether you can see the low surface brightness globular cluster M4 near Antares. What the heck: try anyway! The moon will actually skirt the edge of M4 earlier in the evening, around 6 pm, but even if the moon's brightness didn't wash out dim M4, the sky won't be dark enough yet to see the cluster.

CalStar registration begins July 15

Rob Hawley

The club's Fall star party, CalStar, will open its registration July 15. For more information see the web site <http://www.sjaa.net/calstar2005.html>

There will be a more extensive article in the September Ephemeris.



Eileen Collins will be the commander on the space shuttle's Return to Flight mission which is set to launch no earlier than July 13. The new fuel tank has been mated to Discovery and is back on the pad. Commander Collins was the first woman shuttle commander in 1999 when the Chandra X-Ray Observatory was deployed on STS-93 (Columbia). She also was part of the crew on STS-84 (Atlantis) which was the sixth mission to rendezvous and dock with the Russian Space Station Mir. It has been 2 and half years since the Columbia tragedy. The next flight after Discovery will be Atlantis and that is scheduled for no earlier than September 9. Photo courtesy of NASA.

ASP Position Announcement

Christina de Leon

The Astronomical Society of the Pacific (ASP) in San Francisco, California is hiring a full-time Astronomy Educator to join a team of National Science Foundation funded partners researching a professional development and community building program for educators at "small" science museums and nature centers.

Responsibilities:

- Lead the development and production of a suite of hands-on activities and "toolkits" tailored to the needs of museum and nature center educators (includes formative testing sessions).
- Assist with the development of training protocols and agendas and help train participants at onsite workshops nationally (some travel required).
- Assist with the adaptation of activities for "distance learning" and online training protocols.
- Moderate distance learning and online workshop sessions and discussions.
- Assist project evaluators with formative and summative data collection as required.
- Assist with recruitment of workshop participants.
- Attend weekly ASP team meetings and take part in monthly project team teleconferences.
- Other duties as required.

Required Qualifications:

- Minimum of a Bachelor's degree in the sciences (astronomy preferred) AND three years in informal education and outreach; OR a Bachelor's degree in the sciences, three years demonstrated work in informal education/outreach, and strong content

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knowledge in astronomy.

- Experience developing and/or adapting hands-on astronomy activities.
- Excellent interpersonal skills, public speaking abilities, and an enthusiastic/positive personality.
- Ability to work both independently and as part of a team.
- Solid computer skills (including Word, Excel, e-mail, World Wide Web).
- Ability to multi-task and be creative (i.e., think "out of the box" when necessary).
- Comfortable working under more than one supervisor and open to diverse job assignments.
- Strong command of written and spoken English.

Desired Qualifications:

- Two years work experience at a science museum, science center, natural history museum, nature center, or equivalent delivering educational programming.
- Strong knowledge of inquiry-based learning.
- Experience with distance/online learning (development experience highly desired).

Salary: \$35-38,000 per year (based on experience)

To Apply: Please send a resume and cover letter explaining your interest and qualifications. Send application packages by mail to: Astronomy Educator Screening Committee, Astronomical Society of the Pacific, 390 Ashton Ave., San Francisco, CA 94112; or by email to cdeleon@astrosociety.org.

Solar System Stats for July 2005

Adapted from the Observer's Handbook published by The Royal Astronomical Society of Canada which in turn gets this data from the U.S. Naval Observatory's Nautical Almanac Office and Her Majesty's Nautical Almanac Office and contributions by David Lane, St. Mary's University, Halifax NS.

		Mercury	Venus	Mars	Jupiter	Saturn	Uranus	Neptune	Sun
RA	1	8 ^h 26 ^m	8 ^h 24 ^m	0 ^h 51 ^m	12 ^h 38 ^m	8 ^h 00 ^m	22 ^h 50 ^m	21 ^h 18 ^m	6 ^h 40 ^m
	11	9 ^h 09 ^m	9 ^h 13 ^m	1 ^h 15 ^m	12 ^h 41 ^m	8 ^h 06 ^m	22 ^h 49 ^m	21 ^h 17 ^m	7 ^h 21 ^m
	21	9 ^h 27 ^m	10 ^h 01 ^m	1 ^h 39 ^m	12 ^h 45 ^m	8 ^h 11 ^m	22 ^h 48 ^m	21 ^h 16 ^m	8 ^h 02 ^m
Dec.	1	+20°21'	+20°59'	+2°44'	-2°41'	+20°49'	-8°20'	-15°50'	+23°07'
	11	+15°45'	+17°48'	+5°08'	-3°04'	+20°34'	-8°24'	-15°55'	+22°08'
	21	+11°59'	+13°50'	+7°22'	-3°31'	+20°19'	-8°29'	-15°59'	+20°30'
Dist (AU)	1	0.97	1.51	1.00	5.35	10.74	19.56	29.25	1.017
	11	0.81	1.46	0.95	5.50	10.08	19.42	29.16	1.017
	21	0.68	1.41	0.89	5.65	10.10	19.30	29.10	1.016
Mag	1	0.1	-3.8	0.1	-2.0	0.2	5.8	7.9	
	11	0.6	-3.8	-0.2	-2.0	0.2	5.8	7.8	
	21	1.4	-3.8	-0.3	-1.9	0.2	5.8	7.8	
Size	1	6.9"	11.0"	9.3"	36.8"	16.5"	3.6"	2.3"	31'28"
	11	8.3"	11.4"	9.9"	35.8"	16.4"	3.6"	2.3"	31'28"
	21	9.9"	11.8"	10.5"	34.8"	16.4"	3.6"	2.3"	31'29"

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Submit

Submit articles for publication in the
SJAA Ephemeris. Send articles to
the editors via e-mail to
ephemeris@sjaa.net. **Deadline,**
10th of previous month.

SJAA loaner scope status

All scopes are available to any SJAA member; contact Mike Koop by email
(koopm@best.com) or by phone at work (408) 473-6315 or home (408) 446-0310
(Please leave message, phone screened).

Available 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 for a
scope pick up at any of the listed SJAA events.

# Scope	Description	Stored by
1	4.5" Newt/ P Mount	Annette Reyes
3	4" Quantum S/C	Hsin I. Huang
7	12.5" Dobson	Tom Fredrickson
14	8" f/8.5 Dob	Colm McGinley
15	8" Dobson	Scott Pelger
19	6" Newt/P Mount	Daryn Baker
23	6" Newt/P Mount	Wei Cheng
24	60mm Refractor	Al Kestler
26	11" Dobson	Vivek Kumar
27	13" Dobson	Steve Houlihan
28	13" Dobson	Anupam Dalal
29	C8, Astrophotography	Mark Ziebarth
32	6" f/7 Dobson	Sandy Mohan
34	Dynamax 8" S/C	Yuan-Tung Chin
36	Celestron 8" f/6 Skyhopper	Dana Crum
38	Meade 4.5" Digital Newt	Tej Kohli
39	17" Dobson	Rob Hawley
40	Super C8+	Mike Macedo
41	18" Sky Designs Dob	Len Bradley
42	11x80 Binoculars	Ritesh Vishwakarma

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 until the scope becomes available
after the due date.

# Scope	Description	Borrower	Due Date
8	14" Dobson	Colm McGinley	8/01/05
11	Orion XT6 Dob	Ravi Shankar Erram	9/10/05
12	Orion XT8 Dob	Kevin Roberts	7/16/05
16	Solar Scope	Gary Mitchell	8/23/05
33	10" Deep Space Explorer	Jack Zeiders	8/23/05
37	4" Fluorite Refractor	Dix McGuire	7/1/05

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
2	6" f/9 Dob	John Paul De Silva	?
6	8" Celestron S/C	Karthik Ramamurthy	7/8/05
9	C-11 Compustar	Bill Maney	Indefinite
10	Star Spectroscope	Jim Albers	6/18/05
13	Orion XT6 Dob	Ravinder Pal Singh	7/14/05
21	10" Dobson	Michael Dajewski	Repair
35	Meade 8" Equatorial	Ethan Romander	9/6/05

Waiting list:

16	Solar Scope	Ken Frank
36	Celestron 8" f/6 Skyhopper	Shinji Wakamatsu
37	4" Fluorite Refractor	Bob Leitch; Carl Ching

San Jose Astronomical Association Membership Form

You can join or renew with the SJAA online at <http://www.sjaa.net/SJAAMembership.html>

New **Renewal** (Name only, plus corrections below)

Membership Type:

- Regular — \$15
- Regular with Sky & Telescope — \$48
- Junior (under 18) — \$6
- Junior with Sky & Telescope — \$39

Subscribing to Sky & Telescope magazine through the SJAA saves you \$10 off the regular rate. (S&T will not accept multi-year subscriptions through the club program. Allow 2 months lead time.)

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

**San Jose Astronomical Association
P.O. Box 28243
San Jose, CA 95159-8243**

Make your check payable to "SJAA"
(not Sky Publishing)

Name: _____

Address: _____

City/ST/Zip: _____

Phone: _____

E-mail address: _____

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