

SJAA EPHEMERIS

April Fool's, Not!

Paul and Mary Kohlmler

It is often the temptation of newsletter editors to make an April Fools issue. Stock it up with fake stories and bizarre headlines. But in astronomy that would be working too hard. The seemingly bizarre headlines aren't jokes — they are reality. Most of these headlines

would have looked like April Fools jokes just a few years ago.

Pluto has three moons — Oh come on now, we are still trying to get our arms around the idea that Pluto isn't even a planet and now it has as many moons as all terrestrial planets combined? I

mean we can forgive one moon, we see individual moons around asteroids. But three around Pluto?

We have 10 planets — This was a conspiracy theorist's fantasy headline for decades but now you tell me we have a tenth planet? Oh, so I suppose one of those other Kuiper Belt Objects is going to be a planet. But it's larger than Pluto? Oh my.

SuitSat Launched from Space Station

— Like an outtake from a space disaster movie, pictures are sent to earth showing a full size space suit drifting out to space; untethered with no way to return. But it was all true and all on purpose. An empty spacesuit, no longer needed and taking up valuable space, was tossed out into space without an occupant but with a low power radio.

Space Dust collected in Jello — Well not exactly Jello, aerogel — a substance only slightly denser than air. The Stardust mission collected interstellar dust particles and, more importantly, dust coming off of a comet and it landed in the mud of Utah last January. Would you believe the SJAA was represented on a plane chasing the spacecraft?

Tau Ceti Makes the Short List — That would be the short list (10 in all) of stars that may have Earth-like planets. Sound like Star Trek? Tau Ceti was mentioned more than once in that television series and here it lands on the short list of stars that SETI and the yet-to-be-launched Terrestrial Planet Finder should be searching.

SJAA Activities Calendar

Jim Van Nuland

April

- 1 Dark sky weekend. Sunset 6:30 p.m., 19% moon sets 10:54 p.m.
- 2 DST (Darkness Squandering Time) begins. Advance clock at 2 am -> 3 am.
- 7 Houge Park star party. Sunset 7:36 p.m., 77% moon sets 4:37 a.m. Star party hours: 8:30 – 11:30 p.m.
- 9 Auction XXVI at noon. See article on page 8
- 13 ATM Class at Houge Park. 7:30 p.m.
- 21 Astronomy Class at Houge Park. 7:30 p.m. Observing Galaxies with Mark Wagner.
- 21 Houge Park star party. Sunset 7:48 p.m., 35% moon rises 3:38 a.m. Star party hours: 9:00 – 12:00 a.m.
- 22 Dark sky weekend. Sunset 7:49 p.m., 25% moon rises 4:09 a.m.
- 29 Dark sky weekend. Sunset 7:55 p.m., 8% moon sets 10:42 p.m.

May

- 5 Houge Park star party. Sunset 8:10 p.m., 61% moon sets 3:05 a.m. Star party hours: 9:00 to 12:00 a.m. **Astronomy Day**
- 6 ATM class at Houge Park. 7:30 p.m.
- 13 **General meeting at Houge Park.** 8 p.m. Members present photos, videos and thoughts from recent Eclipse trips.
- 18 ATM class at Houge Park. 7:30 p.m.
- 19 Astronomy Class at Houge Park. 7:30 p.m.
- 19 Houge Park star party. Sunset 8:13 p.m., 50% moon rise 2:11 a.m. Star party hours: 9:30 to 12:00
- 20 Dark sky weekend. Sunset 8:14 p.m., 38% moon rises 2:40 a.m.
- 27 Dark sky weekend. Sunset 8:19 p.m., 1% moon sets 9:29 p.m.

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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Supernovae are Rare. Not! — In 2005, 340 supernovae were discovered. Ho-hum.

Pros and Joes, Cosmic Version

— Average people, well, average geeks anyway, can use their computers to help analyze information from the Stardust mission. A version of Seti@Home will soon be running on thousands of personal computers that works this time for Stardust Mission. Estimated start date: April 1, of course.

Martian Northern Lights — It was generally believed that a large, planetary magnetic field was necessary to create aurorae such as the Aurora Borealis. Now we find that magnetic fields in the crust of Mars is enough to create this phenomena. It still isn't quite like the Northern Lights however, the aurora appears in the UV only.

Water Geysers Supply the E-Ring — Is that Pentagon TV show still on? No, not that E-Ring. We mean the ring around Saturn. Turns out that a Saturnian moon, Enceladus, spurts out water which is instantly frozen and becomes a source of the E-Ring particles. But dig this, if liquid water is present on Enceladus, might some primitive form of life be there also?

Earth Strikes Back — 65 million years after taking a hit that was more than a bad hair day for dinosaurs, Earth turned the tables and slammed into a comet. This was the Deep Impact mission.

Andromeda Strain Could Work — One of the big problems with the movie Andromeda Strain is that they want us to believe a virus or bacterium could survive a meteoric introduction to Earth. But a scientist believes that some bacteria from the ill-fated Columbia mission survived the destruction and fiery fall. It fell at only 20% of the speed of a meteorite but who knows. An article is scheduled for the May issue of *Icarus*.

Need the references for this article? We got a lot of information at <http://www.spaceref.com/news>.

Altazimuth - an alternative azimuth.

Declination - what happens to the nation as a result of Right Ascension.

Right Ascension - the leading theory to explain the 2004 presidential election.

Arcsecond - when Noah was filling the Ark, the first animal of each pair was the Arcfirst and then came the Arcsecond.

Black Hole - what somebody else's e-mail is as far as you're concerned.

Light Year - in college, the year where you are only taking electives in your major and you already know that stuff.

Messier Marathon - when you try again to work on something a long time and you make a bigger mess of it than last time.

Big Red Spot - what you will turn into if you buy the scope you really want.

Project ASTRO Wants You

Paul Kohlmler

There is a new and energetic leader of ASP's Project ASTRO. Her name is Vivian White. She is putting out the call for amateur astronomers who want to help.

Project ASTRO is the way amateur astronomers can volunteer a small amount of time to help with a classroom. Your only commitment is 4 classroom visits within a school year, try to set up a school star party (an easy thing for SJAA members with Jim Van Nuland's help) and go to an orientation.

It's really quite simple. After you sign up you will be given a short telephone interview. Then there is a 2 day orientation that is generally held in August. At that time you will meet your teacher-partner and you will learn some ideas that you can use in the classroom.

You will probably be anxious to actually start talking astronomy. In the first class of the year, I have three goals that I will reinforce throughout the year. First, I want every student to know that seasons are caused by the Earth's tilt - not by changes in the distance between the Earth and the Sun. One

activity I do is I get some weather data for various northern and southern hemisphere cities and have the students plot the changes in the average high temperatures throughout the year. The curves for Australia and South America will be different than those for San Jose, New York City and Paris.

The second point I try to make is that the lunar phases are caused by the geometry (I don't use that word) between the Sun, Earth and Moon. Lunar eclipses, not lunar phases, are caused by the Earth's shadow.

The third point is simply the names of the planets. Yes, I still include Pluto.

At the orientation you are given literally hundreds of pages of ideas for activities. You simply need to pick the ones you and your teacher-partner want to do.

I recommend Project ASTRO for anyone who likes to talk to people about astronomy. Applications and more information can be found at: http://www.astrosociety.org/education/astro/project_astro.html

New Spot in Town

Akkana Peck

There's a new spot in town! Specifically, Oval BA, previously a run-of-the-mill white oval in Jupiter's South Temporal Band (STB), has grown in size and taken on the same faint reddish color that the famous Great Red Spot displays.

If you've been watching Jupiter for a while, you've probably seen Oval BA. It formed when three smaller white spots merged way back in 2000, but only last December did it begin, gradually, to change color from white to brown. The shift to red seems to have happened just in the last few months.

Fortunately, Jupiter is now rising early enough (shortly after nightfall) that it's easy to catch at nearly any time of evening. Unfortunately it never gets higher than 37 degrees (and that not until the wee hours of the evening). But Oval BA may be large enough to see even when Jupiter is relatively low in the sky, at least on a relatively steady night. It's definitely worth checking out. Be sure to keep an eye on it over the next few months to see whether the color changes with time. Perhaps it will get even redder than the Red Spot!

Regular readers will recall that I often refer to Jupiter's larger and more famous storm as the GSfkaR: the Great Spot

Formerly Known as Red. It really hasn't been all that red in the last decade or two, and sometimes is easier to see by the hole it makes in the South Equatorial Band (SEB), which is itself red, than by the redness of the spot itself. That said,

sunlight darkens it, making it a sort of photochemical smog. Think about that the next time you're stuck in traffic on 101 on a hot summer day, looking at the brown haze above San Jose.

Saturn is well placed for convenient early evening observing, still in Cancer and quite close to the Beehive Cluster (M44). Mars, too, is high in the sky as the evening begins; it's so far away that it's quite small now, only about one and a half times the size of Uranus, sitting above Orion like a tennis ball being served by the hunter, and at the same time off the foot of Gemini as though it was a soccer ball being kicked by the westernmost twin. On the night of March 17, Mars passes less than a degree from the open cluster M35. If you're observing that night with

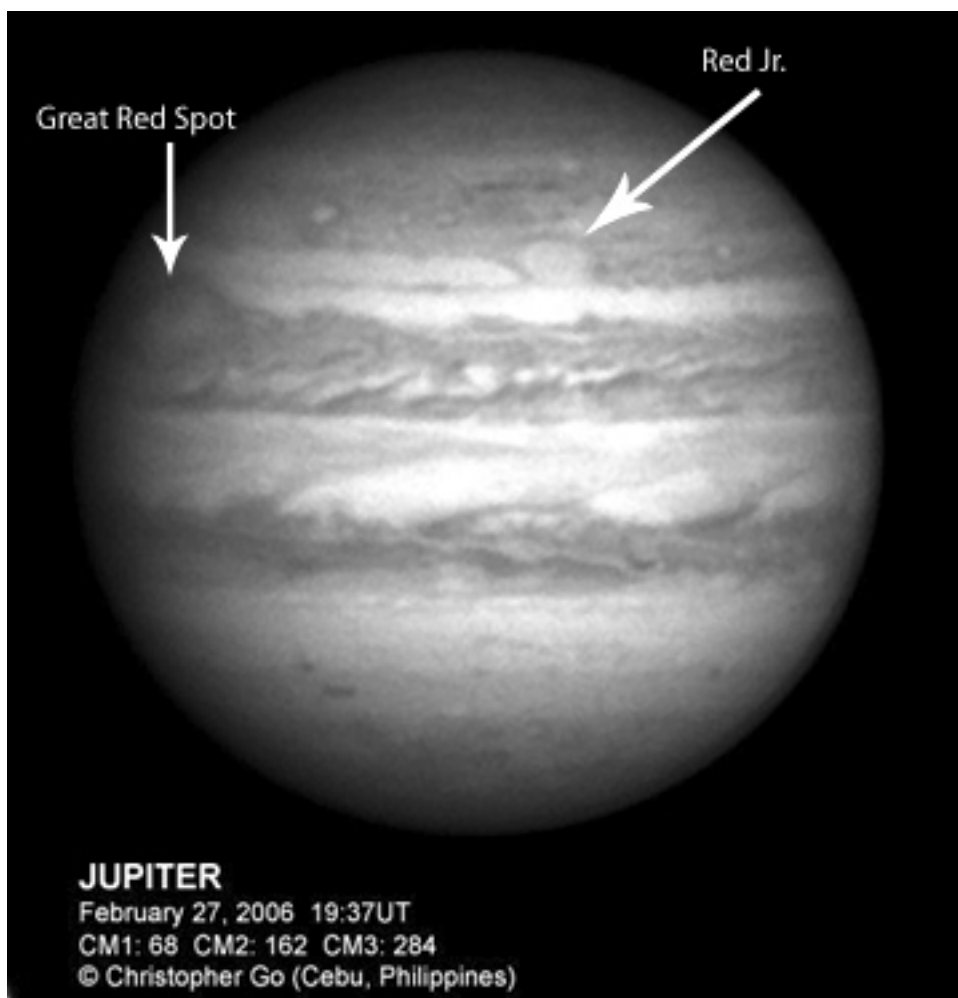


Photo by Christopher Go and reprinted here with his kind permission.

the GRS is certainly much redder than the other storms nearby, and the new Oval BA is almost exactly the same color, prompting informal names like "Red Jr." and "the Not-So-Great Red Spot" from JPL astronomers who have studied it.

What makes the spots red? Surprisingly, nobody knows for sure. Some theories suggest that these massive storms suck material from Jupiter's lower atmosphere up to a higher level, where

a wide-field scope, it might make an interesting sight.

The moon continues its dalliance with the Pleiades this month. Early on the evening of April 1, a slim crescent moon passes right through the the center of the cluster right around sunset. Catch it as soon as the sky gets dark to get the best view, using any size telescope or just

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binoculars.

Venus rises a few hours before the sun but remains low in the sky by the time morning twilight overwhelms it. Mercury, too, is low in the morning sky early in the month, and will get progressively more difficult to spot as the month progresses.

Uranus and Neptune rise barely before the sun; this isn't a good time of year to catch them. But on the night of the 18th, you can use Venus as a guide, since it's just a small fraction of a degree to the right of the brilliant gibbous Venus. Pluto rises a bit ahead of Neptune and Uranus, and might be within reach of the dedicated morning hunter packing a large telescope.

Comet C/2006 A1 Pojmanski is visible faintly in the morning sky. This very small comet became a surprise naked-eye sight for a short time in March (alas, too late to make last month's column deadline), but unfortunately it's already fading as it races away from the sun. At about tenth magnitude, you'll definitely need a telescope to catch it now. It's technically circumpolar, off the head of Cassiopeia, but highest and easiest to spot during the hours before dawn.

May 13: Member Eclipse Presentations

Dave Smith

Due to the auction, there will be no speaker in April.

For the May 13 general meeting, we would like to have members present their photos, videos, and experiences of recent eclipse-chasing trips. Please contact David Smith (408-978-5503, Areopagus125@yahoo.com) if you wish to be on the list of presenters.



San Jose Astronomical Association

CASH FLOW

1/1/2005 through 12/31/2005

INCOME	ATM	360.00
	Auction , Buyer	7,745.80
	Auction, bidder fee	188.50
	Books	1,640.28
	Dues -- members	5,034.00
	Gift Received	36.00
	Interest Inc	199.56
	Misc inc	1,416.26
	S&T Subscriptions	5,617.34
	Swap	1,292.25
TOTAL INCOME		23,529.99
EXPENSES	Auction seller	6,690.05
	Book Purchases	1,757.84
	Bulk Mail	671.64
	Dues -- paid out	235.00
	fees (PayPal)	411.99
	Gifts Given	200.00
	Insurance	1,140.00
	Misc	309.20
	Newsletter	2,313.78
	Nonprofit fees	20.00
	Speaker fee	215.00
	S&T Subscriptions	5,337.90
	Telephone	186.80
OVERALL TOTAL		4,031.06
(Note, some ongoing expenses and/or incomes may not break evenly across the cut-off date. For example, some S&T subscriptions were received late December, but the order went out early January.)		
ACCOUNT BALANCES as of 12/31/2005		
	CD 1	5,000.00
	CD 2	5,000.00
	CD 3 (Observ. Fund)	3,000.00
	Checking	6,079.28
	PayPal	201.13
	Savings (Gregory)	402.37
	Petty Cash	56.45
TOTAL		19,739.23

Auction XXVI

Mike Koop

It's spring, and time for the annual migration of astronomical paraphernalia from one garage to another! On Sunday, April 9, 2006, an astronomical auction and swap meet will be conducted at Hogue Park in San Jose, sponsored by the San Jose Astronomical Association. The SJAA Auction is a great opportunity for beginners to purchase their first telescope at a great price! Experienced observers often find equipment they need for their next observing project, from OIII filters to finders to star charts. All kinds of interesting items are found in the auction.

It's an even year, so Kevin Medlock will be our auctioneer. Those who have observed his performance in previous auctions have learned to appreciate his skillful evaluation of classical astronomical items on the spot. Great entertainment for all!

Doors open at 11:30 am to register material for the auction. All material must be registered by 12:30 p.m. to allow sufficient time to enter the items into the computer and to allow bidders time to view the auction material. Over the years, we have discovered that the maximum number of items we can sell before the audience gets restless is about 100. Please limit yourself to four items maximum for the auction. In order to reserve your spot in the auction, please preregister your items so that people know what you are bringing as

described below. The club reserves the right to accept only appropriate material for the auction.

The auction will begin at 1 p.m., and will run as long as needed. Seller may specify a minimum bid, which if not met, will return the item back to the seller with no commission applied. After the auction, buyers and sellers settle up using one check to (or from) SJAA and claim their items. Seller pays 10% commission, with a cap of \$50 for any one item. We do not handle charge cards. There is no fee for bidder cards.

After the auction, material for the swap meet will be allowed into the hall, about 3 p.m. The swap also allows people some additional haggling time for those items that were optimistically priced by the seller in the auction, or to sell those odds and ends items which were better off being in a swap, or turned away due to the 100 item auction limit. Sellers are encouraged to bring items that would interest the astronomical audience such as astronomical, science, computer, or tech items. Joe Sunseri of Earth and Sky Adventure Products will be there with many fine new and used items, including eyepieces, finders, and binoculars. At the swap, each buyer pays the seller. Sellers are to keep track of their sales, and pay a 10% commission, as for the auction. There are no table fees. All commissions from the auction and the swap are tax-deductible, as SJAA is a

501(c)(3) educational organization.

The SJAA offers free advertising if you preregister your items for the auction. Please email the auction team at auction@sjaa.net with a description of the item and a picture if possible. All items submitted by 6 PM on Saturday, April 8th will be added to the auction website. This allows the bidders to find out how much that APO scope is really worth, so you will be more likely to sell it.

Part of running a successful auction is to make sure that there are people who are new to astronomy in attendance. We can use your help to make this so! Go to the auction website linked off the main page, download, and print a auction poster to display. Post them at the bulletin boards at work, at church, at your local library, or where you think people might be interested. Hand it out to a friend who has expressed interest in getting a telescope. You get the idea! Thanks for your assistance!

For more about SJAA, visit our web site at <http://www.sjaa.net> or email to the above address. See you there!

Hogue Park is located at Twilight Drive and White Oaks Road in San Jose — close to the Hwy. 85 exit for Bascom Avenue. Detailed directions to Hogue Park are at <http://www.sjaa.net/directions.html>.

SJAA Yosemite Public Star Party 2006

Jim Van Nuland

The annual SJAA Yosemite star party will be held on July 21 and 22, at Glacier Point in Yosemite National Park. Up to 30 people will be given free admission and camping, in exchange for two public events on Friday and Saturday evenings. The rest of the time we can be tourists.

We are expected to have at least one

scope per two people, and to attend both star parties.

The camping is rough by modern standards: no dining room, no showers, no hot water. Read about it on my Yosemite page at <http://www.svpal.org/~jvn/yosemite.htm>, or contact me with questions. If you can tolerate

the limitations, tell me the number of people you'll have, and the number of scopes that will be set up for the public. E-mail me at jvn@svpal.org, or phone 408-371-1307 10 a.m. to 10 p.m. Priority is given to SJAA members.

The new moon is on July 23, so this is an ideal date.

Ron Marzke to talk on April 26, 2006 at 7 p.m.

Andrew Fraknoi

Astronomer Ron Marzke of San Francisco State University will give a non-technical, illustrated talk on: News from the Distant Past: How Galaxies Tell Their Stories

in the Smithwick Theater, Foothill College,
El Monte Road and Freeway 280,
Los Altos Hills, California.



Dr. Marzke will discuss how astronomers are taking advantage of the “time machine” built into the travel time of light in the universe to understand how galaxies like our own Milky Way formed and evolved.

Light from distant galaxies can take billions of years to reach our telescopes. But when the light finally arrives, it brings us news of ancient cosmic events as they unfold. Dr. Marzke is part of a team of astronomers who have recently found major surprises in the light of galaxies from far away and long ago. In particular, they discovered a surprisingly large population of massive galaxies which were already fully assembled when the universe was less than half its current age.

Dr. Marzke is an associate professor in the Department of Physics and Astronomy at San Francisco State. He specializes in measurements of the structure of galaxies and the stars they contain, as well as the large-scale distribution of the galaxies.

He is a member of the Gemini Deep-Deep Survey team, which is probing the history of galaxies. The series is co-sponsored by NASA Ames Research Center, Foothill College Astronomy Program, SETI Institute, and the Astronomical Society of Pacific.

Solar System Stats for April 2006

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	23 ^h 06 ^m	21 ^h 46 ^m	5 ^h 27 ^m	15 ^h 02 ^m	8 ^h 27 ^m	22 ^h 56 ^m	21 ^h 26 ^m	0 ^h 41 ^m
	11	23 ^h 39 ^m	22 ^h 28 ^m	5 ^h 52 ^m	14 ^h 59 ^m	8 ^h 27 ^m	22 ^h 58 ^m	21 ^h 27 ^m	1 ^h 17 ^m
	21	0 ^h 27 ^m	23 ^h 10 ^m	6 ^h 17 ^m	14 ^h 54 ^m	8 ^h 28 ^m	23 ^h 00 ^m	21 ^h 28 ^m	1 ^h 54 ^m
Dec	1	-6°36'	-12°17'	24°56'	-15°49'	19°54'	-7°37'	-15°17'	4°22'
	11	-4°39'	-9°29'	25°06'	-15°33'	19°54'	-7°26'	-15°13'	8°09'
	21	-0°04'	-6°06'	25°00'	-15°13'	19°52'	-7°15'	-15°09'	11°42'
Dist	1	0.76	0.73	1.65	4.59	8.68	20.95	30.66	0.999
	11	0.91	0.81	1.74	4.51	8.84	20.86	30.52	1.002
	21	1.05	0.89	1.83	4.45	9.00	20.75	30.36	1.005
Mag	1	0.6	-4.2	1.2	-2.4	0.1	5.9	8.0	
	11	0.2	-4.1	1.3	-2.4	0.2	5.9	7.9	
	21	0.0	-4.0	1.4	-2.5	0.2	5.9	7.9	
Size	1	8.8''	22.8''	5.7''	42.9''	19.2''	3.3''	2.2''	32'01''
	11	7.4''	20.6''	5.4''	43.7''	18.8''	3.4''	2.2''	31'55''
	21	6.4''	18.8''	5.1''	44.3''	18.5''	3.4''	2.2''	31'50''

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Publication Statement

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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
6	8" Celestron S/C	Karthik Ramamurthy
7	12.5" Dobson	Tom Fredrickson
8	14" Dobson	Colm McGinley
10	Star Spectroscope	Jim Albers
11	Orion XT6 Dob	Ravi Shankar Erram
14	8" f/8.5 Dob	Colm McGinley
15	8" f/9 Dobson	Mike Koop
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
33	10" Deep Space Explorer	Jack Zeiders
34	Dynamax 8" S/C	Yuan-Tung Chin
36	Celestron 8" f/6 Skyhopper	Charles Santori
38	Meade 4.5" Digital Newt	Tej Kohli
39	17" Dobson	Steve Nelson
41	18" Sky Designs Dob	Len Bradley
42	11x80 Binoculars	Ritesh Vishwakarma
43	Orion XT4.5 Dob	Gary Mitchell

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
12	Orion XT8 Dob	Judy Arauz	3/17/06
35	Meade 8" Equatorial	Mike Horzewski	4/20/06
37	4" Fluorite Refractor	Peter Young	5/11/06
40	Super C8+	Bill Kerns	4/20/06
44	4.5" Skyview/ P Mount	Mantle Yu	5/03/06

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	?
9	C-11 Compustar	Bill Maney	Indefinite
13	Orion XT6 Dob	Rajiv Vora	04/20/06
16	Solar Scope	Ken Frank	05/13/06
21	10" Dobson	Michael Dajewski	Repair

Waiting list:

(lots of scopes available!!!)

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 — \$20
- Regular with Sky & Telescope — \$53
- Junior (under 18) — \$10
- Junior with Sky & Telescope — \$43

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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