

# SJAA EPHEMERIS

## SJAA Celebrates 50 Years



In this photo are three SJAA stalwarts. On the left is Bob Fingerhut, a former SJAA president, vice-president and treasurer. In the center is Jack Zeiders. He invented the beginner's all-purpose astronomy class. He is also a former president and a former editor of the Ephemeris. On the right is the oldest member of the club, John Delaney, who has been a member continuously. He is one of the seven who signed the articles of incorporation in 1955. John says that he's probably held each of the SJAA offices.

On December 18, 2004, the SJAA celebrated its 50th anniversary. Several of the long time club members were present and talked about the (good and otherwise) old days. Mike Koop gave a presentation that served to highlight the different eras and create a bridge from one decade to another. The meeting was recorded and it may soon be available as a DVD.

The meeting was also the traditional holiday general meeting which meant there was a lot to eat and a white elephant gift exchange was held.

A special treat was a CD of the SJAA Ephemeris Archive – 50 years of this publication (although the name Ephemeris came later). Mike Koop says that there will be further articles on the history of the SJAA.

The pictures will hopefully tell the story in more detail. All photos in this issue are by Paul Kohlmeier unless otherwise noted.

*Continued on page 2*

### SJAA Activities Calendar

Jim Van Nuland

#### February

- 4** Houge Park star party. Sunset 5:36 p.m., 17% moon rise 4:36 a.m. Star party hours: 7:00 p.m. to 10:00 p.m.
- 4** Astronomy class at Houge Park. 7:30 p.m.
- 5** Dark sky weekend. Sunset 5:37 p.m., 9% moon rise 5:42 a.m.
- 12** Dark sky weekend. Sunset 5:45 p.m., 23% moon sets 10:23 p.m.
- 18** Houge Park star party. Sunset 5:51 p.m., 81% moon sets 4:27 a.m. Star party hours: 7:00 p.m. to 10:00 p.m.
- 19** ATM Class at Houge Park. 7:30 p.m.
- 26** **General meeting.** Scott Sanford to discuss Project Stardust. 8 p.m.

#### March

- 3** ATM class at Houge Park. 7:30 p.m.
- 4** Houge Park star party. Sunset 6:05 p.m., 31% moon rise 3:27 a.m. Star party hours: 7:00 to 10:00 p.m.
- 5** Dark sky weekend. Sunset 6:06 p.m., 20% moon rise 4:24 a.m.
- 12** Dark sky weekend. Sunset 6:13 p.m., 10% moon sets 9:09 p.m.
- 18** Astronomy class at Houge Park. 7:30 p.m.
- 18** Houge Park star party. Sunset 6:18 p.m., 63% moon sets 3:09 a.m. Star party hours: 7:30 to 10:30 p.m.
- 19** ATM class at Houge Park. 7:30 p.m.
- 26** **General meeting.** 8 p.m.
- 31** ATM Class at Houge Park. 7:30 p.m.

The Board of Directors meets at 6:30 p.m. preceding each general meeting. All are welcome.

**24 hour news and information hotline: (408) 559-1221**  
<http://www.sjaa.net>



*The participants in the White Elephant exchange gather around hoping to get a nice present. All the while they know what a loser gift they submitted. The exchange is a standard feature of the December general meeting at SJAA.*



*One of our illustrious regular columnists, Akkana Peck, demonstrates the Shallow Sky method (rattle testing?) for determining the best available "gift" during the traditional White Elephant gift exchange at the December meeting.*



*Jim Van Nuland and John Delaney discuss the earliest days of the San Jose Astronomical Association. There's a lot of institutional memory depicted in this photograph.*

## Twin Giants

Akkana Peck

Saturn dominates the night sky in February, rising well before sunset, so it's high in the sky all evening. It shows a ring tilt of about twenty-three degrees to us, still quite generous.

As I write this, the Huygens probe is still descending toward Titan, and we don't yet know what lies on Titan's surface. But you should know by the time you read this! Perhaps it will add to your observing sessions, watching Saturn's brightest moon and thinking about what the probe found.

Mars, too, is near the sun, but its small five-arcsecond disk can be spotted during morning twilight. On February 8th, it passes a little over half a degree north of the Lagoon nebula, which should make a nice wide field sight for early morning observers.

***“Comet Machholz is a lovely comet in photos, with two well-defined tails, and the coma is bright enough to be easily visible in binoculars even from light polluted locations.”***

And don't forget Comet C/2004 Q2, Machholz! It's past closest approach, but it should still be easily visible, even from fairly light-polluted skies, if it keeps performing as well as it has so far. It's a

lovely comet in photos, with two well-defined tails, and the coma is bright

## 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.

enough to be easily visible in binoculars even from light polluted locations. From a dark sky, if you can get a clear night, it should be a killer!

Jupiter joins Saturn later in the evening, rising a few hours before midnight. It won't get as high as it did last year: this month, its maximum transit altitude is only 46 degrees. “Maximum transit altitude” -- what's that? That means that when it's due south, as high as it's going to get before it begins its descent toward the western horizon, it will be only 46 degrees above the horizon. That's high enough to be mostly out of the mucky layers near the ground, but not quite high enough to give the sharp high-magnification views that planetary observers love so much. It is high enough, though, that you should have no trouble seeing some of the details of Jupiter's stormy atmosphere ... that is, if they aren't blocked from view by our own stormy atmosphere!

Mercury, Venus, Uranus, Neptune, and Pluto are all lost in the sun's glare most of this month, though ambitious observers might want to try spotting Mercury in evening twilight during the last few days of February.



Don Machholz gave the talk at the November meeting of the SJAA. He covered all of his cometary discoveries and related them to the music he was listening to at the time.



## Bare Mooning

Dave North

Okay, so you got a new telescope and joined the club hoping specifically to get all kinds of information on how to observe the Moon with it because you heard about this wacko who writes a column?

Tough.

Your new telescope won't help you this month. You're going to have to suffer along with me.

I haven't seen the Moon through a telescope (or any other optical device) all month. Christmas preparation, visits to relatives, weather (the worst!) and even New Year's Eve conspired to make it Just Not Happen.

Nevertheless, I have seen the Moon several times this month.

What did I see? More to the point, what can you see?

Well, the phase of course.

All the major Maria are obvious: Crisium, Nectaris, Tranquilitatis, Fecunditatis, Frigoris, Meridiani,

Imbrium, Nubium, Humorum ... no problem. Oceanus Procellarum is hardly a challenge.

Sinus Iridum is a cinch, cutting a cookie out of the Caucasus Mountains.

Speaking of mountains, you can sometimes even see the shadow line of the greater ranges such as the Apennines. Keep a sharp eye out for that kind of thing!

With some experience you can judge the libration to a fairly accurate degree. I can't, but you can ...

In favorable light you can pick up some of the enormous craters. Clavius and Grimaldi are not all that hard, and some of the others can be downright easy with the right light. Picking up the notch of Ptolemaeus isn't all that hard.

Fairly often the dark Plato makes a doable target in the wall of Imbrium. I have managed to spot Copernicus unaided, with more than a little trouble. Your eyes may vary.

But no matter who you are, you can

even pick out some medium and small craters at the right time: near full Moon.

When the light is high and the rays stand out, Tycho is downright blinding at the center of its web of rays.

Even smaller, Aristarchus can be a bright point in high light, and even tiny Proclus gets easy to spot by following its rays back to their source.

Of course you can see eclipses, but for such a special event you really want to use binoculars. (It's all about color and major shapes – there just isn't much detail with no shadows and weak light).

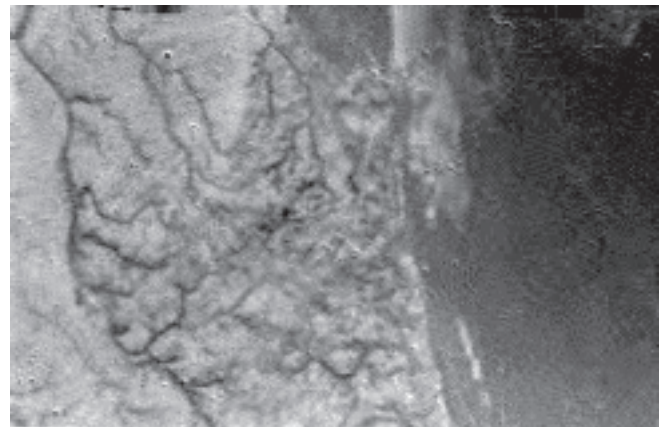
And last (and probably least) you can trace out the Giant Rabbit, the Man In the Moon, or whatever fantastic shape you want to make of the markings (personally I see the rabbit more easily than the man).

But if you get a chance, use a telescope. If you haven't seen the Moon through one yet, you are not going to need any advice from me to appreciate what you're going to see.

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## Huygens Lands On Titan

For the first time in human history, a spacecraft has landed on a moon of another planet besides our own. On January 14, 2005, the Huygens probe descended through the constant clouded shroud of Titan and returned photos that will be analyzed for months to come. The transit through the Titanian atmosphere took more than 2 hours. After landing, the spacecraft continued to transmit data for 90 minutes. The probe only had enough power to transmit data for about 7 hours so no more information from the probe will be returned. However, there may be more information that was sent by the probe to the Cassini spacecraft. This information will be sent to earth in the next few days if it hasn't already. A sweeping panorama image was released on January 15 but the image was still being cleaned up as we went to the printers. The Huygens portion of the Cassini mission is a joint project of the ESA and the Italian Space Agency.



*This picture, taken during the Huygens probe's descent, shows what may be channels of some liquid flowing into a large liquid body. Photo Courtesy of NASA/JPL-Caltech.*

## Sky and Telescope Renewals

Rob Hawley

The club offers discounts to Sky and Telescope as a benefit of membership. Normally the anniversary date of the subscription is near the anniversary of your membership.

During December S&T sent renewal notices for members whose subscriptions expired in June 05. This is well in advance of what is required; however, it highlights a problem that the renewal cannot occur at the last moment.

The club will begin sending emails to members with subscriptions two months ahead of their expiration months (e.g. we are notifying members whose expiration is at the end of March in early January). That is enough time to process your renewal to S&T to keep the subscription current.

If you get a notice from S&T to renew you should consider renewing your club membership at that time. We would appreciate seeing the form as that will make sure we know your subscription anniversary. Also the postage paid envelope will allow the club to save some money. We are working on renewing using the website and will make an announcement when that is ready.

Sky Pub unfortunately does not offer multiple year club subscriptions. Still the club rate is lower than the 3 year public rate.

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## *SJAA February General Meeting*

### Scott Sandford to speak about Stardust – February 26, 2005

Bob Havner

Six years ago, on February 7th 1999, the Stardust spacecraft was launched. Beginning its 7-year mission to rendezvous with Comet Wild 2 and return particles back to earth. On June 14, 2003 Scott Sandford spoke to the SJAA about the Stardust Mission, the spacecraft, the experiments, and the mission goals. Since then, on January 2, 2004, the Stardust spacecraft successfully encountered Comet Wild 2, collected samples, and is now on the return voyage to Earth. At the February SJAA meeting Scott Sandford is returning to give a mission update including the latest mission images and findings.

For more information, check out the Ephemeris article on Project Stardust at <http://ephemeris.sjaa.net/0402/a.html>.

### Who is Venetia Burney?

Mary Kohlmeier

*"I'll take Planetary Discoveries for \$1000."*

*"The answer is: The 11-year old girl who named Pluto."*



If your response matches the headline of this story, you're a winner.

Venetia Burney is the 11-year-old English girl from Oxford who named the planet Pluto after a Roman god. Pluto was the god of the underworld, a place perhaps as dark as the planet. The Greek name was Hades. Young miss Burney knew this and also knew that the first two letters would be a reminder of Percival Lowell, the person who started and funded the search for the mysterious Planet X. The Walt Disney cartoon character of the same name was created in the same year but that is apparently a coincidence.

February 18th is the 75th anniversary of the discovery of Pluto. Numerous astronomers had been searching for what was known as Planet X. Percival Lowell, from a wealthy Massachusetts family, had dedicated himself to finding the mysterious Planet X since the 1890s. Other astronomers also suspected that a ninth planet existed beyond Neptune and Uranus. Percival Lowell started a comprehensive photographic search for the planet in 1905. Between 1914 and 1916, nearly 1,000 images were made with a telescope. The astronomers also began



Marc McCutcheon wrote the book "The Kid Who Named Pluto" which contains other interesting stories of children making scientific contributions.

*Continued on page 6*

Continued from page 5

to use a blink comparator, a device that helps detect tiny changes in photographs taken of the same region of sky.

In a 1991 interview Clyde Tombaugh, the discoverer of Pluto, described that time in his life.

"It was the drawings I made of the markings on Mars and Jupiter with that telescope that I sent to the Lowell Observatory in 1928. That impressed them favorably so that they invited me to come out for a trial work with the new telescope at Flagstaff. That was a big break.

"What you do (when drawing planets) is, you have your drawing board and a

pencil in hand at the telescope. You look in and you make some markings on the paper and you look in again. Back and forth, many, many times, so as to get the stuff in the right proportion, the right intensity. It takes about a half-hour to make a good drawing that way. When the temperature is freezing, it's a bit hard on your fingers, but I was interested in putting down what I saw. And that's what paid off.

"At that time the Lowell Observatory was the only planetary observatory in the country, and I was particularly interested in planets at that time, and so I thought I would just like to see what they thought of them. The planets are never the same twice, they're always different, so they could compare the markings I had drawn with their

current photographs and they knew that I was drawing what I was really seeing and it wasn't copied from somewhere.

"They realized that I was careful, I saw well, and so on, and they thought I would be a good candidate to run this new photographic telescope they were installing. I was invited to come out on three months' trial and stayed 14 years."

References:

<http://www.achievement.org/autodoc/page/tom0int-1> - a 1991 interview

Douglas Harvey, Department of History, University of Kansas. "Planetary Man", <http://www.kuhistory.com/proto/story.asp?id=46>

## Solar System Stats for February 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
<b>RA</b>	1	20 <sup>h</sup> 22 <sup>m</sup>	20 <sup>h</sup> 00 <sup>m</sup>	17 <sup>h</sup> 42 <sup>m</sup>	13 <sup>h</sup> 12 <sup>m</sup>	7 <sup>h</sup> 37 <sup>m</sup>	22 <sup>h</sup> 30 <sup>m</sup>	21 <sup>h</sup> 10 <sup>m</sup>	20 <sup>h</sup> 58 <sup>m</sup>
	11	21 <sup>h</sup> 31 <sup>m</sup>	20 <sup>h</sup> 52 <sup>m</sup>	18 <sup>h</sup> 13 <sup>m</sup>	13 <sup>h</sup> 11 <sup>m</sup>	7 <sup>h</sup> 34 <sup>m</sup>	22 <sup>h</sup> 32 <sup>m</sup>	21 <sup>h</sup> 11 <sup>m</sup>	21 <sup>h</sup> 39 <sup>m</sup>
	21	22 <sup>h</sup> 40 <sup>m</sup>	21 <sup>h</sup> 43 <sup>m</sup>	18 <sup>h</sup> 44 <sup>m</sup>	13 <sup>h</sup> 10 <sup>m</sup>	7 <sup>h</sup> 31 <sup>m</sup>	22 <sup>h</sup> 34 <sup>m</sup>	21 <sup>h</sup> 13 <sup>m</sup>	22 <sup>h</sup> 17 <sup>m</sup>
<b>Dec.</b>	1	-21°20'	-21°08'	-23°35'	-6°03'	+21°37'	-10°14'	-16°27'	-17°09'
	11	-16°54'	-18°30'	-23°45'	-5°57'	+21°45'	-10°02'	-16°21'	-14°05'
	21	-10°06'	-15°00'	-23°32'	-5°45'	+21°52'	-9°49'	-16°14'	-10°37'
<b>Dist (AU)</b>	1	1.40	1.64	2.04	4.99	8.13	20.96	31.05	0.985
	11	1.40	1.66	1.96	4.85	8.20	21.02	31.04	0.987
	21	1.33	1.68	1.89	4.72	8.30	21.05	31.01	0.989
<b>Mag</b>	1	-0.7	-3.8	1.4	-2.2	-0.3	5.9	8.0	
	11	-1.3	-3.8	1.3	-2.2	-0.2	5.9	8.0	
	21	-1.5	-3.8	1.2	-2.3	-0.2	5.9	8.0	
<b>Size</b>	1	4.8"	10.2"	4.6"	39.5"	20.4"	3.3"	2.2"	32'28"
	11	4.8"	10.0"	4.8"	40.6"	20.2"	3.3"	2.2"	32'25"
	21	5.0"	9.9"	5.0"	41.7"	19.9"	3.3"	2.2"	32'21"

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### Publication Statement

SJAA Ephemeris, newsletter of the San Jose Astronomical Association, is published monthly.

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

### Submit

Submit articles for publication in the SJAA Ephemeris. Send articles to the editors via e-mail to [ephemeris@sjaa.net](mailto: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](mailto: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
8	14" Dobson	Jan Lynch
14	8" f/8.5 Dob	Colm McGinley
16	Solar Scope	Bob Havner
19	6" Newt/P Mount	Daryn Baker
23	6" Newt/P Mount	Wei Cheng
24	60mm Refractor	Al Kestler
27	13" Dobson	Steve Houlihan
32	6" f/7 Dobson	Sandy Mohan
34	Dynamax 8" S/C	Yuan-Tung Chin
38	Meade 4.5" Digital Newt	Tej Kohli
40	Super C8+	Mike Macedo

### 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
10	Star Spectroscope	Jim Albers	3/18/05
11	Orion XT6 Dob	John Durant	4/12/05
13	Orion XT6 Dob	Ravinder Pal Singh	4/14/05
36	Celestron 8" f/6 Skyhopper	Saman Behjat	2/28/05

### 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	4/8/05
9	C-11 Compustar	Bill Maney	Indefinite
12	Orion XT8 Dob	Mike Koop	Transit
15	8" Dobson	Scott Pelger	2/5/05
21	10" Dobson	Michael Dajewski	Repair
26	11" Dobson	Vivek Kumar	2/10/05
28	13" Dobson	Anupam Dalal	2/1/05
29	C8, Astrophotography	Mark Ziebarth	3/10/05
33	10" Deep Space Explorer	Ion Coman	4/22/05
35	Meade 8" Equatorial	Mike Koop	Repair
37	4" Fluorite Refractor	Steve Sergeant	4/15/05
39	17" Dobson	Rob Hawley	2/28/05
41	18" Sky Designs Dob	Len Bradley	2/12/05
42	11x80 Binoculars	Ritesh Vishwakarma	2/10/05

### Waiting list:

37	4" Fluorite Refractor	Bob Leitch
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## San Jose Astronomical Association Membership Form

**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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