

# SJAA EPHEMERIS

## SJAA Annual Auction A Stellar Success

Dan Wright

Our annual Auction and Swap Meet on April 4, 2004 was a great success. A wide variety of valuable items traded hands, substantial funds were raised for the club, and the affair proceeded smoothly and was a pleasure to attend.

Mike Koop and other volunteers worked Saturday until midnight preparing and setting up. Sunday morning saw Jim Van Nuland and Gary Mitchell sitting bright-eyed behind the registration desk ready to handle any complexity. The public milled around tables covered with glittering eyepieces,

CCD cameras, finder scopes, tube rings, books, posters, software, framed prints, etc. Scopes and mounts of many types stood assembled in rows waiting their turn on the auction block.

President Koop called the room to order, and auctioneer Kevin Medlock asked who in the audience felt ready to begin bidding. Karin Sunseri's dog spoke up from the back with an enthusiastic "Bark!", and after a hearty round of laughter we were off to the races.

The Auctioneer carried himself from

item to item with the comfortable and assured manner of a master craftsman, knowing and appreciating everything he saw. Having examined an item briefly, he would sum up its specifications and attributes, then with a crafty smile he would build a positive spin on it, continuing until even the most humble used telescope seemed newly blessed with virtues (including "cuteness").

He introduced quick humor into the dialog and motivated the audience to respond in kind. When he remarked that an object's poster image looked much better, for some reason, than his scope ever showed the object, a person called out, "then you need the Meade 6" achromat!" (a scope that hadn't sold a moment before). When someone requested that Kevin read an item's small print "for us old guys", Kevin began squinting indecisively at it himself. If anyone got into a bidding war he would suggest they take their duel outside ("counter-weights at twenty paces"). Several people succeeded in getting a general laugh from the room. Humor, and the smart pace Kevin set, allowed the time to pass comfortably.

The first item auctioned was a large framed print of astrophotographer Robert Gendler's gorgeous Orion Deep-field Panorama (<http://www.skyimagelab.com/orion-deepfield.html>). Robert donated the royalties and Sky Image Labs produced the print for SJAA's benefit.

This year John Gleason's "Astro Photo Surprise" went to high-bidding Bob

*Continued on next page*

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

<http://www.sjaa.net>



Clockwise from top left – Kevin Medlock was our auctioneer extraordinaire; Jim Van Nuland had this all down to a science; sellers prepared their equipment; pictures and posters generated ooo's and ahh's. Photos courtesy of Dan Wright and Paul Kohlmiller.

Continued from page 1

Czerwinski, who kindly agreed to open the tube and reveal the treasure inside: a stunning photo of the North American Nebula. There was a nice round of applause for the photo, and for Bob's sharing it.

Several organizations and individuals made generous donations, for which SJAA is very grateful. In particular:

Sam Swiess and Scope City: OIII and H-Beta filters, posters, software, calendars, etc.

\$473

John Hatta: books

\$123

Sky Image Labs: framed prints

\$445

John Gleason: Astro Photo Surprise!

\$120

Darwin Poulos: C-90

\$90

After the auction, Kevin accepted a round of applause and a framed image of the Hubble Deep-field (donated by Sky Image Labs) as a thank you. An orderly line formed at the check-out desk, and people began unpacking for the swap meet. Tables were soon covered with goods of all description, and vendors and individuals bartered and haggled. I purchased two 30mm Plossels from Earth and Sky Adventures, and discovered later that these show fine high-contrast views in my binoviewers.

## 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.

Check-out at the registration desk went thusly: JVN used his tried-and-true dot matrix to produce your printout, whereon was faithfully listed all items you had bought or sold, and one bottom-line figure for settling up with SJAA – what you owed or what they owed you. If they owed, you could get Treasurer Gary's autograph on a check from SJAA. Next you proceeded to the claim table where President Koop handed over your newly-purchased items. It was all done without delay and with very few glitches.

Overall, 101 items were offered for auction (89 unique), of which 83 were sold. 80 buyers and sellers registered, of which 44 actually bought or sold. Auction sales totaled \$4561, and the net for SJAA was \$1630. In addition, our Treasurer reported \$196 from the swap meet and \$33 from soda sales, plus some small donations, for a grand total of \$1870.

SJAA hereby thanks all who donated, bought or sold, with special thanks to those whose hard work made the event run so well.

## You Can And Cannot See

Dave North

In my continuing habit of keeping SJAA members informed of the various neat Moon Things We Can't See, the first of two total lunar eclipses We Can't See will take place May 4. And yeah, I mean the next one will also be invisible to us.

And you have to go to Europe to see all of next month's Venus transit, though people in the eastern half of the US will see something. For us? Nothing.

The good news is the Moon is expected to make an appearance in May with the first quarter viewing still quite good (high elevations).

Lacking anything important to say, I'll instead mention the Moon segment of the Beginning Astronomy Class: several people managed to stay awake throughout, certainly not due to the scintillation of the speaker but more probably because they were sugar-fueled by M&Ms (Moon Marathon) carrying forward a tradition started by Don Machholtz at his recent and wonderful club talk on the Messier Marathon.

**Important Digression:** For some years now we've been plagued by the Missing Rukl Atlas. Sky & Telescope (Sky Publications) "took over" the publication of this Extremely Useful – one might say The Standard – reference some years back and celebrated the acquisition by letting it go out of print.

This was back when Mammoths still walked the earth, and there's an annual promise to reissue that frankly, nobody believes any more.

Prove me wrong, Skypubs!

It does leave me, however, with the problem of recommending a book You

Can't Get. As an alternative I've often recommended drawing your own maps, which is probably better than anything available anyway (even Rukl).

Why?

Because they're hard to read because of all the 'stuff' on them!

When you're first starting out, just learning a few signposts and spotting some easy but nifty objects is best. Some maps are spread out over a

million pages (Rukl) and others use ill-organized reference numbers and lists of undescribed features or tiny type with millions of obscure and meaningless names everywhere.

Who needs that?

Sometimes I think the current miasma of Moon maps is one of the reasons more people don't know their way around up there.

But who (other than me?) ever got around to making their own charts? Not very many people.

So finally I made a template, published at <http://timocharis.com/astro/moonmap/> where you'll find a jpeg, png or pdf versions. I've already stuck some suggested "starter items" on it primarily with the idea of giving you some landmarks to go by.

Using this or a similar map, you can look at web references, globes, other maps or tea leaves to arrive at a viewing plan for the evening and mark only those things you really want to find.

This makes it a lot easier to navigate at the eyepiece, especially for the beginner.

I'm certain someone else out there could do a much better job and perhaps even have the good taste to not stick any labels at all on it, so if you do please send me the URL and I'll forward it to the membership.

Of course, once you have a master page you can copy it endlessly for each evening you plan to observe. If you use one per lunation, you'll end up with a record of what you looked for that month.

I'm sure you get the idea. I highly recommend giving it a shot.

In other news, I decided to get around to reading John Westfall's "Atlas Of The Lunar Terminator" after staring at it for over a year.

I've been avoiding it because the photographs are, for the most part, inferior by today's standards and the prose about as interesting as my own.

But there was a method to his madness: the actual atlas shots are all author-shot CCD images showing various terminator positions.

For the purposes of the book (to show what's up there and how it sorta looks) they are quite good, and the author's style turns out to be well-suited to introducing the reader to lunar observation in various states and times of the lunation.

It's sort of a well thought-out update of Cherrington's "Exploring The Moon..." and really is a pretty good primer.

I would caution that the atlas images are actually feeble compared to what's visible in most amateur scopes, so don't think that's all you can see.

The upside, of course, is for once you actually can see more than expected.

## Churning Whitecaps

Akkana Peck

Last month I offered an introduction to Jupiter observing. I hope by now you've had a chance to see the major bands, the satellites and their shadows, and maybe the GSfkaR (the Great Spot Formerly Known as Red). But what more can you see there?

Wait for a night of steady seeing, and crank up the magnification (over 200x, or higher if you can), pull up a chair so you're comfortable at the eyepiece, and you'll see a great deal more! Let's start with that red spot, the GRS. Dangit, it's not red, right? But don't be disappointed by the color; instead, take a close look at the area where the SEB (that's the southern equatorial band, if you missed last month's column) rejoins after splitting around the spot. The spot itself is a swirling maelstrom of a cyclone, and it stirs up the atmosphere around it and causes a huge zone of turbulence in its wake. Think of the churned-up whitecaps swirling around behind the propeller of a speedboat – only what's being churned are the red and white bands of Jupiter's atmosphere, and that means you can see the churning with a telescope. For a sample of what it looks like, look at the June 1999 Hubble image, <http://hubblesite.org/newscenter/newsdesk/archive/releases/1999/29/image/b>

See all the red and white swirls behind the GRS? You can actually see those in your telescope, on a night when the atmosphere is steady. Try sketching what you see – don't worry whether it has artistic merit, because the point is to focus your attention on the details you're seeing, which in turn will help your mind train your eye to see more

detail.

Want some other challenging Jovian targets? Look for festoons – long dark streamers (some people see them as blue) sweeping from the north or south equatorial bands into the pale equatorial zone. You can see some excellent examples of festoons in that Hubble image, coming off the NEB just above the GRS (remember, the spot is in the south, so the NEB is the band that doesn't have the spot in it). Festoons change over a period of a few weeks, so you can watch them appear, disappear, or lengthen if you watch Jupiter

regularly. While you're looking at the light equatorial zone, look for the thin, dark equatorial band (EB). It's much subtler and harder to see than the NEB

and SEB, and it's a good target as you learn to look for subtle detail on Jupiter. You may also see smaller features in the NEB and SEB, such as the small dark spots, probably cooler areas of cloud, called "barges", and the white ovals which appear, migrate, and merge.

Uranus, Neptune, and Pluto are in the morning sky – visible to the late-night owl or the early riser. Saturn and Mars hang low in the west in early evening. They're still visible throughout the month, but look now – they'll be harder to see next month. On the 24th, Saturn and Mars pass within a couple of degrees of each other.

Venus is even lower, a change after its

high pass over the past month – but now is actually an excellent time to catch Venus because throughout the month it will shrink to a thin crescent and meanwhile it will grow in size as it draws closer to us. Take a look every few days, and you'll see its size and phase change, even in the smallest telescope.

Finally, although the event won't happen until June 8, it's worth mentioning Venus' upcoming transit of the sun. Why? Because it won't be visible here – but a Venus transit is an exceedingly rare event, and some dedicated planet-watchers may want to schedule a vacation during this time. (How rare? The last Venus transit took place in 1882; the next one will happen in 2012, and after that there won't be another one until 2117.) If you do travel for it, don't forget that you'll need a solar filter, if you don't already have one.

The transit happens at 2 am our time, which is why we won't see it – the sun won't be up. The path of visibility includes the eastern half of the US, where it will be already in progress at sunrise: the farther east you go, the longer you'll have between sunrise and when Venus' shadow exits the sun's disk. Going farther north helps, primarily because the length of the day increases (go above the arctic circle, and you get to see the whole thing!) and if you were contemplating a trip to Europe, Africa, Brazil, or Asia, those places all get excellent views (weather permitting, of course). For details, check out the map at <http://sunearth.gsfc.nasa.gov/eclipse/transit/venus/> – there's lots of other useful information about transits on that site as well.

Stay tuned next month, for more tips on transit viewing. And until then, there's plenty to keep you busy on Jupiter!



Photo from Hubble.

## The Glow of Creation

Mark Wagner

This month's observing program changes again, getting away from the two hour RA window and looking at a class of target, like we did last month with planetary nebulae. It is galaxy season, just before the rise of the Sagittarius arm of our galaxy begins to dominate the sky. So, let's look beyond our galaxy, at some of the active star forming regions like we see in our local Orion Nebula or other stellar nurseries, but visible as the faint glow of creation in other galaxies.

Thanks to local deep sky expert Steve Gottlieb for providing a list of the HII regions in external galaxies, noted in his observing logs. All but the first observations are from his notes.

NGC 4631 (RA 12 24 30.7 Dec -18 47 05, m 9.2, Surface Brightness (SB) 13.1, 15.5'x2.7') is in Canes Venatici near the border of Coma Berenices. This galaxy triggered my curiosity about HII regions in other galaxies. It is known as The Slug, which is probably not a name its residents would approve of (unless they are slugs). But a view I had in my 18" Obsession fascinated me – I took the scope up to 294X and confirmed small knots of blue, glowing in the dark lane of this spiral. The thought that I can see star forming regions, similar to the Orion Nebula, in another galaxy 22.5 million light years distant amazes me. It gave the view of this galaxy a distinctly 3-D appearance.

Move to Camelopardalis and check NGC 2366 (RA 07 28 55 Dec +69 12.57, m 11.1, SB 14.5, 8.1'x3.3'). In a 13" scope the galaxy "is fairly faint, very large, elongated 5:2 SW-NE, low almost even surface brightness. An unusually bright HII region is at the SW end of the galaxy (2' from the center) and appears as a "fuzzy" 12th magnitude star. Although very small it seems elongated SW-NE

and similar to a poorly resolved double star. Definite contrast gain with OIII filter."

Very nearby is NGC 2403 (RA 07 36 54 Dec +65 35.58, m 8.5, SB 14.4, 21.9'x12.3'). In a 17.5" scope it is "very bright, very large, bright core, elongated 5:2 NW-SE, 15'x6'. Impressive galaxy with spiral structure clearly visible. Two spiral arms are attached at opposite ends of the main body and both wind almost 180°. The tip of the northern arm ends at the emission nebula N2404. Several stars are superimposed including two mag 11 stars."

Known as Coddington's Nebula, IC 2574 (RA 10 28 43 Dec +68 24.03, m 10.0, SB --, 12.0'x4.0') is "faint, very large, elongated 5:2 SW-NE, 7.0'x2.5', low surface brightness, no concentration. Four faint stars are near

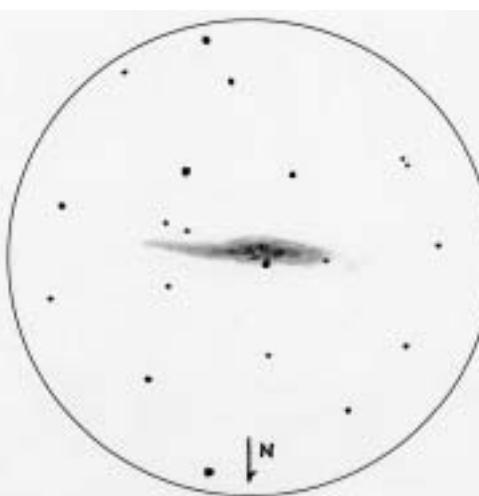
the N side. There is a fairly bright nonstellar HII region which is clearly visible at the NE end as a high surface brightness knot. Member of the M81 group."

Spiral galaxy NGC 4395 (RA 12 25 49 Dec +33 32.51, m 10.2, SB 15.4, 13.2'x11.0') in Canes Venatici is challenging. Steve writes "a chaotic galaxy dominated by several bright HII regions. At 100x, the large low surface brightness glow

is clearly clumpy with a couple of faint knots evident on the east side of the haze. At 220x, the glow of the galaxy is more difficult to view and several

nonstellar knots and a couple of very faint superimposed stars are more prominent."

***"The thought that I can see  
star forming regions,  
similar to the Orion  
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22.5 million light years  
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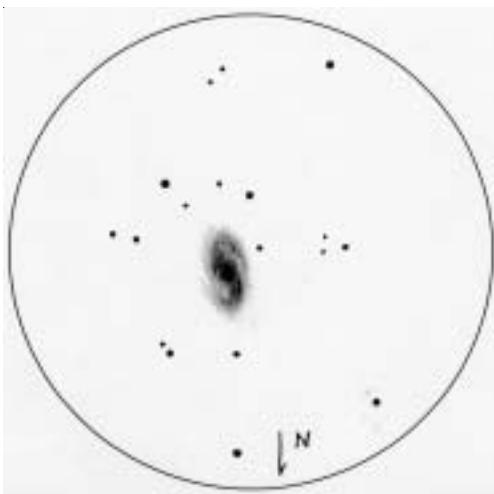
Object: NGC 4631  
Constellation: Canes Venatici  
Telescope: 10 in. F/14.6 Mak-CASS; Power: 120X  
Eyepiece: 31mm Nagler  
Sketched by: Peter Natscher; peter@natscher.com

One of my favorite galaxies is NGC 2903 in Leo (RA 09 32 10 Dec +21 30.02, m 9.0, SB 13.6, 12.6'x6.0') – it is easy to locate and shows nice detail. Its HII region is known as NGC 2905 and "is one of the brightest non-Messier galaxies. Very bright and large, elongated 5:2 SSW-NNE, 10'x4'. A very faint knot is involved on the NNE side 1.2' from center = N2905. An extremely faint knot is also symmetrically placed opposite the core on the SW end 1.2' from center. The galaxy has a dusty, mottled appearance with knots and arcs easily visible with averted vision."

NGC 3239 (RA 10 25 Dec +17 10, m 11.3, SB 14.2, 5.0'x3.3') is also in Leo. It has a "very unusual appearance as a mag 9 star (BD+17 2217) is superimposed on the south side. An unusually bright knot is following the bright star by 51"

*Continued on page 6*

on the SE side of the galaxy. This is possibly an offset nucleus or a close double star. The galaxy appears to extend to the west from this knot. The galaxy exhibits an irregular surface brightness with edges difficult to define



Object: NGC 2903

Constellation: Leo

Telescope: 20 in. F.4.3 Dob; Power 113X

Eyepiece: 19mm Panoptic

Sketched by: Peter Natscher; peter@natscher.com

as it fades into the background."

In Ursa Major NGC 3319 (RA 10 39 09 Dec +41 41.14, m 11.1, SB 14.2, 6.2'x3.4') is fairly faint in a 17.5" scope. "The brightest portion is a large bar with a knotty extension attached at the

SW end and extending on a right angle to the south." Compare notes from North bay observer Robert Leyland – "averted vision shows a couple of knots, one at each end. It is a good galaxy in a larger telescope, but a challenge in an 8 inch."

Moving to Canes Venatici, find NGC 4528 (M106, RA 12 18 57.5 Dec +47 18 15, m 8.4, SB 13.6, 18.6'x7.2'). "13 inch: bright, very large, bright core, substellar nucleus, mottling near core. A large bright knot is at end of the southern arm."

Also in Canes Venatici is NGC 4449 (RA 12 42 06.5 Dec +32 32 24, m 9.2, SB 13.1, 15.5'x2.7') – a bright elongated galaxy. "Knot is involved at the north end and the galaxy generally appears brighter to the north of the core."

I find it fun to look for what sets objects apart, and the glow of nebulae in distant galaxies is intriguing. You'll need some dark skies to hunt these down. The Shingletown Star Party would be a perfect place – check it out at <http://www.shingletownstarparty.org>.

Desig.	RA	Dec	Mag.	SB	Size
NGC 4631	12 24 30.7	-18 47 05	9.2	13.1	15.5'x2.7'
NGC 2366	07 28 55	+69 12.57	11.1	14.5	8.1'x3.3'
NGC 2403	07 36 54	+65 35.58	8.5	14.4	12.6'x6.0'
IC 2574	10 28 43	+68 24.03	10.0	---	12.0'x4.0'
NGC 4395	12 25 49	+33 32.51	10.2	15.4	13.2'x11.0'
NGC 2903	09 32 10	+21 30.02	9.0	13.6	12.6'x6.0'
NGC 3239	10 25	+17 10	11.3	14.2	5.0'x3.3'
NGC 3319	10 39 09	+41 41.14	11.1	14.2	6.2'x3.4'
NGC 4528	12 18 57.5	+47 18 15	8.4	13.6	18.6'x7.2'
NGC 4449	12 42 06.5	+32 32 24	9.2	13.1	15.5'x2.7'

## Editor's Semi-Dark Matter

Ø If you are planning to sign up for Project Astro, don't forget the last date for submitting your application is May 7. You can get an application form in HTML format at <http://www.astrosociety.org/education/astro/bayarea/vform.html>. The same site has a link to an application in PDF format.

Ø Your editor is seeking information on some proposed articles. If you have any comments please send them to [ephemeris@sjaa.net](mailto:ephemeris@sjaa.net).

Ø One article would look at things that amateur astronomers have done for their hobby. Did you move somewhere to find darker skies? Did you wait to make any move until retirement (or semi-retirement)? Do you have serious plans for creating an observatory (or did you already)?

Ø The second article reviews astronomy books including text books. How do you evaluate a book? Would a text book used in college astronomy classes be worthwhile for the amateur astronomer or is the audience just too different? What book(s) do you consult for general astronomical information? For example, you are pretty sure you know what Olbers' Paradox is but you want to refresh your memory. Where do you go? (And yes, "the Web" is a legitimate answer.)

Ø AstroCon 2004 combines the national meetings of the ASP, the Astronomical League, the AAVSO and ALPO. Go to <http://www.astrocon2004.org>.

Ø About this special issue. This special issue is only available in .pdf format. We added a couple of pages of content, used color photographs and added some items we couldn't fit in the regular version. But you may also notice that we are using a new font for regular text (Chronos). We are still evaluating these changes which may or may not appear in the printed newsletter.

# Attend A Conjunction!

## AstroCon 2004

July 20-24, 2004

San Francisco Bay Area

**H**ere's a conjunction you can actually attend—not just observe: a truly once-in-a-lifetime conjunction of the Astronomical League, the American Association of Variable Star Observers, the Association of Lunar and Planetary Observers, and the Astronomical Society of the Pacific.



### At this unique meeting of amateur and professional astronomers, you'll be able to :

- Meet your amateur and professional colleagues from all over the country
- Attend AAVSO and ALPO member sessions open to all attendees.
- Hear from top professional astronomers, including reports on the latest Martian discoveries
- Learn great new public outreach tips and techniques at the ASP's outreach workshop
- Check out vendors galore for some of the latest and greatest astronomy products

### Other AstroCon 2004 events include:

- A trip to world-famous Lick Observatory to see the historic 36-inch Clark refractor and the 120-inch Shane reflector
- A tour of Oakland's new Chabot Space & Science Center , including observing with their historic 8-inch Clark and 20-inch Brashear refractors and new 36-inch Cassegrain, plus a planetarium show and a look at their new *Dragon Skies* exhibit on ancient Chinese astronomy
- The ASP's annual awards banquet (open to all attendees) featuring famous planet-hunter Dr. Geoff Marcy as the guest speaker
- The AstroCon2004 Closing Banquet on board the USS *Hornet*—the aircraft carrier that recovered the Apollo 11 astronauts 35 years earlier to the day! (Pending final arrangements)

AstroCon 2004—the Astronomical League's annual convention—is co-hosted by the Astronomical Association of Northern California, the Eastbay Astronomical Society, and the San Jose Astronomical Association.

[www.astrocon2004.org](http://www.astrocon2004.org)

visit the website for complete details, including secure on-line registration and payment

**1-415-337-1100 x 109**

leave us a message to request a printed registration form, or to ask a question



# Foothill College Astronomy Lecture Series

Andrew Fraknoi

Dr. Yvonne Pendleton of NASA's Ames Research Center, will give a non-technical, illustrated talk on:

"In the Heat of the Night: Searching for the Heat of Infant Stars, Comets, and the Building Blocks of Life" in the Smithwick Theater, Foothill College, El Monte Road and Freeway 280, in Los Altos Hills, California.

Free and open to the public. Parking on campus costs \$2

Call the series hot-line at 650-949-7888 for more information.

Co-sponsored by:  
NASA Ames Research Center  
The Foothill College Astronomy Program  
The SETI Institute  
The Astronomical Society of the Pacific

Dr. Pendleton is an astronomer at NASA's Ames Research Center and was recently elected a Fellow of the California Academy of Sciences. She specializes in the study of the raw material and the primitive objects that can reveal how more mature planets and stars formed and continue to form. Her talk will include some of the first images and information from the Spitzer Telescope, a new orbiting instrument like the Hubble, but designed to show us the universe in heat rays.

Dr. Pendleton is very interested in education and has been visiting classrooms in the Bay Area regularly for ten years. Asteroid 7165 has been named Asteroid Pendleton by the International Astronomical Union to recognize her contributions to both science and outreach.

## Author and Astronomer Ken Croswell to speak at the May 1st General Meeting

Bob Havner

Ken Croswell will be the guest speaker at the May 1st SJAA general meeting at Hough Park at 8 p.m.. Ken Croswell is an astronomer and author living in Berkeley. He has written six books on the subject of astronomy (see below).

He will be speaking about his latest work, Magnificent Mars. Using the very best full-color images, from the Hubble Space Telescope, Viking, Pathfinder, Mars Global Surveyor, Mars Odyssey, and other spacecraft, Ken tells a tail of the red planet's geology, topography, and surface. See stunning images of ancient rivers and floods, triggering speculation that a warm, wet Mars may have given rise to life that survives to this day.

Ken will have copies of all his books available for sale and autograph at the end of the meeting.

The Alchemy of the Heavens : \$27.  
Planet Quest : \$27.  
Magnificent Universe : \$65.  
See the Stars (especially for kids): \$18.  
The Universe at Midnight : \$29.  
Magnificent Mars: \$65

For more info about Ken Croswell visit his URL: <http://KenCroswell.com>.

## Celestial calendar

May 2004

Richard Stanton

Lunar phases:	Date	Rise	Trans	Set
FM 13:33 PDT	04	20:14	00:36	06:00
LQ 04:04 PDT	11	02:31	07:37	12:51
NM 00:52 PDT	19	06:05	13:32	21:05
FQ 03:57 PDT	27	13:15	20:00	02:10

Nearer planets:	R. A.	Dec.
Mercury, 0.87 A.U., Mag. -0.2		
07 05:14 11:36 17:58	01:28	+06:17
17 04:58 11:28 17:58	02:00	+08:44
27 04:53 11:38 18:24	02:49	+13:34

Venus, 0.35 A.U., Mag. +0.6		
07 08:02 15:40 23:19	05:33	+27:47
17 07:34 15:10 22:46	05:42	+27:14
27 06:54 14:23 21:53	05:34	+25:46

Mars, 2.28 A.U., Mag. +17		
07 08:42 16:07 23:32	05:59	+24:40
17 08:31 15:55 23:20	06:27	+24:32
27 08:21 15:44 23:07	06:55	+24:05

Jupiter, 5.13 A.U., Mag. -2.1		
07 14:19 20:51 03:23	10:43	+09:28
17 13:41 20:13 02:44	10:44	+09:21
27 13:04 19:35 02:06	10:46	+09:08

Saturn, 9.75A.U., Mag. +0.9		
07 09:30 16:48 00:06	06:40	+22:44
17 08:55 16:13 23:21	06:45	+22:40
27 08:21 15:38 22:56	06:49	+22:36

SOL Star Type G2V Intelligent Life in System ?  
Hours of Darkness

06:36	07	06:07	13:05	20:04	02:58	+16:54
06:09	17	05:58	13:05	20:12	03:37	+19:24
05:46	27	05:52	13:06	20:20	04:17	+21:21

Astronomical twilight:	Begin	End
JD 2,453,132	07	04:29 21:44
	142	17 04:16 21:57
	2,453,152	27 04:06 22:09

Sidereal time:

Transit Right Ascension at local midnight

07	00:00 = 13:54
17	00:00 = 14:33
27	00:00 = 15:13

Darkest Saturday Night: 15 May 2004

Sunset	20:13
Twilight	21:57
Moon set	17:07
Dawn begin	04:11
Hours dark	06:14

## Officers and Board of Directors

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**Dir** David Smith (408) 978-5503  
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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](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	Craig Colvin
10	Star Spectroscope	Keng Teh
14	8" f/8.5 Dob	E. Clay Buchanan
16	Solar Scope	Bob Havner
19	6" Newt/P Mount	Daryn Baker
23	6" Newt/P Mount	Wei Cheng
24	60mm Refractor	Al Kestler
26	11" Dobson	John Bunyan
27	13" Dobson	Steve Houlihan
28	13" Dobson	Jim Albers
33	10" Deep Space Explorer	Glen White
35	Meade 8" Equatorial	Patrick Lewis
38	Meade 4.5" Digital Newt	Tej Kohli

### 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	Sean McCauliff	5/6/04
29	C8, Astrophotography	Joe Huber	6/6/04
36	Celestron 8" f/6 Skyhopper	Peter Young	5/12/04

### 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	Richard Savage	4/24/04
9	C-11 Compustar	Bill Maney	Indefinite
11	Orion XT6 Dob	Steve Codraro	4/4/04
13	Orion XT6 Dob	Michael Hewitt	4/2/04
15	8" Dobson	Mike Koop	Repair
21	10" Dobson	Michael Dajewski	Repair
32	6" f/7 Dobson	Sandy Mohan	4/28/04
34	Dynamax 8" S/C	Yuan-Tung Chin	4/24/04
37	4" Fluorite Refractor	Gary Hansen	4/15/04
39	17" Dobson	Ron Gross	4/3/04

### Waiting list:

39	17" Dobsonian	Frank Williamson
	8" Dob	Vinod Nagarajan
	Any telescope	Mike Van Meter, Al Garcia

# 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

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

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

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**Address:** \_\_\_\_\_

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