



SACnews

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Jupiter's New Red Spot By Dr. Tony Philips

Backyard astronomers, grab your telescopes. Jupiter is growing a new red spot. Christopher Go of the Philippines photographed it on February 27th using an 11-inch telescope and a CCD camera (See Figure 1).

The official name of this storm is "Oval BA," but "Red Jr." might be better. It's

about half the size of the famous Great Red Spot and almost exactly the same color.

Oval BA first appeared in the year 2000 when three smaller spots collided and merged. Using Hubble and other telescopes, astronomers watched with great interest. A similar merger centuries ago may have created the original Great Red Spot, a storm twice as wide as our planet and at least 300 years old. At first, Oval BA remained white—the same color as the storms that combined to create it. But in recent months, things began to change: "The oval was white in November

2005, it slowly turned brown in December 2005, and red a few weeks ago," reports Go. "Now it is the same color as the Great Red Spot!"

"Wow!" says Dr. Glenn Orton, an astronomer at JPL who specializes in studies of storms on Jupiter and other giant planets. "This is convincing. We've been

monitoring Jupiter for years to see if Oval BA would turn red—and it finally seems to be happening." (Red Jr? Orton prefers "the not-so-Great Red Spot.")

Why red? Curiously, no one knows precisely why the Great Red Spot itself is red. A favorite idea is that the storm dredges material from deep beneath Jupiter's cloudtops and lifts it to high altitudes where solar ultraviolet radiation--via some unknown chemical reaction—produces the familiar brick color.

"The Great Red Spot is the most



Figure 1: Red spots on Jupiter, photographed by amateur astronomer Christopher Go on Feb. 27, 2006.

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Micro-sats with Macro-potential

By Patrick L. Barry

Future space telescopes might not consist of a single satellite such as Hubble, but a constellation of dozens or even hundreds of small satellites, or "micro-sats," operating in unison.

Such a swarm of little satellites could act as one enormous telescope with a mirror as large as the entire constellation, just as arrays of Earth-bound radio telescopes do. It could also last for a long time, because damage to one micro-sat wouldn't ruin the whole space telescope; the rest of the swarm could continue as if nothing had happened.

And that's just one example of the cool things that micro-sats could do. Plus, micro-sats are simply smaller and lighter than normal satellites, so they're much cheaper to launch into space.

In February, NASA plans to launch its first experimental micro-sat mission, called Space Technology 5. As part of the New Millennium Program, ST5 will test out the crucial technologies needed for micro-sats—such as miniature thrust and guidance systems—so that future missions can use those technologies dependably.

Measuring only 53 centimeters (20 inches) across and weighing a mere 25 kilograms (55 pounds), each of the three micro-sats for ST5 resembles a small television in size and weight. Normal satellites can be as large and heavy as a school bus.

"ST5 will also gather scientific data, helping scientists explore Earth's magnetic field and space weather," says James Slavin, Project Scientist for ST5.

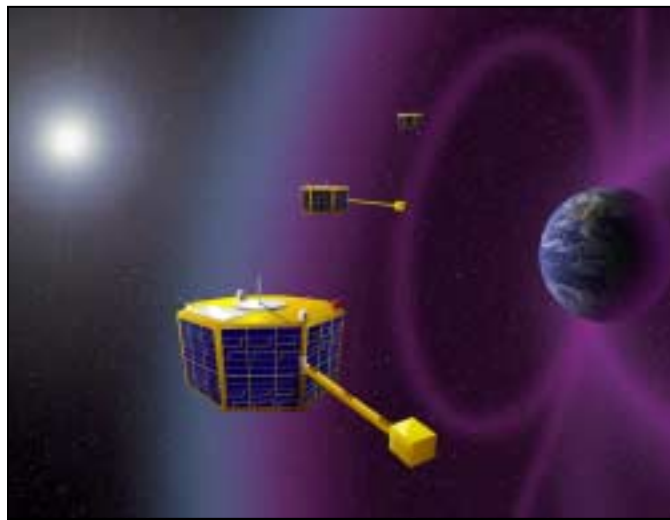
Slavin suggests some other potential uses for micro-sats:

A cluster of micro-sats between the Earth and the Sun—spread out in space like little sensor buoys floating in the ocean—could sample incoming waves of high-speed particles from an erupting solar flare, thus giving scientists hours of warning of the threat posed to city power grids and communications satellites.

Or perhaps a string of micro-sats, flying single file in low-Earth orbit, could take a series of snapshots of

violent thunderstorms as each micro-sat in the "train" passes over the storm. This technology would combine the continuous large-scale storm monitoring of geosynchronous weather satellites—which orbit far from the Earth at about 36,000 kilometers' altitude—with the up-close, highly detailed view of satellites only 400 kilometers overhead.

If ST5 is successful, these little satellites could end up playing a big role in future exploration.



The Space Technology 5 mission will test crucial micro-satellite technologies.

The ST5 Web site at nmp.jpl.nasa.gov/st5 has the details. Kids can have fun with ST5 at spaceplace.nasa.gov, by just typing ST5 in the site's Find It field.

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powerful storm on Jupiter, indeed, in the whole solar system," says Orton. The top of the storm rises 8 km above surrounding clouds. "It takes a powerful storm to lift material so high," he adds.

Oval BA may have strengthened enough to do the same. Like the Great Red Spot, Red Jr. may be lifting material above the clouds where solar ultraviolet rays turn

"chromophores" (color-changing compounds) red. If so, the deepening red is a sign that the storm is intensifying.

"Some of Jupiter's white ovals have appeared slightly reddish before, for example in late 1999, but not often and not for long," says Dr. John Rogers, author of the book "Jupiter: The Giant Planet," which recounts telescopic observations of Jupiter for the last 100+ years. "It will

indeed be interesting to see if Oval BA becomes permanently red."

See for yourself: Jupiter is easy to find in the dawn sky. Step outside before sunrise, look south and up: Jupiter outshines everything around it. Small telescopes have no trouble making out Jupiter's cloudbelts and its four largest moons. Telescopes 10-inches or larger with CCD cameras should be able to track Red Jr. with ease.

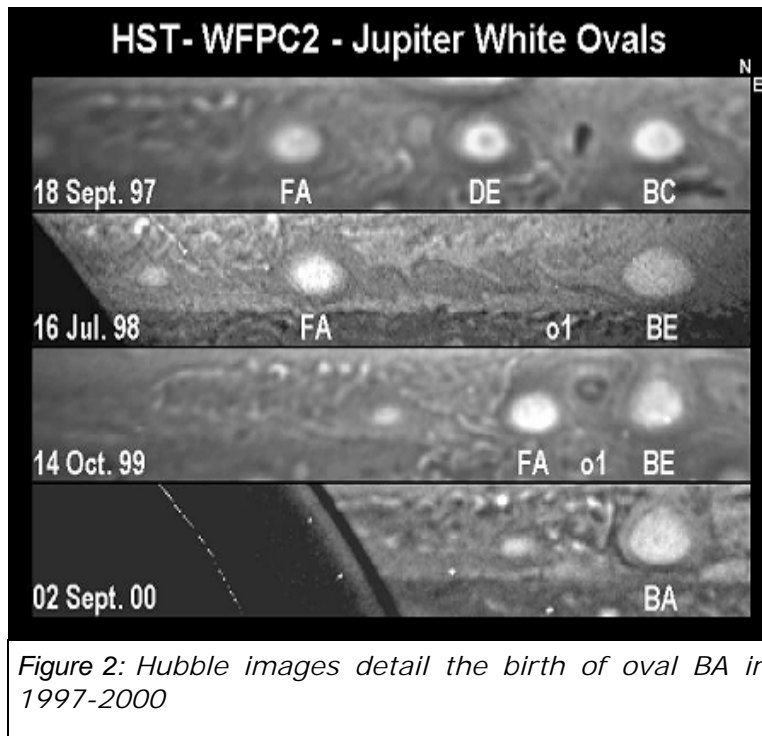


Figure 2: Hubble images detail the birth of oval BA in 1997-2000

What's next? Will Red Jr. remain red? Will it grow or subside? Stay tuned for updates.

This article first appeared on the NASA web site on Mar 3rd, 2006. Click on the link below for the original article & links to related items

http://science.nasa.gov/headlines/y2006/02mar_redjr.htm?list195632

Desert Sunset Star Party

The 4th annual Desert Sunset Star Party will be held April 26-30, 2006. Please check details at our website <http://www.chartmarker.com/sunset.htm>.

Registration is now open. Caballo Loco RV Ranch gives us a special camping rate for this group event. There is no star party fee this year but we will sell door prize tickets. The residents of Caballo Loco will also be serving breakfast (\$3) and dinner (\$5) on Saturday. We are located between Kitt Peak Observatory and Whipple Observatory, both excellent day trips.

Last Call For Observations–Lynx

By A.J. Crayon

For March the All Arizona Messier Marathon month we are scooping out the northern constellation Lynx. Often referred to, as a Bobcat, this constellation doesn't have much in the way of open clusters or planetary nebula. It does have a nice selection of galaxies and a very extremely distant globular cluster. Although not referenced here, there are many nice color-contrasting double stars. With all that said, let's say no more and get on to the observing reports!

NGC2273

This is a barred spiral, about 1° 25' north of northwest from 14 Lyncis. Read on and see who spotted the brighter middle.

14.5-inch f5.2, Dobsonian, 290X; AJ Crayon: pretty large, moderately faint, and quite elongated in a northeasterly position with a gradually brighter middle. With averted vision this galaxy gets larger and brighter and the stellar nucleus is more noticeable. Forms an isosceles triangle with two 8th mag stars to the north and northeast.

20" F5 Dobsonian; 180X, Ken Reeves: Pretty small, somewhat bright, faint halo, brighter middle with much brighter stellar nucleus, elongated 3:1 E/W. Averted vision really brings out halo and makes it more round.

NGC2320

This elliptical galaxy is about 1° 30' southwest from magnitude 5.5 UY Lyncis. There are five other galaxies in a one-degree field, all of which are fainter than 14th magnitude. To find these faint fuzzies you really need a finder chart with you at the telescope, or the other alternative is to have a much larger telescope.

14" SCT, 122X; Joe Goss: Galaxy- Small, fairly faint, irregularly round, even brightness. Unable to see NGC2321, mag 14.8, or NGC2322, mag 14.6, that was plotted in the 1/2-degree FOV.

14.5-inch f5.2, Dobsonian, 220X; AJ Crayon: pretty small, pretty faint, a little elongated in a southeasterly position. With averted vision this galaxy sports a little brighter middle. It forms a nice right triangle with a 9th magnitude star to the northwest and a 10th magnitude star to the north of northwest and 3 others, 14, 12 and 13th magnitudes trailing towards the west. Seen in the same field were NGC2321, NGC2322 and a couple of other very faint, small and round galaxies.

20" F5 Dobsonian; 180X, Ken Reeves: Pretty small, quite faint, slightly brighter middle, possible non-stellar nucleus, averted vision makes it grow slightly, elongation uncertain. Bright star to ENE not involved,

faint star to N just involved. To the SSW is NGC2322, pretty small, very faint, brighter middle, no nucleus, and elongation uncertain. To the NNE of NGC2320 are 2 fuzzy spots, one of which is NGC2321. Both are pretty small and extremely faint. No other details seen (The spot furthest is NGC2321, the closer spot is a tight group of 3 faint stars).

UGC 3685

How about that, a UGC that is 12th magnitude, this is a rare happening as most are much fainter. This object was selected so we could at least say; yes I have looked at something in the UGC.

14.5-inch f5.2, Dobsonian, 220X; AJ Crayon: with averted vision and hood this galaxy is small, pretty faint and has a little brighter middle that has a slight elongation that represents the bar. What do you expect for a UGC galaxy? This galaxy is located between 11th and 12th magnitude stars.

20" F5 Dobsonian; 180X, Ken Reeves: Somewhat small, a little faint (brighter than some of the NGC objects), round, slightly brighter middle, possible nucleus. Star involved on the W edge. Averted vision makes it look like something strange is going on, but I think it is just an optical illusion with the star. Involved star may be (and is) a double.

NGC2340

This galaxy is 16' north of 8th magnitude SAO 41600. In a 30 arc-minute field there are 3 more NGC and 6 more IC galaxies – all very faint! Again to find these you will need a finder chart with you at the telescope.

14" SCT, 97X; Joe Goss: Galaxy- Small, fairly faint, irregularly elongated 2x1, slightly brighter to center. There were 4 other Galaxies plotted in the 1/2 degree FOV, but could only see NGC2332 mag. 13.8.

14.5-inch f5.2, Dobsonian, at 220X; AJ Crayon: this elliptical is faint, round and has a little brighter middle. There is a 12th mag star 2' to the northwest. Also seen in the same field were NGC2344 6' to the northeast and IC 464 about 2' to the south of southwest. A finder chart would be necessary to locate other field galaxies.

20" F5 Dobsonian; 180X, Ken Reeves: There's a lot in this area and I'm not sure what is what. I'm assuming (correctly) the brightest is NGC2340 - Somewhat small, pretty faint, slightly brighter middle, elongation uncertain, faint object to SW (IC464). All other objects in the area are very small and extremely faint. More objects than what's listed in Uranometria. (Other

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objects in area include IC 465, IC 458, and NGC 2332. Mag, S/B, and Size according to Uranometria Deep Sky Field Guide is:

NGC 2340, Mag 11.7, S/B 12.4, Size 1.8'x1.2'

NGC 2332, Mag 12.8, S/B 13.1, Size 1.5' x 1'

IC 458, Mag 13.5, S/B 12.2, Size 0.9' x 0.4'

IC 464, Mag 13.8, S/B 12.5, Size 0.7' x 0.5'

IC 465, Mag 13.6, S/B 12.9, Size 0.9' x 0.7')

NGC2344

Thirty-five arc-minutes west of magnitude 5.5 SAO 41644 will be found this galaxy.

14" SCT, 97X; Joe Goss: Galaxy- Small, fairly faint, round, much brighter to center.

14.5-inch f5.2, Dobsonian, 220X; AJ Crayon: moderate size, pretty round, large slowly brighter round middle, some faint stars nearby.

20" F5 Dobsonian; 180X, Ken Reeves: Somewhat small, somewhat faint, round, halo evenly brightens to middle but no nucleus. Bright star to E is best kept out of field.

NGC2419

Finally, one of the main attractions if not the main attraction of Lynx is this globular cluster, often called the intergalactic tramp or intergalactic wanderer due to its extreme distance from the Milky Way galaxy.

8" f6, Newtonian, 100X; AJ Crayon: this most distant globular is about 11th magnitude and 3' in diameter. There is a faint glow of unresolved stars.

10" F4.5 Dobsonian; 70X - 240X, Ken Reeves: 70X fuzzy spot. **100X** round, a little brighter in middle, no stars or granularity. It is quite bright with very bright star next to it and a nice double past bright star. No stars or granularity at **170X** or **240X**

13" f5.6, Newtonian, 100X; Steve Coe: pretty bright, pretty large, round and much brighter in the middle and easy. At any power up to **270X** at the best sights in Arizona there is no resolution in either my 13" or my old 17.5". The best I can do is get three levels of condensation across a very mottled face on the best of nights. The brightest stars are something like 19th magnitude, so it may take a 40-inch to resolve this distant cluster.

14" SCT, 97X; Joe Goss: Globular Cluster, Small, fairly faint, very compressed, three bright stars point towards globular.

14.5-inch f5.2, Dobsonian, 290X; AJ Crayon: with a hood, using averted vision and during moments of good seeing this famous globular cluster is bright, large, has a grainy appearance with about 10 stars in the halo and 15 across the face. It is famed by 4 stars of about 12th magnitude and may be part of the halo.

16" f4.4 Newtonian, 200x; Rick Rotramel: GC - pL, fB, round, rich. It is in line with 2 bright stars to the west.

20" F5 Dobsonian; 180X, Ken Reeves: Somewhat large, a little bright, very slightly granular, a little brighter middle but mostly even. The bright stars to the W interfere slightly and the fainter stars enclose the globular. No stars resolved. Seeing doesn't support higher power.

Call for Observations

During the January SAC meeting I was talking to some members about their observations in Puppis, so I decided that for April that should be a good constellation. This will give us a break from galaxies and give us a chance do some open clusters and planetary nebulae. So, with so much to choose from and so little space, where do we start? **M47**, of course! Next is **M46**! Third is **NGC2438** the planetary nebula towards the north of northwest segment of M46. This is expected to be a separate observation that is not to be included with the magnificent M46. Try all the power the evening permits, try filters and try a hood to see what kind of detail you can record. Let us know your findings. Next up is **NGC2539** another large open cluster at about 30 arc-minutes. It should be easily found as 5th magnitude 19 Puppis is located just at the edge of this cluster. Another open cluster **NGC2527**, also named **NGC2520**, is located about 4° south of rho Puppis is a pretty rich grouping of stars. Finally, the most southerly of this batch and located towards the west side of the constellation is **Collinder 135**, a large bright open cluster that included pi Puppis. At magnitude 2.1 and about 50 arc-minutes, can you see it with your naked eye? I wish we had time for more, as there are enough clusters and nebula for more visits. For now, enjoy this tour.

In one of my files with notes for objects to find I discovered a note attached to Corvus, that said, "spend some time here, you will be surprised." So it is time to surprise not only myself but also the rest of us. I haven't observed much here, other than the *Ring Tail Galaxy* and a nice planetary nebula. So let's get some time under our observing belt for this little studied constellation and its inhabitants. For starters find the 11th magnitude barred galaxy **NGC4027**, which is 30' northwest of 5th magnitude TY Corvi. For an extra object, see if you can spot **NGC4027A** 4' to the south. It is 15th magnitude. Slewing just 41' northeast brings you to the *Ring Tail Galaxy*, a popular duo that is in the midst of colliding with each other. They are 11th

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President's Message

By Rick Tejera



To Start, I hope everyone has had a chance to get out and do some observing. If so your ahead of me. January I had things to do that took precedence over astronomy & February, I was sick as a dog, (actually, that's not true, my dog was healthier than I was !)

Looking back through my logs, I noted the last night out for me was back in September, OUCH. With that in mind, I'm really looking forward to the All Arizona Messier Marathon. I'm on vacation that week so for once, I'll be able to make it out there Friday. I'm already drawing up a list of H400 objects for Friday night, and I'm planning on 110 Saturday. Got Big red X's on the calendar.

With that being said, it's time to go into rant mode. Seems each year around this time the discussion turns to "The Rules" of the Marathon. A big topic is the goto vs. non-goto debate. I spoken with AJ about this several time over the past few years and he's told me he intends to keep this as simple as possible, thus no distinction between observers who use a goto or star hop. Prima fascia, this may sound unfair, but as I've pointed out several times, the event is strictly for fun. The only competition is between you and Mssr. Messier. No matter how may people reach award level, they will get an award.

Now to diffuse the big myth: Goto users have an advantage over star hoppers. I looked back at the results of the 2001 & 2003 marathons, the two most successful events of their kind. In 2001 25 observers recorded all 110 objects, in 2003.

In 2001, 21 out of 25 observers did NOT use a goto telescope. Of the 4 remaining I could only determine 2 that were goto, (2 SCT's did not indicate if they were Goto or not). 20 other observers saw 100+ objects. Of these 16, were Non Goto scopes, Only one the 4 remaining was defiantly goto.

In 2003, 14 observers saw al 110 objects, this year the mix was a bit more even, with 7 non goto's 6 goto's & one undetermined. Of the 29 observers who saw 100+, the numbers skew back toward the star hoppers, with 19, 4 goto scopes & 6 undetermined.

While this would hardly qualify as a valid statistical sample, I think it's telling in that the most scores are turned

in by non goto scopes. Why? Just a few thought's, I'm not offering them as fact, but just thoughts.

1. More experienced observers are using larger dobs and have the experience to successfully star hop their way through the Messier catalogue. Beginners are more likely to be lured by the ease of setup & operation of a goto scope. Lack of familiarity with observing techniques makes the twilight object difficult or impossible for the neophyte, regardless of the scope used.
2. Not everyone is out for all 110. We all aren't blessed with the stamina to stay up all night to accomplish a perfect marathon. Thus many folks call it a night when they get tired or reach a certain point.

So do we need separate categories? I really don't think so. It seems dob drivers have just as good, if not better chances of doing well as a button pusher. At this point I think we are fine with the way things are.

The other issue that came up this year, was if one could marathon using electronic imaging. Sure. But per AJ's rule, you won't be eligible for an award. You must view the objects visually through the main objective of the instrument used.

Should we have a separate category? Again, AJ has indicated no desire to expand the marathon to that extent. I posted on SAC-board that if anyone feels this is truly worth exploring, I'd be willing to hear your suggestions. However be prepared to follow through and make it happen yourself. If the plan is sound you'll get my support. Bear in mind any such event would be a separate entity from the marathon, but certainly could be run in parallel with it.

My stand on this is if you want it done, make it happen, think about how the ATM & Astro Imaging groups came to be. With that, I'd like to see who completes the first "Imagathon". Rant mode off.

Boy, that took longer than I thought! Anyway while I have space left, I'd like to encourage everyone to consider helping out at the upcoming Public Events. IF you've never participated, please give it a try. It's a lot of fun and a great way to introduce Astronomy to those who've never looked through a telescope.

Till next time, Clear Skies

April 2006

<i>SUN</i>	<i>MON</i>	<i>TUE</i>	<i>WED</i>	<i>THU</i>	<i>FRI</i>	<i>SAT</i>
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

Schedule of Events for April 2006

Apr. 1st	Dreamy Draw Public Star Party, at Dreamy Draw Park. See Page 8 for more details & Directions
Apr. 5th	Moon at first quarter at 1201 mst.
Apr. 13th	Moon is full at 1640 mst.
Apr. 14th	SAC General Meeting at Grand Canyon University at 1930, Speaker Ted Dunham, Topic: TBA.
Apr. 21st	Moon at third quarter at 0328 mst
Apr. 22nd	SAC Star Party at Flat Iron Sunset 1908, End Ast. Twilight 2037, Moonrise 0347.
Apr. 26th-30th	Desert Sunset Star Party at Desert Sunset Star Party. Goto: http://www.chartmarker.com/sunset.htm for more info.
Apr. 27th	Moon is new at 1944 mst.

Future Planning

May 6th	Thunderbird Public Star Party at Thunderbird Park, Glendale. See Page 8 For Details & Directions
May 26th-28th	Riverside Astronomy Expo . Goto http://www.rtmcastronomyexpo.org/ for mor details
June 17th-24th	Grand Canyon Star Party. Go to http://www.tucsonastronomy.org/gcsp.html for more details

Upcoming Public Events

By Jack Jones

As Spring Rolls around, we have a few opportunities to spread the fun of Astronomy at three upcoming public star parties. Here are the details. Hope you can help out.

Tuesday, March 28, 2006, 6:00-9:00 pm
Sunset 6:45 pm

Garden Lakes Elementary School
10825 W. Garden Lakes Parkway, Avondale, AZ
85323

In west Phoenix, exit the 101 at Indian School. Go west on Indian School Rd to 107th Ave. Take a left (south) on 107th Ave. Go south on 107th and the first light will be Garden Lakes Parkway. Take a right onto Garden Lakes Parkway.

Garden Lakes Elementary School is on the left. (Westview High School is on the right.) We will be setting up on the field next to the basketball court. You can see the basketball court from the parking lot. You can park on the basketball court or park on the field if you would like.

Dreamy Draw Public Star Party
Saturday, April 1st, 2006 6-9p.m

Our second Public Star Party of the season will be April 1, 2006 from 6-9 pm at Dreamy Draw Park in cooperation with Phoenix Parks and Recreation. Sunset is 6:49 pm, set up 6-7 pm. Invitation is open to all, so invite family, neighbors and co-workers for a look at the Moon and other astro objects. Park Ranger Nicole Rodriguez will have a large group of astronomy interested folks that will be thrilled to look thru telescopes at

objects they have been learning about.

We can look at the Moon, which will be at 1st quarter. We will point out constellations and show some deep sky objects such as globular clusters and open star clusters and possibly some double stars.

Dreamy Draw Park is in East Phoenix just off SR-51 between Shea and Northern. You can exit SR-51 at Northern from either direction. Actually E Northern itself turns into the drive into the Park and to the Ramada. You will be able to drive up to Ramada A (nearest to the restrooms) with your vehicles and unload on site. I will bring SAC Club Info sheets and a Solar System guide to the planets for handouts. Don't forget a step-stool for the smaller ones and a chair or two to give the feet a break.

Saturday, May 6, 2006, 7-10 pm, Public Star Party Thunderbird Park, Glendale

The Big One. As usual, were are hosting the Semi Annual Thunderbird Public Star party in conjunction with the Glendale Parks & Recreation Dept. Expect a big turn out for this event as usual. The more telescopes we have the better the show. If you can only make one event, this is the one.

Thunderbird Park is just north of Deer valley road on 59th Ave. Turn into the left entrance 4/10 of a mile past Deer Valley Rd. Go right past the Amphitheatre and follow the sign to the observing site. Park rangers will be there to direct you if needed, and will have parking set up for the astronomers by the observing field.

Stewards of the Night Sky

By Nicole Rodriguez

Sirius, Cassiopeia, Big Dipper, North Star – all shifting in parallel on a pilgrimage as old as time. Across a deep sky of distant mystery and homely navigation, stories of science and fiction twinkle and shine as the oldest resource of ourselves.

The heavens are one of our greatest natural resources. Within its multi dimensional expanse the finger prints of the night sky are fading away behind busy city lights and heavy pollution. There are few havens within cities for stargazing even the brightest of stars. Phoenix is unique however. The Phoenix Mountain Preserves offer a nightly oasis for astronomers and amateur viewers to view a facade of starry jewels and age old folklore.

Recently, with the help of local astronomy clubs - Phoenix Astronomical Park and Saguaro Astronomy Club - Phoenix Mountain Preserves have given a guided night sky tour to the public. Equipped with personal telescopes, astronomy club members sent their audience light years away through the eye piece of a telescope. Children and adults alike were shooting questions of wonder and comments of awe.

The universe is a seemingly endless space. And yet overwhelming, its depths are no more than minds will ponder in fascination. The City of Phoenix thanks all who volunteered their time and equipment to entertain and educate the public in the depth of time and space.

Bits & Pisces, Minutes of the January 13th General Meeting

By Susan Pritchard

The February 10, 2006 meeting opened at 7:30 by President Rick Tejera, who welcomed all visitors and members. He invited the visitors to introduce themselves and sign the guest book and receive a copy of the SAC newsletter. Paul Dickson gave the Treasurer's Report—the club has a total balance of \$5,416.83. He told the club members that the savings and checking accounts had been consolidated with one bank. He then presented the proposed 2006 Budget of \$ 3160 to the members and made a motion for approval; it was seconded by Tom Polakis, and was unanimously approved by a vote from the members. There was one carry-over item from last year--the need to purchase the extra projector bulb. Paul then discarded the old name badges that had previously been ordered and never picked up and mentioned that new T-shirts for the Messier Marathon would be ordered. He again reminded members about renewing their 2006 memberships and ordering their discounted subscriptions to Sky and Telescope and Astronomy magazines.



Paul Knauth: *What are we really finding on Mars*

Announcements: Steve Dodder announced the next semi-annual Potluck Star Party would be held at Stonehaven observatory in Maricopa on April 22 and everyone is encouraged to bring their telescope and a potluck food dish. Contact Steve for a map and website. Rick then said that because the club has saved money in the printing of the newsletter, (now done free--due to the generosity of Peter Argenziano), the club has offered Peter a choice of a free subscription to either Astronomy or Sky and Telescope.

A. J. Crayon announced the upcoming Messier Marathon on March 25-26, 2006 at the Farnsworth Ranch near Arizona City. He said that Don Machholz would be

present to meet with people and sign books. He said that all 110 objects would be available for observations and that at least 200 people are expected to attend. Peter has supplied the check-off list form. The constellations for the Last Call For Observations Column would be Lepus for February and Lynx for March. Rick reminded everyone about the next club star party—at Flat Iron on Feb 18. Steve Coe announced that the next meeting of the Novice Group would be at the Feb. 18th star party at Flat Iron as well, and then presented some good book recommendations for beginners. Jerry Belcher announced that his rocket club would be launching the Gila Monster Rocket with a 21 foot booster on Feb. 25-26 at Rainbow Valley—check the web site of www.ahpra.org for details.

Show 'n Tell—Tom Polakis gave a demonstration of a new Messier Marathon software which showed the limits of the optimal dates and latitudes in order to see all 110 objects at one time. Our chosen date of March 25-26 offers one of the best opportunities to see them in one night.

Steve Coe then showed his new slides in which he used his web camera, connected to his computer with an adapter. The slides of the Moon were quite impressive.

After the break, Paul Knauth from ASU was the speaker—his topic was “What are we really finding on Mars?” Here is a link to Paul's site: http://pda.physorg.com/lofi-news-mars-knauth-site_9264.html

The meeting adjourned at 9:45 pm and members went to the JB.'s restaurant at Northern and 35th Avenue for fellowship and food.

Respectfully submitted, Susan V. Pritchard

(Continued from page 5)

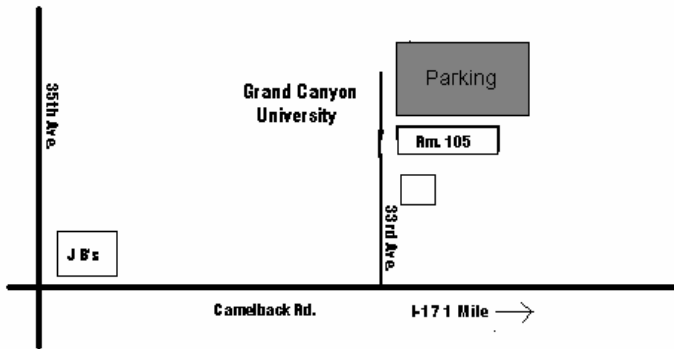
magnitude spirals **NGC4038** and **NGC4039**. Can you determine the angle between the two galaxies and what does its tail look like? From here sweep a little more than a degree to the north of northwest to **NGC4033** an 11.7 magnitude galaxy. Next is **NGC4361** a rather bright and large planetary nebula that is almost 2.5° southeast of γ Corvi. It is quite a hop but there are several nice formations of 7th magnitude stars within a degree to help you locate the correct spot. Your observation should include a description of its interior.

With **NGC4462** it is back to galaxies, this one towards the southern extremity of the constellation. It is a little more than one degree west of northwest from β Corvi and is rather faint at 12th magnitude. **NGC4783** brings us to the northeastern part of the constellation near Virgo. This is an 11.5 magnitude galaxy in a delightful field. Included are **NGC4782**, almost as bright and in contact just to the south. **NGC4792** is 7' to the northeast and **NGC4794** is 9' to the east of southeast. They are 15th magnitude and 14.5 magnitude respectively, so put on your challenge hat.

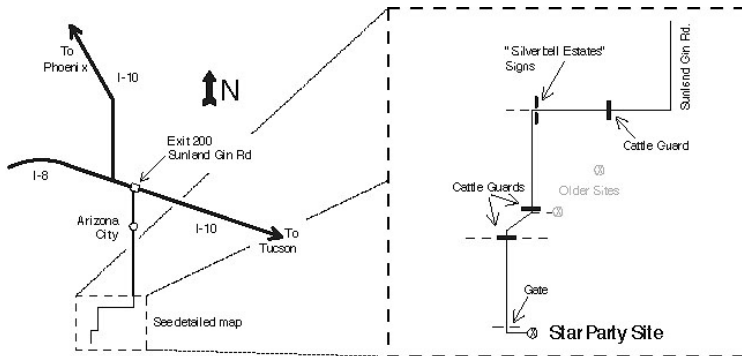
SAC Meeting and Observing Sites

General Meetings

7:30 p.m. at Grand Canyon University, Fleming Building, Room 105: 1 mile west of I-17 on Camelback Rd., North on 33rd Ave., Second building on the right.



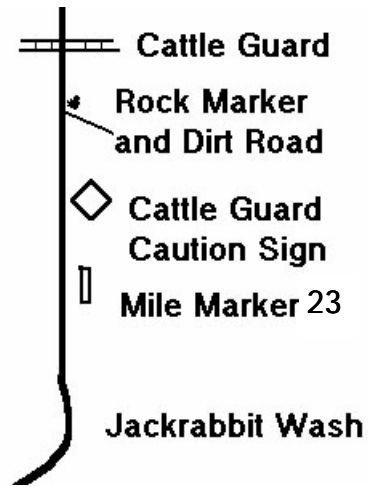
2006 All Arizona Messier Marathon



The directions are:

Take I-10 to exit 200 (Sunland Gin Road.) From here it is about 29 miles to the site. Turn right (south) after exiting the freeway. After about 15 miles, the pavement ends and about one mile further, the road turns sharply to the west. After another four miles, the main road will turn south just after the "Silverbell Estates" signs. Three miles past the signs, the road will veer off to the west, and five miles further, the road will pass through a gate. Turn left immediately after the gate and continue for another 2/3 of a mile, driving over a fence. The site is to the right.

Flatiron Star Parties



Head west on I-10 to the 339th Ave exit (exit 103). Turn North (right) and go two miles to Indian School Rd. Turn West (left) on Indian School and go 2 miles to 355th Ave. Turn North (right). This will turn into Wickenburg Rd. Follow this road for about 12 miles. Just after mile marker 23 you will go through Jackrabbit wash and pass a cattle guard sign. There is a dirt road just after the sign, marked by white painted rocks. Turn on to this road and follow it about .9 miles. Just after you pass through a wash, you'll see the field on your left. If you hit the cattle guard, or the dirt road your on is next to a fence, you've missed the correct road. Go back and look for the white rocks. (see detail map above).

SAC Membership Services

Membership– Memberships are for the calendar year and are pro-rated for new members as follows: Jan– Mar: 100%; Apr– Jun: 75%; Jul-Sep: 50%; Oct-Dec; 25%.

- \$28.00 Individual Membership
- \$42.00 Family Membership
- \$14.00 Newsletter Only
- \$10.50 Nametag for members, Pinned Clasp
- \$12.00 Nametag for members, Magnetic Clasp
(will be mailed to address below)

Magazine Subscription Services

The following magazines are available at a discount to club members. Check the magazines you wish to subscribe to or renew, and pay the club treasurer. Please allow 3-4 months for the order to be processed.

- Sky & Telescope \$33.00/yr
- Astronomy \$34.00/yr
- Astronomy \$60.00 for 2 Years

Please Print

Make Check Payable to : SAC

Name: _____

Bring completed form to a meeting or mail it with your remittance to:

Address: _____

**SAC Treasurer
c/o Paul Dickson
7714 N 36th Ave
Phoenix, AZ 85051-6401**

City: _____ St: _____ Zip: _____

Phone: _____

Check here if this is an update of information already on file.

E-Mail: _____

SAC on the Internet

SAC has several E-mail mailing lists. To subscribe, send an email to the email address and put **Subscribe in the subject box.**

SAC-Announce@freelists.org: SAC-Announce is a mailing list for just club announcements, Typically 3-5 messages per month.

SAC-Forum@freelists.org: SAC-Forum is a general discussion mailing list. Topics should be related to Astronomy or SAC

SAC-Board@freelists.org: SAC-Board is a mailing list for discussions of club business. If you'd like to see how the club is run (or not run), or have a question about the club, this is the list to read. Typically month to month matters are discussed.

AZ-Observing@freelists.org: AZ-Observing while not a Sac list, is well attended by SAC members. This is the list to with observing places around Arizona. Find out where people are going and what they saw.

Printed Newsletter

Sac can save a lot of money if you download the PDF version of the newsletter. PDF files are readable by both PC's and Macs. When the newsletter is published, a message will be sent to the address indicated above with the URL of the newsletter. Check the box below if you don't have access to the internet or if your prefer a printed copy.

Please send me a hard Copy of the newsletter

SAGUARO ASTRONOMY CLUB

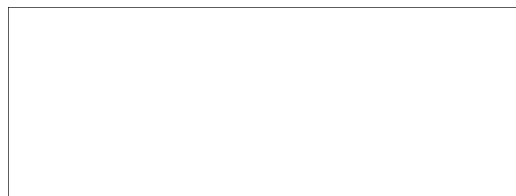
March 2006

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Fax: 623-572-8575

Email: newsletter@saguaroastro.org



Videmus Stellae



SAC Schedule of Events 2006

SAC Meetings

January 13th, 2006 July 14th, 2006
February 10th, 2006 August 11th, 2006
March 10th, 2006 September 8th, 2006
April 14th, 2006 October 6th, 2006
May 12th, 2006 November 10th, 2006
June 9th, 2006 December: TBA

ATM & Astro-Imaging Group Meetings

January 10th, 2006 July 11th, 2006
February 7th, 2006 August 8th, 2006
March 7th, 2006 September 5th, 2006
April 11th, 2006 ? October 3rd, 2006
May 9th, 2006 November 7th, 2006
June 6th, 2006 December 5th, 2006

SAC Star Parties

Date	Sunset	Astronomical Twilight Ends	Moonrise	Site
Jan 21st, 2006	1752	1919	0044	F
Feb 18th, 2006	1818	1942	2335	F
Mar 18th, 2006	1842	2005	2230	F
Apr 22nd, 2006	1908	2037	0347	F
May 20th, 2006	1928	2108	0157	C
Jun 17th, 2006	1943	2129	0029	C
Jul 22nd, 2006	1938	2117	0346	C
Aug 19th, 2006	1911	2042	0240	C
Sep 16th, 2006	1854	1958	0135	C
Oct 14th, 2006	1759	1921	0033	F
Nov 11th, 2006	1723	1850	2316	F
Dec 16th, 2006	1725	1854	0449	F

F = Flat Iron; C = Cherry Road