

Saguaro Skies



Saguaro Astronomy Club, Phoenix, AZ

Volume 42, Issue 5
May 2018

The President's Corner

mail to: president@saguaroastro.org

A reminder that there will be a SAC Board Meeting an hour before the general meeting on May 4. Any member may attend. It will take place in a room next door from the general meeting.

Michael Poppre arranged for Dr. Paul Knauth of ASU to speak to us about Advanced Observing Techniques. The subject sounds especially useful.

I liked the fact that Dr. Tom Mozdzen, the President of EVAC, was our guest speaker last month. Sharing resources and members strengthens both our organizations. Without the cooperation of the two groups we would not have had the Messier Marathon.

Speaking of the Messier Marathon, Rick Tejera will present the awards at the May general meeting, that is, if the awards are ready from the trophy shop. At least it didn't rain.

Well, I got lost on the way to the Thunderbird Park Public Star Party. Arriving late was compensated by departing early; at 9:00 pm there were no guests to be seen in the park! The reason for the early departure of spectators could have been the cloud cover that moved in. I very much

enjoyed talking to the visitors. I anticipated most or all members would have people look through the eyepieces of their telescope. So I set up my astrophotography equipment to show this aspect of the hobby. After the event, dinner at the "Old Chicago" restaurant was fun. I was a little timid about attending the star party, not having been to one before. If you're a little timid about going, don't be.

Clear sky,

David



SAC President, David Dillmore at the Thunderbird Park Spring Public Star Party

Photo: Rick Rotramel

Website: saguaroastro.org Follow SAC on Facebook



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Header image © 2000-2013 Stellarium Developers
Scorpius setting in the southwest.

Quick Calendar

Wednesday, May 2: ATM/Astro Imaging Meeting, 6:30 PM @ Paul Lind's home shop, new day
Friday, May 4: **SAC Board Meeting, 6:30 PM**, room next door from SAC Meeting; all members welcome.
Friday, May 4: **SAC General Meeting, 7:30 PM**, Speaker: Paul Knauth, PhD, from ASU's School of Earth & Space Exploration, Topic: "The Nature of the Visible Universe" See **new room site (33-104) location, near end of this issue.**
Saturday, May 12: **Star Party**, Stoneman Lake Site, Weather permitting, see page 2
Sat. June 9 to Sat. June 16: **Grand Canyon Star Party North Rim**, for details, see page 2
Tuesday, June 19: **ATM/Astro Imaging Meeting, 6:30 PM @ Paul Lind's home shop**
Friday, June 22: **SAC General Meeting, 7:30 PM**, Speaker: TBA, Topic: TBA



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Editor Notes



Hi Folks,

The Thunderbird Park Spring Public Star Party was fun and Susan Trask took photos of each astronomer with their scopes. Not a large crowd but one that stayed awhile and learned a lot about the sky. It was partly cloudy, nice.

Best of the NGC features this month NGC 4274, a Spiral Galaxy in Coma Berenices.

Such A Deal has a new ad.

Bits & Pisces has minutes of the April SAC Meeting, some SAC history and a run down of the April 3rd ATM/Astro-Imaging meeting.

SAC Imaging features Jim Waters with a very nice image of the Whirlpool Galaxy.

SAC Observing covers this year's windy Messier Marathon, starting with the Results of the ten who survived the ordeal. Joan McGue pens a report about the ordeal she endured out in the desert at that windy night at the marathon. All the marathoners will agree.

SAC Outreach features the Thunderbird Park Spring Public Star Party on Saturday, April 21st. Susan Trask and yours truly have photos.

Rick Rotramel, Editor

Schedule of Events 2018

SAC General Meetings

Jan 5	Feb 2 plus Board Meeting	Mar 2	Apr 6
May 4 plus Board Meeting	June 22	July 20	Aug 24 & Board Meeting?
Sept 21	Oct 19	Nov 16 plus Board Meeting	Dec ? Holiday Party

@ Grand Canyon University, Fleming Building, 7:30 PM
[See page near back of this issue for location.](#)

ATM/Astro Imaging Meeting

This month only, Wednesday, May 2nd, 6:30 PM @ Paul Lind's Shop
210 W. Tierra Buena Lane, Phoenix, AZ

Star Party, Weather permitting

Saturday, May 12, 2018, Sunset, Stoneman Lake Site
<http://www.saguaroastro.org/content/Stoneman-Lake-Directions.htm>

Outreach:

Grand Canyon Star Party North Rim

Saturday June 9 to Saturday June 16, 2018

To volunteer, see details here:
<http://www.saguaroastro.org/content/2018GrandCanyonStarParty.html>

Spaceflight Trivia

Can you name the mission involved in this picture below? ([See answer on page 5](#))



NASA

2018 SAC Officers

President: David Dillmore
Vice President: Michael Poppo
Treasurer: Lori Prause
Properties Director: Robert Brewington
Secretary: Andrew Perry
Photo: Susan Trask



SAC Announcements

It is time to renew your SAC membership!

Mail in your SAC 2018 dues today

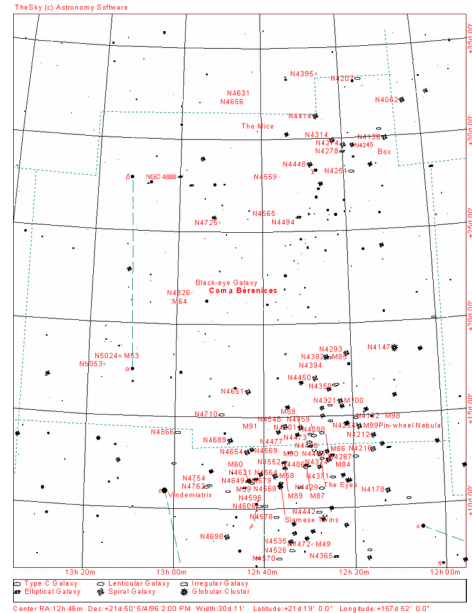
Use the form on the last page of this issue or on the SAC website.

Best Of The NGC: NGC 4274, Barred Spiral Galaxy in Coma Berenices

By SAC Imagers, Observers & Sketchers



Guest Image by Doug Wheeland; 12.5" RCOS RC at 114" FL, SBIG ST8E/CFW8, 105 min. Total, 15 min. Subs, Unfiltered, Acquired Using MaxIm CCD, Adobe Photo Shop, Star Ranch Road Observatory South Western Colorado Springs, Elev: 6500', March 13, 2004



Coma Berenices Star Chart

<p>Observing Chart D. M. Douglass - Tempe, AZ http://www.AZ-DaHut.net</p>	<h3>NGC 4274</h3>	<p>Observed and Imaged Date: Apr 09, 2018 Site: DaHut, Tempe, AZ Elevation at Site: 1200 ft Local Time: 20:45</p>
<p>Other Names: SAC "Best Of The NGC" for May 2018; Sometimes referred to as the "Ring Galaxy in Coma Berenices".</p>		
<p>Observing Program: EVAC and Astronomical League and General Observations</p> <p>Telescope and Mount: Celestron EdgeHD 8" SCT Mount: Celestron CGX-L (EQ)</p> <p>CGX-L Mount Control: TheSkyX Pro All slews by "closed loop" (Plate Solved) Mount Guiding: TheSkyX Pro Guide Camera: Starlight Express Lodestar X2</p> <p>Image Capture Information: Mag (SBIG): (2000/22.5) = 88 FOV = 32 x 24 Arc Min Image Scale = 1.15 ArcSec/Pixel Filter: Lumicon Deep Sky (UHC/LPR) w/ Baader IR/UV Cut</p> <p>Total # of frames (subs): 07 Frame exposure time: (min): 05 Total exposure time (min): 35 Camera: SBIG ST-8300-M Camera controlled by: TheSkyX Pro Plate Solved by: TheSkyX Pro Preprocessing and stacking: CCDStack PostProcessing: Adobe Photoshop CS3</p>		
<p>Object Type: Galaxy R.A. 12:19:51 DEC 29:36.8 Magnitude: 10.4 Size (Arc Min): 6.9 Constellation: Com</p>		
<p>Sky Brightness and Weather Mags / sq ArcSec (v)18.5 or Bortle Scale: 6 Moon Ill = 0% 75 Deg F - Calm</p>		

David Douglass

Continued on next page...

Best Of The NGC:

NGC 4274, Barred Spiral Galaxy in Coma Berenices

By SAC Imagers, Observers & Sketchers

SAC Observer: Steve Coe

6" f/8, Antennas, S+T=7, 14mm, pretty bright, pretty large, much elongated 3X1 with a bright middle and a stellar nucleus. Averted vision makes it thicker.

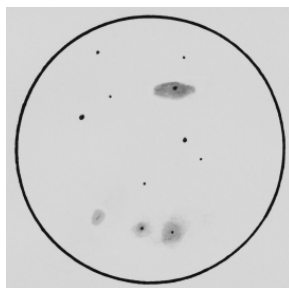
13" f/5.6, Cherry Rd, S+T=7, bright, pretty large, much elongated, brighter middle at 100X. Has three companions in 40' field of 20mm Erfle. Brightest of the three is NGC 4274. At 150X, the elongation is 3 X 1 in PA 110. The nucleus is small, almost stellar. What is strange is that the core is offset to the west end of the galaxy so that it is divided into 1/3 and 2/3 parts by the "central" core.

16" f/4.5, Five Mile Meadow, S+T=7, 22mm, pretty bright, pretty small, elongated 2.5X1, bright middle, 3 companions seen. There is a star on the north end.

17.5" f/4.5, Hillside, S=6, T=8, 135X, pretty bright, large, elongated 2.5X1, much brighter middle. Averted vision makes it thicker, there are two faint galaxies nearby.



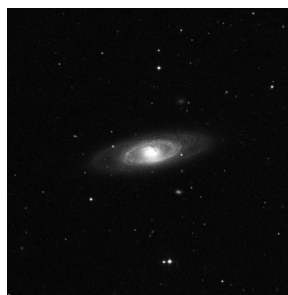
15' x 15'



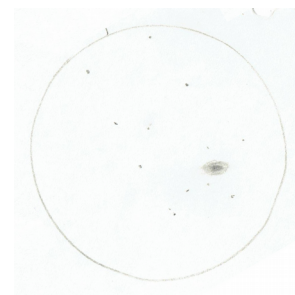
Steve Coe, 13" f/5.6, 100x

SAC Observer: Rick Rotramel

16" f/4.4, 90x, Buckeye Hills Site, bright, fairly large, oval spiral, with a bright core and faint arms.



15' X 15'



Rick Rotramel, 16" f/4.4, 90x

Call for **Best of the NGC** images, notes and sketches.

Hello SAC imagers, observers & sketchers:

For **June**, NGC 4438, Sap Galaxy, 12 27.8 +13 01, 12 mag, 9.7x3.9, pair with NGC 4435 in Virgo.

For submitting images, send your file as an attachment in an email to the editor. Please send caption details of the image: Optics, camera, main software used, exposure, location and date taken.

Observation notes are sent in the email text area or as an attached file.

For scanned sketches, send a file with caption details: optics and eyepiece power used.

Email to: r.rotramel@cox.net

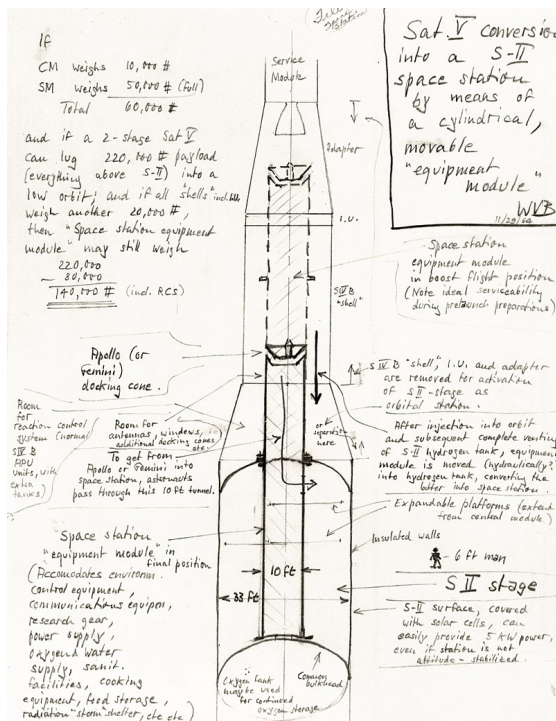
For **July**, NGC 6712, GC, 18 53.1, -08 42, 8.2 7.2 mag, PN, IC 1295 in field, in Scutum.

For **August**, NGC 6818, PN, 19 44.0, -14 09, 10 mag, 22"x15," annular, near NGC 6822, in Sagittarius.

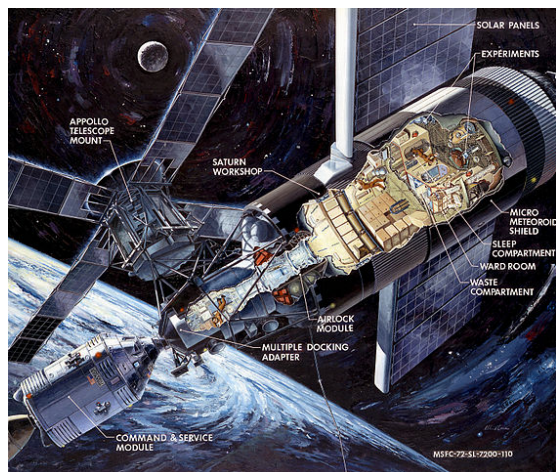
Spaceflight Trivia Answer

Skylab Launched

COSPAR ID	1973-027A
Call sign	Skylab
Crew	3 per mission (9 total)
Launch	May 14, 1973, 17:30:00 UTC
Launch pad	Kennedy Space Center LC-39A
Reentry	July 11, 1979, 16:37:00 UTC near Perth, Australia
Mission status	Complete
Mass	170,000 lb (77,111 kg) w/o Apollo CSM
Length	82.4 feet (25.1 m) w/o Apollo CSM
Width	55.8 feet (17.0 m) w/one solar panel
Height	36.3 feet (11.1 m) w/ telescope mount
Diameter	21.67 feet (6.6 m)
Pressurised volume	12,417 cu ft (351.6 m3)
Perigee	269.7 mi (434.0 km)
Apogee	274.6 mi (441.9 km)
Orbital inclination	50°
Orbital period	93.4 min
Orbits per day	15.4
Days in orbit	2,249 days
Days occupied	171 days
No. of orbits	34,981
Distance travelled	~890,000,000 mi (1,400,000,000 km)
Statistics as of Re-entry	July 11, 1979



Wernher von Braun's sketch of a Space Station based on conversion of a Saturn V stage



Such-A-Deal

ITEMS FOR SALE

MEADE ETX-90EC 90mm Maksutov Telescope

- Includes the following:
- #07426 8 x 21mm Erect Image Viewfinder
- #07427/#825 8 x 25mm Right Angle Viewfinder
- Deluxe Tripod
- Eyepieces:
 - Meade Ultra Wide Angle 6.7mm multi-coated
 - Meade Super Plossl 26mm LP multi-coated
- Meade 2X telenegative multi-coated
- Meade remote controller
- #880 Table Tripod for Polar Alignment of the ETX-90EC Astro Telescope
- Manual
- Compass
- Carrying Case
- Allen wrenches



- Selling on behalf of a friend, Asking \$350.00 For all.
- Contact Rick Tejera: 623-203-4121
- Email: Saguaroastro@cox.net

16-inch Dobsonian & Observing Chair

Telescope: 16-inch f/4.5 Enterprise Optics mirror, excellent figure and performance.

- Truss-type Dobsonian, home-made of Baltic Birch structure, bearings of Ebony Star and Teflon.
- Black fabric light shield (not shown in photo)
- 'Scope disassembles and nests into approximately 3-foot cube, to fit into your van.
- Protective box for primary mirror.

Observing chair: stand or sit comfortably, even when viewing at the zenith!

Asking:

\$1900

Contact me to schedule a visit in Gold Canyon.

Bob Buchheim

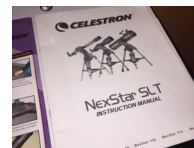
Email: oca_bob@yahoo.com

480-646-1324



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 - Orion Lasermate Collimator
 - Celestron 2" Universal Digital Camera Adapter
 - Meade 2X Barlow Lens
 - 25mm & 9mm Eyepieces
 - Nikon adapter ring
 - Moon filter
 - Original manuals and start up guides
 - Original investment: over \$600
- Asking for all items: \$375.00
 Steve Scott, 602-502-4955
Mailto:steve@equitysigngroup.com



For Sale

Orion Maksutov-Cassegrain Telescope - 127mm 5in

\$300.00

602-240-5421 or 602-499-9910

Wanted:

A Meade LX 200 classic mount that fits a Meade 10" or 12" SCT"

Please contact Dave Kenyon

drdkccd@gmail.com

Such-A-Deal

ITEMS FOR SALE

Vixen SXW Computerized, Equatorial Mount with Starbook Controller

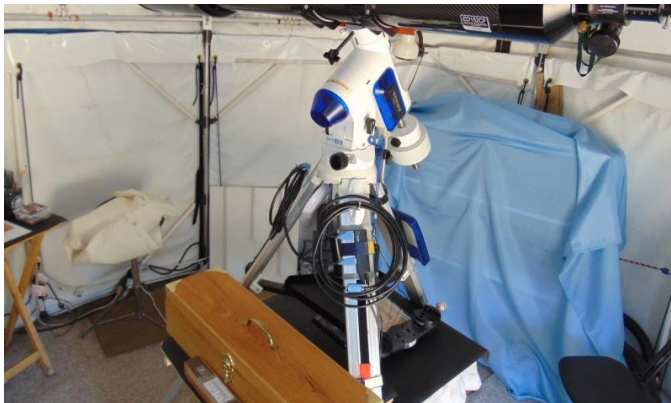
I purchased this mount with a Vixen 8" Astrograph on top of it from the estate of the past president of the Riverside Astronomical Society, the astronomical portion of that estate being sold off by RAS at a past RTMC gathering. I sold the astrograph some time ago but the mount has been my primary solar observatory mount for several years now here in Flagstaff. It comes with the manual, deluxe tripod, Starbook controller, two factory counterweights, and any features which were standard equipment on the original unit. Weight capacity is stated to be 35 pounds. It has a Vixen dovetail rail mounting. This mount is easily light enough to be transported and I occasionally drag it down to Camp Verde in the winter months to continue the solar work while staying in our trailer.

This is a very sophisticated mount with an exquisite controller system, the Starbook. It has been very happy with a coaxially mounted Lunt 80mm double stacked solar scope and a Stellarvue 80mm triplet with a Thousand Oaks white light filter on it. I also run a Celestron 9.25" cassegrain on it for planetary.

This is a very good deal at **\$1000**, exactly what I paid for it. If it makes it easier, I might be open to a part trade. I'm open to driving down to Cordes Junction or so to meet.

Fred Tretta, Flagstaff, AZ

Email: ftretta@msn.com



Celestron CGEM Mount-HyperTuned With ADM Upgrades

Package Includes and My Costs:

- Celestron CGEM Mount /w Weight and HC \$1,299
- Hypertune Service \$375
- Aluminum Tripod Leg Spreader \$235
- Extra Long RA Weight Shaft \$50
- Extra 17 Pound Counterweight \$85
- Celestron Anti-vibration Suppression Pads \$24
- ADM Dual CGEM NOK Saddle \$135
- ADM ALT CGEM Knob \$40
- ADM AZ CGEM Knobs \$35
- ADM CGEM Tripod Knobs \$50
- ADM CGEM Clutch Levers \$50
- ADM CGEM Polar Scope Plug \$10
- 24" Extension Cable for Hand Controller \$10
- 12 VDC Power Cord n/c

Cost of all the above: \$2,598

Asking \$900 OBO, bank check or cash.

More pictures can be found here -

<https://www.cloudynights.com/gallery/album/9228-cgem/>

Pickup only, Phoenix, AZ.

I will drive up to 3 hours to deliver the mount.

Email: jimwaters@cox.net

I am selling my CGEM mount and moving to another mount. The CGEM was purchased from OPT 2011 and was Hypertuned by Deep Space Products 2012. The RA Worm Bearings were upgraded as part of the Hypertune Service. The mount comes with an extra 17 pound counterweight and Aluminum Tripod leg Spreader. The mount was upgraded with ADM hardware - below. Overall the mount is in very good condition. I know of no issues with the mount.





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Such-A-Deal

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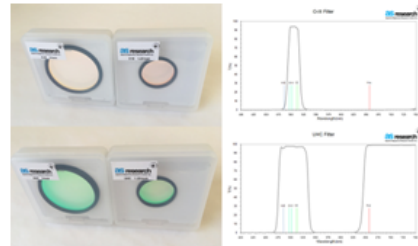
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The HyperStar-equipped ISERV telescope is now installed on the ISS!

The HyperStar-equipped Celestron 9.25" telescope (and its backup) that is now installed on the ISS. The scope also features a Starizona MicroTouch Autofocuser. With the Starizona gang: Steve, Scott, Dean, and Donna. (Steve has since had to move to NY because he was dressing too much like Scott.)

Call Us: (520) 292-5010
<http://starizona.com/acb/index.aspx>
dean@starizona.com



Bits & Pisces

Minutes of the April 6, 2018 SAC General Meeting By Andrew Perry, SAC Secretary

Opening:

SAC Club President David Dillmore brought the meeting to order at 7:32 pm. The President asked if we had any visitors and there was only one. He asked for how many people were going to JB's restaurant and 10 were planning on going. There are extra shirts left over from the marathon for sale for \$15 each. The East Valley Astronomy Club was going to have an estate sale for one of its members, Gerry Rattley.

On the 21st of April there will be the Thunderbird Park Spring Public Star Party, this is the 41st Annual star party, 6:30pm to 9:30 pm. The April 21st Fountain Hills Public Star Party was also announced.

SAC member Al Stiewing is asking for help building his observatory roof and is in need of help. He is asking for at least 6 people for help. He is in need of help on April 21st to lift the roll-off roof, onto the observatory.

Treasurer's Report:

SAC club treasurer Lori Prause gave the report which states that because of the Messier Marathon, the club took a loss because of the low attendance, due to the bad weather. The club has 64 paid members and at the end of the month the club should have a total of \$4331.50 cash on hand.

Club Presentations:

Paul Lind gave a presentation called, "A Telrad Brain." He gave a presentation of how he made a circuit for a Telrad so it does not waste power if he leaves it on.

Rick Tejera gave a presentation for the 2018 All Arizona Messier Marathon, preliminary results for verification and asked if there are any overdue results from attending club members that still need to submit their results.

Michael had an announcement in a for, "Trying for a Young Crescent Moon in 2018," the goal is to try and spot a sub-24 hour moon.

Break:

The President announced a break at 8:03 pm.

The SAC meeting was brought back to order at 8:30pm.

Guest Speaker:

The guest speaker Tom Mozdzen from our club and ASU gave a presentation titled, "Exploring Hydrogen and First Stars in the Early Universe: Cosmic Dawn and the Epoch of Reionization with 21 cm Cosmology." This is the title of his thesis and he gave us a breakdown of the work and how he went about trying to prove his thesis. Tom's thesis summary is as follows: Quantified the effect of beam chromaticity on foreground removal, calculated the foreground spectral index across the full LST range, and determined the incompatibility of the Kaurov-Gnedin EoR model with EDGES data at a 1.9 σ significance level.

End:

The club President ended the meeting at 9:00 pm.



Tom Mozdzen

Photo: Susan Trask

The April SAC Meeting Speaker

Tom Mozdzen, Saguaro Astronomy Club

Topic: "Exploring Hydrogen and First Stars in the Early Universe: Cosmic Dawn and the Epoch of Reionization with 21 cm Cosmology."



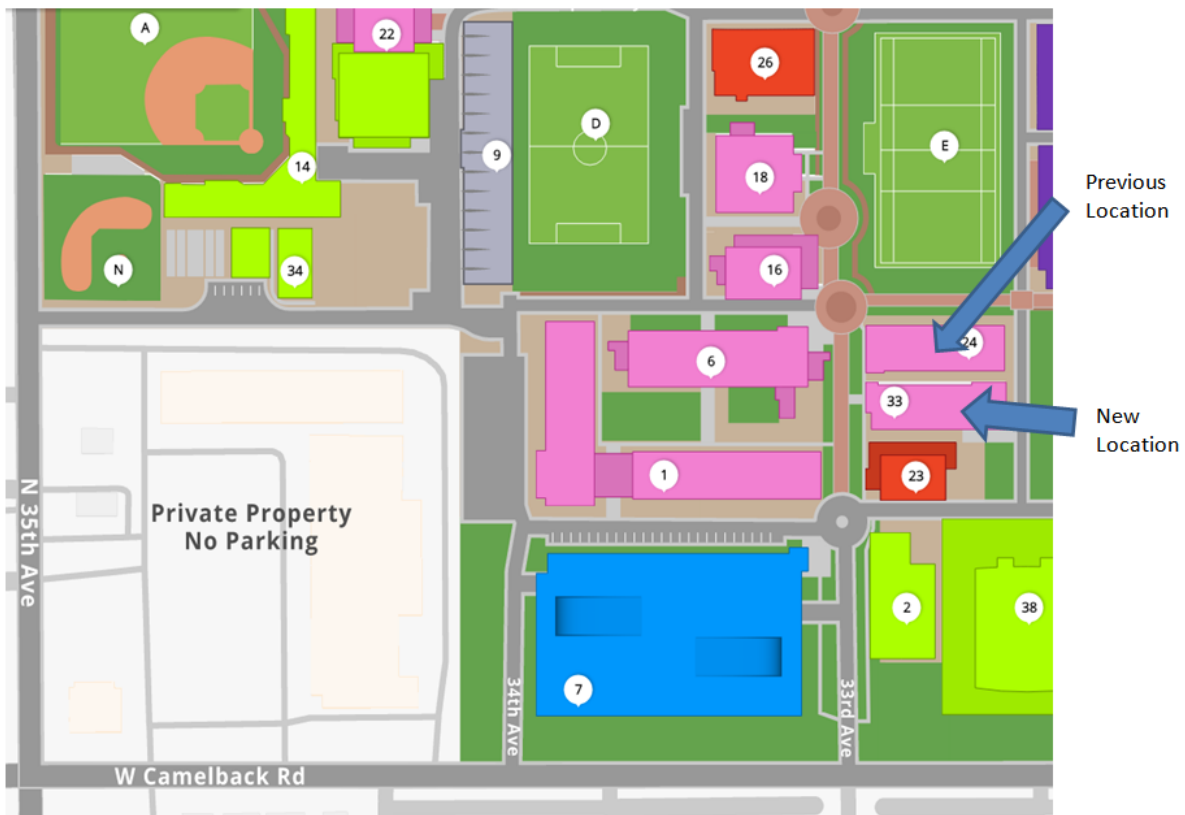
[Click here to return to page 1](#)

Bits & Pisces

New SAC Meeting Location: Room 33-104
May 4, 2018 SAC General Meeting

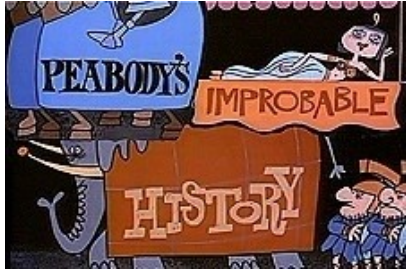
(Old room location, Fleming Building 24)

Grand Canyon University- SAC Meetings
Room change as of March 2018

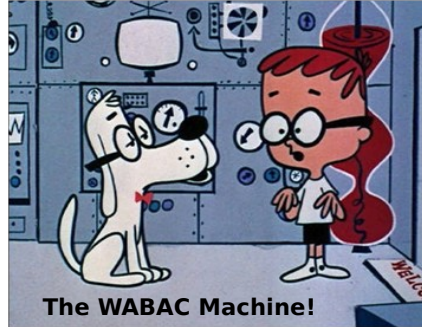




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© Peabody and Sherman, 'Rocky and Bullwinkle' Pictures



The WABAC Machine!

Where we going today Mr. Peabody?

25 Years Ago in SAC

Saguaro Astronomy Club

Metro Phoenix, Arizona

SACNEWS



June 1993 — Issue #197

Minutes of the May Meeting

The meeting opened at 7:35 PM with President Bob Dahl welcoming visitors and new members. He asked all guests to sign the guest book and they would receive a copy of the newsletter. He had recently received a lot of promotional material and copies were on the table for members, including some free calendars. Carol Lee gave the Treasurer's Report and reminded members that she still has 4 copies of the Observer's Handbook.

Gene Lucas reminded members about the Riverside Telescope Makers Conference coming over Memorial Day Weekend. If you need reservations, please contact him for phone numbers. The conference will have excellent speakers, and all members are urged to attend. Piet Burggraaf reported about the events on National Astronomy Day and the Thunderbird Park Public Star Party. At Thunderbird, there were 26 scopes there and estimates of 500+ people attending. He had available some free astronomy shareware programs for Windows for members and could make more copies if necessary. A.J. Crayon asked if any members were planning on attending the Grand Canyon Star Party on June 12-19. He has Dean Ketsels's phone number for information. [293-2855 -editor] The next meeting of the Deep Sky Group would be May 13 at the McGrath house. The constellations studied would be Corvus, Crater, Hydra and Sextans. He is currently working on a new observing program beyond the Herschel 400 — perhaps a Lifetime award.

Stan Student mentioned that the club's library now contains shareware software, along with books available for checkout. Tom Polakis presented information about the forthcoming bus trip to Lowell Observatory in August. The trip will be on Saturday, August 28 and will cost members \$20. More details will be in the newsletter.

After the break, the main program of the meeting consisted of short presentations by members. Jim Stevens demonstrated his tracking platform; Michael Janes talked about Mars observations; Stan Student showed overheads of CCD generated globular clusters; Tom McGrath had slides of the Chili observatories; Steve Coe distributed forms for note taking; A.J. Crayon had drawings of Virgo and other galaxies; Rich Walker displayed his double star wheel; Pierre Schwaar demonstrated his camcorder-telescope hookup; Rick Rotramel displayed pictures of the Thunderbird Star Party; and Brian Vorn-dam passed around his calculations of star positions. —

Susan V. Morse, SAC Secretary

10 Years Ago in SAC

Saguaro Astronomy Club



SACnews

Volume 32 Issue 6

June 2008

PAGE 10

SACNEWS

VOLUME 32 ISSUE 6

Bits and Pisces, Minutes of the May General Meeting

By A.J. Crayon



After opening the meeting a request for visitors and new members was made. Three folks introduced themselves. There were 36 people present at this time.

Meadow. We were reminded about star party etiquette and not parking in the middle of the meadow. Pictures from prior trips to the Five Mile Meadow site were also shown.

In Charlie Whiting's absence, Steve Dodder gave the treasurer's report. We have \$4553 in checking and \$75 cash on hand.

Rick Rotramel had some slides from the prior star party and potluck get together at Stone Haven Observatory. Despite the breezy conditions all had a good time.

Upcoming events were announced and discussed by president Steve Dodder. The included the ATM subgroup meeting on June 10th and July 8th. The next SAC meeting is on June 13th and will be preceded by a very important board meeting. Observing at Cherry Rd June 28th. The Grand Canyon Star Party will be June 21st to 28th at both north and south rims.

Rick Tejera reviewed the Brownie Encampment event that Jimmy Ray and Chris Hanrahan assisted. All helped many polite and well-behaved girls earn their Astronomy Merit Badge. They are planning on another event in September. If you like to work this kids this is a great opportunity to do so.

Rick Tejera presented awards for the 2008 All Arizona Messier Marathon.

After the break, vice president Jennifer Polakis introduced the evening's speaker, Don Wrigley. The topic was *The Moon*. During the discussion he showed images of its many and varied features. OK SAC observers, this should be motivation to get out in the backyard and look at our nearest celestial neighbor.

Show-n-Tell began with Steve Coe talking about the upcoming observing session at Five Mile

And They Build Telescopes

By Rick Rotramel

The SAC ATM (Amateur Telescope Making) / Astro-Imaging meeting was held on April 3, 2018 at Paul's home shop. Attended by Paul Lind, Al, Jimmy Ray, Lynn, and me.

Roll-off Observatory Roof

Al Stiewing said that he had completed the construction of the roll-off roof. But he did it on the ground in his yard and now it needs to be lifted onto the top of the observatory.

So, Al is asking folks to come over and help him lift the roll-off roof onto the observatory.

The roof will be 6' x 6' and will roll-off the building on tracks. He will be using garage door tracks and wheels to do the rolling part.

3" f/11 Refractor Telescope

Lynn Blackburn brought in a mount to test out the 3" refractor that was assembled at last month's ATM meeting.

It was set up on the drive way and we all got a chance to look through it.



Paul Lind's "Focal Length Measuring Tool" with the 3" lens and focuser



The 3" Refractor telescope assembled into a 4 inch tube



Paul, Al, Lynn and Jimmy with the 3" telescope

Epilogue

That's all for this month, see you next time. Remember, if you have a "need" for your telescope, bring it over to Paul Lind's shop at the next SAC ATM/Astro-Imaging meeting on the Tuesday evening before the SAC general meeting and join in on all the fun. Paul will post the date on the SAC-Forum list. Hope to see you there. It's a fun time for all.

SAC Imaging:

Messier 51, The Whirlpool Galaxy

By Jim Waters



Here M51, sometimes called the Whirlpool Galaxy was taken with an 8 inch f/4 scope and a Ha modified Canon T3i at ISO 800 on a Celestron CGEM mount. A 50mm f/4 scope, Orion SSAG auto-guider and PHD Guide 2 was used. Each 'Light' sub was 300" long and for a total of 65 minutes. Darks, BIAS and Flats were taken. It was shot at Starlight Pines close to Happy Jack AZ. M51 is off-centered. There were Bobcats walking around when I set up the initial run sequence in BackyardEOS. I grabbed my laptop with the connected USB cable and did the imaging from my truck. I didn't want to get out of my truck and re-center M51.

Excluding M51 and NGC 5194 to its left there are 9 additional confirmed galaxies and 4 suspect galaxies in the full-size uncompressed TIF image. Processed with PixInsight.



SAC Observing:

The 2018 All Arizona Messier Marathon Official Results, *(I think...the Editor)*

By Rick Tejera, Marathon Coordinator

Well, Ma Nature was back off her meds this year and decided that wind would be a valuable addition to this year's Messier Marathon. The threatening weather kept attendance down this year, but ten hearty observers braved the wind and early evening clouds, and turned in respectable results. I was hoping to be among them but a family emergency pre-empted those plans.

So, in light of the lower than usual participation and challenges faced by those who did observe, I have decided to alter the usual recognition process. All who turned in results will receive plaques in recognition of their perseverance. I Hope to have the plaques by the May meeting, but it may be close, so if not, June the latest.

Observer	City, State	Club	Optics	Number observed	Missed (over 100 only)
Doug Wiese	Lake Havasu City, AZ	DFAC	80mm f/3.75 Refractor	103	77,74,33,32,110,76,30
Don Pfirmann	Sun City West, AZ	SAC	4" Tele Vue Genesis	102	77,74,33,31,32,110,76,30
Raghavendra Murthy & Suprada G.N.	Tempe, AZ	TAAA	8" Dob	101	77,74,33,31,32,110,76,34,30
Paul Lind	Phoenix, AZ	SAC	14.5" f/5 Dob	101	77,74,33,31,32,110,76,34,30
Terry Shay	Phoenix, AZ	SAC	90mm Maksutov	91	
Joan McGue	Phoenix, AZ	SAC	8" f/6 Dob	69	
Thomas E Curry	Phoenix, AZ	SAC	8" f/10 LX-90 SCT	54	
Rick Rotramel	Phoenix, AZ	SAC	10" f/5.8 Newt	51	
Micki Killoran	Wilhoit, AZ	Four Corners	Stargazers 8" f/6 Dob	20	



SAC Observing:

2018 Messier Marathon of Things Didn't Go According to Plan

Report & Photos By Joan McGue

My yearly ritual is the Messier marathon. I join my fellow astronomy club members at a remote site to try to view 110 Messier objects in one night. I seriously debated not going, though, because the predicted weather was awful. The cloudiness was supposed to last most of the night and it would be windy and cold. This was the desert's *WIND* season, which usually occurs when I have some outside activity that requires no wind to be optimal. The eternal debate was to go even with predicted bad weather and hope it gets better, or to stay home and wonder what fun I missed.

Rural Arizona desert is unwelcoming. It's beautiful in its own bleak way, but it doesn't want humans to stay. It shows no mercy for the hapless. Cattle eat the ground vegetation, so what's left is scrub and dust. The site is 120 miles from home, west on I-10, off the Hovatter exit of the freeway, that immediately turns into a dirt road that goes to the middle of nowhere. The place elicits a sense of unease.

Since it is so far, the car has to be loaded up with a tent, sleeping bags, the telescope equipment, a chair, a table, food and generally, the kitchen sink. It is not an easy trek. If the weather is cloudy, I go anyway since the die-hards will still show up. In that case, people stand around and talk or go to sleep. The clouds rarely last all night.

At the site, no signs were on the road to indicate direction. I knew the way, but it would have been reassuring to see some signs of civilization. People were set up, but no one that I knew. The die-hards weren't so much, and had stayed home. I parked near the porta potty because it's hard as hell to find in the dark.

Clouds weren't totally covering the sky, but the wind was a persistent, annoying slap. Wind will usually die down at sunset. However, the tent had to be set up before it got dark. It can be calm, but pull out a tent, and the wind starts howling. *Every time*. I hate camping, but sleeping in the car is even more uncomfortable.

Since the wind was unruly, my strategy was to weight down the tent corners, then stake it. The system was a dome tent with bendable rods that attached to the corners and erected the tent. Normally, I put up the tent, then try to stake it before the wind blows it away. Secure one corner and the other lifts up. Before I know it, the whole thing has shifted and I am cussing up a storm. Staking it down first made it crooked. It was an hour struggle to make it work and a stake bent in the hard ground. My Ashelter@ was sad looking, misshapen and rattling in the breeze.

My mood was dark. The sky was cloudy and the telescope couldn't be collimated. *This was the worst Marathon ever!* The strong wind chilled me. I retreated to my car to brood.

A car left and I was envious. Briefly, I wondered if I could leave without ending up in a ditch. Leaving a star site required not using headlights, otherwise raving astronomers will yell at the hapless driver for blinding their night vision. The dirt road edges are not easy to see and it would have been easy to veer off and get stuck in soft sand. From experience, driving in the



The Sunset at the All Arizona Messier Marathon

dark from star parties years ago resulted in getting lost, which was terrifying because it was disorienting. I just stayed. I didn't drive 120 miles into the godforsaken desert to quit now.

Finally, a few stars popped out. The viewfinder and the Sky Commander computer thingy that tells where to point the telescope could be set up. The targets briefly appeared through the clouds before they got instantly obscured. It was an exercise in futility, but I outwitted the weather occasionally. Maybe the situation wasn't totally hopeless.

After a few hours, the Sky Commander decided it was lost. Re-aligning by sighting on two stars was too much effort, so the hunt was manual. This took forever because the method was inexact. Look at a map, figure the object is maybe, kind of, between certain stars and hope that it's there when looked at. Star hopping is tedious. Exhaustion set in.

It was colder by now, the temperature into the forties. I had on long underwear, jeans, a long-sleeved t-shirt, a cashmere sweater, ski bibs, long socks, a bike jacket and a long wool coat. It wasn't enough in the biting wind. Standing outside was a test of determination and endurance.

Someone came by and chatted. She was trying to find the porta potty in the dark. We discussed the dismal state of affairs. A gust of wind blew my list away. I ran after it, barely seeing it in the ambient light, and tried to catch it before the wind blew it farther. I stomped, missed, stomped again and finally caught it with my foot on the third try after a sprint through the desert. Could this night get any worse?

She left, and I worked for a few more hours. The sky had mostly cleared by now, but the wind still blew my hair into my mouth. The Milky Way was out and the sky was filled with sparkling stars. Conditions weren't crystal clear, but still beautiful. At 2:30 AM, I decided to sleep a little, because driving 120 miles home in the morning required at least some level of alertness.

I went into the tent to sleep, but the wind still rattled it loudly. Would it blow down on top of me? Sleep was impossible. I got out and scrunched into the back seat of the car. Setting up the tent had been a total waste of time. The wind whistled around the car and the sleeping bags barely fended off the cold. I slept until 4:30 AM. *Continued next page*

SAC Observing: Conclusion

2018 Messier Marathon of Things Didn't Go According to Plan

Report & Photos By Joan McGue

When I awoke, it was difficult to get up and step outside into the cold. The wind had at least died down. I wandered to find the porta potty, but got disoriented in the dark twice. I saw vehicles, but had no idea where my car was, nor the porta potty. I stumbled over bushes and found my car again by following the camper that was near it. I briefly considered just peeing by my car, but decided against it.

I now had a bunch of galaxies to search, and not long to find them, so I sucked it up and re-aligned my Sky Commander. The Leo and Virgo constellations have many galaxies and the fuzzy balls look similar. To try to distinguish one from another is a descent into madness. The Sky Commander still had problems, but at least located the objects. Time was limited as sunrise would be soon.

I found 68 objects total by the time the sky lightened. The Amarathon@ was not so much finding them, but defying the weather and not quitting. It was an emotional roller coaster of misery, despair and fun.

With more light, the porta potty came into view. How the hell did I miss it when it was that close? Of course, if it had had its usual red light instead of nothing, it would have been easier to find.

Was it worth it to go through all this? The whole affair was a cluster#@k with the clouds, the wind, the cold, the misaligned Sky Commander, the list blowing away, the weebegone tent. The theme of my life this year is: Things are Not Going According to Plan, and this certainly fit that category. A difficult experience was better than no experience. I could have stayed home and slept in my warm bed, but what would have been the fun in that?

Joan McGue



Dawn at the end of the Messier Marathon at my site

SAC Outreach: Thunderbird Park Spring Public Star Party

Photos by Susan Trask

April 21, 2018



Bob Christ



Dale Cunningham



David Dillmore



Dylan Timberlake



Ellen Walzcak



Jack Jones



John Butler



Michael Poppre



Rick Rotramel



Rick Tejera



Tom Curry



Thom Walzcak



Lynn Blackburn



The West End Group Photo: Rick Rotramel



The middle area Photo: Rick Rotramel



The East End Group Photo: Rick Rotramel



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2018 SAC Officers and Contacts

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2018 Board Mtgs:

February 2, 6:30 pm

May 4, 6:30 pm

August 24, 6:30 pm

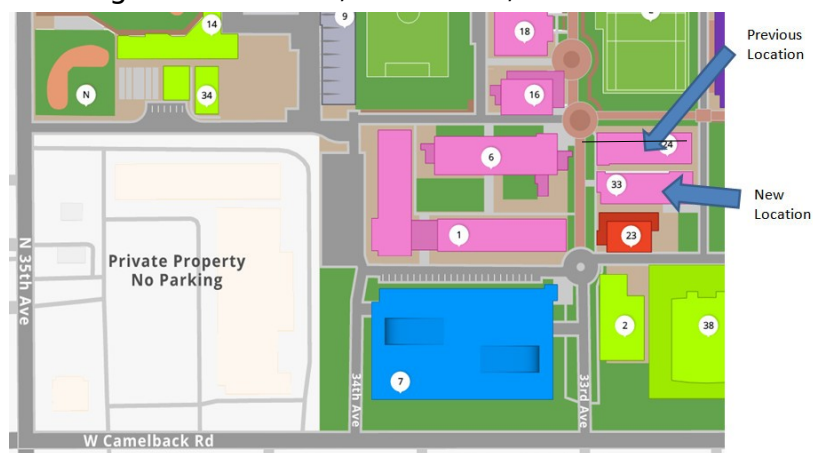
November 16, 6:30 pm

Occultation Info

Wayne Thomas has asteroid occultation info for the greater Phoenix Area:

[Mail to:tomwaymas@gmail.com](mailto:tomwaymas@gmail.com)

Meeting Location: Grand Canyon University is located at 3300 W. Camelback Rd, Phoenix, AZ We meet in College of Education, Room 105, 7:30 PM to 10:00 PM



Parking: Turn into the campus from Camelback Road at 33rd Ave. and drive straight and stop at the guard station. Tell the guard you are attending the astronomy club meeting. Then, turn left past the guard and park.

Saguaro Astronomy Club

Saguaro Astronomy Club (SAC), Phoenix, Arizona, was formed in 1977 to promote fellowship and the exchange of scientific information among its members-amateur astronomers. SAC meets monthly for both general meetings and star parties, and regularly conducts and supports public programs on astronomy. Membership is open to anyone with these interests.

Saguaro Skies is posted as a pdf file monthly on the SAC website,

www.saguaroastro.org/content/SACNEWS/newsindex.htm

for browsing or downloading for SAC members and friends of SAC. A email announcement of the monthly newsletter release is included with membership.

Direct all membership inquiries to the SAC Treasurer by using the membership form found in this newsletter. For editorial and SUCH-A-DEAL advertising inquiries, contact the Saguaro Skies Editor.

Contacting This Issue's Authors

If you wish to write to an author in this month's issue, contact them by sending your message to the editor of Saguaro Skies, Rick Rotramel, at: r.rotramel@cox.net

I will then forward your questions or comments to the author.

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Saguaro Astronomy Club 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%.

- \$32.00 Individual Membership
- \$36.00 Family Membership
- ~~\$13.00 Member Nametag (pinned clasp)~~
- ~~\$14.00 Member Nametag (magnetic clasp)~~



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Please bring your completed form to a meeting or mail it with payment to:

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c/o Lori Prause, Treasurer
8441 W. Foothill Dr.
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**Saguaro
Astronomy Club**

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SAC-Forum@freelists.org - SAC Forum is a general discussion list for members to discuss the club or astronomy in general.

SAC-Board@freelists.org - SAC Board is a list for discussions of club business. If you'd like to see how the club is being run, this is the list for you.

AZ-Observing@freelists.org - AZ-Observing is not a SAC list, but many members participate. This is the list for discussions on observing around the state.

Please download the PDF version of the monthly newsletter from our website. When the newsletter is published a message will be sent to the email address provided above containing a URL to the current newsletter.

<http://www.saguaroastro.org/content/SACNEWS/newsindex.htm>