Saguaro Skies

Saguaro Astronomy Club, Phoenix, AZ

Volume 42, Issue 8

August 2018

The President's Corner

mail to:president@saguaroastro.org

This monsoon season is proof positive that the tilt of the Earth's axis has moved. Phoenix, Arizona is now where Houston, Texas was. It's humid, hot, and there is an impermeable layer of clouds at night. Those who have visited Houston during the summer know the climate. Rumor is that Earth should right itself sometime in September. I got exactly 2 nights of good sky in Tonopah in the last 6 weeks.

SAC has an opportunity to reach out to the Boy Scouts and Girl Scouts of America on Sunday, October 21, 2018. I received an e-mail from a Rustell Lomanto at Rustell@gmail.com:

"I am organizing a Girl Scout/Boy Scout event on October 21 from 5:30-8. Our scouts will be working on space badges and we are looking for volunteers to come out and set up telescopes and introduce the scouts to the night sky. Different levels of scouts might need to see specific planets or constellations, but I can provide that information and you can let me know if it is feasible. We are located at 111th Avenue and Peoria. Thanks for your time."

I have volunteered to attend and will pursue more information (like the exact address and what we are supposed to show the kids). I hope we can get some more members to attend (assuming this is a legit event). One thought, perhaps some of the astrophotographers can bring their photograph albums to show what can be seen at other times of the year.

As noted in the newsletter, there will be a SAC Board meeting on the 24th at 6:30 pm before the general SAC meeting.

Finally, I want to thank Robert Brewington for the fabulous job he did with our Web Site.

Clear sky,

David

SAC President, David Dillmore at the Thunderbird Park Spring Public Star Party
Photo: Rick Rotramel

Website: saguaroastro.org Like SAC on Facebook

Quick Calendar

Friday, August 24: ***SAC Board Meeting***, 6:30 PM, in room next door to main meeting room.
Friday, August 24: ***SAC General Meeting***, 7:30 PM, Speakers: SAC Members, "10 Minute Talks" Astronomy related topics. * RSVP with Michael Poppre: email: popps@fastq.com
* ***New Room*** *starting with the the July Meeting: Engineering Building 1-202. It is just north of the parking garage.*
Saturday, September 8: ***Star Party***, Stoneman Lake Site, Weather permitting, see page 2
Tuesday, September 18: ***SAC ATM/Imaging Meeting***, 6:30 PM, Paul Lind's Shop, see page 2
Friday, September 21: ***SAC General Meeting***, 7:30 PM, Speaker: TBA, Topic: TBA
Fri. & Sat, October 5 & 6: ***All Arizona Star Party***, Salome Emergency Airstrip Site, see page 2
Saturday, October 13: ***Fall T-Bird Park Public Star Party***, 6:00 – 9:00 PM, see page 2

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

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Editor Notes

Hi Folks,

This issue has some interesting things to look at and read about.

Best of the NGC features this month NGC 6818, a planetary nebula in Sagittarius.

Check out the ads in *Such A Deal.* They all have been there quite awhile and need a new home.

Bits & Pisces has minutes of the July SAC General Meeting, some SAC history and a photo essay of Paul Linds' project for his Schaefer telescope mount.

A new feature, *Spaceflight News*, covers the newest NASA venture, a Sun probe to study our star's corona. The Parker Solar Probe launched on August 12 on a Delta IV Heavy rocket, at 3:31 am EDT. The Parker Solar Probe is the first NASA spacecraft named for a living scientist. It will spend the next six weeks making its way toward Venus, where it will use that planet's gravity to direct itself toward the sun. The craft has a solar shield to protect it.

Enjoy!

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 plus 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

* No meetings in July and August

Next meeting:

Tuesday, September 18th, 6:30 PM @ Paul Lind's Shop
210 W. Tierra Buena Lane, Phoenix, AZ

Star Party, Weather permitting

Saturday, September 8, 2018, Sunset, Stoneman Lake Site
Map: http://saguaroastro.org/stoneman-lake-directions/

All Arizona Star Party

Friday & Saturday, October 5 & 6, 2018
Details: http://evaconline.org/aasp_2018.htm

Outreach:

Fall Thunderbird Park Public Star Party

Date: Saturday, October 13, 6:00-9:00 PM
Flyer with details:
http://saguaroastro.org/event/sac-fall-public-star-party-at-thunderbird-conservation-park/?instance_id=907

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 Poppre
Treasurer: Lori Prause
Properties Director: Robert Brewington
Secretary: Andrew Perry
Photo: Susan Trask

SAC Announcements

Remember 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.

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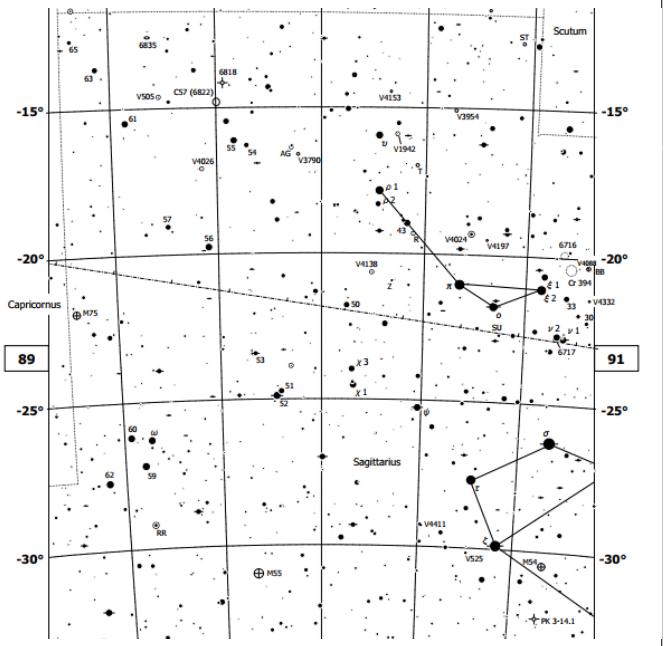
Best Of The NGC:

NGC 6818, Planetary Nebula in Sagittarius

By SAC Imagers, Observers & Sketchers

Image by Kevin Kozel, 152mm Explore Scientific 988mm focal length f/5.6 doublet refractor. Camera used was a Canon 7Ti attached to the scope. Photo exposure time was 60 seconds. Grand Canyon North Rim Lodge Veranda, June 2018



Sagittarius Star Chart

© Taki's 8.5 Magnitude Star Atlas

,

Observing Chart
D. M. Douglass - Tempe, AZ
http:///www.AZ-DaHut.net

NGC 6818
SAC Best of The NGC - August 2018

Observed and Imaged
Date: June 02, 2018
Site: DaHut, Tempe, AZ
Elevation at Site: 1200 ft
Local Time: 23:30

Other Names: The "Little Gem" Nebula

Observing Program:
EVAC and Astronomical League and General Observations

Telescope and Mount:
Celestron EdgeHD 8" SCT
Mount: Celestron CGX-L (EQ)

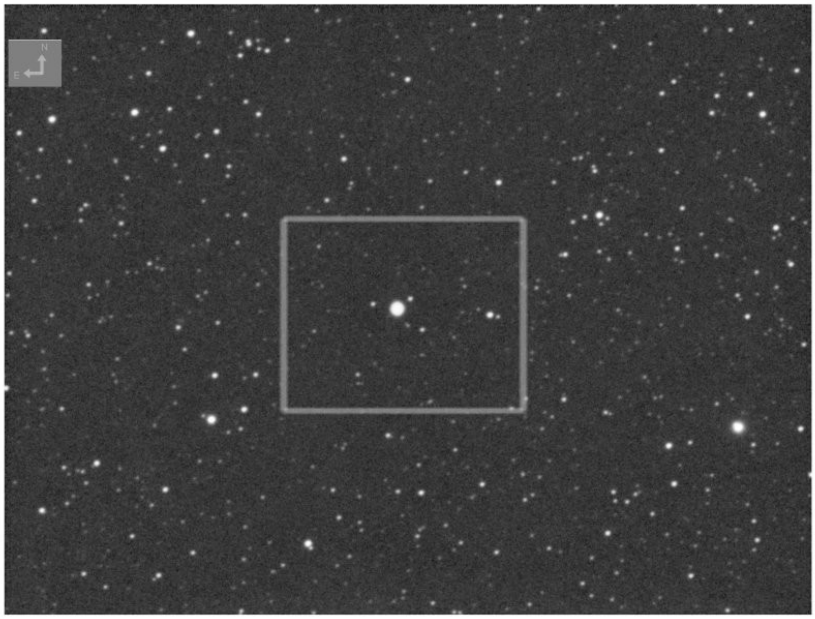
CGX-L Mount Control: TheSkyX Pro
All slews by "closed loop" (Plate Solved)
Mount Guiding: TheSkyX Pro
Guide Camera: Starlight Express Lodestar X2

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

Total # of frames (subs): 07
Frame exposure time: (min): 02
Total exposure time (min): 14
Camera: SBig ST-8300-M
Camera controlled by: TheSkyX Pro
Plate Solved by: TheSkyX Pro
Preprocessing and stacking: CCDStack
PostProcessing: Adobe Photoshop CS3

Object Type: Planetary Nebula
R.A. 19:43:58
DEC -14:09.1
Magnitude: 10
Size (Arc Min): 1
Constellation: Sgr

Sky Brightness and Weather
Mags / sq ArcSec (v)18.5 or Bortle Scale: 6
Moon III = 81%
94 Deg F - Calm



David Douglass

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Best Of The NGC:

NGC 6818, Planetary Nebula in Sagittarius

By SAC Imagers, Observers & Sketchers

SAC Observer Steve Coe

TV 102, 5 Mile Meadow, S+T=7, 6.7mm, pretty bright, very small, little elongated 1.2X1, very light green on this tiny disk.

6" f/6 Mak-Newt, Flatiron, S+T=6, 6.7mm, bright, small, elongated 1.5X1 in PA 90. The central star is seen 10% of the time. Averted vision does not make it larger. Gray in color.

6" f/8, Antennas, S+T=7, 14mm, bright, small, round, very light green disk. 6.7mm, central star not seen, disk is now elongated 1.2X1, averted vision makes it a little larger.

Nexstar 11, Flatiron, S+T=6, 8.8mm, Nexstar put it into eyepiece! A nice view of the CBS eye effect, but there is no central star to complete the illusion. The markings are low contrast. The 22mm eyepiece shows it as pretty bright, pretty large (for a planetary) elongated 1.2X1 and not brighter in the middle. At this lower power, 125X, it is a light aqua color. There are three pretty faint stars around the nebula.

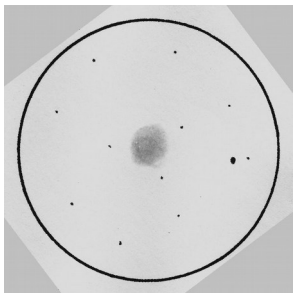
13" f/5.6, Camp 613, S=7, T=10, 100X, easily spotted, pretty bright, small, round, light green. 330X, little elongated 1.5x1 in PA 0, averted vision makes it grow by 30%, not as green at higher power, now it is more gray in color.

16" f/4.5, Antennas, S=6, T=8, 22mm, pretty bright, small, round, an obvious disk even at low power. There is an obvious orange star about 5 arcminutes west. 8.8mm, disk is now very little elongated 1.2X1, the central star is seen 20% of the time. Averted vision makes it larger and more prominent. It is a light grey-green color and has what I have called "planetary sheen." This is a combination of color and texture that only planetary nebula seem to display.

17.5" f/4.5, Sentinel, S+T=7, Bright, pretty small and little elongated. It is a lovely, light green at all powers. This planetary was obviously non-stellar at 100X. Going up to 320X, it looks somewhat like the CBS eye, with a subtle central bright spot that was never stellar. Three dim stars surround the nebula.

36" f/5, Ultimate Star Party, McDonald Obs, Oct. 95, S=7, T=9, 27mm, seen immediately, round, light green and central star seen. With 16mm low contrast detail, a few dark thin markings, nice medium green color.

© Chris Schur
11'x11'



11" f/10, 320x

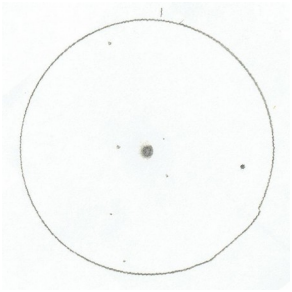
SAC Observer Kevin Kozel

152mm f/5.6 doublet refractor, I viewed NGC 6818 on the evening of June 13, 2018 from the North Rim of the Grand Canyon during the star party at 11:00pm. At 112x the planetary nebula looked to be a small bright pastel green nearly circular ball that would not focus in a field of view with numerous other tack-sharp stars. At 225x the nebula became more distinct with a few dim stars in a triangle shape around it. The shape and color looked a lot like the planet Uranus in the scope. The green ball stood out very well against the darker background sky. The sky is very black here at the North Rim, and the stars are sharp and clear. In the photo, one can see the very slightly out-of-round shape of the planetary nebula. There may be a star in the foreground right in front of the nebula or the star may be part of the nebula. If anyone knows which is true, please let me know.

SAC Observer Rick Rotramel

16" f/4.4, 375x; Pretty bright, fairly large, round, bluish white color.

© Chris Schur
11'x11'



16" f/4.4, 375x

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

Hello SAC imagers, observers & sketchers:

For **September**, NGC 6946, Sc Galaxy, 20 34.8, +60 09, 10.5 mag, 14,' diffuse, face-on, in Cepheus.

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

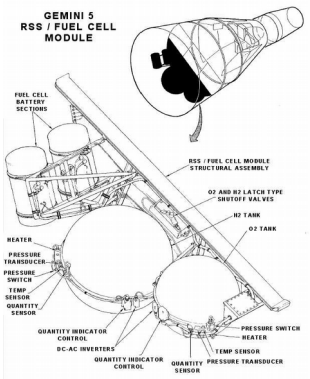
For **October**, NGC 7009, Planetary Nebula, 21 04.2, -11 22, 8.3 mag, 28"x23," Saturn Nebula, small green oval, in Aquarius.

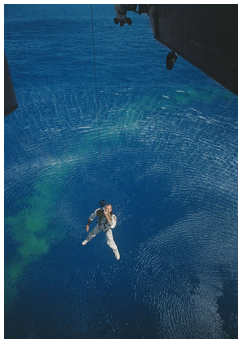
For **November**, NGC 891, Sb spiral galaxy, 02 22.6 +42 21, 11.5 mag, 14 x 3, edge-on with dust lane, in Andromeda.

Spaceflight Trivia Answer

Gemini V

Mission type	Manned Earth Orbital Spaceflight
Operator	NASA
COSPAR ID	1965-068A
Mission duration	7 days, 22 hours, 55 minutes, 14 seconds
Distance travelled	5,242,682 kilometers (3,257,652 miles)
Orbits completed	120
Spacecraft properties	
Spacecraft	Gemini SC5
Manufacturer	McDonnell
Launch mass	3,605 kilograms (7,948 lb)
Crew	
Crew size	2
Members	L. Gordon Cooper, Jr, Commander & Charles "Pete" Conrad, Jr, Pilot
Start of mission	
Launch date	August 21, 1965, 13:59:59 UTC
Rocket	Titan II GLV, s/n 62-12560
Launch site	Cape Kennedy LC-19
End of mission	
Recovered by	USS Lake Champlain
Landing date	August 29, 1965, 12:55:13 UTC
Landing site	29°47′N 69°45.4′W
Orbital parameters	
Reference system	Geocentric
Regime	Low Earth orbit
Perigee	170 kilometers (92 nautical miles)
Apogee	330 kilometers (180 nautical miles)
Inclination	32.5 degrees
Period	89.5 minutes
Epoch	August 23, 1965





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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

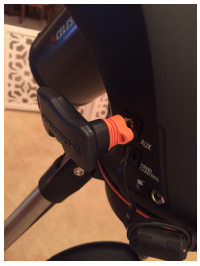
480-646-1324

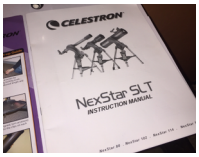
Ads placed here are free to SAC members and friends. SAC is not responsible for the quality of the advertised items. If you wish to place an ad here to sell your telescope or astronomy related items, contact Rick Rotramel at: r.rotramel@cox.net

Celestron Nexstar 130 SLT

- Celestron Skyportal wifi module
- 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

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Such-A-Deal

ITEMS FOR SALE

Vixen SXW Computerized, Equatorial Mount with Starbook Controller

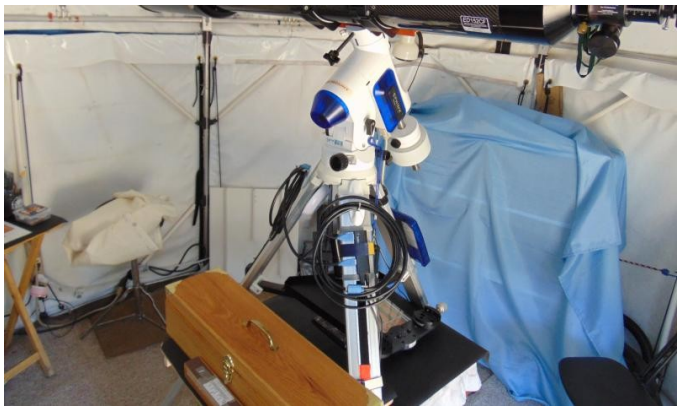
I purchased this mount with a Vixen 8" Astrograph on top of it from the estate of the past president of the Riverside Astronomical Society, the astronomical portion of that estate being sold off by RAS at a past RTMC gathering. I sold the astrograph some time ago but the mount has been my primary solar 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



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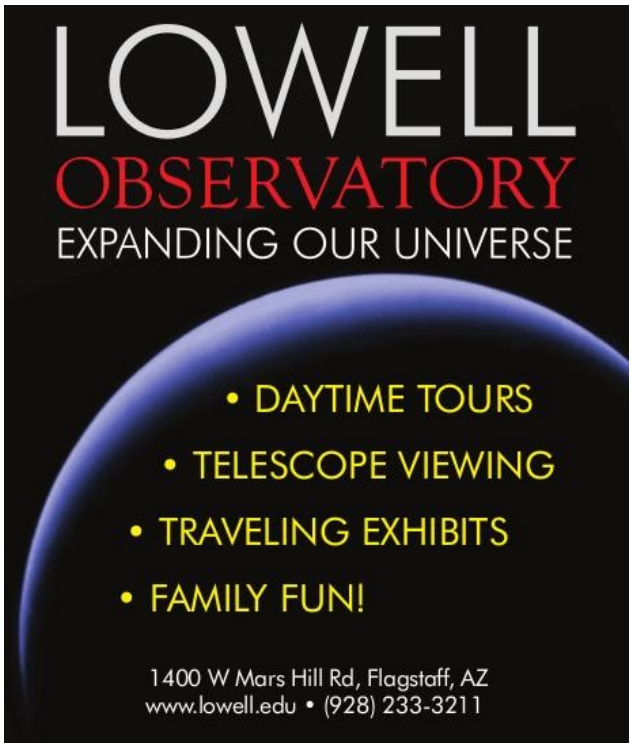
Such-A-Deal



http://www.lowell.edu/visit.php

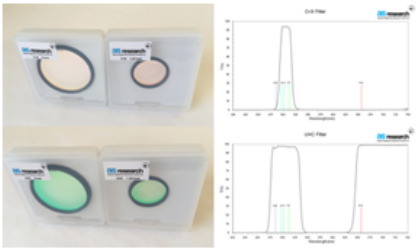
http://www.photoninstrument.com

Apache-Sitgreaves Observatory

Overgaard, Arizona

Largest Public Observing Telescope in Arizona

Critical products for visual observing, too!



A-S Research Nebula Filters: See More Nebulosity!

www.Apache-Sitgreaves.org

Telescope Accessories

http://corvus-optics.com/

1350 S Greenfield Rd #2105
Mesa, AZ 85206
Phone: (480) 779-9262

STARIZONA

ADVENTURES IN ASTRONOMY & NATURE

Welcome to Starizona! In addition to a complete selection of astronomical products, we offer free online resources such as our award-winning Guide to CCD Imaging and more. We also manufacture unique products such as the HyperStar imaging system. Our staff consists of experienced observers and astrophotographers who love to share their knowledge. Please feel free to contact us for advice or answers to any of your questions.
Hours: Mon, Tue, Wed, Thu 10AM-5PM Fri, Sat 10AM-10PM
Closed Sun. Free Viewing Fri and Sat nights!
5757 N. Oracle Rd., Suite 103 · Tucson, Arizona 85704 ·

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

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Bits & Pisces

Minutes of the July 20, 2018 SAC General Meeting

By Stephen Perry, subbing for Andrew Perry SAC Secretary

Opening:

The SAC meeting was brought to order at 7:38 pm by the SAC Club President David Dillmore. There were 19 members in attendance and also we had no new member or visitors. The Club Vice-President Michael Poppre stated that there are 3-4 t-shirts left available from the Messier Marathon. The club was having the 50/50 raffle tonight and also there was no treasurers report due to the absence of the SAC club Treasurer Lori Prause.

Announcements:

Desert Foothills astronomy club has arranged for us to join them for a tour of the Discovery Telescope at 1200 hours Saturday.

Paul Lind gave an ATM presentation on a protective cover he had made for his exposed right ascension 9 inch worm gear on his Schaefer Telescope Mount. He showed photos of how he made it out of fiberglass.

The Messier Marathon Awards were passed out to those that attended and participated in locating the Messier objects.

Club Break at 8:15 pm.

Guest Speaker:

The club guest speaker for this evening was Tyler Richey-Yowell, a 2nd year ASU student working on her PHD in Astrophysics. The title on the presentation was called, "Ultraviolet Imperative for Assessing the Super-Habitability of Planets."

Ending:

The 50/50 winning number was announced and the club members are invited to the JB's Restaurant after the meeting. Next month, the club meeting will consist of member presentations in which members will have 10-15 mins. to present their talk.

The Club President David Dillmore brought the meeting to a close at 9:02 pm.

Tyler Richey-Yowell

Photo: Michael Poppre

The July SAC Meeting Speaker

Speaker: Tyler Richey-Yowell, 2nd year ASU student working on her PHD in Astrophysics.

Topic: "Ultraviolet Imperative for Assessing the Super-Habitability of Planets."

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Bits & Pisces

New SAC Meeting Location:

Engineering Building 1-202
It is just north of the parking garage.

(*Old room location, Building 33*)

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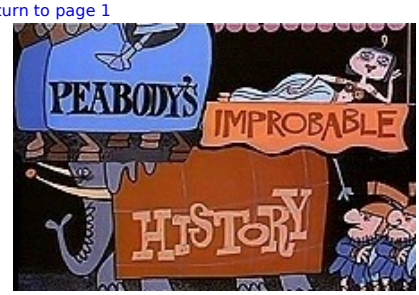
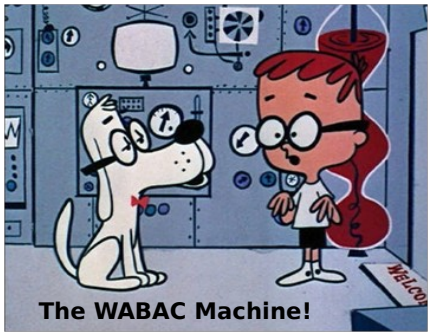


© Peabody and Sherman, 'Rocky and Bullwinkle' Pictures



25 Years Ago in SAC

Saguaro Astronomy Club
Metro Phoenix, Arizona
SACNEWS

October 1993 — Issue #201

Minutes of the August Meeting

The August meeting of SAC was opened by President Bob Dahl at 7:40 PM. He welcomed all guests and new members and asked them to sign the guest book. He then asked all the members what they experienced for their observations on the Perseids meteor shower. Most members felt that the display was no better than normal. Bob reminded members to pick up their current newsletter from the box on the table.

Tom Polakis told all the members who were going on the bus trip to Lowell Observatory in Flagstaff, that the departure place was the parking lot at Smitty's store at Bell Road and I-17, and to be there before 0:00 AM. Members should pack their own picnic lunch, and after picking up Brian Skiff at Lowell, the tour would start at Anderson Mesa, then return to Lowell; the bus should be back in Phoenix by 10:00 PM.

Carol Lee gave the Treasurer's Report and mentioned that several nametags were available. Steve Coe said that the disks on the table represented the database of 10,000 objects and if members wanted a disk, the cost was $1.00. A.J. Crayon reminded members about the Deep Sky Group meeting on Sept. 2, at 7:30 at the McGrath's house. The constellation studied will be Aquarius.

For "Show'n'Tell", Stan Student displayed some slides on some recent computer nebulae that he observed.

Following the break, Frank Zullo gave a wonderful slide presentation on astrophotography, showing his techniques on assembly composite slides.

Respectfully submitted, —*Susan V. Morse, SAC Secretary*

10 Years Ago in SAC

Saguaro Astronomy Club
SACnews

Volume 32 Issue 9 — September 2008

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Bits and Pisces, Minutes of the August General Meeting

By A.J. Crayon

The first order of business is the request for visitors, 2 stood up and introduced themselves. New members included Chuck Conner, Cheryl Nelson, Ron Bauer and Kerry Williams. Steve Dodder offered an invitation for Novice Group meetings to include visitors and new members for a get together on a Saturday evening, a week after the General Meeting, at Stone Haven Observatory. He will be available to answer astronomy type questions. Just let him know if you are interested.

By this time there were 44 folks present.

The treasurer reported $3658 in checking, $102 cash on hand. The 2009 calendars by Astronomy are available for the discounted price of $12.95 if ordered before October 15th. Our treasurer, Charlie Whiting, will be out of the country until September 25th. Until his return our president Steve Dodder will take care of his responsibilities.

Upcoming events, still on the calendar, are next meeting, September 12th, September 27th DOTM Star Party and suggested to be at 5 Mile Meadow. We need to act on this quick for the date is almost upon us.

For observing the SAC 110 Best Double stars Jack Jones received his Double Star telescope plate. Great job Jack!

Dick Harshaw discussed possibilities for purchasing SAC T-shirts, polo shirts and hats. Prices varied based on number of items purchased and design.

A correction is in order for the June General Meeting Minutes in regards to new outreach programs. There are two new positions that were started. One for a School Star Party Coordinator, chaired by Chris Hanrahan, and another for Public Outreach, chaired by Rick Tejera.

For Show-n-Tell, Steve Coe started by showing some of his new piggyback photos taken with his digital camera.

Paul Lind discussed his 9" Schafer Mount and its modifications to reduce its weight for his 14.5" scope. This was done to make it easier to handle and produce astrophotographs.

Glen Nishimoto showed a video of his eclipse trip to China. Pretty neat for a first time video.

Jennifer and Tom Polakis gave an update on the Burnham Memorial, which when finished will be placed on Mars Hill in Flagstaff, AZ.

After the break SAC member Dick Harshaw was our main speaker. The title of his talk was *The Awesome World of Double Stars.*

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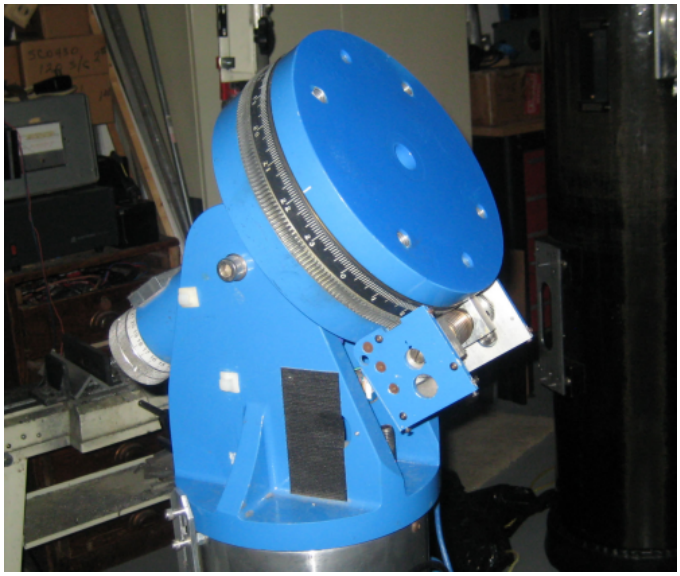
And They Build Telescopes

By Rick Rotramel

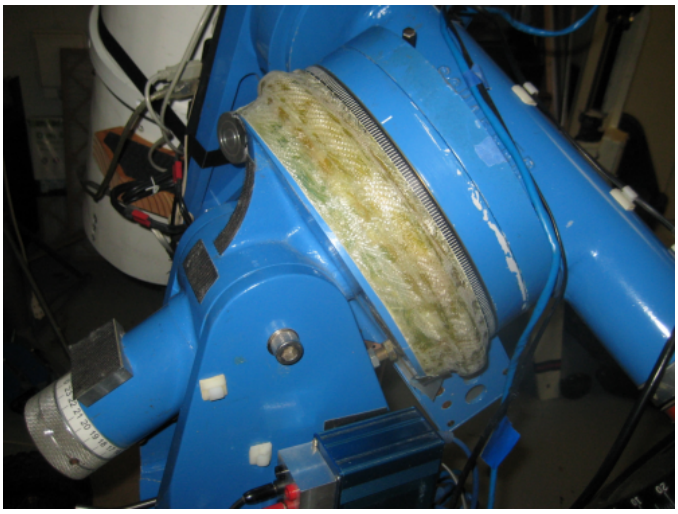
The SAC ATM (Amateur Telescope Making) / Astro-Imaging meetings took a break in July and August. Meanwhile, here is what Paul Lind has been doing.

Protective Fiberglass Cover for a 9” Worm Gear on a Schaefer Mount

Paul Lind wanted to make a cover to protect the exposed 9” worm gear on his Schaefer Mount from the dusty Arizona desert. See the following photos, all taken by Paul.



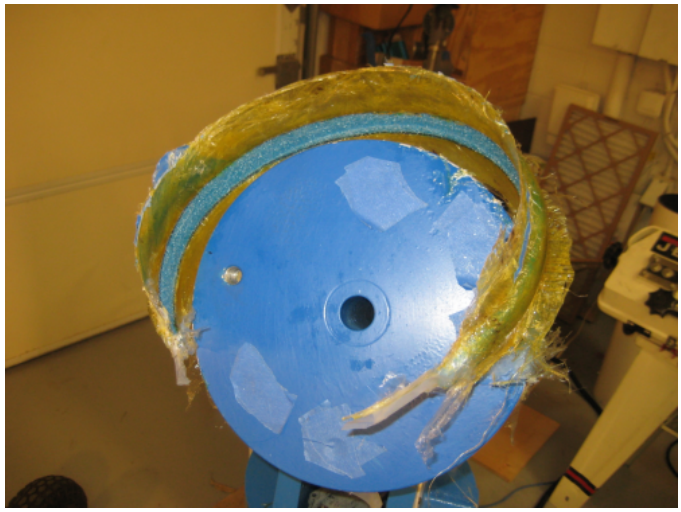
The exposed 9” worm gear is right below the setting circle



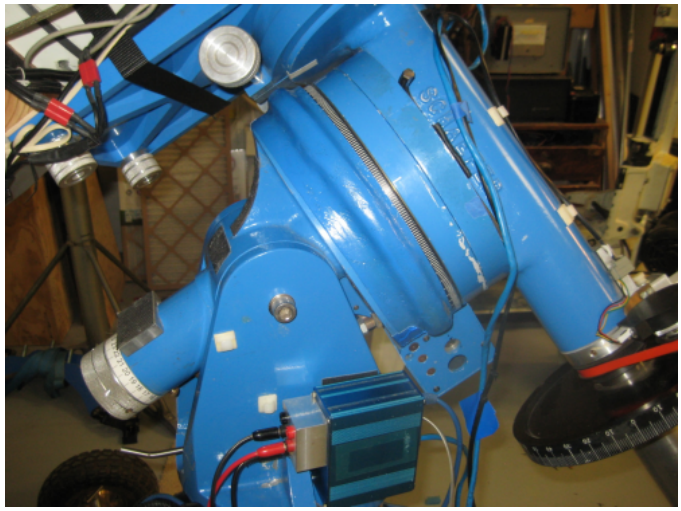
The fiberglass cover wrapped around the mount to “set”

Cutting the foam “spacer”

Applying the fiberglass resin



Removing the “set” fiberglass cover to remove the foam



The finished cover after sanding & a matching coat of paint

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.

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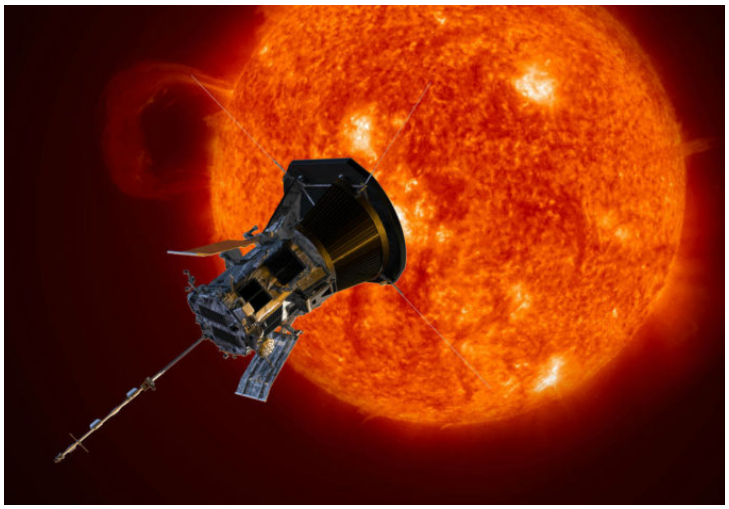
Spaceflight News:

NASA launches Parker Solar Probe on historic mission to the Sun

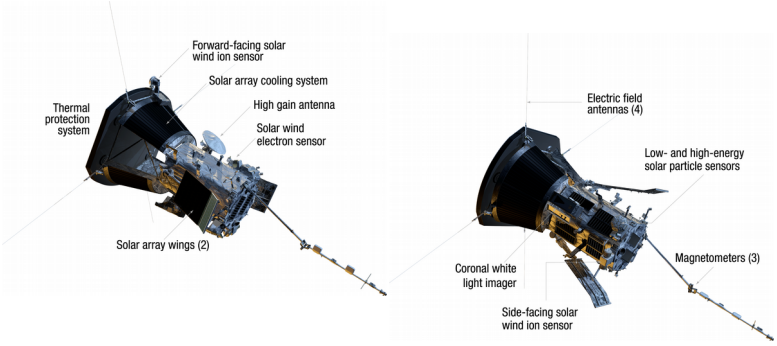
Sunday August 12, 2018
By: William Harwood, **Spaceflight Now**

Running a day late, a United Launch Alliance heavy-lift Delta 4 rocket thundered away from Cape Canaveral early Sunday, boosting NASA's Parker Solar Probe into space on a daring seven-year mission to "touch the sun" with repeated trips through the star's blazing outer atmosphere.
Passing within 3.8 million miles of the sun's visible surface — well within the shimmering halo of the outer atmosphere, or corona — the spacecraft's heat shield will endure 2,500-degree heating while whipping past the star at a record 430,000 mph.

A United Launch Alliance Delta 4-Heavy rocket takes off at 3:31 a.m. EDT (0731 GMT) Sunday from Cape Canaveral Air Force Station, Florida, with NASA's Parker Solar Probe.
Credit: NASA/Bill Ingalls

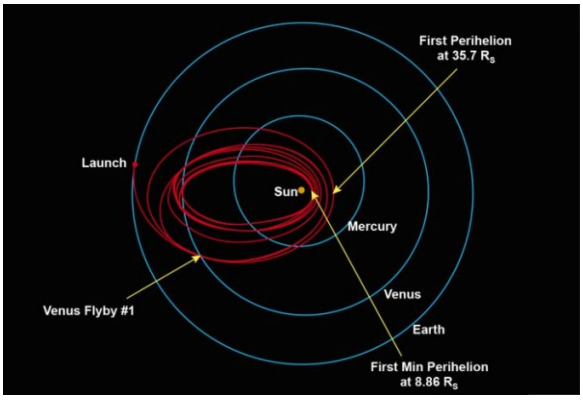


Artist's concept of the Parker Solar Probe
Credit: JHUAPL (Johns Hopkins University Applied Physics Lab)



http://parkersolarprobe.jhuapl.edu/index.php#spacecraft

Eugene Parker, namesake for NASA's Parker Solar Probe, watches the spacecraft's launch early Sunday.
Credit: NASA/Glenn Benson



An illustration of Parker Solar Probe's trajectory through the inner solar system following launch.
Credit: NASA/JHUAPL

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2018 SAC Officers and Contacts

Board Members

President	David Dillmore (mail to:president@saguaroastro.org)
Vice-President	Michael Poppre (mail to:popps@fastq.com)
Treasurer	Lori Prause (mail to:loriprause@gmail.com)
Secretary	Andrew Perry (mailto:secretary@saguaroastro.org)
Properties	Robert Brewington(mail to:properties@saguaroastro.org)

Non-board Positions

Novice Leader	Steve Dodder (mail to:fester00@hotmail.com)
Newsletter	Rick Rotramel (mail to:r.rotramel@cox.net)
Webmaster	Robert Brewington (mail to:webmaster@saguaroastro.org)
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Imaging	Al Stiewing (mail to:amst@cox.net)
Deep Sky	Kevin Kozel (mail to:kevin.kozel@cox.net)
Public Outreach	Eric Hoag (mailto:eric.hoag@gmail.com)

Mail Address

SAC, 8441 W. Foothill Dr, Peoria, AZ 85383

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

Meeting Location: Grand Canyon University is located at 3300 W. Camelback Rd, Phoenix, AZ. We meet in Engineering Building 1-202, 7:30 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, drive into parking garage 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.

Saguaro Skies Staff

Editor: Rick Rotramel

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2013-2018 Contributors: Bob Christ, Mike Collins, AJ Crayon, Paul Dickson, David Dillmore, Steve Dodder, Richard Harshaw, Dean Ketelsen, Kevin Kozel, Joan McGue, Andrew Perry, Tom & Jennifer Polakis, Michael Poppre, Jimmy Ray, Rick Rotramel, SAC Imagers & Observers, Darrell Spencer & Rick Tejera.

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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)~~

~~*Nametags will be mailed to address provided below*~~

Please print all information legibly

Date: ____/____/____ For the year of: 20__

Name: _____

~~Address:~~ _____

~~Address:~~ _____

City: _____

State: _____

~~Zip Code:~~ _____

Phone: _____

Email: _____

☐ *Check here if this is updated information*

Make check payable to: SAC

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

Saguaro Astronomy Club
c/o Lori Prause, Treasurer
8441 W. Foothill Dr.
Peoria, AZ 85383

Saguaro Astronomy Club

SAC on the Internet

SAC has several email lists. To subscribe, simply send an email to the list address with Subscribe on the subject line.

SAC-Announce@freelists.org - Sac Announce is a list used for club announcements. Traffic is usually less than six messages per month.
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