Saguaro Skies

Saguaro Astronomy Club, Phoenix, AZ

Volume 48, Issue 2

February 2024

The President's Corner

Reoccurring cycles. Astronomers are pretty familiar with these. We see lunar cycles, solar cycles, the cycles that give us different constellations throughout the year, the repeated motions of the planets in their orbits. If you really want to think big, consider how many times our Sun has made a trip around our galactic center. You can have fun figuring that one out yourself.

I thought about cycles as I was pondering our upcoming March club event, the Spring Star Party and Messier Marathon. In 2016 I found myself as President then also, writing this column and noted it was Leap Year. That was two Leap Year cycles ago and here we are again.

This year, we are teaming up the East Valley Astronomy Club to combine a general Star Party with SAC's traditional Messier Marathon so folks who don't want to weave their way through Charles' catalog can come out and enjoy a few nights under the skies of our western desert. You can find details in the newsletter. I hope to see as many of you as can make it the weekend of March 8/9 (or slightly sooner if you wish).

We will also be holding our monthly meeting Friday, February 23rd at the SAC clubhouse. Our speaker is Dr. Rogier Windhorst from ASU. He will be speaking on "The World of Webb, the Cosmic Circle of Life and seeing through the Eyes of Einstein."

Happy Star Hunting,
Michael

Michael Poppre,
SAC President

Photo by: Susan Trask

SAC on Facebook:
SAC has a Facebook moderator!
Mike Willmoth

Quick Calendar

** The next SAC **general meeting** will be on **Friday, Feb. 23rd**.*
The guest speaker will be Rogier Windhorst, ASU
Topic will be: "The World of Webb, the Cosmic Circle of Life, and seeing through the Eyes of Einstein"

*Note: **"In-Person" meeting only, No Zoom meeting access!***
@ 3030 E Mission Ln, Phoenix, AZ (SE of State Route 51 and 32nd Street)

Inside this issue:

** Click Links to jump*

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

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Editor Notes

Hi Folks,

Best of the NGC features this month NGC 4565, a galaxy in Coma Berenices. This galaxy concludes the *Best of the NGC* feature run in this newsletter.

Such-A-Deal has five old ads and two new ones.

SAC Bits & Pisces has minutes of the January SAC general meeting.

SAC History has history bits from Fred Tretta.

SAC Observing has sky info for the month.

SAC Outreach has feedback from "The Beatitudes," @ SAC holiday party public star party.

SAC Sky has info on the moon and planet locations this month for you all.

Enjoy.

Rick Rotramel, Editor >

< Left: SAC Webmaster, Terry Shay

Right: SAC ATM Leader, Paul Lind >

Photos: Susan Trask

Best of the NGC, images, notes and sketches.

For **February**, NGC 4565, Sb, 12 36.3, +26 00, 10.3 mag, 15.5×1.9, superb edge-on, dust lane, in Coma Berenices.

* This object ***completes*** this feature.

Schedule of Events 2024

SAC General Meetings

Jan. 26	Feb. 23	Mar. 22	April 26
May 18 * Saturday	June 21	July 19	Aug. 16
Sept. 13	Oct. 12 * Saturday	Nov 15	Dec. 14 Holiday Party

* Saturday dates are at Thunderbird Park Public Star Parties, Glendale, AZ

Meetings held at the Heritage Heights Clubhouse
3030 E Mission Ln, Phoenix, AZ
(SE of State Route 51 and 32nd Street)
Meeting time: 7:00 PM

View video recordings of the ***past*** Zoom meetings here:
https://www.youtube.com/channel/UCEKTfI0gwebABZXwKbhe9oA

All Arizona Messier Marathon
Sat, March 9th Hovatter North Site

Grand Canyon Star Party
North Rim, June 1st – 8th, 2024

For the Grand Canyon North Rim event:
email Steve Rottas: srottas@gmail.com

2024 SAC Officers

President: Michael Poppre >

< Vice President: Steve Rottas

Secretary: Sandy Milward >

< Treasurer and Properties Director: Tom Curry

Photos: Susan Trask

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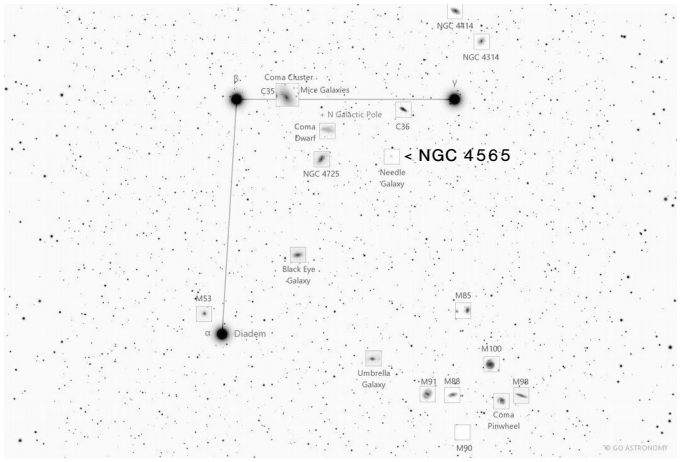
Best of the NGC: Conclusion

NGC 4565, Galaxy in Coma Berenices

By SAC Imagers, Observers & Sketchers

© Ken Crawford Rancho Del Sol Observatory



Coma Berenices Star Chart

Observing Chart
D. M. Douglass - Tempe, AZ

C 038

Observed and Imaged
Date: May 10, 2016
Time (Local): 21:00
Site: DaHut, Tempe, AZ
33-22-54(N) - 111-54-15(W)

Other Names: NGC-4565 ; Needle Galaxy

Observing Program:
EVAC and Astronomical League
General Observation
Caldwell Objects

This image was taken to replace and update a prior image as part of a image update and enhancement project.

Note:
The much smaller galaxy at the bottom right of the image is NGC-4562.

Image Information:

Total # of frames (subs):	08
Frame exposure time: (min):	05
Total exposure time (min):	40
Camera:	SBig ST-8300-M
Camera controlled by:	TheSkyX Pro
Preprocessing and stacking:	CCDStack
PostProcessing:	Adobe Photoshop CS3

CGEM Mount Control: TheSkyX Pro
All slews by "closed loop" (Plate Solved)
Mount Guiding: TheSkyX Pro - Lodestar X2

Telescope:
Celestron EdgeHD 8" SCT
Mount: Celestron CGEM (EQ)

Mag (SBig): (2000/22.5) = 88
FOV = 32 x 24 Arc Min
Filter: Lumicon Deep Sky (UHC/LPR) w/ Baader IR/UV Cut

Type: Galaxy
R.A. 12:36:18
DEC 27:59.0
Magnitude: 9.6
Size (Arc Min): 16 x 3

Constellation: Com

Weather:
Temp: 77
Wind: Calm
Clouds: None

Estimated Seeing:
FWHM CCDInspector = 2.1

Sky Brightness
Mags / sq ArcSec (v)
18.5 or
Bortle Scale: 6
Moon Ill = 24 %

Estimated Transparency:
Object = Little Dipper
Value (Mag) = 5

David Douglass

Continued on next page...

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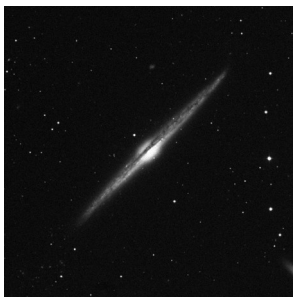
Best of the NGC: Conclusion

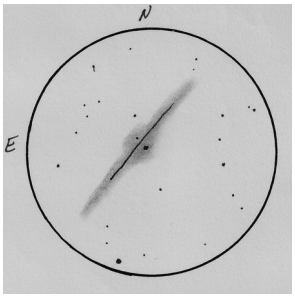
NGC 4565, Galaxy in Coma Berenices

By SAC Imagers, Observers & Sketchers

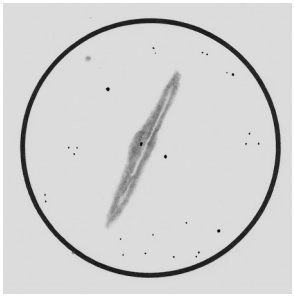
SAC Observer Steve Coe, 1949 - 2018

13” f/5.6, Very bright, very large, extremely elongated 10X1, very bright middle at 135X. Dark lane is easy at a good site, it can be held with direct vision. At 200X some fine detail within the dark lane is visible in moments of good seeing at our best sites in the mountains of northern Arizona. It has always looked like the classic flying saucer.



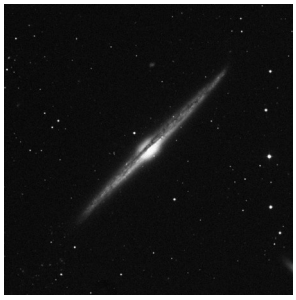


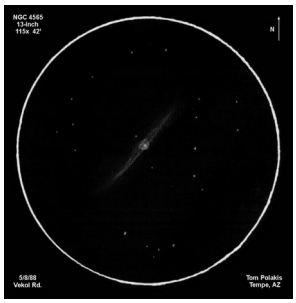
13” f/5.6, 150x



17” f/4.5, 175x

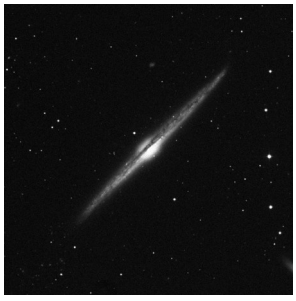
SAC Observer/Sketcher Tom Polakis





SAC Observer Rick Rotramel

16” f/4.4, Pretty bright, very large, edge on spiral with nice dust lane, and a bright core.



16” f/4.4, 200x

SAC Imager, Tom Curry

9.25" SCT, @ISO 25,600 & exp. 60 sec.

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Such-A-Deal

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

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10 inch Meade LX90

Advanced coma-free SCT with GPS and Audiostar GoTo. It tracks very nicely for visual, but not photography. Original owner and only a year old like new. All paperwork and accessories that came with it from Orion telescopes. I will throw in a Telrad, 2 inch star diagonal, 2 inch Crayford focuser and a 40mm Plossl eyepiece. It came with a 26mm Plossl. I'm keeping my 2 inch eyepieces because I'm not getting out of the hobby.

$4500 invested and **REDUCED** to**: $2500**
Feel free to email Doug at:
dma6350@gmail.com

Canon EF 200mm f/2.8L II USM Lens

For Sale - Canon EF 200mm f/2.8L II USM Lens

It's in good condition and includes the following.

- Canon Lens - $600 from B&H Photo
- B&W UV Filter - $75
- Canon Tripod Mount Ring - $150
- Lens Caps and Lens Hood
- Carrying Bag

Asking $300 OBO.

Cash or bank cashier's check.

Contact me at the email below.

jimwaters @ cox.net

Tele Vue 31mm Type 5 Nagler Eyepiece

For Sale – Tele Vue 31mm Type 5 Nagler Eyepiece

The optical coatings are in good condition and I can't find anything wrong with the eyepiece including the rubber eye guard. Eyepiece end-caps are included.

My cost new was $600. **Asking $300 OBO.**
Cash or bank cashier's check.

Contact me at the email below.

jimwaters @ cox.net

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Telescope Equipment For Sale

** Ads on this page were submitted through the SAC Website*

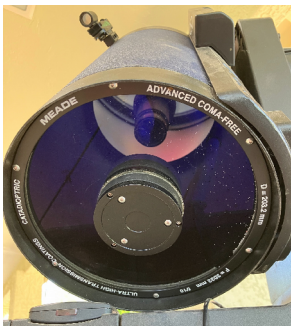
Meade 8” LS8-8ACF

- ACF (Advance Coma Free) optics with UHTC coatings (Ultra High Transmission Coatings)
- LightSwitch Technology: Once the scope is turned on, it permits the scope to automatically level itself and find north (Meade calls this Level/North Technology), then with the use of its internal ECLIPSE CCD camera and on board GPS, alight itself to the night sky without any user intervention. The steps are simple, flip the switch. Once the scope is turned on, you’re greeted by the "Astronomer Inside". The "Astronomer Inside" gives you a brief introduction to the LS 8, and informs you of each and every step of the way during the alignment process.
- Eyepieces: Meade 8.8mm and 24mm UWA Series 5000, 82° apparent field of view
- TeleVue Qwik Point Finderscope
- Tripod
- 602 736-9221
- I’m near 7 th St. and Thunderbird. Buyers pick up.
- **$ Best Offer $**

Email Contact – Click Link Below:

mailto:lorraine.drobny@cox.net?subject=Meade 8" Telescope For Sale in SAC Newsletter

Lorraine Drobny
602 736-9221



Celestron C11 Telescope On Celestron CGE Mount

- Celestron C11 Optical Assembly
- Celestron CGE Mount
- Celestron WiFi Unit
- Celestron StarSense Unit

- I’m near 7 th St and Thunderbird. Buyers pick up.
- **$ Best Offer $**
- 602 736-9221
- Email Contact – Click Link Below:

mailto:lorraine.drobny@cox.net?subject=Meade 8" Telescope For Sale in SAC Newsletter

Orion 80mm ED Refractor with case

- Orion 80mm, f/7.5, F.L. 600mm Telescope
- With hard case

- **$ Best Offer $**

Lorraine Drobny
602 736-9221
Lorraine.drobny@cox.net

Celestron Focus Motor, Meade Imager, Eyepieces & Misc. Attachments

- Focus Motor for SCT and EdgeHD Telescopes
- Several Eyepieces and Misc. attachments
- Meade Flip Mirror System, Model 644
- Meade Deep Sky Imager, Mono CCD Camera

$ Best Offer $

Lorraine Drobny
602 736-9221
Lorraine.drobny@cox.net

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Such-A-Deal

Click here to return to page 1

Bits & Pisces

Minutes of the January 26th SAC General Meeting

By Sandy Milward, SAC Secretary

- SAC president Mike Poppre called the meeting to order 23 members and 2 guests were present.
- Thunderbird Star Party was revived with about 75-100 attendees and 8-10 scopes. We plan to do a star party at the Thunderbird Conservation Park in 2024 on Astronomy day which is May 18. The park has also asked if we could do an outreach event in July
- The Grand Canyon North Rim star party was continued with Steve Rottas in charge. The dates for 2024 are June 1-8. Once again Steve Rottas will be in charge
- Outreach events were held at the Beatitudes Campus: Senior Living Community, Kino Jr. High and a local neighborhood school.
- Year End Party ended the year on a high note
- Member Dues are due - you can pay on-line using Pay Pal
- Business:
- Reminder that SAC meetings are now held on the Friday closest to the full moon. Most dates have been set and are on the web page and in the newsletter.
- May and October meetings will be the star party at the Thunderbird Conservation Park
- The June meeting will be June 21, with the Grand Canyon Star Party earlier in the month.
- Messier Marathon: March would be the month with March 9 the primary date. Alternate locations are BLM facility at Painted Rock facility in Gila Bend. Participants would need to reserve campsites through Recreation.Gov. Possibility of co-Sponsoring with EVAC also discussed
- Grand Canyon Star Party: June 1-8 Camping will be in the VIP (Volunteers In Park) campground. Contact Steve Rottas if you are interested in participating
- Facebook Group- gaining ~2-3 members each month
- Committee Reports:
- ATM has not been meeting
- Treasurer Tom Curry reported the club treasury amount. So far there are 18 paid memberships for 2024. All club members are encouraged to pay their dues
- Outreach: Glendale Astronomy Day, Mercury Mine Grade School
- Member Presentations:
- Paul Lind gave a report on making solar eclipse setup that he is able to put up and tear down without any tools. The set up uses a clock drive and a protractor for polar alignment in daylight
- Tom Polakis reported on “Understanding Time-lapse Imaging Results Using Catalog Data.” Tom compared photos from the 1950s with recent photos looking for movement in the images. Tom utilized Gaia Archive to compare motion he observed with the data in the archive.

- Dr. Paul Knauth presented on “Extreme Deep Sky Observing.” Amateur Astronomy has 3 main groups of interest, Astrophotography, Science and Visual Observations. Dr. Knauth is most interested in and loves visual observing. When a person observes visually the energy from that galaxy goes directly to the eye and is absorbed by your brain. We were reminded that the universe is faint and to see the universe we need dark skies. We were encouraged to get all the aperture one can afford, transport and set up and to observe on the meridian.

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SAC History

** Editor note: I'm running this three part series one final time.*

SAC History, Part 2

© 2020 by former SAC President, Fred Tretta
There has been some interest expressed in a bit more of early SAC history, so maybe I can try to recall some additional detail that could be shared. It might help continuity if you glanced back through the original summary of the SAC beginnings that Rick has been so kind as to run in the newsletter for several months now.

The Beginning

I can't overstate how strongly the feeling was amongst the 5 or 6 of us PAS members who wanted to get out observing instead of sitting through presentations. Hard to know why that was, but my guess is WE WERE JUST PLAIN BORED! While I don't specifically recall the exact course we took, I do remember that we started meeting separately as a sub group of PAS , and eventually just stopped going to the main meetings. There were no officers, nor any name, just a group of guys all doing a part of getting us settled.
Eventually, we sort of got organized and started working on more formal things like a name, officers, a place to meet, more regular observing sessions. The naming took an entire meeting, the logo, another. People's skills emerged as things were created and drafted to give us purpose and direction. Our intent became clear as we moved ahead. The Club slowly grew primarily because of our relationship with Wilson Camera. One of our people made up flyers, and Wilson's was happy to pass them out. Where we started out with 7 of us, in 3 years we were 250. Some were happy about that, some were not. A club of 25 people is different than a club of 250. Officers were elected annually and most jobs went to people who were dumb enough to miss that meeting.

Some Additions to Names

In the first posting I listed the names of many of the original members, but the growth and amazing development of the Club happened in spurts as new members took a hold of various observing venues they had an interest in. I think that was the magic of this club, members creating opportunities for specific groups of observers within the Club. Was it A. J. Crayon who started our Messier Marathon, and Wally Brown who got the deep sky observers organized and rolling? And Bob Latterman almost destroyed Tempe with that bathtub laser he created. The neighborhood would dim when he lit that off. There were all sorts of stories like that. Our members were really a motivated group and this club quickly became nationally recognized because of it. What a thrill.

Fessler's Ranch again

Gosh, how I'd like to carry on about Fessler's Ranch, but you probably have already tired of it. I can tell you that there was no lack of volunteers to make that a VERY impressive viewing site. A very dark acre of level land with power and properly spaced areas to accommodate dozens of scopes! Even when you took a break from observing, listening to the discussion around the area was super fun. Unfortunately, we DID lose a couple of guys beamed up.

Misc.

It is with great sorrow that I've learned RTMC will no longer be taking place in the mountains of Big Bear Lake, California. In the first of these write-ups I mentioned us talking the Riverside guys into giving us the whole second story of the large ledge that is now just one story. We shared it with the Tucson guys, and was that a blast. But several other years we got to one of the bunk-bed dormitory building early enough to fill it with our guys and some Tucson people. I will dearly miss that gathering, though we might try the Texas gathering or the one in New Mexico.

I'm sorry if this has carried on for a bit, but it is fun to think back to those days. I can be reached at ftretta@msn.com if anyone wants to just chat about those early days.

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SAC Observing

2024 ASTRONOMICAL CALENDAR

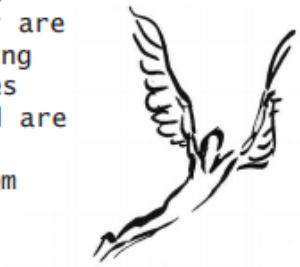
1

The left column gives Julian Dates (number of days from 4713 B.C. Jan. 1 noon), useful for finding time spans between events by subtraction. The first 3 digits of the Julian date (245) are omitted, to save space.

Hours and minutes, where given, are in Universal Time. (Sometimes the hour appears as "24" or the minute as "60," because the instant was shortly before the end of the day or hour.)

Occasions such as "Moon 1.25° NNE of Venus" are **appulses**: closest apparent approaches. They are slightly different from conjunctions, when one passes north of the other as measured in right ascension or in ecliptic longitude. A quasi-conjunction is an appulse without a conjunction, and typically happens when a planet is near its stationary moment.

Occasions when three bodies are within a circle of small size are "**trios**." Like appulses, they are most interesting when the bodies are bright and are not at small elongation from the Sun.



For **meteor showers**: ZHR (zenithal hourly rate) is an estimate of the number to be seen under ideal conditions at the peak time if the radiant were overhead. Actual rates may be very different. Peak times (predicted from where the center of the stream seems to cross nearest to Earth's orbit) are uncertain; best to start watching the night before. Meteor are usually most abundant in the morning hours.

Tell me of errors you notice. It's hard to check the accuracy of every detail, but errors are more easily corrected here than in the former printed *Astronomical Calendars!*
universalworkshop.com/contact
This calendar may be subject to improvement. Come back to it!

Explanation of terms can be found in our glossary book ***Albedo to Zodiac***. There is more about each kind of event in ***The Astronomical Companion***. And events in this list can be traced in the large ***Zodiac Wavy Chart*** for the year.

For all these, see
universalworkshop.com

0341.917	Feb	1	Thu	10	**Moon 1.53° NE of Spica**; 107° and 108° from Sun in morning sky; magnitudes -10.7 and 1.0
0342.5	Feb	2	Fri		Groundhog Day
0343.208	Feb	2	Fri	17	Mercury at aphelion; 0.4667 AU from the Sun
0343.471	Feb	2	Fri	23:19	**Last quarter Moon**

Continued next page...

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SAC Observing

0345.563	Feb	5	Mon	2	**Moon 0.59° NE of Antares**; 65° and 66° from Sun in morning sky; magnitudes -9.1 and 1.0; **occultation**
0348.375	Feb	7	Wed	21	Moon 5.4° SE of Venus; 29° from Sun in morning sky; magnitudes -6.9 and -4.0
0348.854	Feb	8	Thu	9	Moon 4.1° SE of Mars; 23° from Sun in morning sky; magnitudes -6.4 and 1.3
0348.943	Feb	8	Thu	11	Uranus at east quadrature, 90° from the Sun
0349.5	Feb	9	Fri	0	Moon 3.1° SE of Mercury; 14° from Sun in morning sky; magnitudes -5.6 and -0.5
0350.458	Feb	9	Fri	22:60	**New Moon**; beginning of lunation 1251
0351.286	Feb	10	SAT	18:52	Moon at perigee; distance 56.15 Earth-radii; only 19.9 hours after New Moon
0351.604	Feb	11	SUN	3	**Moon 1.66° SE of Saturn**; 17° and 16° from Sun in evening sky; magnitudes -5.8 and 1.0
0352.376	Feb	11	SUN	21	The equation of time is at a minimum of -14.23 minutes
0352.833	Feb	12	Mon	8	Moon 0.74° ESE of Neptune; 34° and 33° from Sun in evening sky; magnitudes -7.2 and 7.9; **occultation**
0354.210	Feb	13	Tue	17	Moon at ascending node; longitude 16.9°
0354.484	Feb	13	Tue	24	Venus at descending node through the ecliptic plane
0354.5	Feb	14	Wed		St. Valentine's Day
0354.5	Feb	14	Wed		Ash Wednesday
0355.771	Feb	15	Thu	7	Moon 2.91° NNW of Jupiter; 73° from Sun in evening sky; magnitudes -9.5 and -2.3
0356.521	Feb	16	Fri	1	Moon 3.0° NNW of Uranus; 82° from Sun in evening sky; magnitudes -9.9 and 5.7
0357.126	Feb	16	Fri	15:01	**First quarter Moon**
0357.375	Feb	16	Fri	21	Moon 0.64° SE of Pleiades; 93° from Sun in evening sky
0357.651	Feb	17	SAT	4	Sun enters Aquarius, at longitude 327.96° on the ecliptic
0359.674	Feb	19	Mon	4	Sun enters the astrological sign Pisces, i.e. its longitude is 330°
0359.833	Feb	19	Mon	8	Moon 4.1° N of M35 cluster; 122° from Sun in evening sky; magnitudes -11.1 and 5.3
0361.313	Feb	20	Tue	20	Moon 5.0° S of Castor; 139° and 138° from Sun in evening sky; magnitudes -11.6 and 1.5
0361.563	Feb	21	Wed	2	**Moon 1.61° S of Pollux**; 142° and 141° from Sun in evening sky; magnitudes -11.6 and 1.2
0362.729	Feb	22	Thu	6	Moon 3.5° NNE of Beehive Cluster; 154° and 155° from Sun in evening sky; magnitudes -12.0 and 3.7
0362.917	Feb	22	Thu	10	**Venus 0.62° N of Mars**; 26° from Sun in morning sky; magnitudes -3.9 and 1.3
0363.462	Feb	22	Thu	23	Mercury at southernmost latitude from the ecliptic plane, -7.0°

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SAC Observing

0364.625	Feb	24	SAT	3	Moon 3.3° NNE of Regulus; 174° and 175° from Sun in evening midnight sky; magnitudes -12.5 and 1.4
0365.021	Feb	24	SAT	12:30	**Full Moon**
0366.119	Feb	25	SUN	15	Moon at apogee; distance 63.70 Earth-radii
0368.455	Feb	27	Tue	23	Moon at descending node; longitude 196.0°
0368.854	Feb	28	Wed	8	Mercury at superior conjunction with the Sun; 1.371 AU from Earth; latitude -6.56°
0369.146	Feb	28	Wed	16	Mercury 0.19° SE of Saturn; 2° from Sun in evening sky; magnitudes -1.7 and 1.0
0369.167	Feb	28	Wed	16	**Moon 1.31° NNE of Spica**; 135° from Sun in morning sky; magnitudes -11.5 and 1.0
0369.394	Feb	28	Wed	21	Saturn at conjunction with the Sun; 10.711 AU from Earth; latitude -1.79°
0369.5	Feb	29	Thu		**Leap day**

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SAC Outreach

Outreach: Feedback, “The Beatitudes”

By Steve Rottas, SAC Vice President

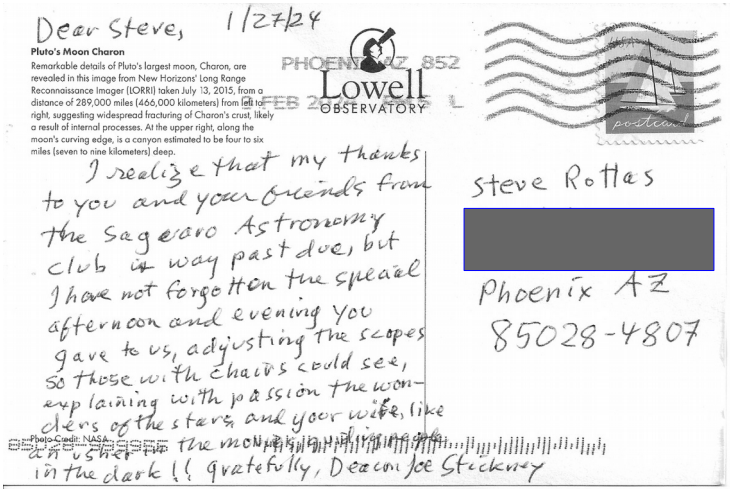
All,

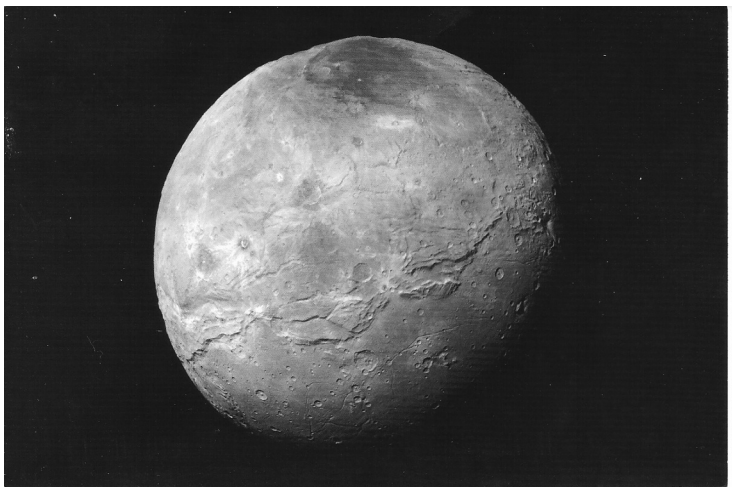
I received a postcard today from Joe Stickney at the Beatitudes, it reads as follows: “I realize that my thanks to you and your friends from the Saguaro Astronomy Club is way past due, but I have not forgotten the special afternoon and evening you gave to us, adjusting your scopes so those with chairs could see, and explaining with passion the wonders of the stars, and your wife, like an usher in the movies guiding people in the dark!! Gratefully, Deacon Joe Stickney.”

The postcard is from Lowell Observatory with a very nice photo of “former planet” Pluto’s moon Charon.

Thank you Pam, Tom, Sandy, and Ken for sharing your time.

Steve





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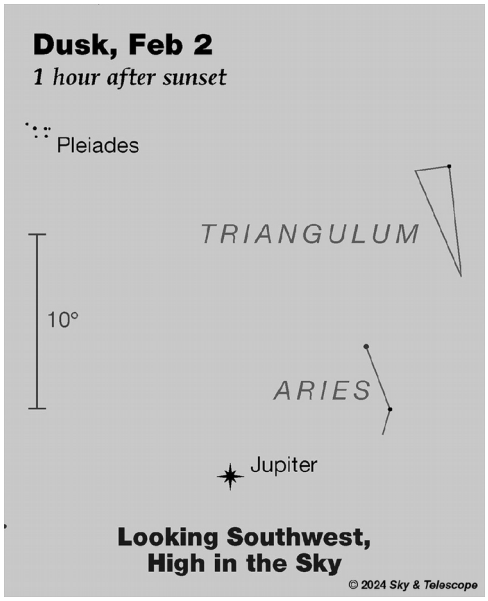
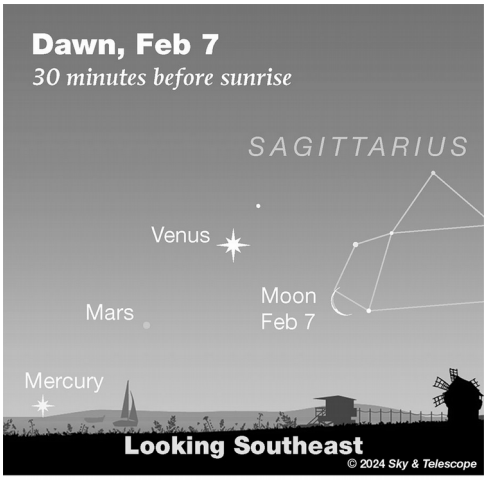
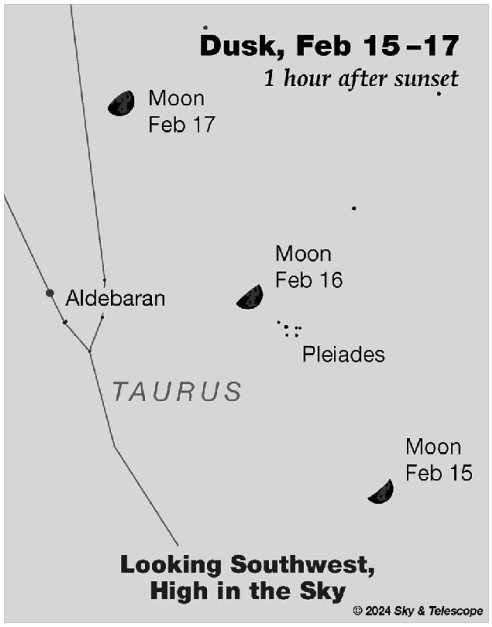
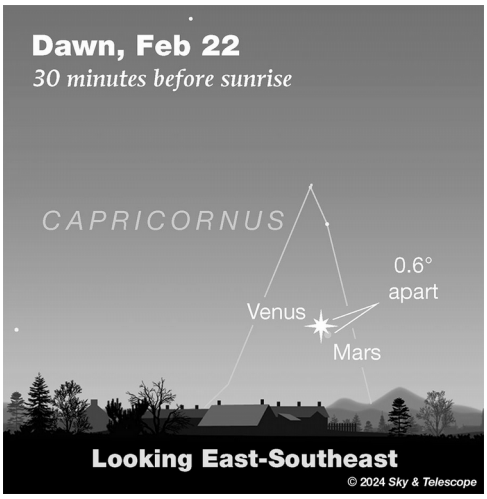
SAC Sky









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2024 SAC Officers and Contacts

Board Members

President Michael Poppre (mail to: president@saguaroastro.org)
Vice-President Steve Rottas
Treasurer Tom Curry (mail to:treasurer@saguaroastro.org)
Secretary Sandy Milward
Properties Tom Curry (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 Terry Shay (mail to:webmaster@saguaroastro.org)
Public Events Jack Jones (mail to:publicevents@saguaroastro.org)
ATM Group Paul Lind (mail to:atmgroup@saguaroastro.org)
Imaging Al Stiewing (mail to:amst@cox.net)
Deep Sky Jack Jones (mailto:deepskygroup@saguaroastro.org)
Public Outreach Tom Curry (canyonhiker2@cox.net)

SAC on Facebook:
Moderator, Mike Willmoth (mwillmoth@compuserve.com)

2023 Board Mtgs:

January, TBA

April, TBA

July, TBA

November, TBA

Occultation Info

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

Mail to:tomwaymas@gmail.com

Meeting Location: The Clubhouse, 7:00 PM, 3030 E. Mission Lane, Phoenix, AZ

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,

https://www.saguaroastro.org/newsletter/

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; Photographers: Tom Curry, Sandy Milward, Tom Polakis, Michael Poppre, Rick Rotramel and Susan Trask.

2013-2023 Contributors: Bob Christ, Mike Collins, AJ Crayon, Tom Curry, 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, Steve Rottas, 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

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

SAC Treasurer
1238 E. Orchid Lane
Phoenix, AZ 85020

AZ-Observing.groups.io (Email discussion list)

AZ-Observing is NOT a SAC mailing list, but it's a discussion mailing list about amateur observing in Arizona.
It's an open list for those interested in astronomical observing in Arizona. Messages to the list membership must be sent to az-observing@groups.io
Subscribing: Go to Groups.io, search for the group AZ-observing (or "AZ Observing"). Click on the button down the page to join the group. Your application will be accepted in a day or so by the moderators. Alternatively, send an email to AZ-observing+subscribe@groups.io.After your membership is set, go to the Subscription tab on the left. Set your preference as to how you should receive messages.
For help, email AZ-observing+help@groups.io

Unsubscribing:
Go to Groups.io, then go to the group SAC Forum. Go to the tab "Subscription" on the left, at the bottom of the page click "Leave Group".

Alternatively, use this link:
az-observing+unsubscribe@groups.io