Peoria Astronomical Society, Inc.

P.O. Box 10111 Peoria, IL 61612-0111
Section of Peoria Academy of Science
Affiliate of the Astronomical League
www.astronomical.org

STARLITE

Summer, 2025

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Saturn from the James Webb Space Telescope

Officers:

President: Dan Son, sonshine1992@gmail.com
Vice-President: Jesse Hoover
Secretary: Carol Hootman
Treasurer: Dave Monroe, dave.monroe@comcast.net

Directors:

Parliamentarian: Dave Monroe, dave.monroe@comcast.net
Nominating Chairman: Open
Legal Agent: Chris Schmidt
Northmoor Chairman: Dan Son, sonshine1992@gmail.com
Jubilee Chairman: Jesse Hoover

PEORIA ASTRONOMICAL SOCIETY IS NOW ON FACEBOOK:

www.facebook.com/PeoriaAstronomicalSociety

Update your address, phone or email changes

Please notify Dan Son at sonshine1992@gmail.com if you will be getting a new mailing address, email address and/or phone number. It is important that he has your personal information correct so you will continue to receive the Starlite and the Reflector.

2025 Meteor Shower Schedule:

Perseids will peak on August 12 & 13th with a waning gibbous Moon (3 days past full) will severely reduce meteor viewing. Comet Swift-Tuttle is the source of the meteorites and has an orbit of 133.3 years.

May's members meeting at Northmoor. Mark Hootman

Presidents Ramblings:

Ah Summer at last! We wait for it and then realize...dang, does not get dark till 9 or later, and the farther north you go...the later the sun sets! Well what is going on with PAS….we have new addition to the family. PAS bought a Seestar S50 for members use and to help out on Saturday nights at Northmoor. For now we are getting used to using it, and will be offering members the opportunity to use it. When this Canadian wildfire smoke clears that is! We will offer training for it and the Lunt solar scope soon.

Jubilee Observatory is in the news, we need a new roof on the shed/ warmup room, garage. The last time it was roofed was late 70's or early 80's. It is a double layer roof so 2 sets of shingles and they will need to be taken off down to the plywood. I think a few members (5-6) could do this in a weekend but we will see what the cost will be for a roofer to come in and do the job. The shed is 21' X 21'. In this newsletter we have an article about the history of Jubilee from Bart Benjamin and I will include more photos from it's past.

Northmoor is open and we are having fun! The Smoke has dampened the weekend of May 31st but the Moon was awesome. I hope members will get excited to come on on a Saturday night or better yet, become a key holder and use the scope yourself anytime you want to!

Dan Son
President

Facts..just the Facts..

Comets are simultaneously tiny and huge. The body (or nucleus) of the average comet is only a few kilometers or miles across or smaller, but comet ion tails can extend to over 100 million kilometers (62 million miles) — sometimes even stretching farther than the distance between Earth and the Sun.

Landing on the Moon is difficult. The first 14 attempts — all in 1960 — were unsuccessful. That's why resilience isn't just the name of a lunar landing mission; it's a characteristic of space explorers that allows us to keep trying until we succeed.

Submission of photos / article content for the Starlite: Dan Son

If you have a photo that you would like to submit for the Starlite, please send these to Dan Son sonshine1992@gmail.com along with a little write-up about the photo. Photos can be from star parties, club events, personal view, etc. Astrophotography is encouraged. Also, if you have educational content, tips, techniques, lessons learned or how-to articles with photos, we encourage that material for the Starlite. We can also put these on out Facebook page if you so desire.
https://www.facebook.com/PeoriaAstronomicalSociety

The Caterpillar Matching Gifts Program IRA RMD: Brian Hakes

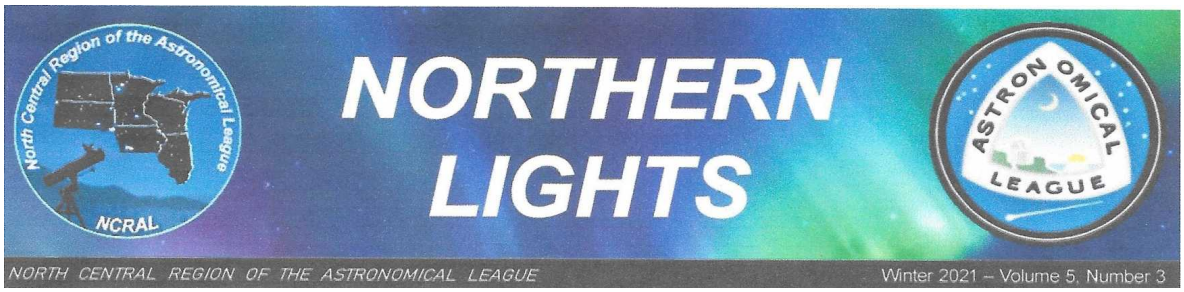
If you are a CAT Employee/Retiree you can gift the PAS through the CAT matching gift program. Employees/Retirees are asked to submit matching gift forms electronically via the Caterpillar Foundation website, www.caterpillar.com/foundation. The process is easy. Once you made your gift to the PAS you can go online to the Cat Foundation website and complete the electronic form, there is no paper involved. Once the form is registered with the foundation they will notify the PAS and the treasurer will then verify the gift has been received. Because there will be no mailings, the turnaround time for the whole process will be negligible.
If you are required to make an annual mandatory with drawl from an IRA you can also designate an amount to the Peoria Astronomical Society. Don't forget that the PAS is a 501C(3) organization.
These are excellent ways to support the PAS and is a great way to help the society and the promotion of astronomy in the greater Peoria area.

Reflector:

Reflector Magazine digital edition is available for download. You may access an archive of digital issues from the AL website by visiting:
https://www.astroleague.org/reflector

NCRAL Newsletter:

The North-Central Region of the Astronomical League (NCRAL) is made up of member societies... the six states commonly thought of as the Upper Midwest of the USA, plus the Upper Peninsula of the state of Michigan. The PAS is a member of the NCRAL. Their Region Newsletter, also named "Northern Lights", has been resurrected and is better than ever! The latest issue's can be read on their website can be found here:
https://ncral.wordpress.com/newsletter-archive/
You can access the current issue and all other back issues through this link.



Program Schedule 2025 – 2026

September 3 Meet at Jubilee Observatory (including the elections of officers). We will start at 6:00 p.m. Potluck – bring a covered dish, dessert or snack, will have a Grill for anyone wanting to cook some meat.
Get to know all about our Dark Sky Observatory
Learn all there is to know about our club observatory, including the history, and general elements of the telescopes' operation.

October 1 Meet in the Dome at the Peoria Riverfront Museum. 7:00 p.m.
Members' Social and Sharing Session
Sharing of anything astronomical: astrophotography, new equipment, places visited or plans for visiting, internet sites found or videos viewed, books read, etc. Current Sky Summary and Planetarium show (if needed as time allows)

November 8 Meet at the Lariat Club Fall Social and Banquet, 5:30 Social,
6:15 Dinner. (order individually (separate checks) from a limited menu)
7:30 Featured speaker Dr. Carl Wenning – “Viewing with Night Vision Technology”.

Inclement weather notice: Monitor email (e-group), local radio stations or PAS Facebook Page if a program, board meeting, viewing, or star party may be canceled due to weather. If we determine a risk in the weather, the Society will cancel the event.

2025/04/14 Lunar Eclipse by Vincent & Elizabeth Allen

JUBILEE OBSERVATORY: 50 YEARS AGO

Bart Benjamin • Bloomingdale, Illinois • PAS member since 1974

50 years ago this summer, on a hot Saturday morning, I was one of several members of the Peoria Astronomical Society who drove out to what would become the Decker-Grebner-Van Zandt Observatory to help transform what had once been a pig shed into a warmup room and storage area for our future dark-site observatory. On that day in July or August of 1975, I brought my father's Kodak Instamatic camera and took photographs of what I saw. Here are those photos. The observatory site has certainly come a long way since then!

50 years ago — in the summer of 1975 — this was what the Peoria Astronomical Society's future dark-site observatory looked like. The small observatory dome had been transported from Northmoor Observatory so that a telescope could be securely housed on-site. The car belonged to Russ Dunlap, who was one of the early "regulars" for these Saturday work details. I digitally combined three separate slide images to create this panoramic image.

Inside the observatory's future warm-up room, looking east.

Inside the future observatory's warm-up room, looking west.

I have included some photos I (Dan Son) have found lying around. I hope you get what it took to make Jubilee what it is today. When you look on the faces of those in the pictures you see smiles but you don't hear the laughs and conversations they had. If you talk to Eric Clifton about his stories, he glows with excitement and memories flood in. We need members to run this Society, not with just dues but with blood, sweat, an interest in making this group better and bringing something we love to do and share it with others who might get that spark of excitement in their eyes.

Left to right: Ken Dickens, Skip Spaulding, R.P. Van Zandt, Russ Dunlap, Eric Clifton, John Babitt, Ron Meindl, George Heidenblut and Don McGurk and kneeling is John Uphoff.

Anyone who has been out to Jubilee..Do You recognize this place from 50 years ago?

Wyoming, IL
Interplanetary Bike Ride

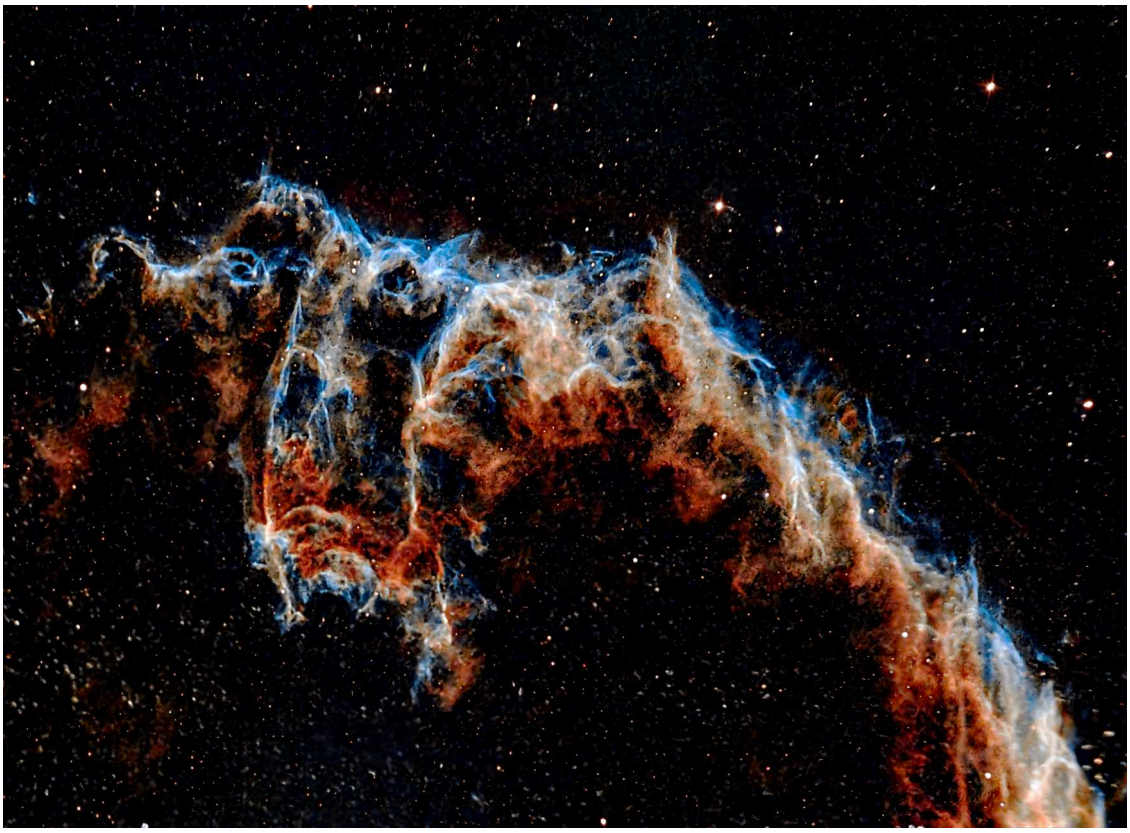
Stephen Russell, Calene Fleming, Scott Swords and Dan Son

Eric Clifton in the Northmoor Warmup room during renovation

Photos from Members:

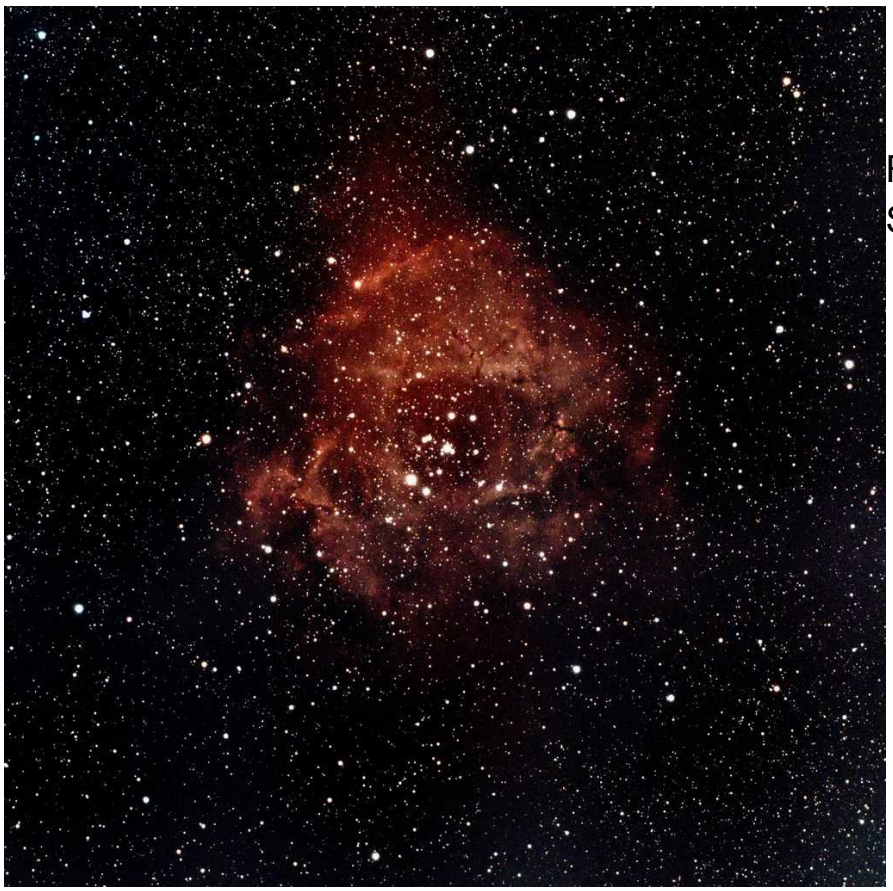
2025/04
16 day old Moon
James Dire
RASA 6 inch

2025/04/07
Tim McGrath M51



Linda Groezinger NGC 6995

Bart Benjamin North Circumpolar Star Trails over Northmoor Observatory



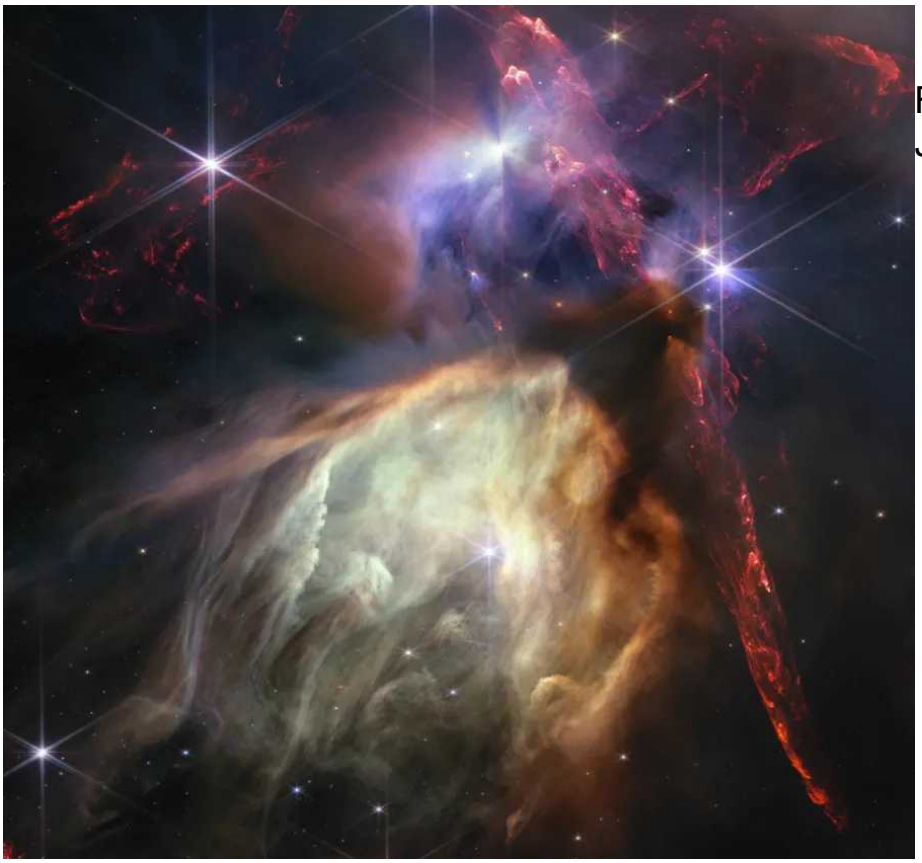
Mike Frasca
Rosette Nebula
Seestar S50

Jake
Schultz
Pleiades
M45

Mike Frasca
2025/04/14 Lunar Eclipse
Seestar S50

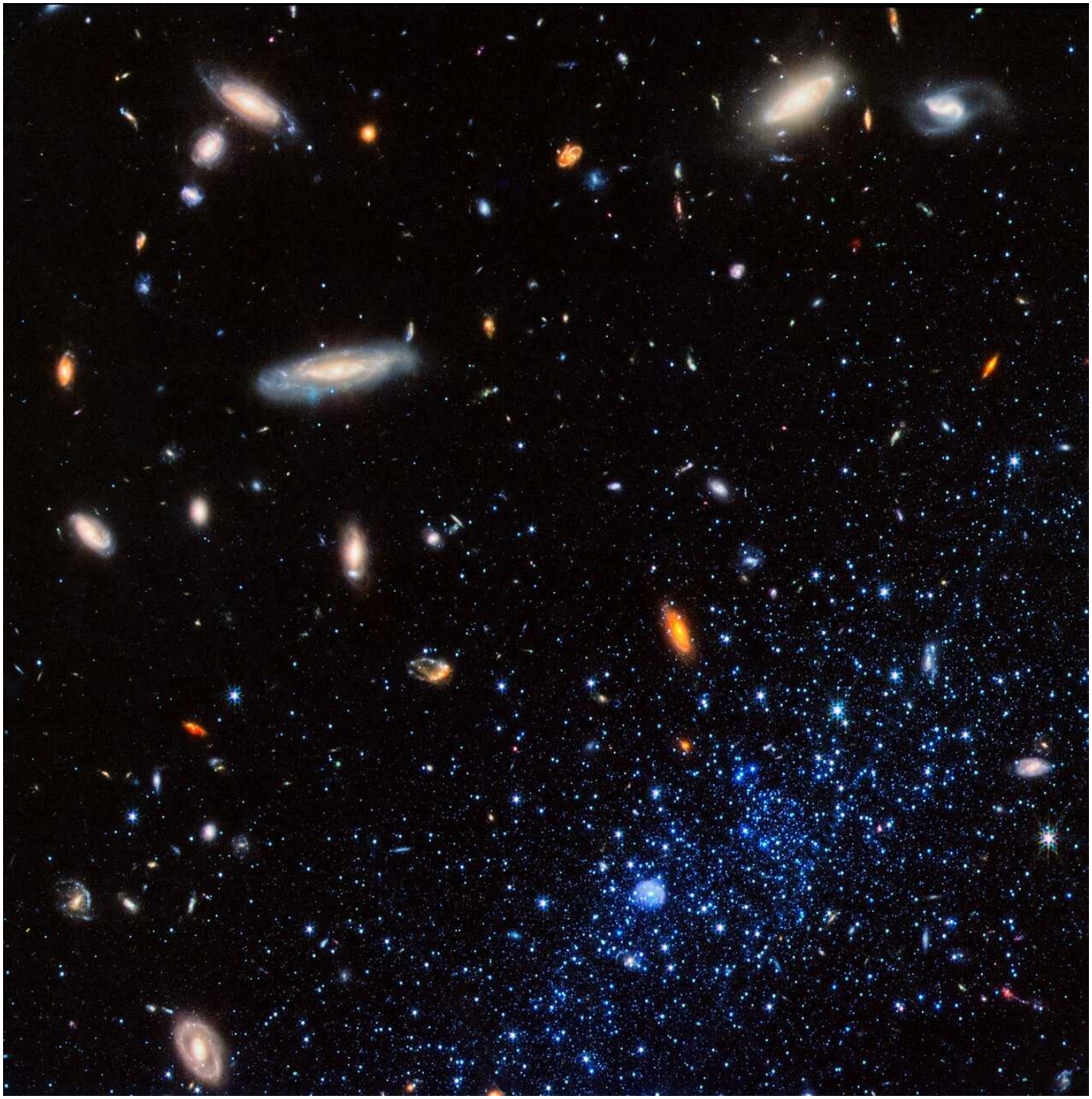
2025/05/31 Mark Hootman from Northmoor Observatory through the scope with iPhone.

And from other Instruments:



Rho Ophiuchi Cloud Complex
JWST NIRCam

NGC 2899
Planetary Nebula
from VL Telescope



LeoP Dwarf Galaxy JWST NIRCam

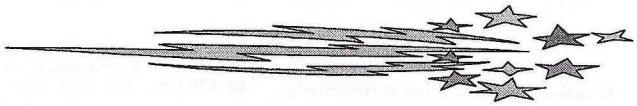
Carina Nebula VL Telescope

“We are stardust brought to life, then empowered by the univers to figure itself out- and we have only just begun.” Neil deGrasse

“We are a way for the cosmos to know itself.” Carl Sagan

25 Years ago:

AstroCryptograms



by Jessica Frasca

Welcome to AstroCryptograms! Each puzzle below is an astronomically related quote, followed by the author's name. Solve the puzzles by substituting one letter for another; the code letters are different for each quote. *(Editor's note: We wish to thank certain tiles from the* Scrabble® *brand crossword game for their invaluable assistance in the formation of the codes.)* Answers appear on page seven.

FC FD PYGVM CH GKGMRHEG CTVC VDCMHEHWR VC VYY GKGECD PHWJGYD CTG DHXY CH YHHB XJOVMAD, VEA AMVOD FC IMHW CTG CTFESD HI CTFD OHMYA CH CTG HCTGM. JYVCH

X HOA HZ EZOYKH ISPH SPVVXRKGG IPG, PRW ISKR HSPH WZR'H IZOD, X GHBWA HSK GHPOG. WKOKD IPCMZHH

U LMXO BZZJYS MD NO N AUGY OPUGJBUGQ XONF NGS OIZMQIO OINO N EZTNQYF PIZC U JGZP, GZP CNGT SNTX' XNUB AFZC OIUX RZNXO, CUQIO DZXXUWBT WY BZZJUGQ MD NO OINO XNCY XONF PUOI CY. IYGFT SNEUS OIZFYNM

GQPFP NO OWAPGQNHV QUCHGNHV NH GQP INVQG WY GQP AWWH; NG QUO UII GQP XNOMUOONWHUGPHPOO WY U XNOPALWXNPX OWCI, UHX OWAPGQNHV WY NGO NHBWHBPNTULIP AJOGPFJ. ZWOPMQ BWHFUX

PHO ECLO KBULODT UZGUUXA LDD LXNYBLOYVQ, LQX ECLO UAJUGYLDDT YNJUDDUX HA OV KYSU QVOYGU OV LDD LAOBVQVNUBA LQX JCYDVAVJCUBA, YA OCYA, OCLO EU CLSU XYAGVSUBUX WVHB ELQXUBYQK AOLBA, IQVEQ VB VPAUBSUX PT QV VQU PUWVBU HA. KLDYDUV KLDYDUY

We will have the answers later in this issue of The Starlite

50 Years ago:

"On July 23, an anniversary of considerable interest to the Astronomy Section occurs- the Twentieth Anniversary of the dedication of Northmoor Observatory. We plan a public celebration, probably on July 18 or 19. Watch for announcement in the Academy calendar."

“Messier Report: 1975 Messier season is here. I’m confident that it will be better than 1974 in many ways. With several very enthused new members planning to find 70 objects by this fall, I’m sure they can make it.”

The Messier objects should be every new members to do list. They are some of the biggest and brightest objects to observe and helps everyone learn constellations and search methods.

2025 Jubilee Maintenance Schedule		
(May 3rd 2025 to Sep 27th 2025)		
May 3rd	Jesse Hoover	Dan Son
May 10th	Jesse Hoover	-
May 17th	Steve Russell	Jon Crow
May 24th	Dan Son	Jamal Shafii
May 31st	Jesse Hoover	Gary Bussman
June 7th	Brian Bill	-
June 14th	Steve Russell	Dan Son
June 21st	Jesse Hoover	Gary Bussman
June 28th	Jon Crow	Jamal Shafii
July 5th	Jesse Hoover	Gary Bussman
July 12th	Jon Crow	Steve Russell
July 19th	Jamal Shafii	Dan Son
July 26th	Jesse Hoover	Steve Russell
Aug 2nd	Jesse Hoover	Jon Crow
Aug 9th	Jesse Hoover	Gary Bussman
Aug 16th	Brian Bill	-
Aug 23rd	Jamal Shafii	Dan Son
Aug 30th	Jon Crow	Steve Russell
Sept 6th	Jesse Hoover	Gary Bussman
Sept 13th	Steve Russell	Dan Son
Sept 20th	Jesse Hoover	Jamal Shafii
Sept 27th	Jon Crow	-

2025 Northmoor Hosting Schedule

Updated: 4/17/2025

		17-May	24-May	31-May
		Sheldon Schafer Chris Schmidt Jon Crow	**Jake Schultz** Brian Austin Amy Ashley-Raher	**Dan Son** Barb Son Carol Hootman

7-Jun	14-Jun	21-Jun	28-Jun	
Dave Grebner Brian Bill Jesse Hoover	**Gerald Horst** Silas Mattern Subhasis Mukherjee	**John Lyle** Vincent Allen Joshua Wrigley	**Nick Rae** Shannon Wiltz Patrick Showalter	

5-Jul	12-Jul	19-Jul	26-Jul	
Dan Son Barb Son Vincent Allen	**Phil Burroughs** Amy Ashley-Raher Brian Austin	**Dave Grebner** Brian Bill Jon Crow	**Gerald Horst** Carol Hootman Jesse Hoover	

2-Aug	9-Aug	16-Aug	23-Aug	30-Aug
Nick Rae Silas Mattern Chris Schimdt	**John Lyle** Subhasis Mukherjee Brian Austin	**Jake Schultz** Shanon Wiltz Patrick Showalter	**Dan Son** Barb Son Joshua Wrigley	**Phil Burroughs** Chris Schmidt Vincent Allen

6-Sep	13-Sep	20-Sep	27-Sep	
Dave Grebner Jon Crow Subhasis Mukherjee	**Gerald Horst** Sheldon Schafer Patrick Showalter	**John Lyle** Brian Bill Silas Mattern	**Dan Son** Barb Son Jake Schultz	

4-Oct	11-Oct	18-Oct		
Nick Rae Amy Ahley-Raher Shannon Wiltz	**Dan Son** Carol Hootman Jesse Hoover	**Sheldon Schafer** Phil Burroughs Joshua Wrigley		

Lead host in **Bold**

ESA’s Hera flyby of Mars and its moon Deimos in infrared

AstroCryptogram Answers:

It is clear to every that astronomy at all events compels the soul to look upwards, and draws it from the things of this world to the other. Pluto (c.427-347 BC),

I Try to forget what happiness was, and when that don’t work, I study the stars. Derek Walcott (b. 1930), West Indian poet, playwright.

I just looked up at a fine twinkling star and thought that a voyager whom I know, now many days’ sail from this coast, might possibly be looking up at that same star with me. Henry David Thoreau (1817-62), U>S> philosopher, author, naturalist.

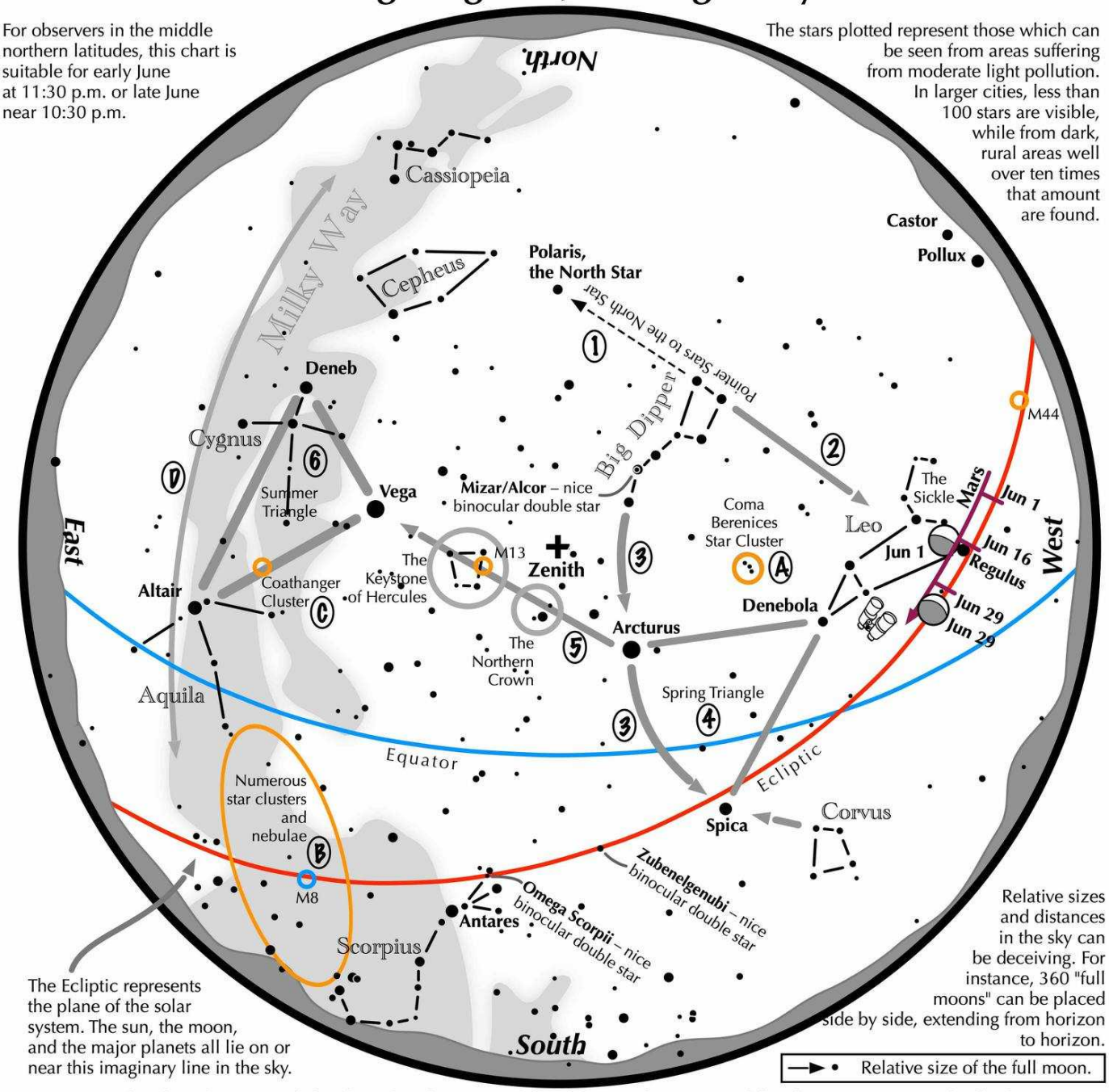
There is something haunting in the light of the moon; it has all the dispassionateness of a disembodied soul, and something of its inconceivable mystery. Joseph Conrad (1857-1924), Polish-born English novelist.

But what greatly exceeds all admiration, and what especially impelled us to give notice to all astronomers and philosophers, is this, that we have discovered four wondering stars, known or observed by no one before us. Galileo Galilei (1564-1642), Italian physicist and astronomer.

Navigating the June Night Sky

For observers in the middle northern latitudes, this chart is suitable for early June at 11:30 p.m. or late June near 10:30 p.m.

The stars plotted represent those which can be seen from areas suffering from moderate light pollution. In larger cities, less than 100 stars are visible, while from dark, rural areas well over ten times that amount are found.



The Ecliptic represents the plane of the solar system. The sun, the moon, and the major planets all lie on or near this imaginary line in the sky.

Relative sizes and distances in the sky can be deceiving. For instance, 360 "full moons" can be placed side by side, extending from horizon to horizon.

Relative size of the full moon.

Navigating the June night sky: Simply start with what you know or with what you can easily find.

1. Extend a line north from the two stars at the tip of the Big Dipper's bowl. It passes by Polaris, the North Star.
2. Draw another line in the opposite direction. It strikes the constellation Leo high in the west.
3. Follow the arc of the Dipper's handle. It first intersects Arcturus, the brightest star in the June evening sky, then Spica.
4. Arcturus, Spica, and Denebola form the Spring Triangle, a large equilateral triangle.
5. To the northeast of Arcturus shines another star of the same brightness, Vega. Draw a line from Arcturus to Vega. It first meets "The Northern Crown," then the "Keystone of Hercules." A dark sky is needed to see these two dim stellar configurations.
6. High in the east are the three bright stars of the Summer Triangle: Vega, Altair, and Deneb.

Binocular Highlights

A: Between Denebola and the tip of the Big Dipper's handle, lie the stars of the Coma Berenices Star Cluster.
B: Between the bright stars of Antares and Altair, hides an area containing many star clusters and nebulae.
C: 40% of the way between Altair and Vega, twinkles the "Coathanger," a group of stars outlining a coathanger.
D. Sweep along the Milky Way for an astounding number of faint glows and dark bays.

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