The W.A.S.P.

Volume 57 Issue 08 August 2025

The Warren Astronomical Society Publication

W.A.S. Annual Picnic
& Stargate Open House
4:30 pm August 23rd at Camp Rotary Pavilion

The WASP

Published by
Warren Astronomical Society, Inc.
P.O. Box 1505
Warren, Michigan 48090-1505

Dale Thieme, Editor

The Warren Astronomical Society, Inc., is a local, non-profit organization of amateur astronomers. The Society holds meetings on the first Monday and third Thursday of each month, starting at 7:00 p.m.

First Monday meeting:	Third Thursday meeting:
Cranbrook: Institute of Science	Macomb Community College
1221 North Woodward Ave	South campus, Bldg. E, Room 208
Bloomfield Hills, Michigan	14600 Twelve Mile Rd.
	Warren, Michigan

Membership and Annual Dues

Student	Individual	Senior Citizen	for families
$17.00	$30.00	$22.00	add $7.00

Astronomical League (optional) $9.00

Send membership applications and dues to the treasurer:

c/o Warren Astronomical Society, Inc.
P.O. Box 1505
Warren, Michigan 48090-1505

Pay at the meetings

Also via PayPal (send funds to treasurer@warrenastro.org)

- Among the many benefits of membership are
- Loaner telescopes (with deposit). See 2nd VP.
- Free copy of each WASP newsletter.
- Free use of Stargate Observatory.
- Special interest subgroups. See chairpersons.

The Warren Astronomical Society Publication (WASP) is the official monthly publication of the Society.

Articles for inclusion in the WASP are strongly encouraged and should be submitted to the editor on or before the end of each month. Any format of submission is accepted. Materials can either be transmitted in person, via US Mail, or by email (publications@warrenastro.org)

Disclaimer: The articles presented herein represent the opinion of their authors and are not necessarily the opinion of the Warren Astronomical Society or this editor. The WASP reserves the right to edit or deny publication of any submission.

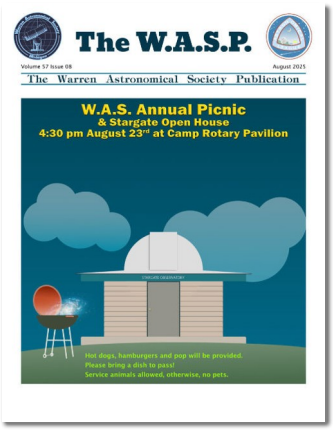
Stargate Observatory is owned and operated by the Society. Located on the grounds of Camp Rotary on 29 Mile Road, 1.8 miles east of Romeo Plank Road, Stargate features an 8-inch refractor telescope under a steel dome. The observatory is open according to the open house schedule published by the 2nd VP.

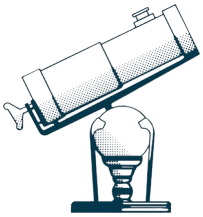
In This Issue

About the Cover

It's our annual picnic time again, and here again is the newsletter "mascot" Stargate in yet another barbecue scene, cooking up a galaxy. Hope Mark Kedzior has enough BBQ sauce on hand...

See you there.





Field of View

Vatican Observatory Has A New Director

Wondering what I was going to write about for this issue, I had my content handed to me by Brother Guy in Press Release form! Which is to say I had to format and send out the Press Release.

This morning (2025-07-31), the Governatorato of the Vatican City State announced that Pope Leo XIV has appointed Fr. Richard D'Souza, S.J. as the next Director of the Vatican Observatory. His appointment will take effect in September.

The Governatorato also stated, "with this appointment, Pope Leo XIV has confirmed the succession process that had been underway before the death of Pope Francis."

The transition has been in progress for several months as I approach the end of my second and final five-year term as Director. Fr. D'Souza was nominated by Fr. Arturo Sosa, S.J., Father General of the Society of Jesus, this past spring. You might recall that the nomination of one of my predecessors, Fr. George Coyne, was sent to Pope Paul VI, and ratified by Pope John Paul I, one of his only appointments.

After ten years directing the incredible Jesuit and lay staff at the Vatican Observatory, I am delighted to be handing over the reins to my Jesuit brother and colleague. That said, I am also thrilled to be continuing as President of—and able to devote more time to—the Vatican Observatory Foundation. I will also remain as a staff astronomer at the Observatory, continuing my research into meteorites, asteroids and other small bodies in our solar system.

I am grateful to His Holiness for making this appointment, to Fr. D'Souza, and to each and every one of you, for supporting us in our efforts with your contributions and prayers.

I continually find it astounding that I work for Br. Guy at the Vatican Observatory Foundation, and how many amazing people I've met while working there!

Bob Trembley,
President

WAS Name Tags

Name tags are back. If you wish to have one and are a dues paying member, contact publications@warrenastro.org and we'll get one printed up for you.

September 26th & 27th

Astronomy

At the Beach

2025

Kent Lake Beach
Island Lake Recreation Area

Recreation Passport or
Park entry fee needed

Bring Your Telescopes!

Yes, it really does resemble the outline of a coat hanger.

Brocchi's Cluster or Collinder 399
(but everyone calls it the *Coathanger*)

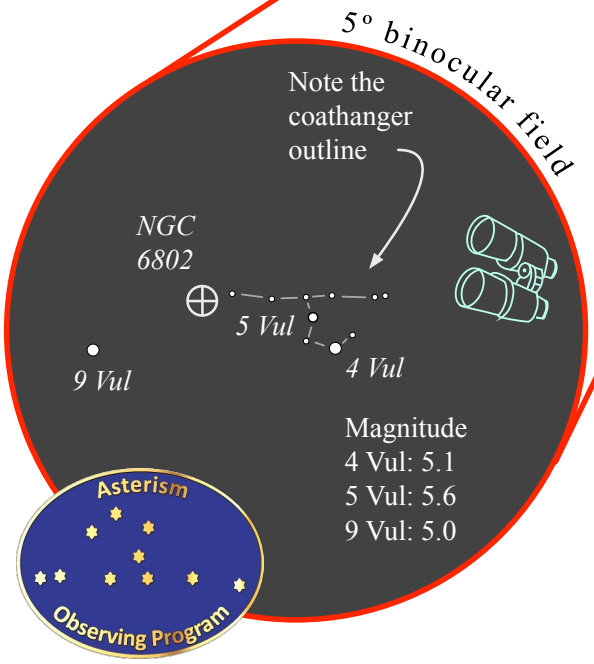
New to stargazing?
This is a wonderful object to observe through binoculars.

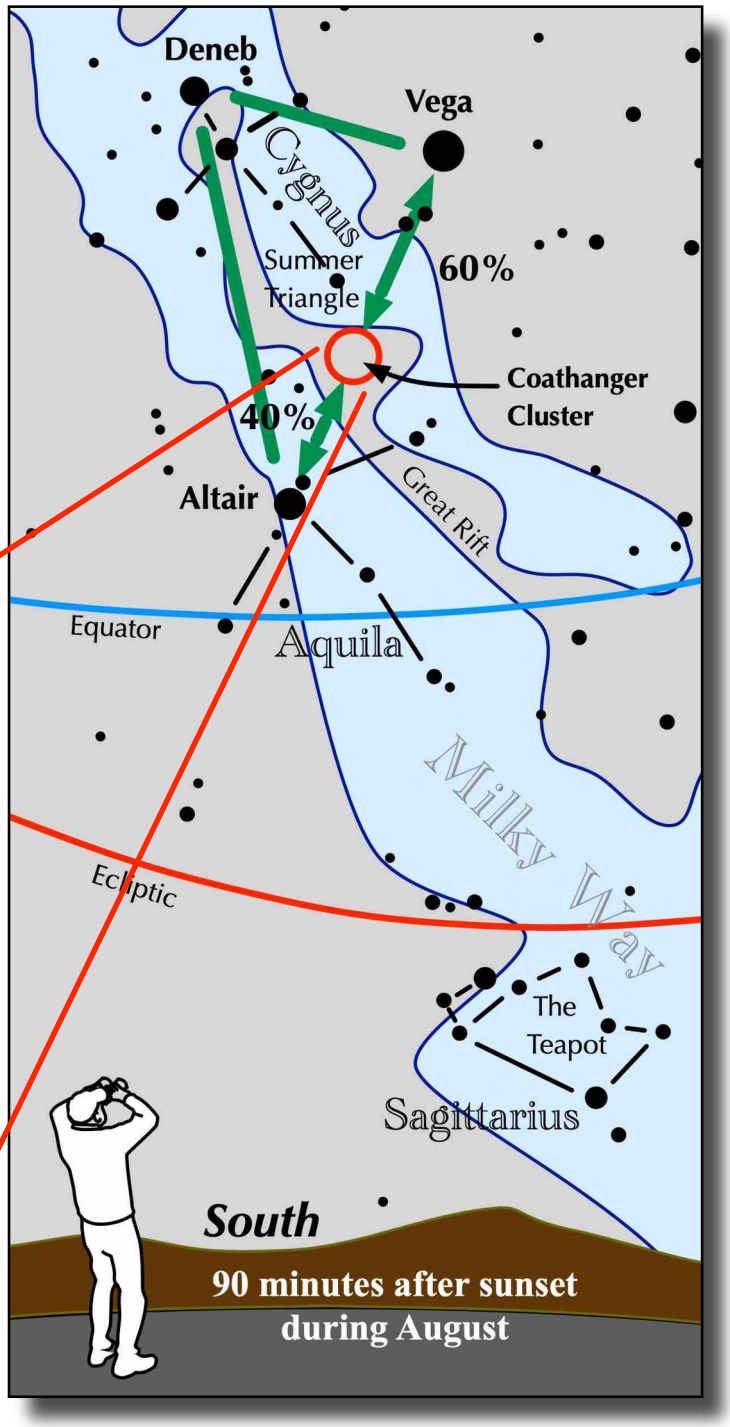
The Coathanger is not hard to find!

1. Locate bright Vega and Altair, both members of the Summer Triangle.
2. The Coathanger lies 40% of the way from Altair to Vega.
3. Its brightest stars are 5.1 magnitude 4 Vulpeculae and 5.6 mag. 5 Vulpeculae.
4. Its other stars are 6th and 7th magnitude.

These stars are not gravitationally associated with each other. They are just in a chance line of sight arrangement.

NGC 6802
A small telescope reveals the dim glow of this open cluster. It lies immediately east of the easternmost star of the Coathanger's bar.
Magnitude: 9
Diameter: 3 arc minutes





WAS Apparel Price List

T-SHIRTS

Black – Navy – Gray (Pink or Yellow if desired) – one imprint

Small – XL $15.00
2XL $18.00
3XL $19.00

LONG SLEEVE T-SHIRTS

Black – Navy – Gray - one imprint

Small – XL $19.00
2XL $21.00
3XL $22.00

CREW NECK SWEATSHIRT

Black – Navy – Gray - one imprint

Small – XL $22.00
2XL $24.00
3XL $25.00

HOODIE W/Pockets

Black Only (at this time) – one imprint

Small – XL $27.00
2XL $33.00
3XL $34.00

IMPRINT LOCATIONS:

Front left chest (3 ¼" logo)

Front or back (9" or 10" logo)

Back (12" logo for jackets or sweater)

Combination front left chest (3 ¼" logo) and back (9", 10" or 12" logo) – add $7.00

Choose when placing order

LOGO COLOR SCHEMES:

Black background with gold/yellow artwork and lettering

Black background with blue lettering and gold/yellow artwork

Choose when placing order

HOW TO ORDER:

Place order at the Cranbrook meeting on the first Monday of month –
Select garment type - color of garment – logo imprint and color scheme –
Pay in full for order to be placed –
Your order will be ready for pickup at next Cranbrook meeting –
(Your order may possibly be ready for the Macomb meeting following the Cranbrook meeting of that month – you will be notified if that is the case)
Contact Mark Kedzior @ bazonga952@hotmail.com with any questions

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IMPRINT ON YOUR OWN CLOTHING ITEM: Logo + Imprint Charge

3 ¼" Logo - $8.00 **9" – 10" Logo – $12.00** **12" Logo - $15.00**

LOGO COLOR CHOICES

Gold/Blue

Gold-3D

Legacy

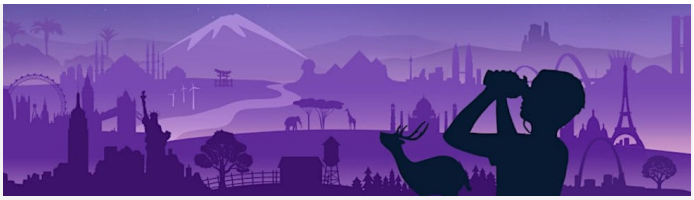
WAS Astrophotos

Rick Gossett sent in these images, taken in July. He says, they are “M 13 in Hercules, and M 27, the Dumbbell Nebula in Vulpecula. Both are easily visible in binoculars.”

2025/05/08 M13 200X10 SEC. GAIN 80 IR CUT

2025/07/22 M 27 280X10 SEC. GAIN 70 IR PASS DUALBAND FILTER

DETROIT PUBLIC LIBRARY **Presents**



Tuesday, August 26 - 6—7:30pm EDT
Knapp | Detroit Public Library

Women in Space: The Legacy of the First Lady Astronaut Trainees

Professor Nicolle Zellner of Albion College reviews the history of the first cohort of female trainees in the NASA program. Now commonly known as "the Mercury 13", this class of First Lady Astronaut Trainees (FLATs) included twins, a senator's wife, a few mothers, and a woman who would eventually (60 years later) realize her dream – and theirs – of becoming an astronaut.

As usual, the presentation will be on Zoom, but Professor Zellner will be presenting from the Knapp Branch of Detroit Public Library, and will come prepared with NASA swag to hand out.

A Zoom link will be sent to registrants before program. We routinely initiate Zoom auto-transcription.

Register

Saturday, September 27 - 1—5:30pm EDT
Knapp | Detroit Public Library

International Observe the Moon Night

Join the Knapp Branch as we view the moon, learn about lunar science & exploration, and honor cultural and personal connections to the moon.The "official" date for the international event is Saturday, October 4, but we are scheduling a week ahead so that we can see the moon before the branch closes at 6:00. Weather permitting, of course.

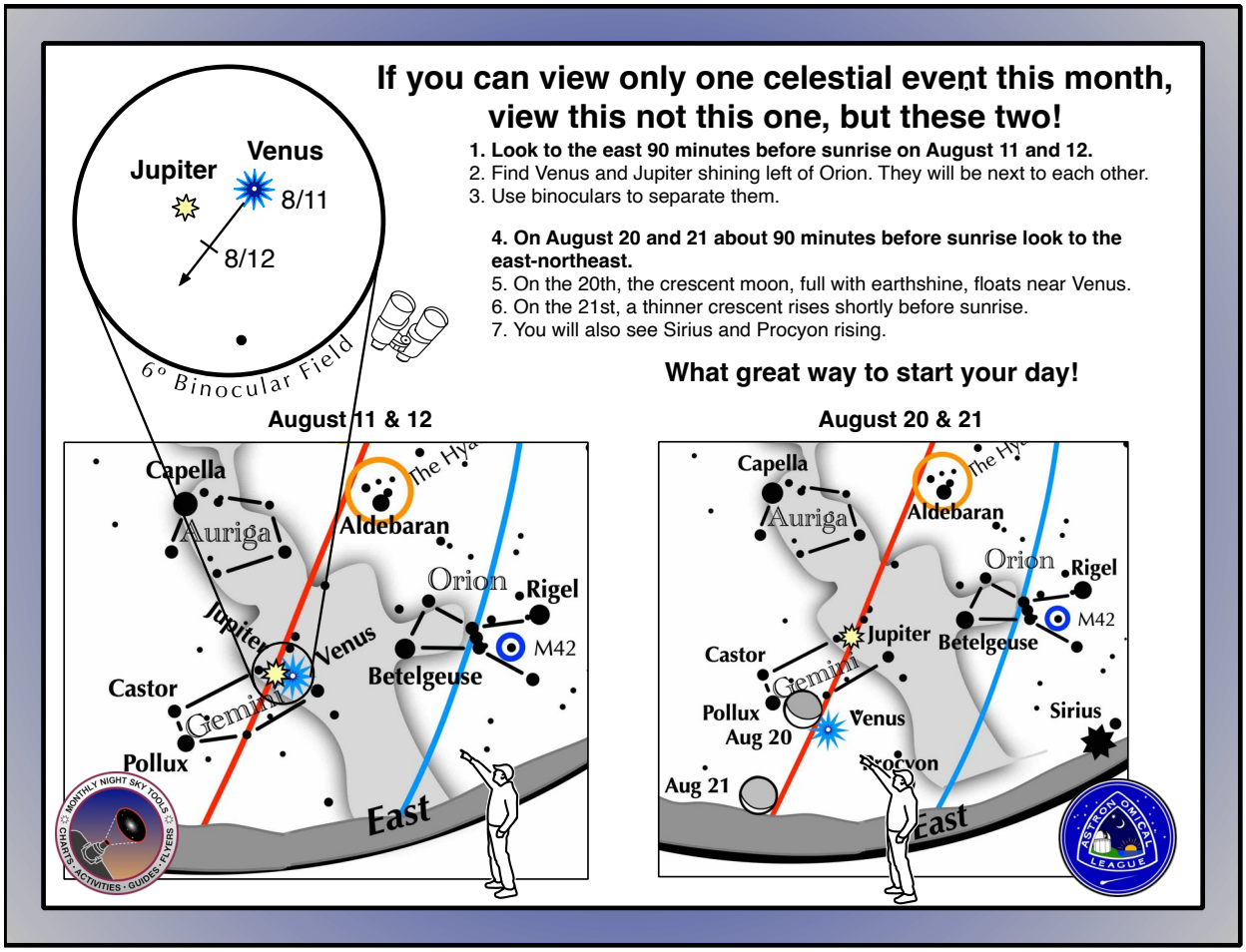
Planned events include using telescopes to see details on the moon, videos, crafts, and a speaker.

Event lasts 4 hours 30 minutes

Register

Knapp Branch
13330 Conant
Detroit, Michigan 48212

www.detroitpubliclibrary.org



Presentations

Cranbrook
7:00 pm, August 4, 2025

Main Talk

The DART Mission

By Nancy Chabot

On September 26, 2022, NASA's DART mission successfully impacted the asteroid Dimorphos. DART's impact with the asteroid Dimorphos, which poses no threat to Earth, demonstrated a mitigation technique for potentially protecting the planet from an Earth-bound asteroid in the future, if one were discovered. This presentation will share DART's successful autonomous navigation to impact a small asteroid at high speed and the results that followed from DART's impact event, as well as discuss what that means for potentially applying this technique in the future.

About the Speaker

Dr. Nancy L. Chabot is the chief scientist for the Space Exploration Sector. She was the coordination lead on NASA's Double Asteroid Redirection Test (DART) mission, is the deputy principal investigator for the Mars-moon Exploration with GAmma rays and NEutrons (MEGANE) instrument on the JAXA Martian Moons eXploration (MMX) mission, and is an interdisciplinary scientist on the joint ESA-JAXA BepiColombo mission. On NASA's MESSENGER mission, she was the instrument scientist for the Mercury Dual Imaging System (MDIS) and the chair of the Geology Discipline Group. She has been a member of five field teams with the Antarctic Search for Meteorites (ANSMET) program.

Short Talk

How to Take the BEST Milky Way Pictures Ever

By Adrian Bradley

If you have been wanting to take beautiful photos of the Milky Way, look no further than this talk! In 15 short minutes Adrian will show you some tips and tricks to help you get started towards taking absolutely GREAT Milky Way photos with whatever camera gear you've got.

About the Speaker

Adrian Bradley is an avid amateur nightscape photographer and astronomer. He prefers wide angle 'landscape astrophotography', especially Milky Way Photography. He uses his images to share his love of the night sky and his desire to understand and preserve it. He is currently involved with a few different astronomy groups, including the Royal Astronomical Society of Canada, Explore Alliance, the Astronomical League, The University Lowbrow Astronomers, G.L.A.A.C., and of course the W.A.S. Adrian has three articles published in Astronomy Magazine. He is in the June 2024, February 2025, and June 2025. He is a husband and father of two children.

Macomb
7:00 pm, August 21, 2025

Feature

Solar Cycle 25

By Rik Hill

Solar Cycle 25 - Where we've been, where we are, and where we hope to go.

About the Speaker

Rik was born on June 10, 1949, shortly after Antares was obscured by a nearly full moon. His first astronomical observation took place on May 6, 1957, during a Mercury transit. He continued observing through the 1960s, first with a 2.4" refractor and later with a Criterion RV-6, which he bought with money earned from mowing lawns and washing cars. In the Navy as a radar technician, he helped navigators identify stars and participated in the Atlantic backup recovery for Apollo 8. After his discharge, he sold his RV-6 to a local high school girl, who later invited him to help establish an astronomy club. They married in June 1974 and have been together for over 50 years. Rik got involved with ALPO (founded the Solar Section) and AAVSO, co-founded The Sunset Astronomical Society in Midland with his wife, Delores. He worked at Kitt Peak for 12 years. He worked at the Lunar & Planetary Lab at the University of Arizona and on the Catalina Sky Survey, discovering thousands of asteroids and 27 comets before retiring in October 2015. Now, he focuses on astronomy from his home observatory while caring for bonsai trees and fostering rescue cats.

Next Month

Cranbrook

Main Talk

The Way We Found The Universe

Short Talk

Stargate- a Short History

Macomb

Auroras

WAS PRESENTATIONS

If you would like to present either a short talk (10-15 minutes) or a full-length talk (45-60 minutes) at a future meeting, please email Dale Partin at:

firstvp@warrenastro.org.

Call for Calendar Images

We are getting ready to assemble our WAS 2026 Calendar. We need your astro-images, artwork, and sketches for the calendar. Please send a high resolution JPG or TIFF to publications@warrenastro.org for consideration by the calendar committee. Deadline is August 31st.

W.A.S.P. Photo and Article Submissions

We'd like to see your photos and articles in the W.A.S.P. Your contribution is ESSENTIAL! —
This is YOUR publication!
Send items to: publications@warrenastro.org
Documents can be submitted in Microsoft Word (.doc or .docx), Open Office (.ods), or Text (.txt) formats, or put into the body of an email. Photos can be embedded in the document or attached to the email and should be under 2MB in size. Please include a caption for your photos, along with dates taken, and the way you'd like your name to appear.

Skyward

David H. Levy

The 2025 version of the Adirondack Astronomy Retreat, now in progress, may (or may not) be our last one. It is a chance for star gazers to gather, enjoy the fabulous night sky, and rediscover why we fell in love with the sky in the first place.

We have already had two fabulous nights. Tuesday night, July 22, was a bit hazy but David Cotterrell photographed some apparent haze in the north northeast that turned out to be a faint glow of the aurora borealis. Then visually, I detected a faint greenish glow for some time thereafter. This event reminded me of my first major auroral display. That one happened right here, on 8 July 1966. That was the night that twilight never ended. The twilight glow moved over towards the north, evolved into a bright auroral glow, a rayed arc, and lasted all night with a flaming beautiful light. As weak as Tuesday's glow was, I did see several rays pop out. I did 3.6 hours of comet hunting that night.

As wonderful as Tuesday night was, it is difficult to compare it to Monday night. That might be the best sky, or surely one of the best, that I have ever seen anywhere. Not only did Messier 31, the Andromeda Galaxy, appear visible to the unaided eye, but also Messier 33 in Triangulum, became easier and easier to see as it arose out of the small microclimate cloud that was hovering over nearby Lake Champlain. Later, that cloud covered most of the sky. But when it dissipated later in the night, the Triangulum galaxy was clearly a naked eye object. I completed 3.1 hours of comet searching that night.

I began my search for comets long ago on the night of 17 December 1965. That brief 10-minute search between Pollux and Castor in Gemini did not last long, but it was the start of a lifetime search that continues to this day. I no longer expect to find another new comet, but I enjoy the search itself as much as I ever did.

My comet search, that culminated in the discovery of Periodic Comet Shoemaker-Levy 9 by Gene and Carolyn Shoemaker and me, was clearly the highlight of my career. But it was only the second highlight of my life. Meeting and marrying Wendee was the first, and it will always be.

The week at our 2025 Adirondack Astronomy Retreat is one I shall never forget. The group of people here are by far the smartest bunch I have ever had the privilege of knowing. With the coming of darkness each night, I used Tranquilitatis, a lovely 20 cm. reflector that Mark Zdiarski brought with him. Particularly on Monday night, I used it to spot a cacophony of galaxies in and near the Big Dipper, galaxies I cannot see from my Vail, Arizona home because of the glow from Tucson to my northwest. As attractive as all these galaxies are, their beauty pales before the truly magnificent appearance of Messier 51, the Whirlpool, and perhaps even more so with the advent of Messier 81, that attractive spiral in Ursa Major, and its enigmatic neighbor Messier 82. With these three galaxies, and later the Moon and Venus gently rising over nearby Ferguson Mountain, my night comes to an unforgettable conclusion.

David Levy in 2003, the year that Wendee and he got the idea to begin a night sky retreat. Photo from David Levy.

Saturn Needs No Rings to Fascinate

By Brad Young, Astronomy Club of Tulsa

The loss of Saturn's rings every 15 years as we pass through the plane between Saturn and the Sun is something of a letdown. Saturn's crown and glory after all is the most magnificent ring system in the solar system. However, as they say there's a silver lining to every cloud and the lack of rings opens other possibilities for Saturn that aren't always available. For one, the disc of the planet is completely exposed and more can be done to image and visually explore the disc especially the areas that are often covered by the rings in the equatorial zones. But perhaps the coolest thing is that Titan, its largest moon, can throw its shadow on the disc, visible with even a small telescope.

On July 18th I attempted this myself. It wasn't a very good morning at all, it had been cloudy all night and was barely clearing at 5:00 a.m. when I tried it. But at 5:35 I barely perceived a small dark spot just above the rings on the west side (left in my mirror reversed ETX-125). That's where it should have been, but I couldn't get high power to focus with very unsteady skies. I'm not satisfied and will be looking at other events coming up. Luckily, we have a few more this year before things tip too far and the shadow misses the disc. And to add to the experience, Saturn will be getting higher in the sky earlier at night and some of the shadow transit times are almost convenient and summer and early fall. I've adapted a list from Astronomical League below that shows when they are for Tulsa (*figure 1*).

It won't matter where you are, from Earth they'll all be at this moment, changing only with time zone. The crossing of Titan's shadow across Saturn is also accompanied by Titan being eclipsed by Saturn itself as it passes behind the planet. Those times are also listed as well as the durations and how long it takes for it to disappear and reappear each time. I haven't seen that yet and plan to look for that at the next occasion.

If these aren't enough, Bob King at Sky and Telescope also says:

"Rhea's also fair game

Rhea, the planet's second largest satellite, casts a shadow just 0.3Vatican Observatory Has A New Director

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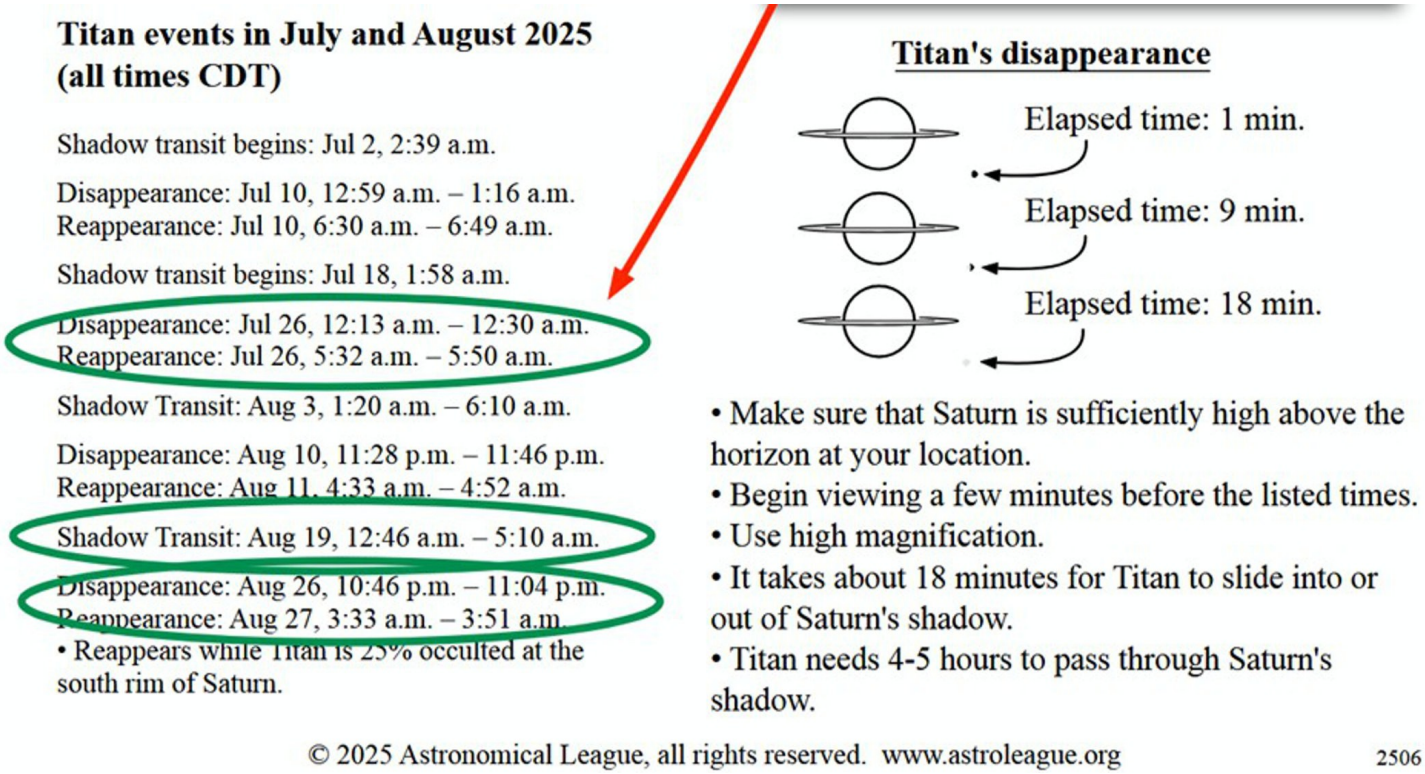

figure 1

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The transition has been in progress for several months as I approach the end of my second and final five-year term as Director. Fr. D'Souza was nominated by Fr. Arturo Sosa, S.J., Father General of the Society of Jesus, this past spring. You might recall that the nomination of one of my predecessors, Fr. George Coyne, was sent to Pope Paul VI, and ratified by Pope John Paul I, one of his only appointments.

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I am grateful to His Holiness for making this appointment, to Fr. D'Souza, and to each and every one of you, for supporting us in our efforts with your contributions and prayers.

I continually find it astounding that I work for Br. Guy at the Vatican Observatory Foundation, and how many amazing people I've met while working there! in diameter. Telescopes in the 8- to 10-inch range should be able to tackle it in excellent seeing. Also, because Rhea orbits much closer to Saturn, transits are more frequent. To find out when they'll happen, use a stargazing app like Stellarium or SkySafari and run through a simulation."

Let me know if you try any of this, and what your experience was or if you have an image or sketch, please send it to me at hafsnt1@gmail.com.

Join the Astronomical League

The mission of the Astronomical League is to promote the science of Astronomy. The major benefit of belonging to this organization is receiving the quarterly newsletter, The Reflector, which keeps you in touch with amateur activities all over the country.

Also:

- Participate in the Observing Program
- Avail yourself of the League Store
- Astronomy Books at a discount
- Attend Astronomical League Conventions

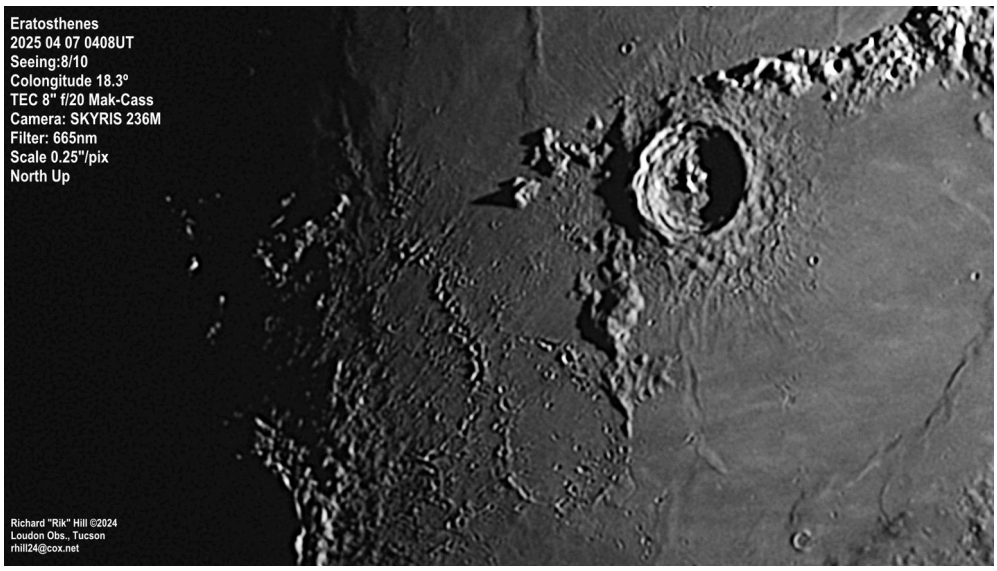
Only $9.00 annually,
(Membership starts July 1)

alcor@warrenastro.org

Over the Moon

With Rik Hill

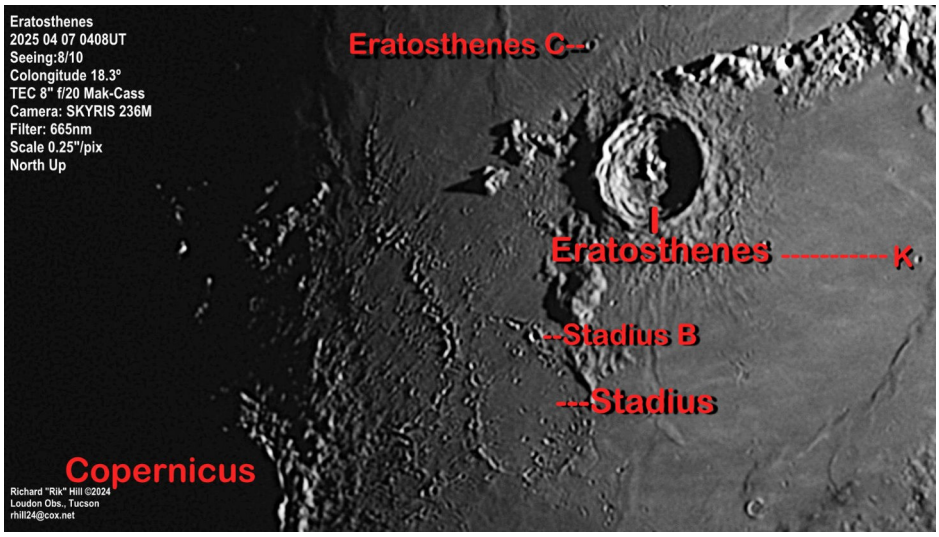
Secondary Considerations

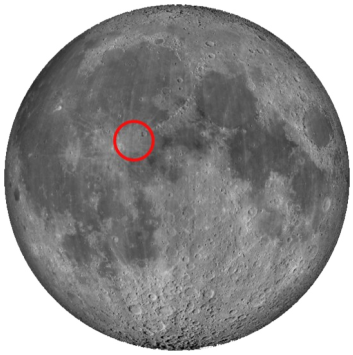


When first observing the moon most amateur astronomers are enamored by the big craters like Copernicus, Tycho or the trio Ptolemaeus, Alphonsus and Alpetrageus. But there are features that are too often overlooked (rather than 'over-looked') and three of them are represented here. The most obvious is the medium sized but beautifully formed Eratosthenes (59km dia.) with its great terraced interior walls surrounded by a hatch-work ejecta blanket. This blanket has splash that extends a full crater diameter from the crater walls. In the lower left of this image can be seen part of one wall of the great crater Copernicus (93km).

The next feature is circle below and to the right of Eratosthenes. This is Stadius, a ghost crater, one of the best on the moon. It is a very old crater obviously predating flooding from more recent impacts like Copernicus and Eratosthenes and the local mare. Scattered from north to south to the left and even on Stadius, are small pits and craterlets from 1-6km in size. These are secondary craters created from heavier ejecta from the Copernicus impact. In this area many of the larger 5-6km craterlets are named as satellites of Stadius (like Stadius G, Stadius T etc.) while the smaller ones remain unnamed. Closer in to Copernicus and the larger craterlets are satellites of Copernicus itself. As a young teen-aged amateur astronomer I struggled to see these with my 2.4" refractor but here with the 8" f/20 Mak-Cass they are easy to see and study. I encourage you to take the time to do that.

This image is a stack from one AVI using AVIStack2 with further processing using GIMP 2.6 and IrfanView.





Location Maps by Ralph DeCew

History S.I.G.

August 1995

In "Magazine Review", Toni Bondono looks at Scientific American's (August, 1995) coverage of the Comet Shoemaker-Levy 9 impact with Jupiter. Larry Kalinowski recounts his experience tracking the Space Shuttle/MIR combo crossing the sky in "Computer Chatter". He covers computer developments, as well.

The largest part of the rest of the issue is an announcement of a SMURFS (Southern Michigan Universal Regional Festival of Stargazers) event, along with a map to the location and a star map of astronomical sights one could see during the event.

August 2005

Larry Kalinowski's "Astro Chatter" bounces around from Comet Temple 1 news to noting James Doohan's (of Star Trek fame) death to some computer software news and mentioning that the club is in the market for a trailer to transport our Big Dob. Plus, he runs "The Swapshop" section.

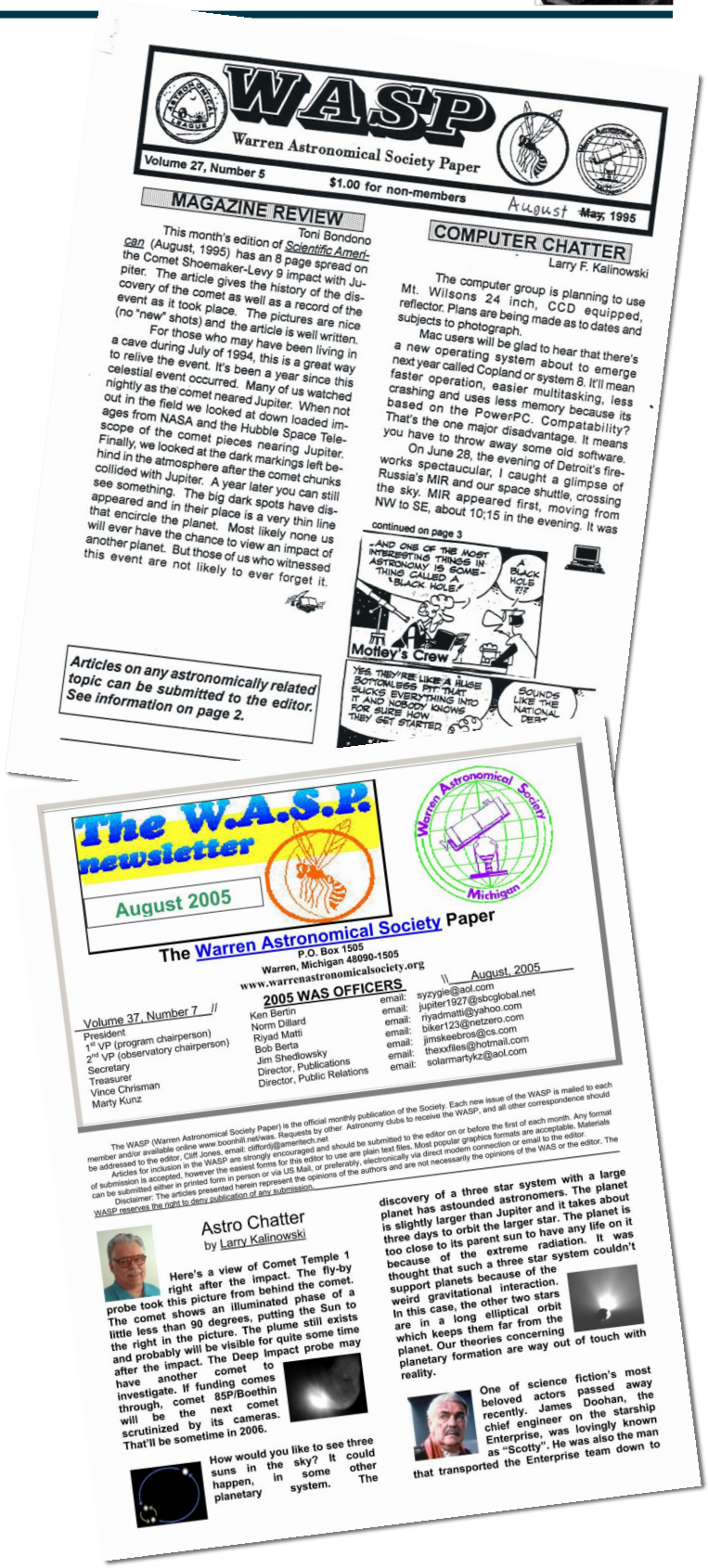
Ken Bertin's "Note from the President" again addresses the passing of James Doohan.

An imported article, "'Sidewalk Astronomer' Inspires Admiration and Irritation" by Glennda Chui of the Mercury News has an interesting take on John Dobson.

NASA Space Place features "Newest Weather Sentry Takes Up Watch" by Patrick L. Barry

Dale Thieme,
Chief Scanner


Image: Joe Tocco


WASP
Warren Astronomical Society Paper
Volume 27, Number 5 — $1.00 for non-members — August May, 1995

MAGAZINE REVIEW
Toni Bondono

This month's edition of Scientific American (August, 1995) has an 8 page spread on the Comet Shoemaker-Levy 9 impact with Jupiter. The article gives the history of the discovery of the comet as well as a record of the event as it took place. The pictures are nice (no "new" shots) and the article is well written.

For those who may have been living in a cave during July of 1994, this is a great way to relive the event. It's been a year since this celestial event occurred. Many of us watched nightly as the comet neared Jupiter. When not out in the field we looked at down loaded images from NASA and the Hubble Space Telescope of the comet pieces nearing Jupiter. Finally, we looked at the dark markings left behind in the atmosphere after the comet chunks collided with Jupiter. A year later you can still see something. The big dark spots have disappeared and in their place is a very thin line that encircle the planet. Most likely none us will ever have the chance to view an impact of another planet. But those of us who witnessed this event are not likely to ever forget it.

COMPUTER CHATTER
Larry F. Kalinowski

The computer group is planning to use Mt. Wilsons 24 inch, CCD equipped, reflector. Plans are being made as to dates and subjects to photograph.

Mac users will be glad to hear that there's a new operating system about to emerge next year called Copland or system 8. It'll mean faster operation, easier multitasking, less crashing and uses less memory because its based on the PowerPC. Compatability? That's the one major disadvantage. It means you have to throw away some old software.

On June 28, the evening of Detroit's fireworks spectaucular, I caught a glimpse of Russia's MIR and our space shuttle, crossing the sky. MIR appeared first, moving from NW to SE, about 10:15 in the evening. It was

continued on page 3

Articles on any astronomically related topic can be submitted to the editor. See information on page 2.

The W.A.S.P. newsletter
August 2005
Warren Astronomical Society Michigan

The Warren Astronomical Society Paper
P.O. Box 1505
Warren, Michigan 48090-1505
www.warrenastronomicalsociety.org

Volume 37, Number 7 // August, 2005

2005 WAS OFFICERS

President	Ken Bertin	email:	syzygie@aol.com
1st VP (program chairperson)	Norm Dillard	email:	jupiter1927@sbcglobal.net
2nd VP (observatory chairperson)	Riyad Matti	email:	riyadmatti@yahoo.com
Secretary	Bob Berta	email:	biker123@netzero.com
Treasurer	Jim Shedlowsky	email:	jimskeebros@cs.com
Vince Chrisman	Director, Publications	email:	thexfiles@hotmail.com
Marty Kunz	Director, Public Relations	email:	solarmartykz@aol.com

The WASP (Warren Astronomical Society Paper) is the official monthly publication of the Society. Each new issue of the WASP is mailed to each member and/or available online www.boonhill.net/was. Requests by other Astronomy clubs to receive the WASP, and all other correspondence should be addressed to the editor, Cliff Jones, email: cliffordj@ameritech.net

Articles for inclusion in the WASP are strongly encouraged and should be submitted to the editor on or before the first of each month. Any format of submission is accepted, however the easiest forms for this editor to use are plain text files. Most popular graphics formats are acceptable. Materials can be submitted either in printed form in person or via US Mail, or preferably, electronically via direct modem connection or email to the editor.

Disclaimer: The articles presented herein represent the opinions of the authors and are not necessarily the opinions of the WAS or the editor. The WASP reserves the right to deny publication of any submission.

Astro Chatter
by Larry Kalinowski

Here's a view of Comet Temple 1 right after the impact. The fly-by probe took this picture from behind the comet. The comet shows an illuminated phase of a little less than 90 degrees, putting the Sun to the right in the picture. The plume still exists and probably will be visible for quite some time after the impact. The Deep Impact probe may have another comet to investigate. If funding comes through, comet 85P/Boethin will be the next comet scrutinized by its cameras. That'll be sometime in 2006.

How would you like to see three suns in the sky? It could happen, in some other planetary system. The discovery of a three star system with a large planet has astounded astronomers. The planet is slightly larger than Jupiter and it takes about three days to orbit the larger star. The planet is too close to its parent sun to have any life on it because of the extreme radiation. It was thought that such a three star system couldn't support planets because of the weird gravitational interaction. In this case, the other two stars are in a long elliptical orbit which keeps them far from the planet. Our theories concerning planetary formation are way out of touch with reality.

One of science fiction's most beloved actors passed away recently. James Doohan, the chief engineer on the starship Enterprise, was lovingly known as "Scotty". He was also the man that transported the Enterprise team down to

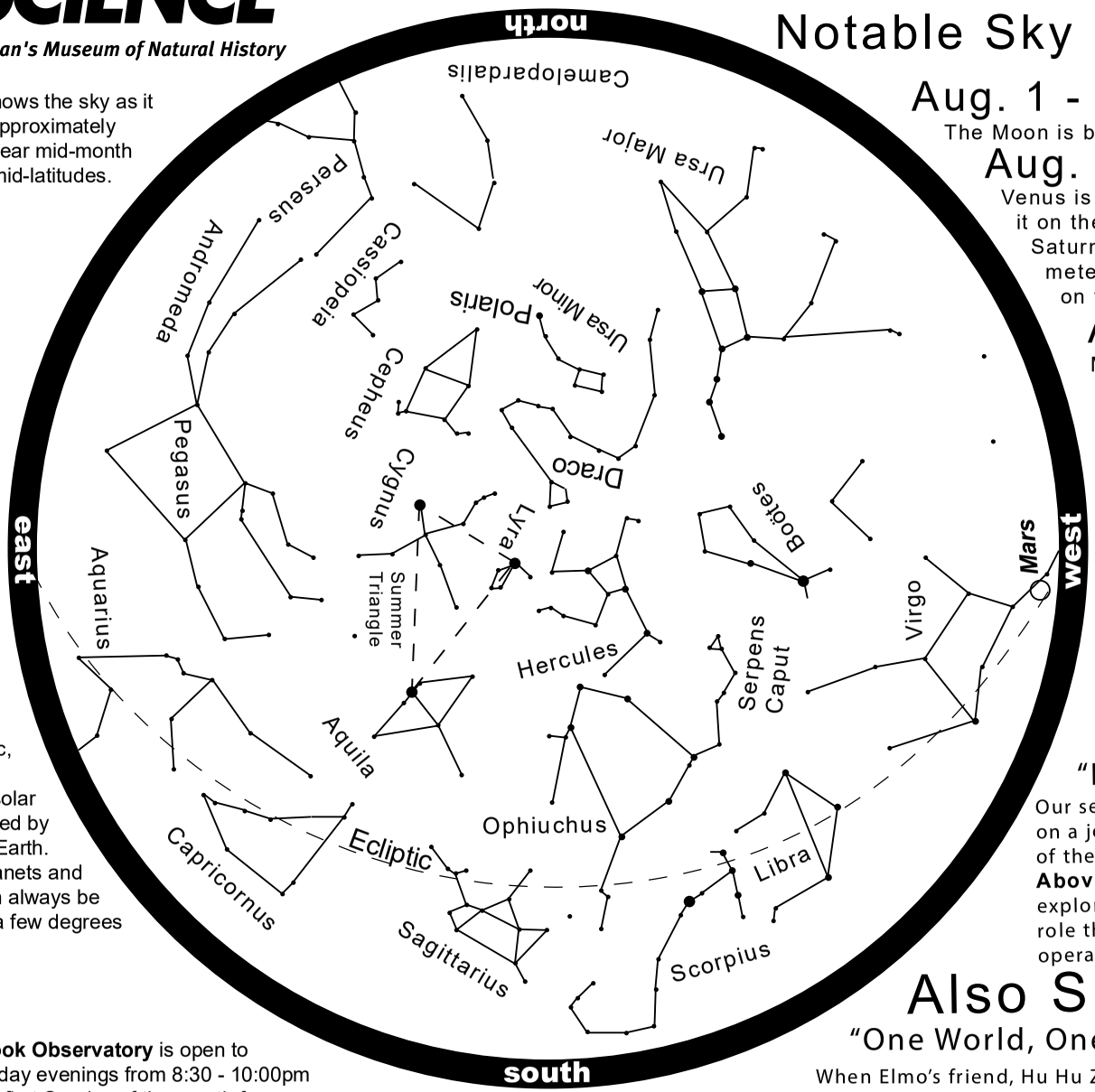
CRANBROOK INSTITUTE OF SCIENCE

Michigan's Museum of Natural History

AUGUST 2025

Notable Sky Happenings

This chart shows the sky as it appears at approximately 10pm EDT near mid-month at northern mid-latitudes.



What is that dashed line? It's the ecliptic, the reference plane of the solar system, defined by the Sun and Earth. The major planets and the Moon can always be found within a few degrees of this plane.

Aug. 1 - 7

The Moon is below Antares on the 3rd (SSW evening).

Aug. 8 - 14

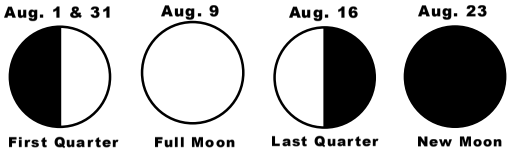
Venus is to the right of Jupiter on the 11th and below it on the 13th (ENE morning). Moon is to the right of Saturn on the 12th.(SSW morning). The Perseid meteor shower peaks between midnight and dawn on the 12th-13th.

Aug. 15 - 21

Moon is above Jupiter on the 19th and at the upper left of Venus on the 20th (ENE morning). The best morning view of Mercury for the year is on the 21st. Moon is above Mercury on the 21st (ENE morning twilight).

Aug. 22 - 31

The Moon is at the lower right of Antares on the 30th (SW evening):



Now Showing

"Lamps of Atlantis"

Our search for the lost continent of Atlantis takes us on a journey through the astronomical knowledge of the ancient Greeks. And stick around for **"Always Above: Space Is Closer Than You Think."** We explore how close space is to our daily lives and the role that the U.S. Space Force plays in launching, operating and defending these assets.

Also Showing

"One World, One Sky: Big Bird's Adventure"

When Elmo's friend, Hu Hu Zhu, visits from China. Big Bird, Elmo and Hu Hu Zhu take viewers on an exciting discovery of the Sun, Moon, and stars. They learn about the Big Dipper and the North Star and take an imaginary trip to the Moon where they learn that the Moon is a very different place.

The Cranbrook Observatory is open to the public Friday evenings from 8:30 - 10:00pm EDT, and the first Sunday of the month from 1:00 - 4:00pm for solar viewing.

For observatory information visit http://science.cranbrook.edu/explore/observatory

For astronomy information visit http://science.cranbrook.edu

Bill Beers - Messier 100 Galaxy & Friends

August

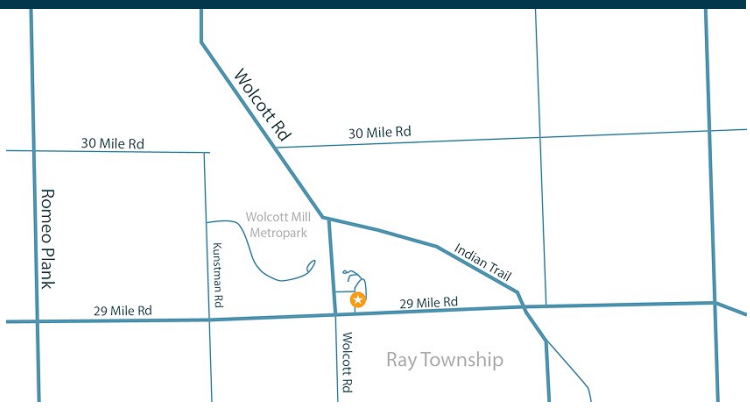
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 Moon at Apogee: 404164 km FIRST QUARTER MOON	2
3	4 Cranbrook	5	6	7	8	9 FULL MOON
10	11	12 Perseid Meteor Shower	13	14 Moon at Perigee: 369287 km	15	16 LAST QUARTER MOON
17	18	19	20	21 Macomb	22	23 Stargate NEW MOON
24	25	26	27	28	29 Moon at Apogee: 404552 km	30
31 FIRST QUARTER MOON						

Stargate Observatory

Monthly Free Astronomy Open House and Star Party
5:00 PM, Saturday, August 23rd
Wolcott Mill Park - Camp Rotary Entrance

Advisory: Concerns are circulating in the amateur astronomy community about a possibility of COVID-19 being passed from one person to another via contact of different persons' eyes with a telescope eyepiece. Sharing telescopes may be considered by some to be high-risk due to the possibility of eyes touching eyepieces. Masks are encouraged, mandatory for children.

- Sky tours.
- See different telescope types in operation.
- Get help with your telescope.
- We can schedule special presentations and outings for scouts, student or community groups.
- Contact: outreach@warrenastro.org
- Find us on Meetup.com



20505 29 Mile Rd (1.8 miles east of Romeo Plank Rd) Ray, MI 48096
82° 55'04" West Longitude, 42° 45'29" North Latitude

Observatory Rules:

- Closing time depends on weather, etc.
- May be closed one hour after opening time if no members arrive within the first hour.
- Contact the 2nd VP for other arrangements, such as late arrival time. Call 586-909-2052.
- An alternate person may be appointed to open.
- Members may arrive before or stay after the scheduled open house time.
- Dates are subject to change or cancellation depending on weather or staff availability.
- Postings to the Yahoo Group and/or email no later than 2 hours before starting time in case of date change or cancellation.
- It is best to call or email the 2nd VP at least 2 hours before the posted opening with any questions. Later emails may not be receivable (secondvp@warrenastro.org).
- Generally, only strong rain or snow will prevent the open house... the plan is to be there even if it is clouded over. Often, the weather is cloudy, but it clears up as the evening progresses.

Stargate Report

July

Open House: July 26, 2025

The observatory was opened at 7:23 pm. The sky was cloudy and did not clear up by the time the observatory was closed.

A few visitors, along with several scouts and their families, attended. Bob Berta and I gave them a presentation.

The observatory was closed at about 10:05 pm after everyone left.

August

The next observatory open house events are scheduled for **Saturday, August 9**, for the Perseid meteor shower, and on **August 23** for the WAS Picnic.

Riyad I. Matti
2025 WAS 2nd VP Observatory Chairperson

Astronomical Events For August 2025

Add one hour for Daylight Saving Time

Source:

http://astropixels.com/almanac/almanac21/almanac2025est.html

Day	Time (h:m)	Event
1	7:41	FIRST QUARTER MOON
1	15:37	Moon at Apogee: 404164 km
3	20:40	Antares 0.6°N of Moon
9	2:55	FULL MOON
11	9:53	Moon at Ascending Node
12	2:00	Venus 0.9°S of Jupiter
12	10:05	Saturn 4.0°S of Moon
12	15:00	Perseid Meteor Shower
14	13:01	Moon at Perigee: 369287 km
16	0:12	LAST QUARTER MOON
16	11:09	Pleiades 0.9°S of Moon
19	5:00	Mercury at Greatest Elong: 18.6°W
19	16:05	Jupiter 4.8°S of Moon
20	7:07	Pollux 2.4°N of Moon
21	11:14	Mercury 3.7°S of Moon
23	1:06	NEW MOON
24	10:41	Moon at Descending Node
26	11:41	Mars 2.8°N of Moon
27	7:00	Mercury at Perihelion
27	8:57	Spica 1.1°N of Moon
29	10:34	Moon at Apogee: 404552 km
31	1:25	FIRST QUARTER MOON
31	4:55	Antares 0.7°N of Moon

Treasury Report

Report for July 31, 2025

BOA Checking/cash

Balance $23,134.08

Income

Membership/renewal 31.00

Merchandise 4.00

Expenses

GLAAC donation 500.00

Credit Card

Balance 0.00

PayPal

Balance $342.49

Income

Memberships 28.91

Expenses

Astronomical League memberships 370.00

Membership

Members: 112

Reminder

Don't forget to renew your membership. Also, anyone joining the club from July on are good until December 31, 2026. So if you know anyone thinking about joining, now would be a good time.

Dave Baranski,
Treasurer

Meeting Minutes

Warren Astronomical Society
Cranbrook Meeting
July 7, 2025

Bob Trembley called the meeting to order at 7:00 PM

There were 32 at Cranbrook, 10 on Zoom, and 3 on YouTube.

In the opening announcements, Bob reported that GLAAC member clubs would be interested in having speakers from other clubs.

Officer Reports

President Bob Trembley mentioned there's an article in the newsletter about the Paul Strong Scholarship by Jonathan Kade and Dale Partin, and a memorial service for Gary Gathen at Shrine of the Little Flower Catholic Church, Friday, July 25, 2025 10:00 AM.

1st VP: Dale Partin reported that he needs more SHORT presentations.

2nd VP: Riyad Matti reported that there were 6 or so scopes set up at the June open house at the observatory and he checked out a loaner scope to a member.

Treasurer: David Baranski reported on our balances, posted in the newsletter.

Outreach: Jeff Macleod reported on an outreach event at the Sterling Heights Senior Center. Event went well until the automatic sprinklers kicked in.

Astronomy In the News

We have a 3rd interstellar comet, and it is cruising! 3I/ATLAS was discovered on July 1st and the closest approach to Earth is about 1.8 astronomical units. It will pass fairly close to Mars, and we have a fleet of spacecraft there, some with telescopes.

Scott Manley has a great video about it on YouTube: https://science.nasa.gov/solar-system/comets/3i-atlas/

Vera Rubin Telescope is online. It will likely discover a boatload of these interstellar objects just passing through.

AN IMPACT FLASH ON SATURN? An impact flash may have been observed on Saturn on July 5th between 09:00 and 09:15 UT. If it is confirmed, it would be the first ever impact flash detected on Saturn.

Asteroid Update

1,450,925 total asteroids

38,763 Near Earth Objects

Exoplanet Update

5,926 Confirmed Exoplanets

7,655 Candidates

A recent NASA Exoplanet archive release includes Kepler-725 c, a planet of 10 Earth masses located in its Sun-like star's optimistic habitable zone. It is 2400 LY away with a 207 day orbit. Used Transit Timing Variation (TTV) technique for the first time.

7:20 PM: Special Interest Groups

Nova

The predicted nova of T Coronae Borealis has still not occurred. Based on its historical behavior of erupting roughly every 80 years, we're not quite past due yet.

The sidebar on Spaceweather.com shows it DOWN in brightness a bit…

SOLAR

We got Spots

If you're on Facebook, check out CME Alerts and the SOLAR-ACTIVITY group, where you can find amateur photos of the Sun that would make astronomers from the 19th century cry.

Short talk

"The Importance of Astrology to Astronomy" by Ken Bertin

Feature Talk

"Telescopes 101" by Adrian Bradley

Bob Trembley ended the meeting at 9:22 PM

Respectfully submitted
Charlie Strackbein

Warren Astronomical Society
Macomb Meeting
July 17, 2025

Bob Trembley called the meeting to order at 7:00 PM

There were 16 at Macomb, 8 on Zoom, and 4 on YouTube.

In the opening announcements, Bob noted membership, and how to join and renew, how to get your name badge, WAS Swag, and covered details of Gary Gathen's passing and a memorial to be held on July 25 at Shrine of the Little Flower Catholic Church, our Annual Picnic, AATB, GLAAC, We need volunteers to work tables, and the need to start big time advertising.

Officer Reports

1st VP: Dale Partin reported that he needs more long and short presentations. If you have an idea - see Dale.

2nd VP: Riyad Matti reported that the skies were mostly clear, temperature mild and there were 25+ attendees and about 6 scopes set up at the June 28 open house at the observatory plus, he checked out a loaner scope to a member. The next open house will be August 23rd.

Treasurer: David Baranski reported on our balances, posted in this newsletter. Checking account has about, $22,951. PayPal $33. Sent the yearly Astro League membership fee out through PayPal yesterday (7/16/25). He sent an email of that screenshot over to Adrian. We got about $175 in the cash box.

Outreach: Jeff Macleod detailed an outreach event at the Sterling Heights Senior Center. The Perseids peak night is August 12 and early august 13. We will be at both Cranbrook and Stargate, Cranbrook will be early, and Stargate later (Riyad will be there). Jeff will be at Cranbrook early and at Stargate later and Riyad will be at Stargate that night. Cranbrook would likely like to see three to five telescopes. (note: Cranbrook was canceled) The picnic at Stargate is fast approaching on August 23rd, the club is covering dry goods, beverages, burgers and dogs, buns, condiments. Mark Kedzior will be grilling. Bring a side dish if possible.

Newsletter: Dale Thieme reports the June newsletter is out.

Astronomy In the News

The Parker Solar Probe made its closest pass by the Sun on Dec. 24th of last year; on July 10th, NASA posted some amazing images and video! The closest Images ever taken of the Sun's atmosphere.

For the first time, astronomers witness the dawn of a new solar system

ISS astronaut captures a rare phenomenon from orbit — a giant 'sprite' above a thunderstorm

Spaceweather.com reports MOTHS FOLLOW THE MILKY WAY: Astronomers come in all shapes and sizes--even invertebrates. A new study published in Nature reveals that Australian moths can see and decipher the night sky. They pay particular attention to the Milky Way and seem capable of navigating using the Carina nebula as a visual landmark.

NASA has partnered with NETFLIX - NASA+ (the old NASA TV) will be a selection on Netflix. This is great! someone who might not typically search for NASA, can see launches and live The NASA programming starts later this summer.

Asteroid/Exoplanet/NEO Update

1,450,925 Total Asteroids

38,763 Near Earth Objects

Exoplanet Update

5,926 Confirmed Exoplanets

7,655 Candidates

Special Interest Groups

Nova

The predicted nova of T Coronae Borealis has still not occurred.

SOLAR

Spaceweather.com says, "Chance of flares today. Cloudy with a chance of flares." Yeah. Uh, don't be surprised if there's a solar flare today. Forecasters estimate a 60% class of M-class flares from one of at least four sunspots.

Main Feature

Dale Partin introduced Bob Berta, who spoke on his "70 Year Journey in the Astronomy Hobby"

Bob ended the meeting at 9:19 PM

Respectfully submitted
Charlie Strackbein
WAS Secretary 2024, 2025

The Warren Astronomical Society is a proud member of the

Great Lakes Association of Astronomy Clubs

GLAAC is an association of amateur astronomy clubs in Southeastern Michigan who have banded together to provide enjoyable, family-oriented activities that focus on astronomy and space sciences.

Club Name and Website	City	Meeting Times
Astronomy Club at Eastern Michigan	University Ypsilanti/EMU	Every Thursday at 7:30PM in 402 Sherzer
Capital Area Astronomy Club	MSU/Abrams Planetarium	First Wednesday of each month 7:30 PM
Farmington Community Stargazers	Farmington Hills	Members: Last Tuesday of the month Public observing: 2nd Tuesday of the month
Ford Amateur Astronomy Club	Dearborn	Fourth Thursday of every month (except November and December) at 7:00 PM
McMath-Hulbert Astronomy Society	Lake Angelus	Board and paid members-First Sunday of the month
Oakland Astronomy Club	Rochester	Second Sunday of every month (except May)
Seven Ponds Astronomy Club	Dryden	Monthly: generally the Saturday closest to new Moon
Sunset Astronomical Society	Bay City/Delta College Planetarium	Second Friday of every month
University Lowbrow Astronomers	Ann Arbor	Third Friday of every month
Warren Astronomical Society	Bloomfield Hills/Cranbrook & Warren/MCC	First Monday & third Thursday of every month 7:30 PM

Club and Society Newsletters

Warren Astronomical Society: http://www.warrenastro.org/was/newsletter/
Oakland Astronomy Club: http://oaklandastronomy.net/
McMath-Hulbert Astronomy Club http://www.mcmathhulbert.org/solar/newsletter/
Ford Amateur Astronomy Club: http://www.fordastronomyclub.com/starstuff/index.html
University Lowbrow Astronomers: http://www.umich.edu/~lowbrows/reflections/

WAS Member Websites

Steven Aggas: http://apache-sitgreaves.org/

Jon Blum: Astronomy at JonRosie

Doug Bock:

Facebook: Northern Cross Observatory: https://www.facebook.com/NorthernCrossObservatory

Boon Hill and NCO Discussion https://www.facebook.com/groups/369811479741758

Flickr (astrophotography album): https://www.flickr.com/photos/141833769@N05/

YouTube channel: https://www.youtube.com/channel/UC-gG8v41t39oc-bL0TgPS6w

Bob Trembley:

https://www.vaticanobservatory.org/profile/rtrembley

Vatican Observatory Foundation Blog

Page 22

This article is distributed by NASA's Night Sky Network (NSN). The NSN program supports astronomy clubs across the USA dedicated to astronomy outreach. Visit nightsky.jpl.nasa.gov to find local clubs, events, and more!

The Great Rift

By: Dave Prosper
Updated by: Kat Troche

Summer skies bring glorious views of our own Milky Way galaxy to observers blessed with dark skies. For many city dwellers, their first sight of the Milky Way comes during trips to rural areas - so if you are traveling away from city lights, do yourself a favor and look up!

To observe the Milky Way, you need clear, dark skies and enough time to adapt your eyes to the dark. Photos of the Milky Way are breathtaking, but they usually show far more detail and color than the human eye can see – that's the beauty and quietly deceptive nature of long exposure photography. For Northern Hemisphere observers, the most prominent portion of the Milky Way rises in the southeast as marked by the constellations Scorpius and Sagittarius. Take note that, even in dark skies, the Milky Way isn't easily visible until it rises a bit above the horizon, and the thick, turbulent air obscures the view. The Milky Way is huge, but it is also rather faint, and our eyes need time to truly adjust to the dark and see it in any detail. Avoid bright lights as they will ruin your night vision. It's best to attempt to view the Milky Way when the Moon is at a new or crescent phase; a full Moon will wash out any potential views.

The Vera C. Rubin Observatory, located at Cerro Pachón, Chile, under the Milky Way. The bright halo of gas and stars on the left side of the image highlights the very center of the Milky Way galaxy. The dark path that cuts through this center is known as the Great Rift, because it gives the appearance that the Milky Way has been split in half. Image Credit: RubinObs/NOIRLab/SLAC/NSF/DOE/AURA/B. Quint

Keeping your eyes dark-adapted is especially important if you want to not only see the haze of the Milky Way, but also the dark lane cutting into that haze, stretching from the Summer Triangle to Sagittarius. This dark detail is known as the Great Rift, and is seen more readily in very dark skies, especially dark, dry skies found in high desert regions. What exactly is the Great Rift? You are looking at massive clouds of galactic dust lying between Earth and the interior of the Milky Way.

Other "dark nebulae" of cosmic clouds pepper the Milky Way, including the famed Coalsack, found in the Southern Hemisphere constellation of Crux. Many cultures celebrate these dark clouds in their traditional stories along with the constellations and the Milky Way. One such story tells of a Yacana the Llama, and her baby, wandering along a river that crossed the sky – the Milky Way. The bright stars Alpha and Beta Centauri serve as the llama's eyes, with the dark sections representing the bodies of mother and baby, with the baby below the mother, nursing.

In the activity, "Our Place In Our Galaxy", if the Milky Way were shrunk down to the size of North America, our solar system would be about the size of a quarter. At that scale, Polaris - which is about 433 light years distant from us - would be 11 miles away. Image Credit: Astronomical Society of the Pacific

Where exactly is our solar system within the Milky Way? Is there a way to get a sense of scale? The "Our Place in Our Galaxy" activity can help you do just that, with only birdseed, a coin, and your imagination. You can also discover the amazing science NASA is doing to understand our galaxy – and our place in it - in the Galaxies section of NASA's Universe page.

Originally posted by Dave Prosper: June 2021

Last Updated by Kat Troche: July 2025