

# STARLIGHT JOURNAL

## FEBRUARY 2025



Our cover image for February is the beautiful **Valentine Rose Nebula** (Sharpless Catalog Sh2-174). It is an asymmetric nebula located in the region of Cepheus, near the North Star. At a declination of +80.49 degrees, it is the northernmost object in the Sharpless Catalog and can be imaged most of the year from Iowa. It is weak in brightness and has a diameter of about 17 arc-minutes or about 1/2 the width of the Moon (which is 31 arc-minutes across). It is about 930 light years from Earth.

### **SAVE THESE DATES NOW!**

Friday, January 31 – last day to renew membership at current rate  
Saturday, February 1 – Membership Meeting at Drake Observatory 6:30 p.m.  
Saturday, March 1 – Chili Potluck Supper 6:00 p.m. at Ashton Observatory  
Saturday, March 1 – Membership Meeting 7:00 p.m. at Ashton Observatory



**MARCH CHILI  
POTLUCK  
SUPPER  
& MEMBERSHIP  
MEETING  
MARK YOUR  
CALENDAR  
NOW!**

**Saturday, March 1,  
2025, at 6:00 P.M.**

at Ashton  
Observatory.

All members are welcome and encouraged to attend.

Bring a pot of regular chili, non-chili soup, dessert, salad or non-alcoholic drinks.  
There will be plenty of food, so come and partake whether you bring food or not!

Bowls, plates, cups, spoons and napkins will be provided.



**February 2025 – President's Report**

It was wonderful to see everyone at our January meeting!! Thank You to everyone who braved the cold evening to attend. I also want to say 'Thank You' to Herb Folsom for opening up the Drake Observatory for our meeting in January and our upcoming February meeting.



We had wonderful programs last year with topics that broadened our night sky knowledge. We offer great appreciation to our DMAS members who took the time to create programs, share their knowledge and help us all learn more about astronomy! Last year's presenters were J.R. Paulson, Derryl Barr, Jim VandeBerg, Greg Woolever, Paul Caligiuri, and Dean Regas (Honorary DMAS Member). Thank You!!

This means we are now working on programming for this 2025 year with programs tentatively scheduled for the 2<sup>nd</sup> and 4<sup>th</sup> Saturdays during our Public Viewing season. A few of the dates have been spoken for, but more presenters and programs are needed. If you have an astronomy topic you are passionate about and would like to share with others, please contact our Observatory Director, Greg Woolever. Any program presented last year can also be repeated this year.

We continue to work through the donated equipment DMAS has received this past year. At our last membership meeting, it was approved to offer our surplus equipment to other Astronomy Clubs for

free with a date by which the equipment must be claimed. Equipment not claimed by the other clubs will be publicly advertised in a garage sale with the condition of “as is”.

The Globe at Night constellation for February is scheduled for February 19-28, 2025. Orion is once again the constellation designated for the Globe at Night Challenge. This is the webpage to learn more about the challenge - [Campaigns - Globe At Night](#). Who doesn't love to look at Orion and all it has to offer! I just wish we had more of Orion during the warmer months. How about you?

Happy Valentine's Day this February month. Also, in honor of this month being *American Heart Health* month, here is a beautiful image of the **Heart Nebula**. It is an emission nebula, 7,500 light-years away from Earth and located in the Perseus Arm of the Galaxy in the constellation Cassiopeia. It was discovered by William Herschel on November 3<sup>rd</sup>, 1787. It displays glowing ionized hydrogen gas and darker dust lanes.



Image courtesy of Wikipedia

**The Des Moines  
Astronomical Society  
Monthly Members' Meeting Agenda  
February 1, 2025 at 6:30 P.M.  
at the Drake Municipal Observatory  
4898 Observatory Rd, Des Moines, IA**

- Call to order – Introductions
- Secretary's Report – Minutes
- Treasurer's Report
  - Financial Report
  - Membership Renewal
- Observatory Director's Report
  - Programs at Ashton
  - Private Groups
  - Spring Cleaning
- Equipment updates
  - DMAS equipment inventory
- Committee Reports
  - Member Services
    - Photography class
- Member comments
  - Suggestions for Priorities for 2025
  - Defibrillator training
- Other Business
- Adjourn
- Next Meeting Date: Saturday, March 1<sup>st</sup>, 2025 at **Ashton Observatory**
  - **Chili Supper** at 6:00 PM
  - **Membership Meeting** at 7:00 PM





# Observatory Committee Report February 2025

Greg Woolever, Observatory Director

Everyone has been complaining about the cold weather, and I certainly find no pleasure in the cold. But taking the long view (remember, I'm old), I grew up in the 1950s knowing that it was expected to get to -20F (real temperature, not the wind chill) for a week or two every winter in January and/or February. So, I'm thinking the current cold spell is fairly mild. But I'm not a kid anymore, so the prospect of me running a telescope for hours in below zero wind-chill is not what's happening ... don't hold your breath.

Last month I reported attendance at Ashton for the 2024 season, showing an increase over the previous year.

Now I have the stats on financial receipts from our private group events in 2024.

We had 19 private groups scheduled. Three were cancelled due to weather. Three were no charge events (2 for Jasper County, one for folks who had been advising us on the Timberline property).

All the events were at Ashton, so our standard charge is \$75 per event. That works out to \$975 for requested payments, but actual payments were \$1,005 due to some groups paying us more than we ask. That's not uncommon, and is a reflection of the favorable experience they had. I think we do a pretty great job hosting and delivering excitement.

<p>Revenue from private group events in 2024:</p> $(\$75 \times 13) + \$5 + \$25 = \$1,005$
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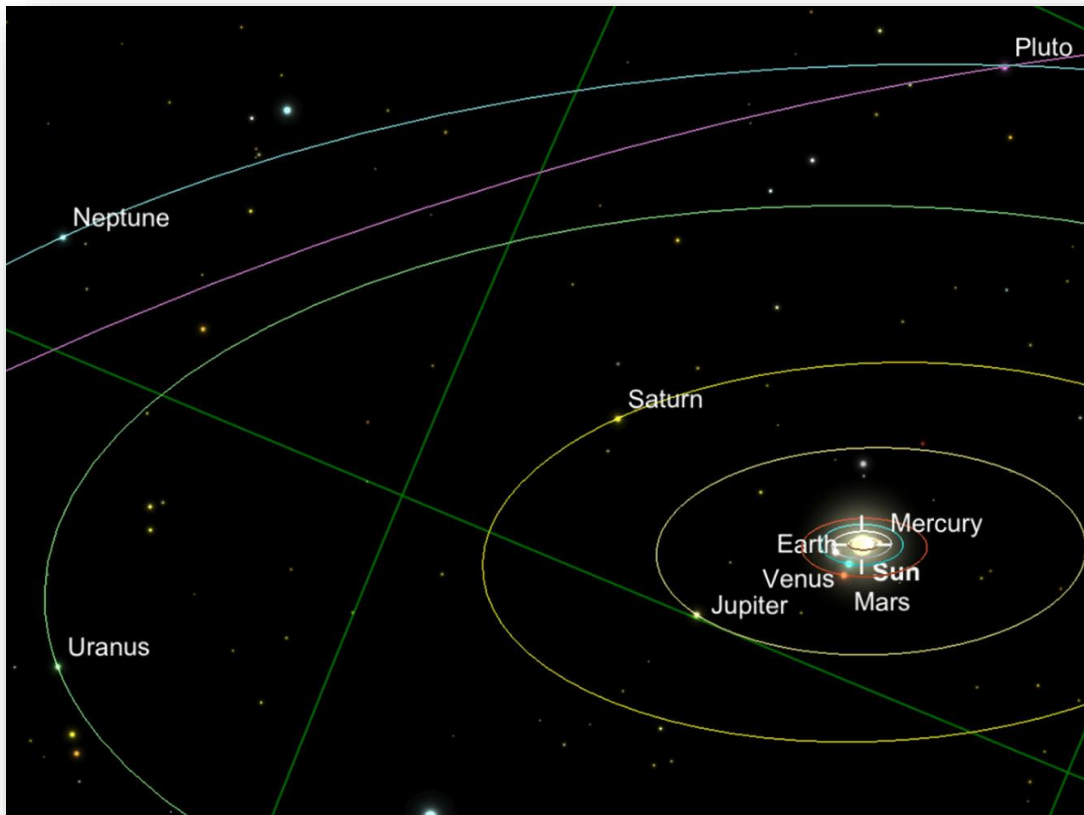
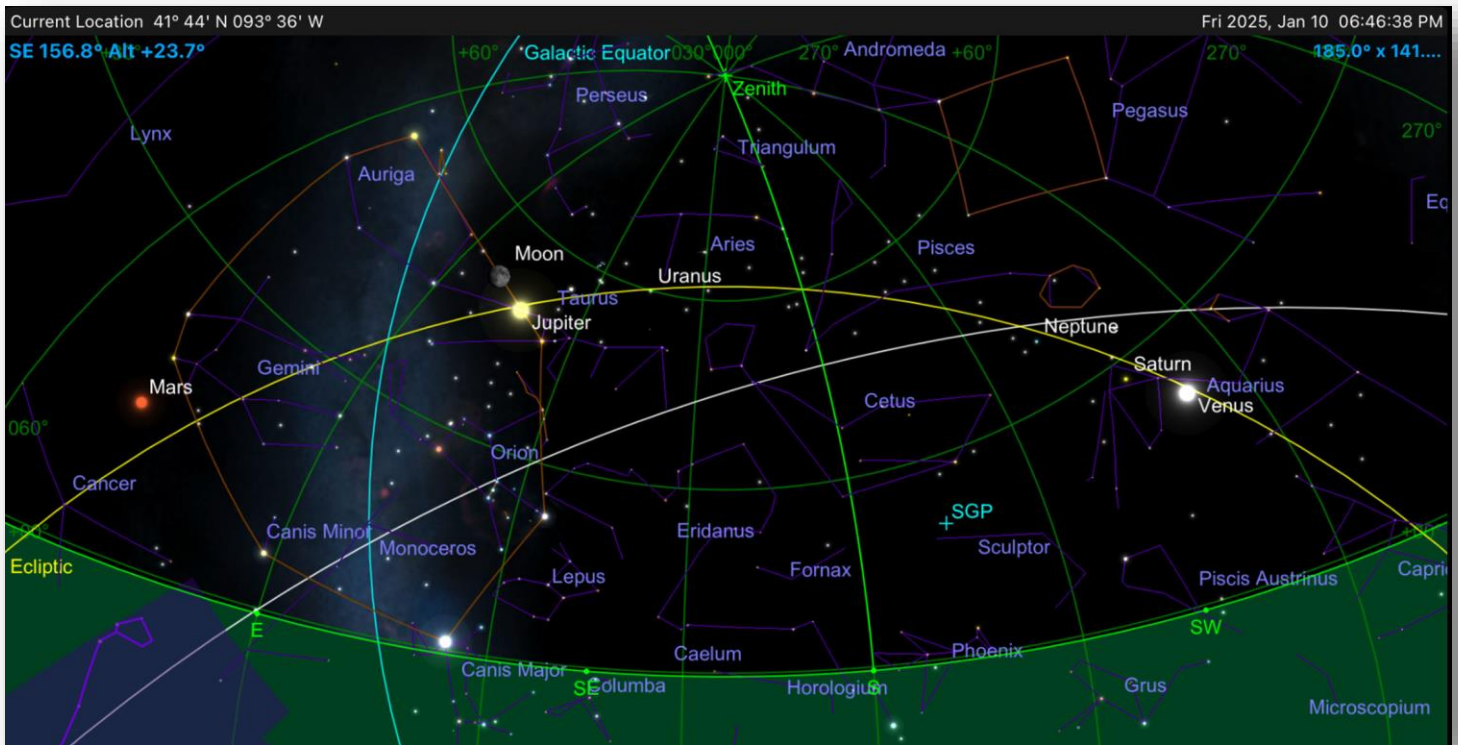
On a separate note, there has been a lot of interest and hype about the "planet parade" this January. We have received many inquiries via our website and Facebook page about whether Ashton will be open for observing the planets. I finally posted detailed information about what can be seen, and where and when, on our website and Facebook page. Still, the requests keep coming in. The last one wanted someone to come to him and his daughter with telescope to show them the planets. He talked about how once someone brought a telescope to the East Village, saying the chance to see Saturn then was "amazing!"



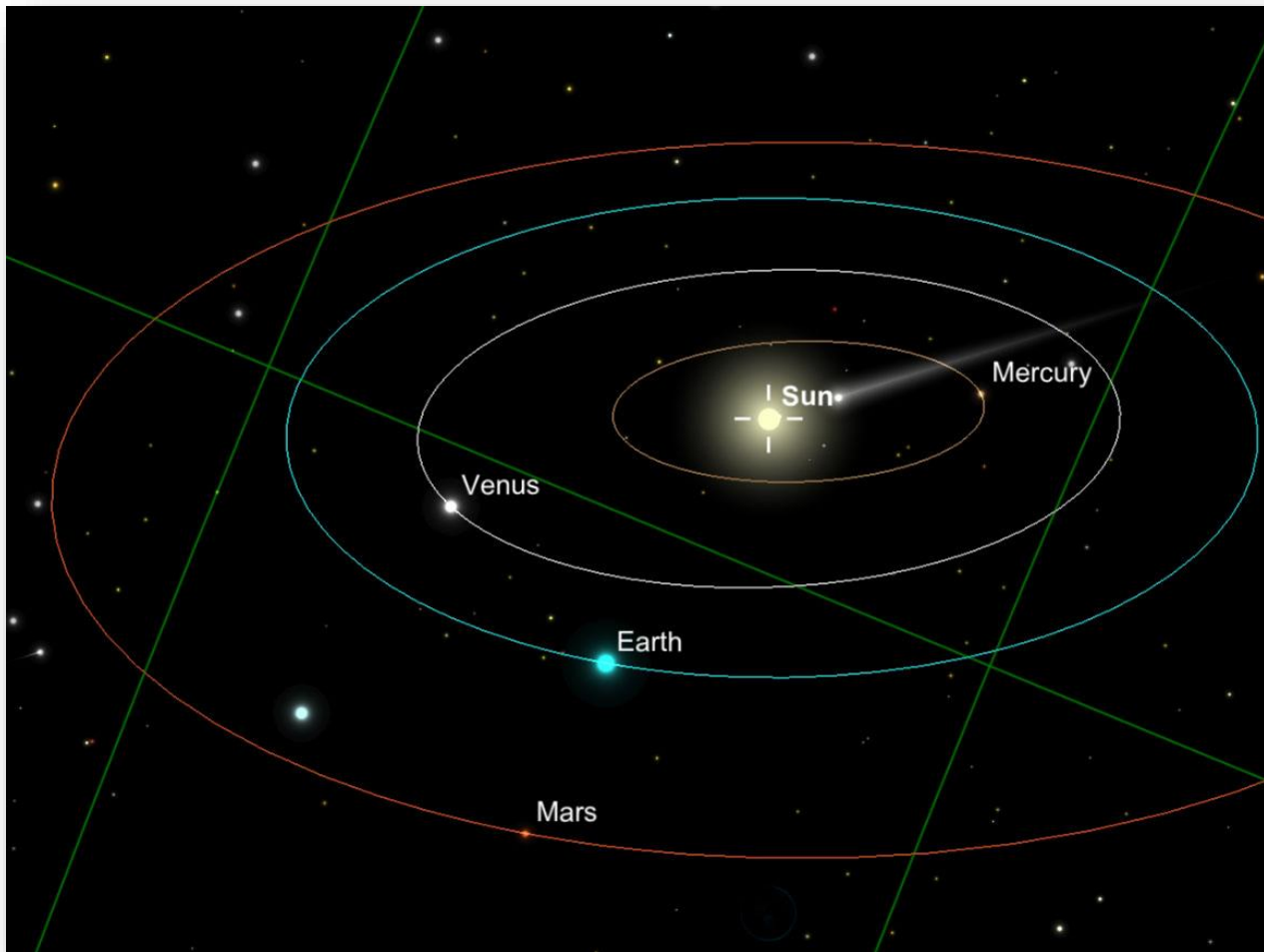
Was that you? Well, any one of us could create a little "pop-up star party" like that. If you ever think about doing that, give a shout to the rest of DMAS members and maybe someone else might join with you. Great team sport.

Thanks - Greg Woolever & the Observatory Committee: Dave Heck, Norm Van Klompenburg, Jim VandeBerg, Greg Woolever.

# Planet Parade!



It is somewhat special that 6 of the planets in our solar system are all in the night sky at the same time. Four of the planets are bright objects, making them visible naked-eye objects (Venus, Saturn, Jupiter, Mars). Neptune and Uranus, while being very large planets, are very far away from us, so they appear tiny and dim, requiring a telescope to get a meaningful view – but they ARE up there in the sky with the rest of the parade. Only Mercury is not visible since it is leading the sun right now. Earth of course can also be seen if you look down at your feet. ☺ - Greg Woolever.

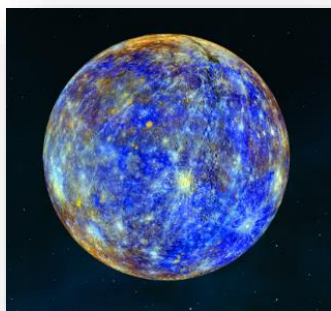


**Check out page 6 of the Winter 2025 issue of *Northern Lights* for a report by DMAS member L. Allen Beers on the Iowa Star Party 2024. The *Northern Lights* is a publication of the North Central Region of the Astronomical League. You can subscribe to the newsletter and download archived issues at <https://ncral.wordpress.com/newsletter-archive/>**



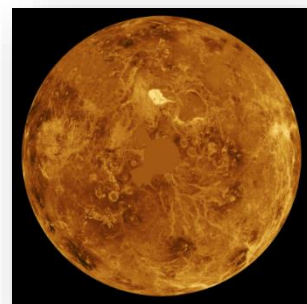
## The Night Sky for February 2025

*By JoAnn Cogil* This month we find our night skies providing a fairly quiet month. But – I heard we need to start watching for the Blaze Star again this year as it is reported it will certainly show in 2025 and shine at a possible magnitude of +2, which is like Polaris.



**Mercury** – on the 9<sup>th</sup>, the planet will be at superior conjunction, the opposite side of the Sun from Earth. Check the sky on the 24<sup>th</sup> as Mercury reappears in our night sky and can be seen below Venus with Saturn to the upper left of the little planet.

**Venus** – is shining brightly in the SW sky after sunset & is best viewed in the early twilight hours. The first day of the month finds the Moon, Venus & Saturn meeting up in the night sky and shows to be the best 'meet up' of this year and next year. Look to the W-SW about 15 minutes after sunset to find this fun grouping. But know Venus is heading towards the sun. On the 28<sup>th</sup> we find a possible nice binocular view with Venus & Mercury in the W-SW sky with the moon below these two.







**Earth** – during this month seven planets — Saturn, Mercury, Venus, Jupiter, Mars, Uranus, and Neptune — will align in the evening sky. Five of these planets (Saturn, Mercury, Venus, Jupiter, and Mars) will be visible to the naked eye. Six planets will form a giant arc in the evening sky - Mars, Jupiter, Uranus, Venus, Neptune, and Saturn. Then at the end of February, Mercury will join the fun, replacing Saturn.

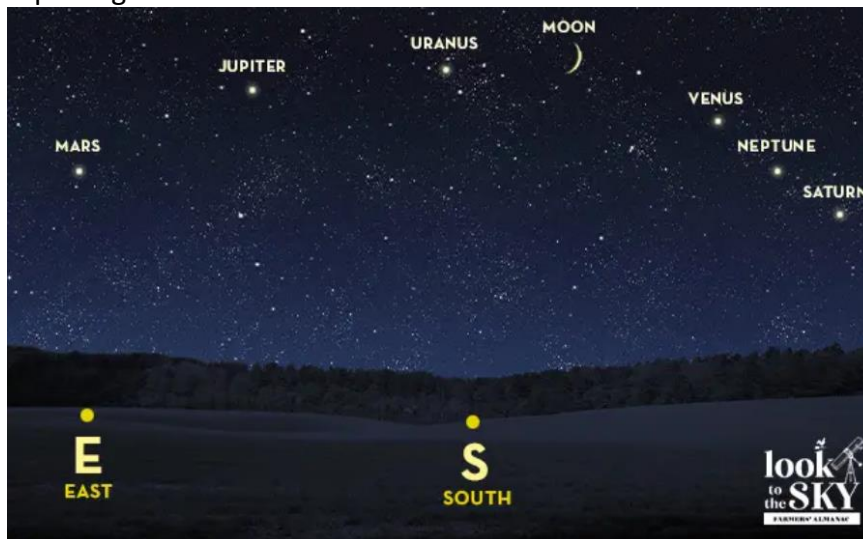


Image courtesy of Dean Regas for February 3<sup>rd</sup>

**Mars** – the red planet shines between the bodies of the Gemini twins this month and is visible all night. Early evening of the 8<sup>th</sup>-9<sup>th</sup>, Mars shines with the Moon and Pollux in the SE and will form a “flat” isosceles triangle. Mars ceases its retrograde motion on the 23<sup>rd</sup> and starts its eastward movement for the next 2 years.



**Jupiter** – is king of the night sky this month!

It shines brightly in Taurus, is above the bright star Aldebaran and will be visible well past midnight this month. So, look for the belts, the Great Red Spot and the 4 moons. The banded planet rotates every 10 hours and may provide nice viewing of the movements of the planet’s clouds.

**Saturn** – the rings are now nearly edge-on as it is  $\frac{1}{2}$  way through its 15-year cycle. This big planet is moving towards the Sun, so it is becoming more difficult to see. On the 24<sup>th</sup> Saturn will be above & to the left of Mercury, but quite low in the W-SW sky. By the next night, the planet moves quickly and will be below Mercury.



**Uranus** – can be found in the constellation Aries but will be tough to see this month. Best to try finding it after midnight to the SW of the Pleiades.

**Neptune** – may be difficult to see this month as it rises mid-morning and sets early evening.



### February Moon

5<sup>th</sup> – first quarter

12<sup>th</sup> – FULL Moon @ 7:55 AM CST

20<sup>th</sup> – 3<sup>rd</sup> quarter

27<sup>th</sup> – NEW Moon @ 6:44 PM CST

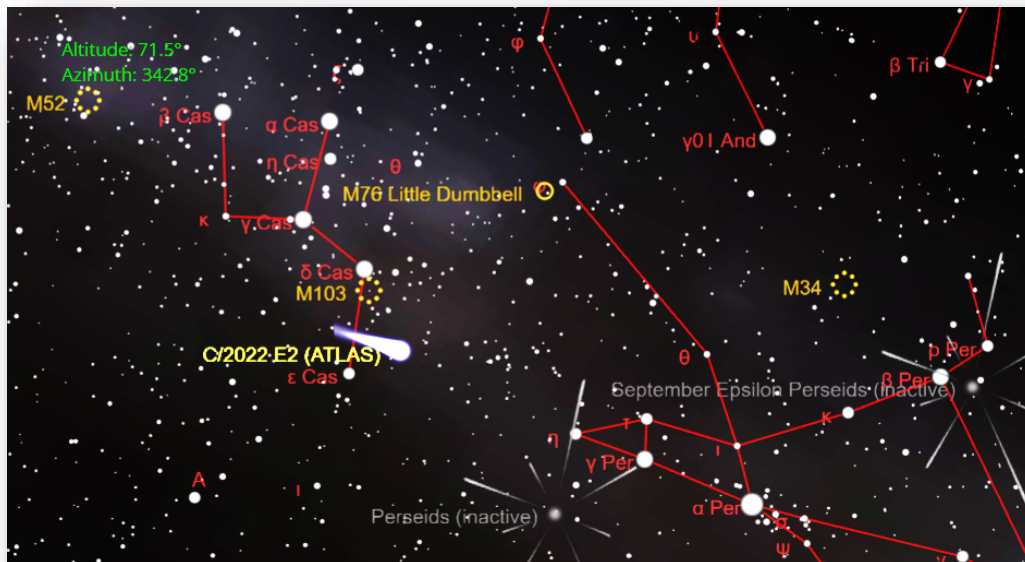
This month's moon is known by Native American tribes as the 'Snow Moon' because the

heaviest snows usually fell during this time of the year. It is also known as the "Hunger Moon" as hunting was difficult due to the harsh weather of winter.

Watch for these fun Moon events –

- Early Thursday morning, February 6<sup>th</sup>, about 2 AM, look low in the west as the 60% waxing gibbous Moon occults the Pleiades!! It starts about 1:20 AM with the Moon setting at 2:30 AM
- On the 9<sup>th</sup> the Moon lines up with Mars, Castor & Pollux in the W-NW morning twilight sky

- **Comet**
- C/2022 E2(ATLAS) could be a telescopic view in the evening this month. It is crossing through the constellation Cassiopeia. Unfortunately, it is estimated to have only a +12 magnitude which makes finding it quite difficult.



### Zodiacal Lights

Once again, we have an opportunity to observe this wonderful night sky phenomenon. Between January 13<sup>th</sup> through the 22<sup>nd</sup>, look towards the western horizon about 90 minutes after sunset. The bottom of the 'cone' will be 20° across at its base. The lights will extend into the southern sky. Be aware the lights may only show for 90 minutes. To our benefit, the moon will be absent from the evening sky so we should have nice dark skies.



Image courtesy

EarthSky.org



### **Have you heard of the Winter Hexagon?** - JoAnn Cogil

This is an asterism in our winter skies appearing to be in the form of a hexagon, or six-sided oval. The six stars forming the points of the hexagon are Rigel, Aldebaran, Capella, Pollux, Procyon and Sirius. These are some of the brightest stars in the Northern Hemisphere's winter sky. No, not a constellation, but an asterism. These prominent stars form a noticeable pattern, the hexagon.

The hexagon uses these 1<sup>st</sup> magnitude stars from six different constellations. We find **Rigel** from Orion the Hunter, **Aldebaran** in Taurus the Bull, **Capella** in Auriga the Charioteer, **Pollux** in Gemini the Twins, **Procyon** in Canis Minor the Lesser Dog, and **Sirius** in Canis Major the Greater Dog. Some call this pattern a football and we begin to see it in our night skies in time for the biggest football game of the year, the Super Bowl!! This



pattern of stars was first conceived by author Hans Augusto Rey in his popular sky guide "The Stars – A New Way to See Them." Yes, this is H.A. Rey, the creator of the Curious George series, with the most mischievous little monkey. Mr. Rey was a very serious amateur astronomer and also wrote a children's book, "Find the Constellations." Both these books are considered classics from the 1950's and have never been out of print since they were first published.

The Winter Hexagon is huge!! The span from the southernmost star, Sirius, to the northernmost star, Capella, covers about 1/3 of the dome of the sky. And if you are fortunate to have a clear and dark moonless night, you could see the river of stars of the Milky Way flowing through the center of the Winter Hexagon.

### **The Word – A monthly article by DMAS member Bruce Mumm**

Every specialty has a specific jargon to describe unique conditions in the field; Astronomy is no different. This month's word is:

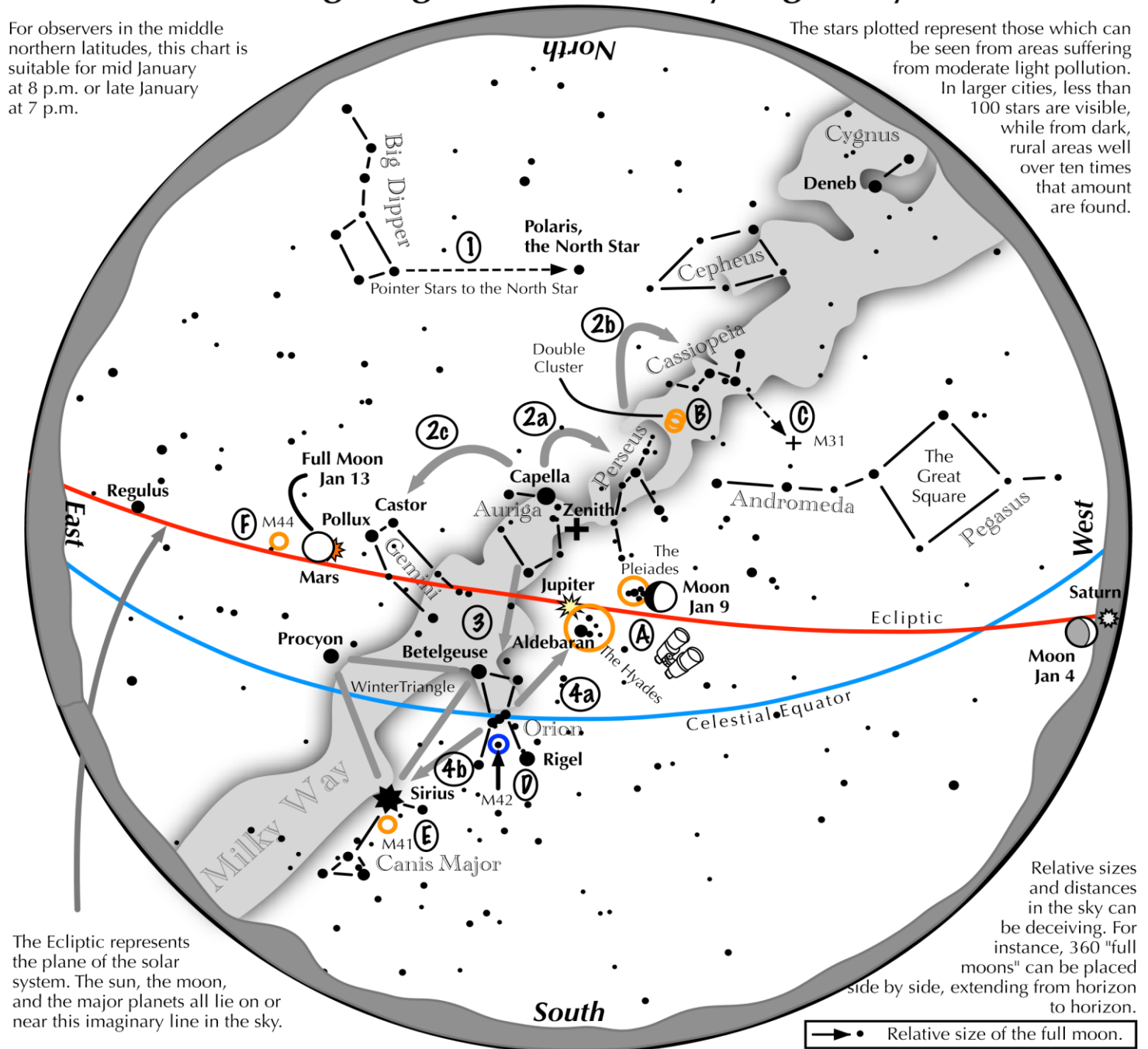
**Seeing** - the quality of the atmospheric conditions above a telescope that affects the clarity of images of celestial objects. Seeing is dependent upon the degree of turbulence in the Earth's atmosphere for a given telescope.



# Navigating the mid January Night Sky

For observers in the middle northern latitudes, this chart is suitable for mid January at 8 p.m. or late January at 7 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.

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

- 1 Above the northeast horizon rises the Big Dipper. Draw a line from its two end bowl stars upwards to the North Star.
- 2 Face south. Overhead twinkles the bright star Capella in Auriga. Jump northwestward along the Milky Way first to Perseus, then to the "W" of Cassiopeia. Next Jump southeastward from Capella to the twin stars Castor and Pollux of Gemini.
- 3 Directly south of Capella stands the constellation of Orion with its three Belt Stars, its bright red star Betelgeuse, and its bright blue-white star, Rigel.
- 4 Use Orion's three Belt stars to point to the red star Aldebaran, then to the Hyades, and the Pleiades star clusters. Travel southeast from the Belt stars to the brightest star in the night sky, Sirius.

### Binocular Highlights

**A:** Examine the stars of the Pleiades and Hyades, two naked eye star clusters. **B:** Between the "W" of Cassiopeia and Perseus lies the Double Cluster. **C:** The three westernmost stars of Cassiopeia's "W" point south to M31, the Andromeda Galaxy, a "fuzzy" oval. **D:** M42 in Orion is a star forming nebula. **E:** Look south of Sirius for the star cluster M41. **F:** M44, a star cluster barely visible to the naked eye, lies to the southeast of Pollux.



## [This Month in DMAS History](#)

*From the StarLight Journal 25 Years Ago, January 2000*

### **Telescope Night at Drake**

From: stargazers (Jim, Jodi, and Lance Holloway)

Last night we held our first Telescope Workshop for people with new telescopes. I believe the night was a success.

We had 25 families for a total of 43 people. We overheard many positive comments about the night and DMAS. The DMAS members all did an outstanding job of presenting and explaining information that to us, has become second nature.

It brought back early memories of struggling with our first telescopes. When I started in astronomy I asked Fred from the club to show me how to polar align. I remember how relieved I was to find out what I had been doing wrong and how thankful I was to the person who showed me the error of my way. I truly believe that many of the participants of last night's event now feel that way about DMAS.

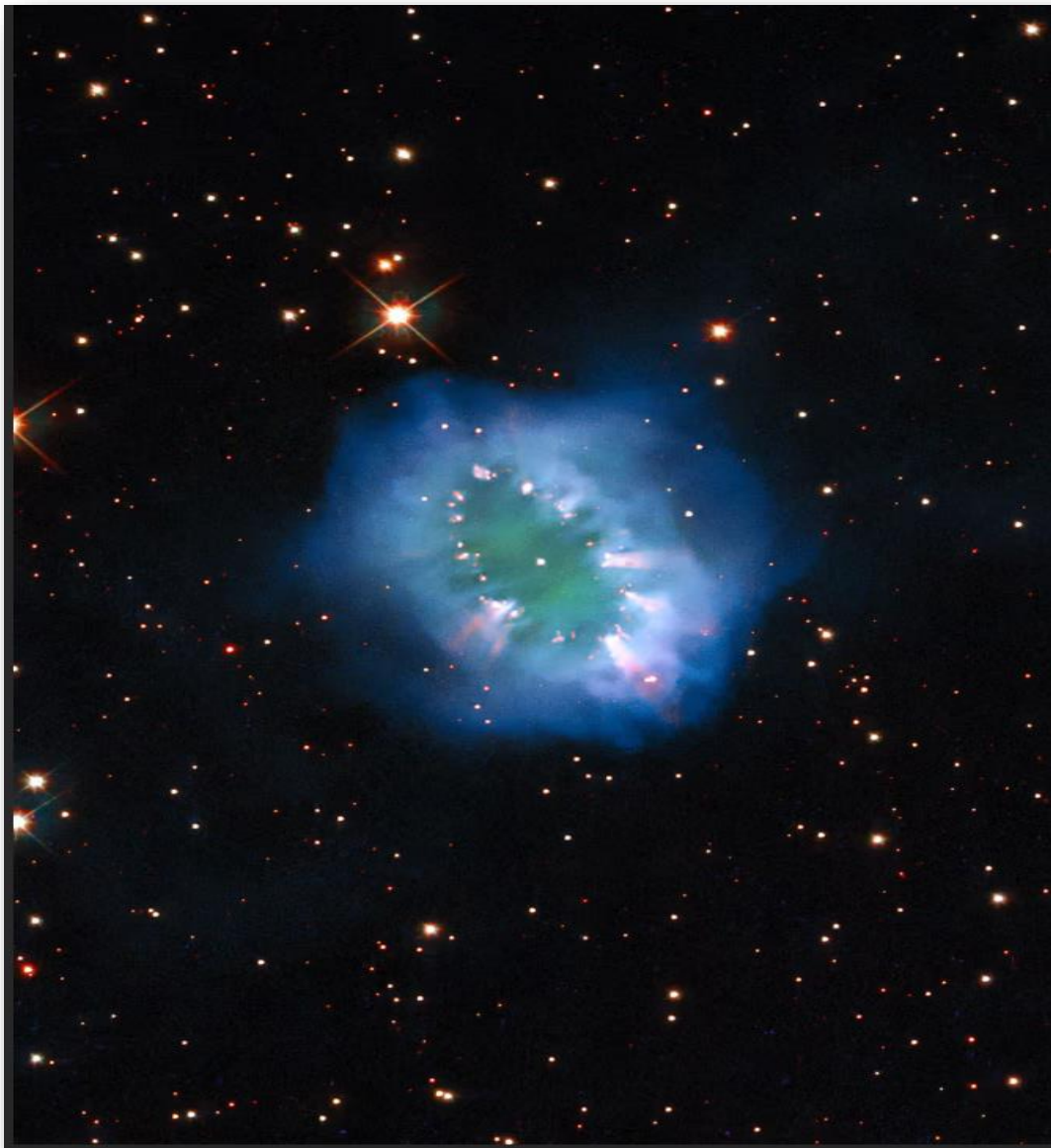
*From the StarLight Journal 10 Years Ago, January 2015*

Jan Winter summed up his [Greg Woolever's] report that had been presented at the board meeting on December 27. Unknown persons had ridden motorcycles on the Timberline Property causing extensive damage to the ground. They also had removed the "No Trespassing" signs. The Sheriff's office was notified, but indicated that due to personnel limitations patrolling the area would be impossible. He also indicated that action could only be taken if an ongoing violation was reported by the property owner. The Observatory Director put up new signs. The main concern regarding trespassing is the issue of liability. Discussion turned briefly to the idea of selling the Timberline Property, but President Winter reminded the club that even if sold the club was obligated to keep it undeveloped and in a "natural state in perpetuity." No further discussion.



### **TOTAL LUNAR ECLIPSE COMING SOON**

In the very early morning hours of Friday, March 14th, 2025, the moon will be totally eclipsed by the shadow of Earth. This entire eclipse will be visible from our location in central Iowa. March is not the best time of the year for any celestial event but the next Total Lunar Eclipse visible in Iowa will not be seen here until July 6th, 2028. **A comprehensive guide to this eclipse will be in the March issue of the *Starlight Journal*. - Dave Lynch**



Another nebula for the Valentine month, The **Necklace Nebula** (Planetary Nebula PN G054.2-03.4) is a 12 trillion mile wide nebula located about 15,000 light-years away in the northern constellation Sagitta (The Arrow). In this binary star system, one of the stars ballooned out to engulf its companion, but the smaller of the pair continues to orbit inside the larger companion. Their orbital period is a fleeting 1.2 days with a separation of just 5 times the radius of our Sun. One can only imagine the furious dance of these two stars!



## Astronomical League

### Explore these Rewarding and Educational Observing Programs

The **Astronomical League** is an umbrella organization of amateur astronomy societies. Currently their membership consists of over 330 organizations across the United States, including the **Des Moines Astronomical Society**.

The **Astronomical League (AL)** has almost 90 Observing Programs in which any member may participate. For example, if you are interested in “Bright Nebulas” you can go to the AL website for detailed information on these objects, how to observe them and what you can do to receive an award certificate. Here is a list of almost 90 other Observing Programs. <https://www.astroleague.org/alphabeticobserving/>

Participating in one of the many Observing Programs is a great way to learn about the sky and to earn an award certificate for your efforts.



### Do Astronomy Research from your Home Computer

Would you like to do astronomy research indoors during the winter months? Go to <https://www.zooniverse.org/> and click on Space. The Zoo Universe gives you the opportunity to classify: asteroids, galaxies, gravitational waves, surface features on Jupiter as well as discover supernovas. You may be able to see things that no other human has yet observed. The process is easy and you can work at your own pace.





**Image by DMAS member Paul Caligiuri**

This is the Pacman Nebula (NGC 281) which is an emission nebula in the constellation Cassiopeia. It is about 10,000 light years from Earth with a magnitude of 6.8. Paul took this image with his Seestar S50 scope in over just 8 minutes. He did some processing of the original larger .jpg file in GIMP software.

**REMEMBER: Membership dues will increase at the end of January.** Please print the next page and mail with your dues (or bring the form with your dues to the next meeting). The old rate will be honored, if you bring your application to the February 1 meeting. **Starting in February, the individual dues will increase from \$30 to \$40 and family dues will increase from \$45 to \$60**



## The Des Moines Astronomical Society, Inc. Member Application/Renewal Form

PLEASE PRINT LEGIBLY

Renewal memberships are due by January 31.

Prorated dues are only eligible to new members.

Check one: ☐ New member ☐ Renewal

NAME(S): \_\_\_\_\_

STREET ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

PHONE NUMBER: \_\_\_\_\_

EMAIL ADDRESS: \_\_\_\_\_

### Privacy

None of your contact information is ever shared with the public. You may also restrict it from being shared with fellow members on the member roster if you wish. Check which items you want to keep private:

☐ Address. ☐ Phone. ☐ Email. ☐ Other (explain): \_\_\_\_\_

### Monthly Newsletter Delivery

There are two ways to receive the newsletter – please check one.

☐ Email – recommended (link to PDF file sent by email; download file or read online).

☐ Postal delivery.

### DMAS Annual Dues Rates - check one.

Type	Votes	Dues <sup>1</sup>
Individual (18 & up):	1	\$30.00[ ]
Family:	2	\$45.00[ ]
Associate:	0	\$21.00[ ]
Lifetime individual:	1	\$500.00[ ]
Lifetime family:	2	\$600.00[ ]

1. Note: Dues shown are valid through Jan. 31, 2025.  
After that they will be \$40 for individual, \$60 family.

Fill out this form and return it with your payment to start your member privileges.

Make check payable to: DMAS

Mailing address:  
Des Moines Astronomical Society  
PO Box 111  
Des Moines IA, 50301

Alternate payment:  
Download Cash App to your cell phone and direct  
your payment to: \$DMASTreasurer

Alternate delivery of membership form:  
email to [info@dmastronomy.com](mailto:info@dmastronomy.com)

### New Member Prorated Dues Amounts - check one.

Date	Individual	Family	Associate
Feb-Mar	\$40.00[ ]	\$60.00[ ]	\$21.00[ ]
Apr-Jun	\$30.00[ ]	\$45.00[ ]	\$14.00[ ]
Jul-Sep	\$20.00[ ]	\$30.00[ ]	\$9.00[ ]
Oct-Dec	\$10.00[ ]	\$15.00[ ]	\$4.00[ ]

### My Payment This Year.

Dues: \_\_\_\_\_ \$ \_\_\_\_\_

Optional donation: \_\_\_\_\_ \$ \_\_\_\_\_

Total: \_\_\_\_\_ \$ \_\_\_\_\_

Your payments to DMAS are tax deductible. Thank you!

**Your 2025 Des Moines Astronomical Society Officers, Directors & Observatory Committee****President:** JoAnn Cogil**Vice-President:** Pat Meade**Secretary/ALCor:** Jim VandeBerg**Treasurer:** Bruce Mumm**Observatory Director:** Greg Woolever**At Large Director:** Norm Van Klompenburg**At Large Director:** Jessica Weinreich**At Large Director:** Dave Bailey**Observatory Committee:** Greg Woolever, Norm Van Klompenburg, Dave Heck, and Jim VandeBerg**Contact us at: [info@DMastronomy.com](mailto:info@DMastronomy.com)**

The *Starlight Journal* is the monthly newsletter of the **Des Moines Astronomical Society, Inc.** P.O. Box 111, Des Moines Iowa 50301-0111. Our Observatory is located in Ashton Wildwood Park, 8717 West 122nd Street North. Founded in 1970, we are a non-profit, 501(c)(3) organization. Our website is DMastronomy.com. More information and photos can be found on our Facebook page.

**Article Deadline:** Before the 21<sup>st</sup> of the month, please send your articles, photos, sketches, poems, cartoons, and news to Jim VandeBerg ([FinePineCabin@gmail.com](mailto:FinePineCabin@gmail.com)). Articles may be edited to fit the allotted newsletter space. Copyrighted material must have permission from the copyright holder. Views and opinions expressed within submissions are that of the author and not necessarily those of the Des Moines Astronomical Society, Inc.

**The Purpose of our Society**

- Secure the pleasure and benefits of an association of persons interested in amateur astronomy
- Promote the science of astronomy
- Encourage and promote activities of an astronomical nature
- Foster observational, computational, technical, and creative skills in various fields of astronomy
- Pursue activities with other amateurs and professionals
- Educate the public

The Des Moines Astronomical Society  
PO Box 111  
Des Moines, Iowa 50301

