

# STARLIGHT JOURNAL

## SEPTEMBER 2025



### HotDOGs!!

**Most luminous known galaxy in the observable galaxy WISE GALAXY J224607.57-052635.0**

This galaxy is about 350,000,000,000,000 (350 trillion!) times as bright as our Sun, a so called hyper-luminous galaxy. Much of the light comes from a quasar with 10 billion times the mass of our Sun. The middle galaxy is slurping up matter from three of its neighbors. It is extremely far from earth, about 12.5 billion light years away.

The material from the accretion disks falls onto the black hole powering the Active Galactic Nuclei (AGN), making this galaxy one of a rare class of quasars known as **Hot, Dust-Obscured Galaxies (Hot DOGs)**. Only about one out of every 3,000 quasars belongs to this class.

(Image credit: NRAO/AUI/NSF, S. Dagnello)

**Sunday, August 24** – Pluto demoted to dwarf planet in 2006 ☹️

**Saturday, August 30** – Program **“Shapes in the Heavens: A History of the Constellations”** by Jon Voisey at 8:00 p.m.

**Saturday, September 6** - Board Meeting 5:30 p.m.

**Saturday, September 6** - Membership Meeting 6:30 p.m.

**Saturday, September 13** – Program **“The Apollo Landing”** by Wade Johnson 8:00 p.m.

**Saturday, September 27** – Program **“Carl Sagan: More Stars than Grains of Sand?”** by Jim VandeBerg at 8:00 p.m.

## **SAVE THESE DATES NOW!**

### **SEPTEMBER 2025 – President’s Report**

It takes many hands to provide continued support to our DMAS members, our organization, and the many visitors who look to us for night sky education and viewing opportunities.

This month I extend my heartfelt appreciation to Greg Woolever, Observatory Director, and the Observatory Committee of Norm Van Klompenburg, Jim VandeBerg and Dave Heck. Their dedication, knowledge and experience are instrumental and valuable to our society. This year the Observatory Committee has been tasked with a few major projects which include managing the Hohbach Family donation request, working with JR Paulson on enhanced lighting for astro-images on display in Ashton, and working with Vern Naffier on the radio astronomy project.

These projects are in addition to the continued efforts for equipment maintenance and updates, while managing public and private viewing events.

Also, many other DMAS members have shared their time throughout the year by helping with various events, providing excellent presentations and attending meetings.

Thank you everyone!

JoAnn



**The Des Moines Astronomical Society**

**Board of Directors Meeting Agenda**  
**September 6, 2025, at 5:30 P.M.**  
**at Ashton Observatory**

- Call to order
- Secretary's Report – August Meeting Minutes (published in September Starlight Journal)
- Treasurer's Report
- Observatory Director's Report
- Timberline Update
- Upcoming Board of Directors Election
  - Nominating Committee
- Other Business
  - December Holiday Party
- Adjourn

**Monthly Members' Meeting**  
**September 6, 2025 at 6:30 P.M.**  
**at Ashton Observatory**

- Call to order – Introductions
- Secretary's Report – August Meeting Minutes (published in September Starlight Journal)
- Treasurer's Report
- Board Meeting report / Recommendations
  - Upcoming Board of Directors Election
- Observatory Director's Report
- Timberline Update
- Committee Reports
- Member comments
- Other Business
  - Globe at Night
  - December Holiday Party
- Adjourn
- Next Meeting Date: October 4<sup>th</sup> at 6:30 P.M. at Ashton Observatory

# Observatory Committee Report September 2025

**Greg Woolever, Observatory  
Director**

Ashton Observatory has remained busy with great attendance on Saturday Public Nights. We also served three private groups so far in August.

Sky conditions have continued to be challenging with humidity, and sometimes clouds. Visitors have still gone home satisfied with what our operators have been able to provide for views of the night sky.

The Observatory Committee continues to work on defining a goal for replacing the telescope in the east dome in light of potential donation funds. Specifics are still pending, but hopes have included PlaneWave as a desirable manufacturer. Size and model are still being evaluated.

An interesting episode occurred July 31 at Drake Observatory, when Herb Folsom asked for assistance diagnosing what had gone wrong with

the 10-inch SCT telescope they have been using after classroom programs there. Norm Van Kompenburg and I went down to see what we could do. It turned out the collimation had been dramatically tampered with – no idea how or why but identifying the problem and solving it was all our minds were focused on. To be clear, Norm is the real brains for this mission; I am great at support and admiration. I include a photo of the drama on the roof that night. Herb Folsom and Norm are in view as testing of the telescope is checked after repairs have been made. My daughter and her son (a University of Minnesota student) happened to be visiting that week, so came along to check out the mysteries of astronomy at the Drake Observatory. A student assistant of Herb's was helping to operate the telescope.

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



# The Night Sky for September 2025

*By JoAnn Cogil*

So much is happening in our early morning skies this month as our planets provide several viewing opportunities. Many times, we may see more than 1 or 2 planets a night, but most of these will be seen after midnight.

This is our eastern sky at 5:30 A.M. on September 16<sup>th</sup>, just one of many fun views this month. (Image credit: Stellarium)



**Mercury** - reaches superior conjunction on the 13<sup>th</sup> when it will be on the opposite side of the Sun from Earth. By October, we can find the 'Swift Planet' in our evening sky. But if you enjoy early morning views, catch Mercury, Venus & Jupiter about 5-6 A.M. on the 1<sup>st</sup> as the trio shares the eastern sky.

**Venus** – remains a bright-looking gem in our early morning sky and will neighbor next to M 44, the Beehive Cluster in the constellation Cancer the Crab. This open

cluster has about 1,000 stars, is one of the nearest clusters to our Earth and is considered a young cluster with an age of 600-700 million years. Set your alarm and get up early on the morning of the 19<sup>th</sup> for a special view of Venus, Moon, and Regulus (brightest star in the constellation Leo the Lion) forming a tight trio just after moon rise.

**Earth** – **Autumnal Equinox** on the 22<sup>nd</sup> at 1:19 P.M. CDT, with equal hours of daylight & darkness.

**Mars** – will show only for a short time this month as it is headed to its solar conjunction in January 2026. Until then, the Red Planet will be close to Spica this month as we look at the low W-SW horizon as darkness begins. But they are the closest to each other on the 13<sup>th</sup>. Spica is the brightest star in the constellation Virgo the Maiden.

**Jupiter** – the planet pairs up with Gemini the Twins constellation all month, as they rise about 2:00-3:00 A.M. which makes for another late night or very early morning viewing. I feel a yawn coming on!

**Saturn** – reaches opposition on the 21<sup>st</sup> when it is closest to the Earth at about 795 million miles. The rings will be very thin, and with the planet's low tilt, it makes it easier to see both hemispheres of the ringed planet. Titan, its large moon, has 2 transits this month on the nights of the 3<sup>rd</sup>-4<sup>th</sup> and 19<sup>th</sup>-20<sup>th</sup>. How about another trio of objects to look for on the 8<sup>th</sup> with Saturn, the Moon and Neptune, in the S-SW sky in the early morning hours.

**Uranus** – rises before midnight and can be found near the Pleiades early in the month.

**Neptune** – stays near Saturn all month and reaches opposition on the 23<sup>rd</sup>. This means it will be at its closest to Earth, but still only a tiny blue dot in the night sky!!!

## **Moon**

**7<sup>th</sup>** – **FULL** moon at 1:09 P.M. CDT

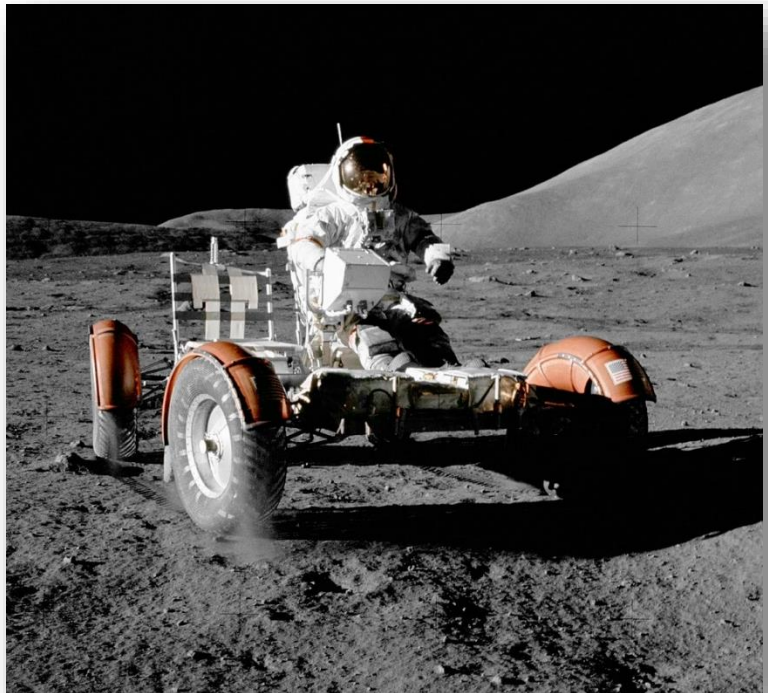
**14<sup>th</sup>** – Last quarter

**21<sup>st</sup>** – **NEW** moon at 2:54 P.M. CDT

**29<sup>th</sup>** – 1<sup>st</sup> quarter

September's Full Moon is known as the Corn Moon, Harvest Moon and Fruit Moon, because fall is our major harvest time of the year.

On September 12th, 1962, during a speech at Rice University in Texas, then President John F. Kennedy talked about justifying his proposed \$5.4 billion space program. His words during this speech included, "But why, some say, the Moon? Why choose this as our goal ..... We choose to go to the Moon in this decade and do the other things, not because they are easy, but because they are hard..." And on July 20, 1969, American astronauts landed on the Moon.



## **Meteor Showers**

No meteor showers in September.

But the Orionids meteor shower begins the 2<sup>nd</sup> day of October and peaks later in that month.

## Want to Know Even More About the Moon?!



Join our Honorary Member and astronomer Dean Regas for his online class. DMAS members are invited to this next online class for free.



Please share with DMAS members only.

<https://drive.google.com/file/d/1ouB6BzDYKQoBLD8whUhPn7SC0Owz1w6b/view>

Visit Dean at his astronomy website: <https://astrodean.com/>

### 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:

**Vernal Equinox Point** – where the ecliptic plane crosses the celestial equator northward. It is the zero point for mapping all positions in the sky.



## 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**.



### DES MOINES ASTRONOMICAL SOCIETY PLEASE WELCOME THESE NEW MEMBERS!

**January – Chris Conmy**

**January – John Moreland**

**February – Cindy Cunningham**

**February – Peter Steier**

**February – Teddy Collis (Associate)**

**April – Doug Duval**

**May – Kyle Wright**

**June – David Olsgaard**

**June – Katie Price**

**July – Chris Bailey**

**July – John Hawkinson**

**August - William Kullander**

**August – Stephanie Reynolds**

## Drake Observatory 2025 Lecture Series Schedule

Visitors can expect an Astronomy lesson followed by stargazing with expert guidance. **Lectures begin at 9:30 PM during the golfing season, and 8:00 PM thereafter** regardless of weather. **Sky Viewing begins at dark if sky conditions are favorable.** Children 15 and younger must be accompanied by an adult. **Admission is free and open to all!**



September 19: The Sky (Fall & Winter)

September 26: Drake Municipal Observatory: A Century of Public Astronomy

October 3: The Herschels: A Remarkable Family

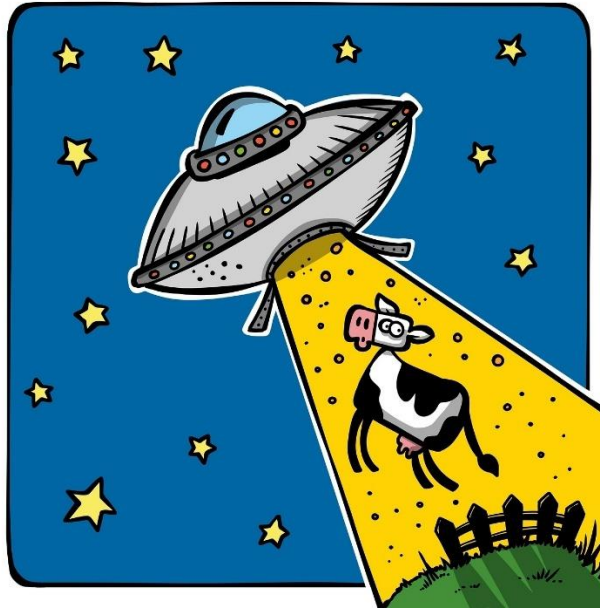
October 10: Are We Inside a Gigantic Black Hole?

October 17: The Hubble Tension: Why is Hubble So Tense?

October 24: The History of Spectroscopy: Guest Speaker Dr. Robinson Yost

October 31: Open Topic Night

November 7: Extraterrestrials: Where Are They?



No waiting for the cows to come home!  
Going into udder space!



## Curiosity Rover Finds and Examines a Meteorite on Mars

The dark, smooth-surfaced object at the center of this image from the Mast Camera (Mastcam) on NASA's Curiosity Mars rover was examined with laser pulses and confirmed to be an iron-nickel meteorite. The grid of shiny points visible on the object resulted from that laser zapping by Curiosity's Chemistry and Camera (ChemCam) instrument. The meteorite is about the size of a golf ball.

The scene is presented with a color adjustment that approximates white balancing, to resemble how the rocks and sand would appear under daytime lighting conditions on Earth.

## This Month in DMAS History

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

Subject: Who Wants to Be Pam Heinze at AstroFest?

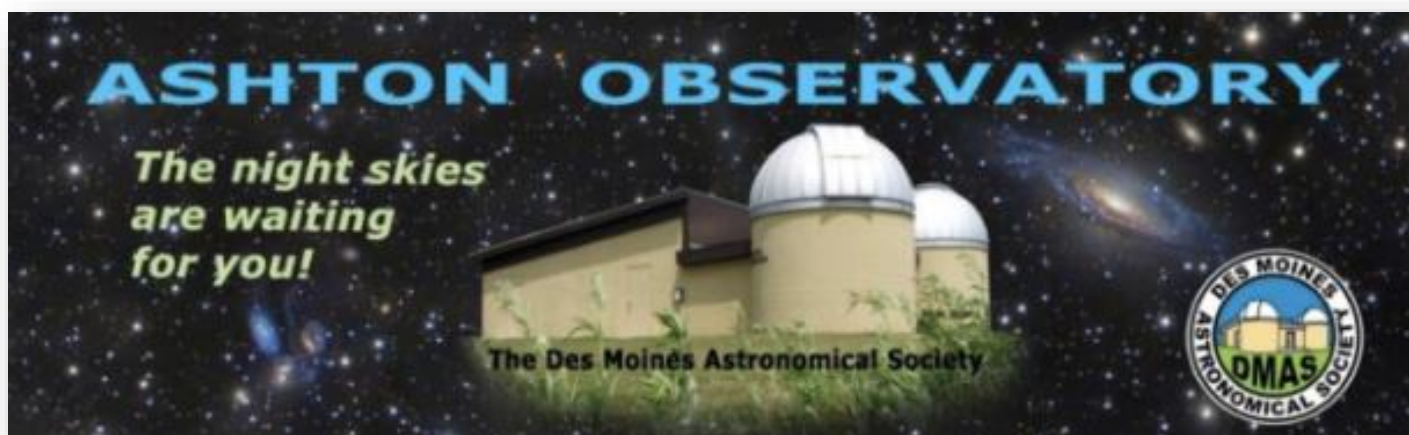
I have seen far enough into the future to know that I will not be granted annual leave for Sept. 22-23. One of our people will be unavailable that weekend and we are short one anyway, so there is no way I will be allowed off.

Since two or three people have expressed interest in taking my place, I am thinking about raffling off my spot, or putting it on E-Bay. I would appreciate some input on this, should it go to the first person who asked me or the highest bidder? I'm not sure I remember who asked me first. I am out \$35, but the price is \$100 at the gate. I also gambled last year and lost, so I am really out \$70. I have learned my lesson and will always put my prime time pick on AstroFest.

My main concern is that my replacement doesn't get drunk and/or naked and do something that would get me banned.

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

Discussion at the DMAS Aug. 2015 business meeting suggested that we create a banner that could be used by the club when we set up our canopy booth for appearances such as at the Des Moines Downtown Farmers Market. DMAS Member Alice Musselman had specific suggestions for what might be a desirable design, especially that a physical representation of Ashton should be included so people could have a clear idea of what we are promoting. Observatory Director Greg Woolever used those suggestions to create new art and then found that the local Staples store was having a sale on banners. After consulting with board and observatory committee members an order was placed, and DMAS now has a new 8' by 2.5' banner [below]. It will be stored at Ashton with the fold-up canopy. Intentions are that the banner can be mounted between the upright posts of the canopy. The design includes a vignette image of daytime Ashton floating on a background that includes Stephan's Quintet and NGC 7331 galaxies. The new DMAS logo is included, along with some other inviting text.



*New Banner*

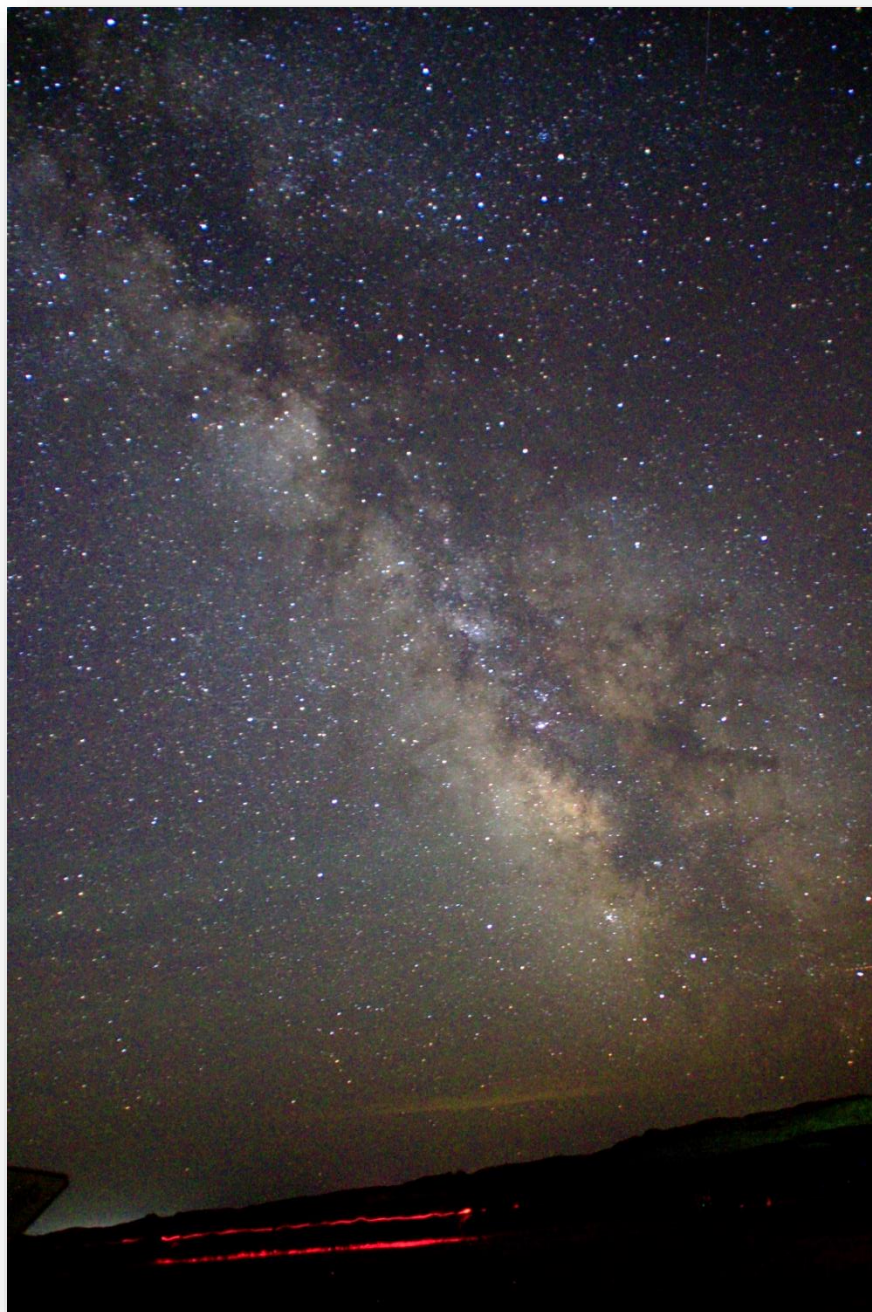


Image credit: *L. Allen Beers at the Nebraska Star Party July 2025, Merritt Reservoir, Nebraska*

Some Milky Way photos, taken at the Nebraska Star Party on 7-25-25. The sky finally cleared for us on our last day of the star party. It was also our public night and the public enjoyed it, even with some strong winds. Not many telescopes were set up, due to the constant winds so some stargazers had their SeeStar scopes or cameras in operation.

The star party dates for next year are July 12-17, 2026.

L. Allen Beers

# How far is that Star?

Presentation for the Des Moines Astronomical Society

**Goal: Discuss several methods used to find the distances to the stars and other objects in space**

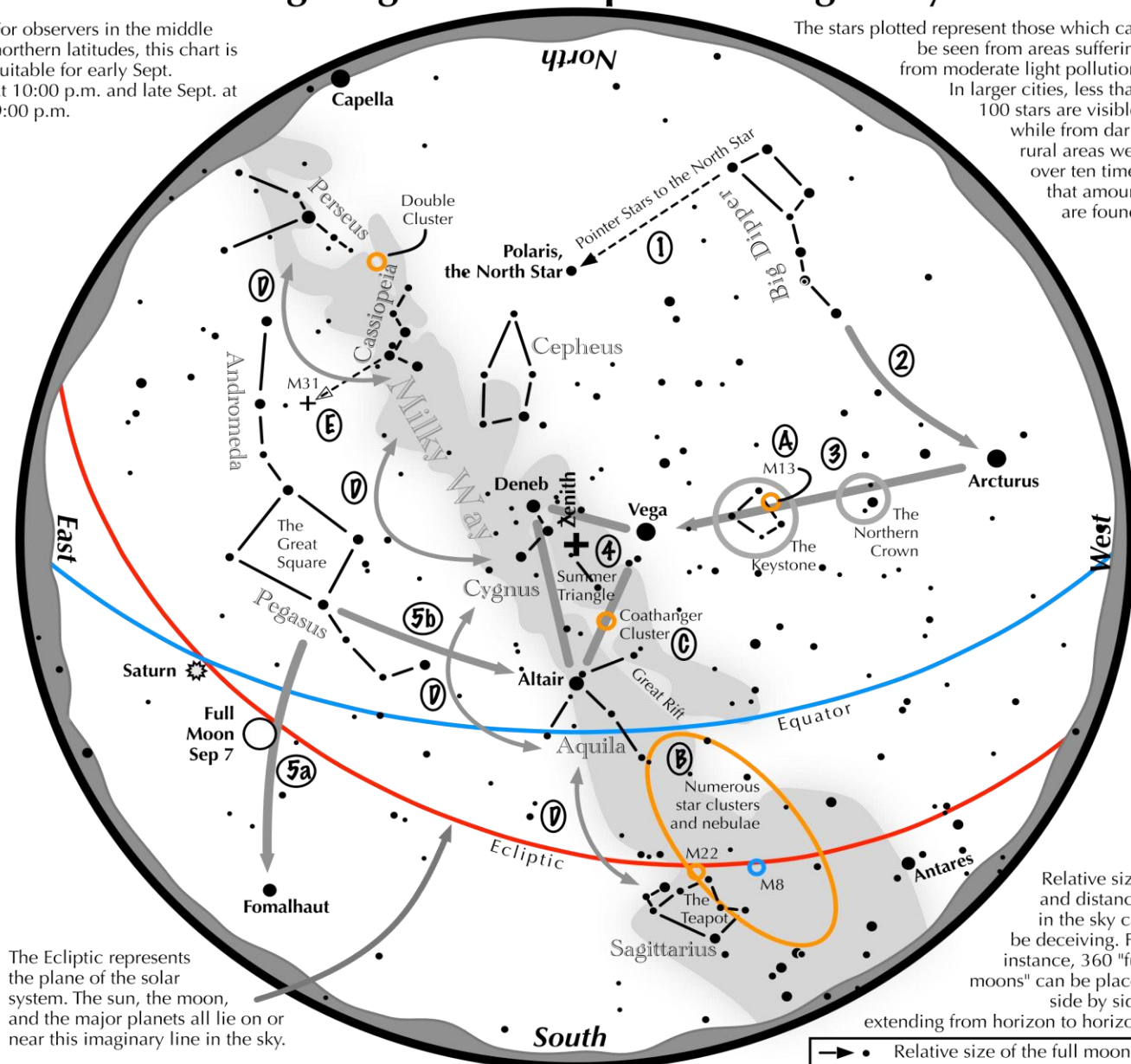


On August 9, Paul Caligiuri presented a fascinating and detailed program called "How Far Is That Star?"

# Navigating the mid September Night Sky

For observers in the middle northern latitudes, this chart is suitable for early Sept. at 10:00 p.m. and late Sept. at 9:00 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.



**Navigating the mid September 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 Follow the arc of the Dipper's handle. It intersects Arcturus, the brightest star in the September evening sky.
- 3 Nearly overhead shines a star of similar brightness as Arcturus, 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.
- 4 The stars of the summer triangle, Vega, Altair, and Deneb, shine overhead.
- 5 The westernmost two stars of the Great Square, which lies high in the east, point south to Fomalhaut. The southernmost two stars point west to Altair.

## Binocular Highlights

- A: On the western side of the Keystone glows the Great Hercules Cluster.
- B: Between the bright stars 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, including the Great Rift.
- E: The three westernmost stars of Cassiopeia's "W" point south to M31, the Andromeda Galaxy, a "fuzzy" oval.

Astronomical League [www.astroleague.org/outreach](http://www.astroleague.org/outreach); duplication is allowed and encouraged for all free distribution.





### Our 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, 8755 West 122nd Street North. Founded in 1970, we are a non-profit, 501(c)(3) organization. Our website is [DMastronomy.com](http://DMastronomy.com). More information and photos can be found on our Facebook page.

**Article Deadline:** Before the 25<sup>th</sup> of the month, please send your articles, photos, sketches, poems, cartoons, and news to Jim VandeBerg (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 those 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

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