

STARLIGHT JOURNAL

NOVEMBER 2024



DaveHeck - NGC6946

This stunning image of **NGC 6946** (Fireworks Galaxy) was taken and processed by DMAS member Dave Heck. NGC 6946 is an Intermediate Spiral Galaxy in the Cygnus constellation. It is situated close to the northern celestial pole and, as such, it is visible for most of the year from the northern hemisphere. Given its magnitude of 10.5, NGC 6946 is visible with the help of a telescope having an aperture of 6 inches (150mm) or more. This star-speckled galaxy is home to ten supernovae designated 1917A, 1939C, 1948B, 1968D, 1969P, 1980K, 2002hh, 2004et, 2008S and 2017eaw that have been observed over the past 100 years or so!

SAVE THESE DATES NOW!

November 2 - 6:30 p.m. **Membership Meeting at Ashton Observatory**

November 3 – Daylight Savings Time ends

December 14 **Annual Holiday gathering** – Hy Vee Altoona conference room

November 2024 – President's Report

Discussions are continuing about management and future planning for our Timberline property. The District Forester has prepared an outline of estimated costs and benefits of implementing a stewardship plan that we have approved. He plans to mark and inventory the trees on October 24, and report back to us. He will then help us prepare and publish the necessary bid/sale

announcements so we can proceed with our plan.



There has been progress on the Radio Telescope project. We have completed repair of the recently discovered wiring problems. Vern plans to test it soon. Thanks to the Team for this work.

There are/have been some exciting viewing events to note... We are still monitoring the “Blaze” star in anticipation of its’ Nova. Greg has noted that the Astronomical League has announced an observing award around this event. If you are interested, check with him for more details.

Comet C/2023 A3 (Tsuchinshan-ATLAS) has been interesting to follow. Several members have posted photos and observed the comet while it was visible. Viewing it was also an interesting event at recent group and public night events.

Another group was treated to a bright aurora display. The Orionid Meteor shower peaked on October 21, but will continue until November 22, 2024. Comet ATLAS (C/2024 S1) is currently streaking towards our sun. This may be another viewing opportunity in the near future. Stay tuned.

Many guests have been interested in viewing the sky through our telescopes in the domes and under the sky outdoors. We have been a bit short on members to act as hosts to greet these guests, answer questions and offer assistance in getting access to the domes, displays, other equipment, and signing the guest book. Please consider volunteering for this important work. Let me know if you are willing to help.

The Globe at Night; (<https://globeatnight.org/campaigns/>) the constellation featured is Pegasus, November 22, - December 2, 2024. Find a viewing site and give it a try!

- Norm



The Des Moines Astronomical Society
Monthly Members' Meeting
November 2, 2024 – 6:30 P.M.
Ashton Observatory

- Call to order—Introductions
- Nominations?
- Secretary's Report - Minutes
- Treasurer's Report: Financial Reports
- Observatory Director's Report
- Timberline Report
- Donations: Surplus property report
- Committee Reports
 - Member Services/Ashton programs
 - Outreach/programs
 - Dark Skies
 - Electronically Assisted Astronomy
 - Radio Telescope
 - Other Business?
- Member Comments
- Close of Nominations / further action?
- Adjourn
- Next Meeting Date: Holiday Event December 14, 2024, Hy Vee, Altoona.

Observatory Committee Report November 2024 Greg Woolever, Observatory Director



As has usually been the case, October brings a rush for visitors to make a final visit to

Ashton before our season ends. We had five private groups scheduled for October. One even comes on Sunday after our last Saturday Public Night.

Actually we did get a request for a “baby shower/ stargazing outing in January, but I explained we only host private groups in the April through October season at Ashton.

Stepping back and assessing our 2024 season, I’d say we made progress at convincing visitors that there is something worthwhile at Ashton even if the skies are not ideal – namely, there is much we can show and talk about when we all get together. Our visitors depart saying they are eager to come again. And they do.

Our activities on Saturday, October 19 featured the opportunity for visitors to

view comet Tsuchinshan-ATLAS (C/2023 A3). We put out the invite on our Facebook page

and website, and they came in droves. With our guidance our guests were soon capturing their own photos on their smartphones. Most visitors were then eager to see the big telescopes in the domes. It was a busy night. Thanks to all who helped out.

We’ve been having fun showing Saturn to our visitors, and discussing how the rings are nearly edge-on. In March they will reach the maximum edge orientation.

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



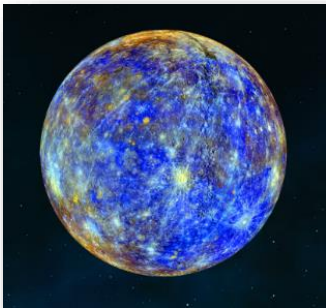
THE PLANETS FOR November 2024



*By JoAnn
Cogil*

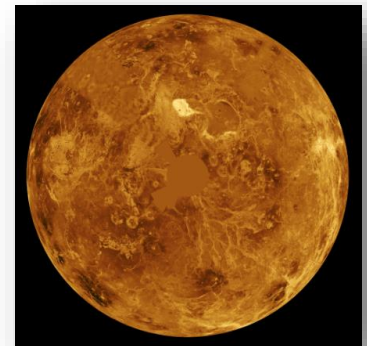


November provides us with a very busy month as we celebrate Veterans Day, get through Election Day, and feast on Thanksgiving goodies. We may enjoy an 'Indian Summer' or 'Second Summer' this month, but traditionally this occurs only from November 11th through the 20th. It gives us an unusually late warm spell and usually after a good (killing) frost.



Mercury – sets about 1 hour after sunset but gives us nice early evening viewing. On the 16th, it reaches its greatest elongation (greatest distance from the Sun). By mid-month, it begins to dim and then it is lost to view. See you later!

Venus – this bright planet sets up to 2½ hours after sunset this month. On the 4th, there is a conjunction between two jewels of our night sky, this pretty planet and the waxing crescent Moon. Look to the SW after sunset.



Earth – DST ends at 2 AM on Sunday, November 3rd! Hooray!! Remember to **set your clocks BACK one hour** as our time now becomes CST (Central Standard Time).

Mars – early in the month it rises about 10-11 PM, but by month's end it may rise as early as 8:30 PM. Mars will continue to brighten as it nears opposition in mid-January 2025. On the 20th, the Moon follows the rising red planet. Why is Mars red? It is due to the rusting in the rocks on the surface and dust is kicked up into the atmosphere. So, from a distance the planet looks red.



Jupiter – rises in our early evening about 8:30 PM and remains up most of the night for us to enjoy. Because Jupiter is nearing opposition, this month it provides the best viewing in almost a decade!!

Saturn – remains high in the Southern sky. On the 10th, our Moon draws near to this beautiful planet, but the rings are becoming very thin. Titan, Saturn's big moon, is always a fun target.



Uranus – the planet is known as the “green planet” and gets its blue-green color from methane gas in its atmosphere. Sunlight passes through the atmosphere and is reflected out by Uranus' cloud tops. Methane gas absorbs the red portion of the light, resulting in a blue-green color. On the 16th, it is at opposition (with Earth between Uranus and the Sun). It rises about sunset and sets about sunrise.

Neptune – this planet remains quiet for us this month. The Moon will occult Neptune on the 11th, but is best seen in the eastern states.





November Moon

1st – NEW moon at 7:47 AM CDT

8th/9th –first quarter

15th – FULL moon at 3:29 PM CST. It is smaller than a super-moon.

22nd – 3rd quarter

This month's full moon is known as the "Beaver Moon" when beavers are busy creating their winter lodges. A recent study showed an almost 46% increase in vehicle-wildlife crashes during a full moon. So please be careful driving after dark!!

On the 27th, the waning crescent Moon occults Spica (the brightest star in the constellation Virgo). It may be tough to see in our part of the country, but this is truly a rare treat.

Meteor Showers

Northern Taurids – peaks on the night of the 12th with only 5-10 meteors per hour with best viewing after midnight. This meteor shower is related to Comet 2P/Encke which returns to Earth's vicinity in late 2026. Comet 2P/Encke is a periodic comet that completes its solar orbit every 3.3 years. It was first recorded in 1786 by Pierre Méchain and Charles Messier. It was only recognized as periodic when calculated in 1819 by Johann Encke. Interesting fact – in 1980 Comet 2P/Encke was the first comet to be detected by radar.

Leonids – from the Comet 55P/Tempel-Tuttle. It is active from the 6th through the 30th with the peak on the 17th-18th. Rate is only about 10-15 meteors per hour with best viewing after midnight. But the full moon on the 15th may create difficulty for seeing many meteors. This comet was first observed in 1699 but was not recognized as a periodic comet until the discoveries by Wilhelm Tempel in December 1865 and Horace Tuttle in January 1866. It has an orbital period of 33 years and will return to our area of the solar system in 2031.



Des Moines Astronomical Society Holiday Party Update

The 2024 Holiday Party will be on Saturday, December 14 at the Altoona Hy-Vee upstairs conference room. We will gather at 6:00 p.m. with the meal starting at 6:30 p.m. (upstairs, just to the right of the main entrance, use elevator or stairs)

Details about the dinner and program will be announced soon!

Please RSVP to Jim VandeBerg as soon as you can so we can provide the meal count to our Hy-Vee caterer.
FinePineCabin@gmail.com

Your portion of the meal and party is only \$5. Please bring your payment to the party on December 14.

We had great fun last year and hope to see all of you there!!!



Drake

Municipal Observatory

November 2 – What Time is It?

November 9 – Topic TBD

Drake visitors can expect an Astronomy lesson followed by stargazing with expert guidance. **Lectures begin at 8 PM**, regardless of weather. **Sky**

Viewing begins at dark if clear conditions. Children 15 and younger must be accompanied by an adult.
Admission is free and open to all!

October Comet Photos

Comet C/2023 A3 (Tsuchinshan-ATLAS) – aka Comet A3, was the brightest comet in 27 years, the brightest since Hale-Bopp in 1997.



The view of Comet A3 by the crew of the International Space Station.



This tantalizing image of the comet was taken by Norm Van Klompenburg with his Canon DSLR.



Last night, October 20th, I went up to Ashton to take some photos of Comet C/2023 A3. Here are my results. I used my Canon Rebel EOS T7 camera. Zoom lens at F/4.5 to F/5.6 setting. – L. Allen Beers



Went up to Ashton tonight to find and photograph the comet (upper right). Nobody else was up there. This was a 6 second shot, hand held. The comet is seen on the upper right of the photo. Soon after I shot this photo, I started using my Canon Rebel T7 camera and got some decent pictures finally. On those photos, I used ISO 1600, ISO 6400 and a few at ISO 12800 with some amazing results. – L. Allen Beers



Comet C/2023 A3 (Tsuchinshan-ATLAS) This detailed picture was taken by Shawn Gehlsen and Heather Johnson at Whiterock Nature Conservancy in Glidden, IA on 10/18/2024



**This six minute image was taken by Observatory Director, Greg Woolever.
In this image the anti-tail can be seen about 180° from the dust tail.**



Another image by Greg Woolever, looking across Saylorville lake.
One minute image with the SeeStar S50.

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

January - Kyle and Catherine Bailey

January - Karen Tegtmeyer

March – Rod Williams

April – Paul Caligiuri

April – Jason Hirsch

June – Patrick McIntyre

July – Wade Johnson

July – Kerry & Philip Eganhouse

August – Nick Frisch

September – Stephen Sherrod

September – Dean Regas (Honorary Member)

October – Derrick Bennett

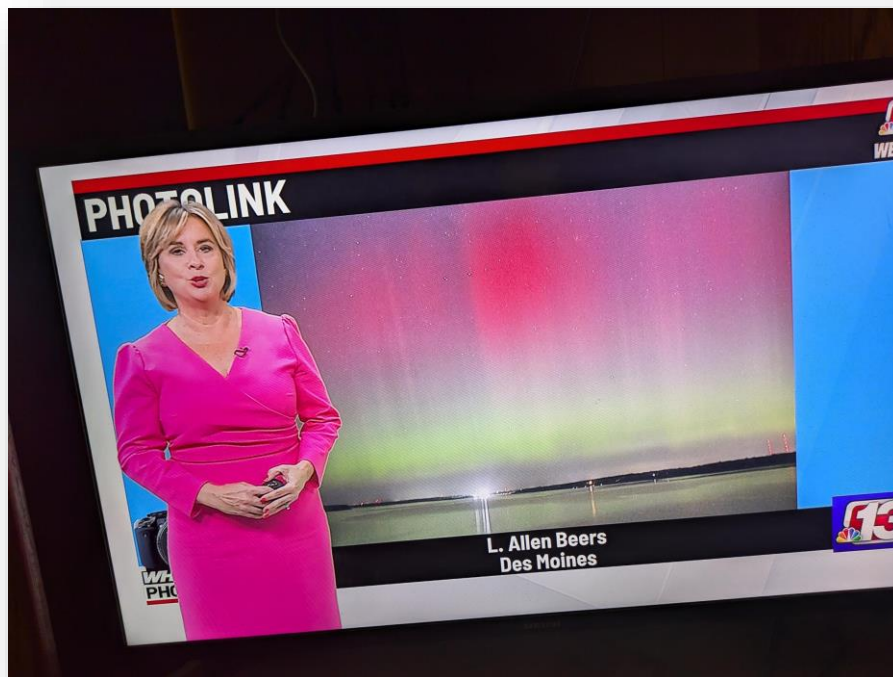
October – Mark Sutter



Here is a sampling of my awesome aurora photos from last night, taken at the Saylorville Reservoir Dam overview parking area. The aurora got quite active around 12 pm midnight. Sure glad that I was finally able to get some aurora photos here in central Iowa. *This viewing area is definitely better to observe the aurora than at my 86th street location in Johnston (better northern horizon at Saylorville). – L. Allen Beers



Attached are the remainder of my selected aurora photos for you to enjoy. It was a fun, enjoyable aurora display to see and photograph. Kept me busy for 2 solid hours. It shot 200 photos all together. Had to change camera batteries before the really active part of the aurora started. Some other vehicles were parked nearby and their owners were also enjoying the show. More auroras will be coming in the near future, guaranteed. The Sun is nearing it's Solar Maximum so more auroras ahead for sure. - L. ALLEN BEERS



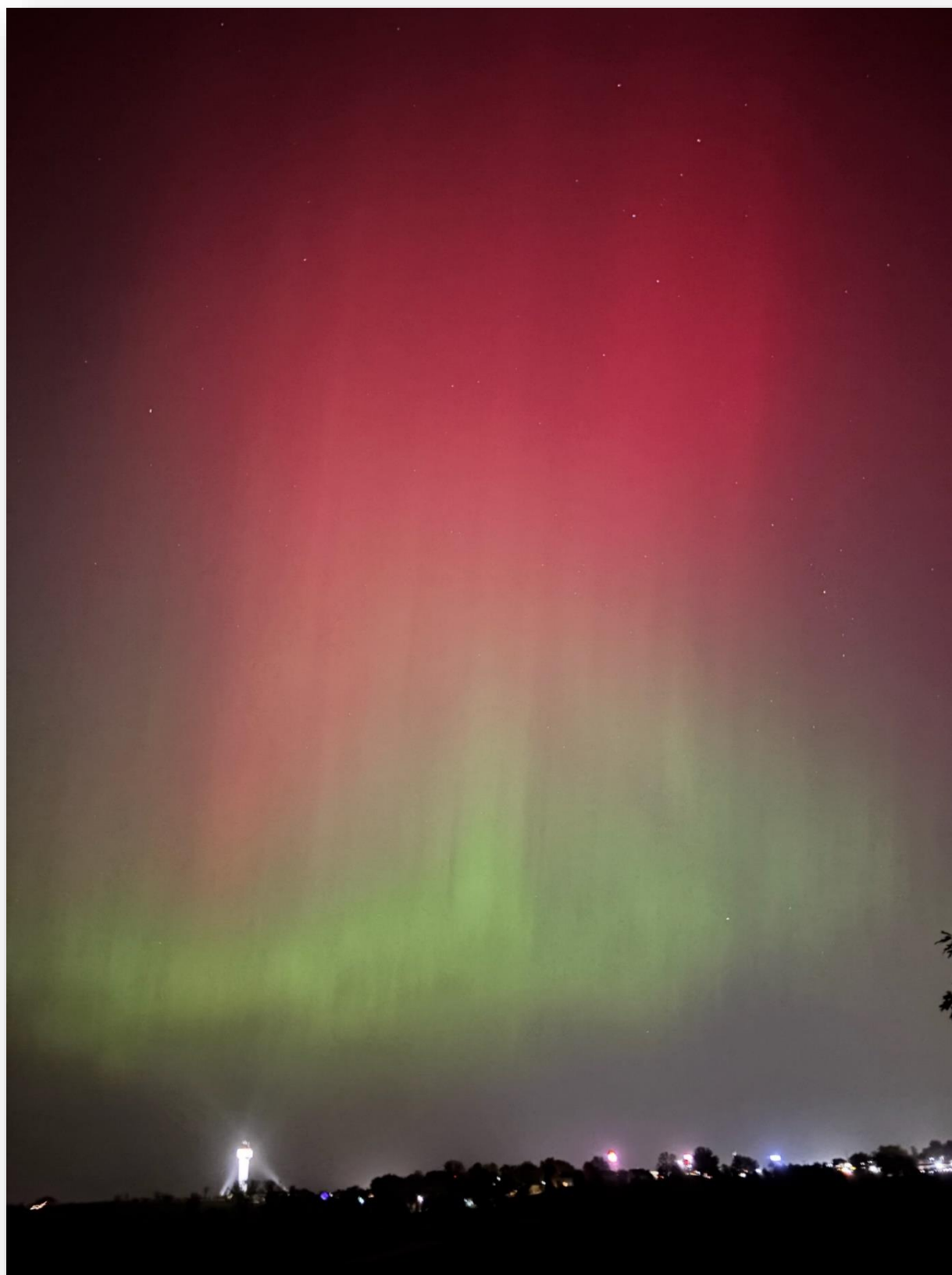
One of L. Allen Beers aurora photos as seen on TV 13 news



Northern Lights photos of 10-10-24 from Saylorville Dam. Photos taken around 11:45 pm. It was a more intense display than last Monday night, October 7th. This Aurora was seen from all over the US. ***These few Aurora photos were taken with my smartphone (Google Pixel 8a). L. Allen Beers



It was a great northern lights display here in IOWA last night, 10-10-24. I started seeing & photographing the aurora around 8:00 pm until 1:00 AM. I kept really busy. The aurora was reaching clear overhead and even to the south. This aurora was rated at KP8 and even KP9 level !!! It was seen all over the USA. I had a good chat with the young people next to me in the parking lot. I helped one of the guys with his camera to take photos of the aurora. I even sold him 2 green laser pointers. I took a few aurora photos with my Smartphone too, and held for 6 seconds. It's amazing what the smartphone camera can pick up of the aurora !!! There were lots of vehicles driving by during the aurora too. From this viewing site at the Saylorville Reservoir Dam, there is some bad light pollution to the east, south and southwest. Thank goodness that my view to the NORTH was dark and clear of light pollution !! Can't wait until the next great aurora here in Iowa, which may be coming soon. L. Allen Beers



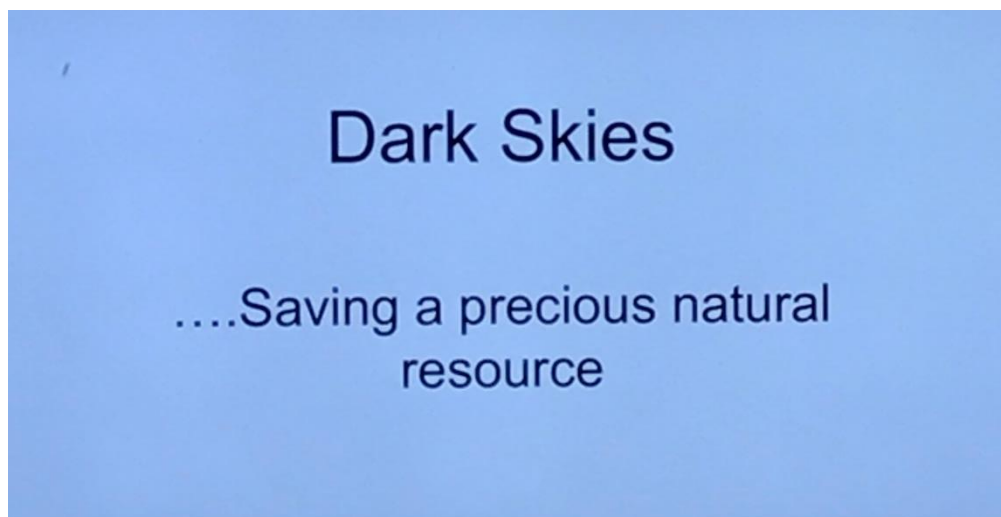
Aurora as seen in De Soto, west of Des Moines. This photo also shows the intense light pollution caused by the high intensity lights that illuminate the water tower (lower left). Photo contributed by Austin VandeBerg



Beautiful aurora as seen at Ashton Observatory.
Image by Observatory director Greg Woolever



Two great aurora photos at Ashton Observatory by DMAS member Dave Bailey



On October 12, DMAS member JR Paulson provided an interesting and thought-provoking lecture on light pollution and its numerous, far-reaching effects.



This was an enjoyable program provided by DMAS member Derryl Barr, on October 26. Derryl has traveled the world to research dozens of solar eclipses, and shared examples of how such events have been woven into great literary stories. This was our final classroom program for 2024 at Ashton Observatory.

IOWA STAR PARTY



One of four photos of the Iowa Star party submitted by L. Allen Beers



Lecture to participants waiting for nightfall in the Star Field



RADIO TELESCOPE UPDATE

Hello, DMAS Radio Telescope Team.

The electronics problem of the feed horn has been remedied, and Norm is reinforcing the coaxial cable connector at the indoor power supply. I will be traveling tomorrow to Colorado, with Joyce, and will be away for a week or more. The plan is to reinstall the electronics after I return. While in Colorado, Joyce and I will be meeting up with Meinte Veldhuis and the Little Thompson Observatory members for an interesting Saturday evening program on the Green Bank Observatory and SETI program, which they will be presenting to the public.

- Vern

The Des Moines Astronomical Society is on Facebook

Recent notices, articles and images are posted on our Facebook page. Be sure to like us when you visit our DMAS Facebook page.

This Month in DMAS History

From the StarLight Journal 25 Years Ago, November 1999

Attended September 9, 1999 Jasper County Conservation Board Meeting. No final figure for Book Sale because books are still being sold from Joanne's porch; sold \$110.00 worth this week, after expenses we will clear at least \$400.00. A friend of Bryan's called; he is opening a used book store and is interested in buying all the books we have left. Books have been re-sorted. Have approximately 800 books left, including 350 novels. Sent thank you letters to DV 8 for the t shirt they donated and a letter to Ivy Photo for the Monocular that was donated as raffle items. Mailed thank you letter to Dahl's for the pop donated and A-E for milk donated. Will write thank you letter to the publisher that donated some books to us. Delivered the T-shirt to Evelyn Ramirez and the monocular to Mr. Matt Rosen. John Kallemyn donated a book for children for the new library when we have the new building expansion entitled "The Sun." National Geographics and Readers Digest left were purchased by Joanne and donated; Geographics to Callanan, Hubble and Merrill Schools and Readers Digest to a nursing home. Copies of book "Moon Shots" left; are here for members to take. Bryan would like to thank everyone who helped with the book sale. Cathy Gannon arranged for Bryan to do a radio interview (KGGG); maybe they will mention our public nights. My original goal was \$500.00; we surpassed that so the book sale was a success! Book sale was a good one time experience: got to know the people at the Botanical Center. Some astronomy books were held out for our new library. Car wash October 16th, 9:00AM to 3:00PM, would like cookies donated, have 100 more cartons of milk coming from A-E.

From the StarLight Journal 10 Years Ago, November 2014

THE SOCIAL SIDE OF ECLIPSE WATCHING OCT. 23, 2014



Greg Woolever, Dave Lynch and others help Vern Naffier to get his solar projection screen mounted on his scope. Larry Mussleman is setting up his camera while we all wait.



DMAS member Luis Martinez shares his scope prepared for safe solar observation with visitors. Dave Lynch is in the background.

DMAS Star Search - Learn the sky one star at a time by DMAS member Bruce Mumm

November 2024 Rasalthallah - pronounced (RAHS-al-MOTH-al-ah)

Rasalthallah (Alpha (α) Trianguli) is located in the small isosceles triangle of stars known as Triangulum, the Triangle. It is a curious constellation, because it could be argued that any three stars form a triangle, unless they're in a line! There's a southern equivalent too, Triangulum Australe, the Southern Triangle. In mythology the northern version represents the island of Sicily, but sadly the southern variant has no mythology of its own. Rasalthallah marks the western end of Triangulum.

The 'Rasal' portion of the name may sound familiar. The two most common examples of its use are in the star names Rasalgethi and Rasalhague, two stars representing the heads of Hercules and Ophiuchus respectively, so you may have guessed that this means 'head'. The name Rasalthallah means 'head of the triangle', something echoed by its now defunct name Caput Trianguli. Caput means 'head' in Latin, another example being Serpens Caput, the Serpent's Head. It's worth noting that the International Astronomical Union Working Group on Star Names (WGSN) set up in 2016, approved the revised name Mothallah for Alpha Trianguli – robbing the triangle of its head!

The star itself shines at mag. +3.4, lies at a distance of 63.3 lightyears from the Sun and is a spectroscopic binary. The components rotate around their common center of mass once every 1.736 days. Analysis gives the system a spectral classification ranging from F5 III to F6 IV. F5-F6 puts it in the middle of the yellow-white color temperature range of 5,720-7,220°C. III-IV indicates a giant or sub-giant. The primary rotates quickly at 81.6 km/s and its shape is most likely to be ellipsoidal as a consequence. The gap between both stars is likely to be rather small, in the order of 0.04 AU.



Your Des Moines Astronomical Society Officers, Directors & Observatory Committee – 2024**President:** Norm Van Klompenburg**Vice-President:** JoAnn Cogil**Secretary/ALCor:** Jim VandeBerg**Treasurer:** Bruce Mumm**Observatory Director:** Greg Woolever**At Large Director:** Derryl Barr**At Large Director:** Jessica Weinreich**At Large Director:** Brennan Jontz**Observatory Committee:** Greg Woolever, Norm Van Klompenburg, Dave Heck, and Jim VandeBerg**Contact us at: 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 21st 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 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

Des Moines Astronomical Society
P.O. Box 111
Des Moines, Iowa 50301-0111

