NORTHERN LIGHTS

NORTH CENTRAL REGION OF THE ASTRONOMICAL LEAGUE

Autumn 2023 - Volume 8, Number 2

INSIDE THIS ISSUE OF *Northern Lights*

NCRAL CHAIR'S MESSAGE

I want to introduce the autumn issue of ***Northern Lights*** on a celebratory note. The Planetary Studies Foundation with the Doug Firebaugh Observatory in Freeport, Illinois, has joined the Astronomical League. This is indeed something to celebrate.

The Firebaugh Observatory was founded and operated by Freeport High School's Junior Engineering Technical Society (JETS) club. When it opened in 1967, it was known as the JETS Observatory. Located on Park Hills Golf course in Freeport, the JETS club was established for high school students in the Freeport area to learn about science careers and to be a source of scientific recreation.

Through the years of operation, hundreds of high school students and thousands of visitors from around the community learned about astronomy and observed some beautiful sights in the night sky. From 2005 through 2009, the operations and events of the observatory were organized through the cooperative efforts of the JETS club and the Tri County Astronomers (TCA). Regrettably, in 2010, the JETS club of Freeport was dissolved, but observatory operations would continue under the Tri County Astronomers.

Unfortunately, the TCA group also split up. Nevertheless, the observatory was able to remain open as a result of the dedication and hard work of the former JETS club, JETS adult board, and TCA member Jim Dole, who worked with the Park District and, in 2011 connected with the Planetary Studies Foundation (PSF) based in Elizabeth Illinois. The PSF is a 501(c)(3) non-profit corporation with the mission to promote planetary science and astronomy. The merger of the observatory into the established PSF organization proved a great benefit to everyone involved. Under the PSF, the decision was made to dedicate and rename the observatory to its founding director, Mr. Doug Firebaugh. In 2014, the dome observatory was built to

provide expansion and a third telescope to be used for public outreach of astronomy.

Its history has had some ups and downs, but in 2017 the Doug Firebaugh Observatory celebrated 50 years of operation. And now, under the leadership of PSF's president, Dr. Paul Sipiera and Jim Dole (Alcor), the Planetary Studies Foundation has become NCRAL's newest member organization. This is a story of which we can all be very proud.

In September 2019, the Firebaugh Observatory invited members of the Popular Astronomy Club to come for a visit. In the photo are members of both clubs present at that time.

On another front, your leadership team has been very busy. This summer, we have been visiting clubs in the region. You can read about some of our visits in this edition of the Northern Lights. It has been very enlightening and enjoyable for me to visit with you. I am very impressed with the capabilities, enthusiasm, and dedication of the clubs I have visited so far and look forward to visiting more of you as time and the weather permits.

During my visit to the Cedar Amateur Astronomers, creating an NCRAL Speakers Bureau was suggested. This was an idea I had already indicated at a meeting of the NCRAL leadership team. Hearing an unsolicited request from CAA to create one sealed it for me that we needed to move ahead with it. So we did. You can read more about the Speakers Bureau below. Feel free to contact the individuals listed there. Also, if you have been impressed by a speaker in the past, please let us know so we can add them to our list.

Another project we have been working on this summer is to update the NCRAL website with club officers' contact information. I want to thank all of you for providing me with updated information. This work is not yet complete. Contacts will change as new officers are elected, or other changes are made. Please let us know about changes so we can maintain accurate contact information. Please take a moment to verify your club's contact information on our affiliates page.

Finally, I ask you to consider hosting a future NCRAL convention. As you know, NCRAL 2024 will be hosted by Neville Public Museum Astronomical Society, May 17-18. I especially want to thank them for volunteering to host. I can't wait to see the agenda for their convention. I'm sure it will be great. But we still need volunteers for 2025, 2026, and beyond. If you are thinking about hosting, give me a holler. Let's discuss any questions or concerns you might have. If you have questions or need help before committing, I can also put you in contact with clubs and individuals who have hosted in the past. There is also a very nice NCRAL *Convention Planning Guide* available.

Conventions are a wonderful way to meet up with folks from around the region, visit club observatories, and learn about the science of astronomy. For the host club, it's also exciting to show off a little in a good way. Please give it some thought. See you in Green Bay!

Alan Sheidler, NCRAL Chair

Quarterly North Central Region Financial Statement

By Roy E. Gustafson, Secretary-Treasurer

Check #	Date	Description	Amount	Deposit	Balance
	1-Jul-23				$8,877.48
	31-Jul-23				
	1-Aug-23				
	31-Aug-23				
	1-Sep-23				
1031	9-Sep-23	Al Sheidler (expenses ALCON 2023 Convention)	$250.00		$8,627.48

MINUTES OF NCRAL LEADERSHIP MEETING AUGUST 30, 2023

NCRAL Chair Alan Sheidler called the NCRAL leadership to order over Zoom at 7 PM. Vice Chair Bill Davidson, Secretary-Treasurer Roy Gustafson, Regional Representative to the Astronomical League John Attewell, and Newsletter Editor Carl Wenning were present. Invited but unable to attend was Webmaster Jeff Setzer. Following review and correction of typographical error, the prior meeting minutes were approved. The following points were the addressed in the present meeting:

- **REGIONAL BYLAWS:** Bill will continue to suggest revisions to the Region's Bylaws and present them at the next ZOOM Board meeting on November 29 at 7 PM. Once approved in concept, suggestions will be made available to the entire membership for their consideration.

- **SPEAKERS BUREAU:** Al Sheidler reported that he has several speakers for the new NCRAL Speakers Bureau, and John has added some. Al indicated that the list is ready to be disseminated. Carl will put a read-only link to this list in the Autumn 2023 Regional newsletter.

- **AFFILIATE VISITS:** Carl reported on his visits to PAC, RAC, LCAAS, and the Starsplitters of Wyalusing. Al reported on his visits to RAA, PAS, TCAA, CAA, QCAS, RBAC, MAS, NAA, and BHAC. Brief reports about each visit will appear in the upcoming issues of the Region's newsletter.

- **AFFILIATE CONTACTS:** Carl has obtained a list of NCRAL Presidents and ALCors from the AL. Al tried to contact them and was successful in all but two cases. It was agreed that we will use this database to encourage affiliate leaders to:

  a) add themselves to the *Northern Lights* newsletter database,

  b) correct information about their organization on the NCRAL website, and

  c) send a new monthly bulletin with updates and reminders - *NCRAL blotter* - to affiliate leadership.

- **NEW AL/REGIONAL MEMBER:** Al mentioned that the Planetary Studies Foundation has joined the AL and, by default, NCRAL. Details will appear in the next issue of *Northern Lights.*

- **CLUB HISTORIES:** Al reported that he has gathered several affiliate histories and would like to see these linked to the affiliates' page on the NCRAL website.

- **REIMBURSEMENT:** Al asked for reimbursement for travel expenses to ALCon 2023 to represent the Region at the Executive Council meeting. Carl made a motion to pay this bill, indicated that it is established policy to do so for both the Regional Chair and Regional Rep. to the AL. Roy will reimburse Al Sheidler $250. John used Zoom to attend the Council meeting so had no expenses.

- **FUTURE CONVENTIONS:** Al noted that NCRAL has a convention host for 2024 (Neville Public Museum Astronomical Society), but the Region is seeking hosts for 2025 and beyond. Requests for consideration have been made of several affiliates by Al and Carl. Al further noted that MSRAL 2024 would take place in Omaha and that ALCON 2024 would take place in Kansas City.

- **NCRAL 5-YEAR PLAN:** The leaders decided to table this item due to a lack of input and the lateness of the hour.

The meeting was adjourned at 8:34 PM.

Notes by Jan & Roy Gustafson and Carl Wenning

The leadership of the North Central Region proudly announces the beginning of this new service. The brainchild of NCRAL Chair Alan Sheidler, the NCRAL Speakers Bureau will facilitate the acquisition of professional speakers for meetings and other events for our Region's affiliates. The many individuals have indicated a willingness to serve as speakers. Most speakers are available for presentations over Zoom, though some might also be willing to attend club meetings and other events. To arrange for a speaker, please contact the speaker directly through our NCRAL Speakers Bureau listing. Speak with them frankly about arrangements, including accommodations, meals, travel expenses, and honorarium, if any.

Visit to Naperville Astronomical Association for their Semicentennial Celebration on August 19, 2023

by Alan Sheidler, NCRAL Chair

In a continuing effort to visit clubs and get to know folks around the region, my wife Sara and I visited NAA on Saturday evening August 19, 2023. Below is a brief writeup by Sara that was posted on Facebook the following day.

> "The Naperville Astronomical Association held their Semicentennial Celebration the evening of August 19 at their Astronomy Education Center in Naperville, Illinois. It was a beautiful evening for members to reminisce about the club's humble beginnings as high school students at Naperville Central High School. Today they have grown to 200 members with a strong involvement in the community.
>
> NCRAL Chair Alan Sheidler was honored to present a plaque to Larry Jahn and Drew Carhart, both founding members of the club from Carroll Iorg, president of the Astronomical League.
>
> Here are some pictures from their event and Congratulations to the Naperville Astronomical Association from all of us in the NCRAL Region!"

Steve Hile, former high school sponsor, and four former students who were founding members.

NAA is one of the largest clubs in the NCRAL region and has many very talented members involved in public outreach and club activities. The Astronomy Education Center (AEC) is located on the site of Naperville's water treatment facility and has two excellent observatories. These facilities are used for public outreach and club activities. NAA has an activity almost every day on their club calendar. They are definitely a very active and influential educational institution in the community of Naperville.

The AEC consists of two observatories: the domed Glen D. Riley Observatory (GDRO) and the roll-off roof DuPage Valley Observatory (DVO). The GDR was originally built in 1973 and was dedicated to the memory of the physics teacher who had sponsored the group during its beginnings as a high school club. The observatory has been an anchor for the NAA in all the years since, and the focus of many club activities, both public and private.

In a project started in 2012, the GDRO's original 10" reflecting telescope was replaced by a new, custom-designed 16" telescope designed to give the best viewing possible from under Chicagoland skies. Its f/3.5 primary mirror, with a surface curve accurate to one one-millionth of an inch, was ground by master optician, John Abrahamian. The telescope was designed by member Drew Carhart, who also fabricated most of the over 200 custom-machined parts that make it up. This truly one-of-a-kind telescope is a fine example of the telescope making craft.

The GDRO also has an educational exhibits room that includes a scale representation of our solar system and a wall-sized depiction of our Milky Way galaxy showing locations of some of the objects viewed through the telescopes.

In 2002, work began on the NAA's second observatory, DuPage Valley Observatory (DVO, named after the Astronomy Education Center's location, overlooking the DuPage River). The DVO houses two telescopes also crafted primarily by members

Larry Jahn and Drew Carhart being presented a plaque from Alan Sheidler, NCRAL chair from the Astronomical League

Abrahamian and Carhart, but these telescopes do not feature eyepieces for visitors to view through. Instead special, sensitive video cameras are used to provide live images of celestial objects.

In addition to the GDRO and DVO, members of the NAA also have access to dark sky observing sites outside of the city where members can bring their own telescopes for observing free of light pollution.

TRIP REPORT TO RIVER BEND ASTRONOMY CLUB, JULY 22, 2023

by Alan Sheidler, NCRAL Chair

As part of my continuing effort to learn more about astronomical societies in the Region my wife Sara and I attended the public outreach session conducted by the River Bend Astronomy Club (RBAC) on this date. The visit began with a meeting with some of the club members at *Lookin' Up Optics* (Vandalia, Illinois), a telescope shop operated by Randy Harrison. Randy is also the President of RBAC. The meeting at the telescope shop was very casual and relaxed. We looked at the many different telescopes and accessories available in the shop while we introduced ourselves.

After the meeting at *Lookin' Up Optics,* we drove into the town of Carlyle, Illinois, where we met club members at an excellent Mexican restaurant where we had dinner together and continued talking about our favorite topic of astronomy.

After dinner, we all drove to the Carlyle Lake Visitor Center, where the evening public outreach activities were to occur. Five telescopes were set up, including an SCT, two dobs, a refractor, and a nice set of 100mm binoculars. The scopes were all set up in the front yard of the visitor center/ranger station. This was right next to the parking lot, making it easy to set up and access by visitors.

While some club members were setting up scopes, five members set up for a presentation in the amphitheater behind the visitor center. The presentation was well orchestrated. Terry Menz served as emcee, introducing each speaker who gave talks they had each prepared. The first talk was about some of the objects visible in the night sky at this time and later this fall. This was followed by talks on simple astrophotography using your smartphone. Following this, a talk was on the upcoming solar eclipses in October and April and what causes an eclipse. Finally, there was a talk about the recently acquired library telescope and its availability at the local library. There were approximately 100 visitors in the audience and several excellent questions that club members effectively answered. After the talks, guests were invited to walk back to where the telescopes were set up on the other side of the building for viewing the moon and other objects.

The RBAC public outreach at the Carlyle Lake on July 22, 2023.

River Bend Astronomy Club posing for a group photo in the Lookin' Up Optics telescope shop in Vandalia, Illinois.

The River Bend Astronomy Club is a small club of approximately 30-35 amateurs. They are very active in public outreach, though with probably 10-12 members who often participate in outreach events. Randy is a very accomplished astro-imager. They are polished public speakers with well-prepared talks before observing sessions. Images of objects are shown on a small flat screen which is good to prep visitors for what they might see later at the scopes (or if it is cloudy, provide an alternative). I am very impressed with this club. They are very well organized and work well together. They have much to be proud of and are an excellent example of how to conduct public outreach.

The River Bend Astronomy Club does not have an observatory. Observing sessions occur spontaneously at club members' homes or wherever they can meet as a small group. Despite this fact, the RBAC is a prime example of a well-organized club with great public outreach.

ILLINOIS DARK SKY STAR PARTY SLATED

Sangamon Astronomical Society will host their Illinois Dark Sky Star Party October 12-14, 2023, at Jim Edgar Panther Creek State Fish & Wildlife Area some 30 miles northwest of Springfield, Illinois. There will be dark skies with plenty of observing, the ever-popular Astronomy Bowl, and daytime presentations. Complete details can be found on the SAS's website.

GOODWILL TOUR WITH TCAA IMAGE INTENSIFIER

by Carl Wenning, ***Northern Lights*** Newsletter Editor

Northern Lights Newsletter Editor Carl Wenning undertook a three-day goodwill speaking tour to four clubs in the Region speaking in Northern Illinois, Minnesota, and Wisconsin from August 7-9. Attending Carl was his wife, Carolyn. During their travels, Carl spoke about the night vision technology he had mentioned during his *Innovations in Amateur Astronomy* presentation at NCRAL 2023. Following his presentation, he was asked to make visits to two clubs. He arranged additional speaking engagements subsequently.

PAC's Paul R. Castle Observatory

During his presentations, Carl explained how the latest generation of white-light image intensifiers can be used with telescopes. He subsequently demonstrated what he spoke about by providing views through the image intensifier owned by the Twin City Amateur Astronomers using telescopes provided by the clubs he visited.

On August 7, Carl spoke following a supper gathering with ten members of the Popular Astronomy Club in Moline, Illinois. Afterward, he observed with five PAC members from Paul Castle Observatory outside of Rock Island, Illinois. Thanks to NCRAL Chairman Alan Sheidler for arranging this visit and Dino Milani for orchestrating it.

The home of the Starsplitters of Wyalusing at Wyalusing State Park.

Carl Wenning speaking with members of the Rochester Club.

On August 8, Carl attended the Rochester Astronomy Club's monthly meeting in Minnesota. Some 20 members gathered at the home of RAC President Randy Hemann. Following the meeting and Carl's presentation, viewing took place at 1X (no magnification, essential a "heads up" display) with a handheld unit. Afterward, the device was placed on a Celestron 11" and an Obsession 18" telescope. Observations were also completed with Randy's 30" telescope, though the image intensifier was not used there due to the precarious eyepiece position 10-12 feet above ground level. Thanks, Randy and RAC for the hospitality and treats!

The next day, August 9, Carl gave two presentations. Following a lunchtime talk to about a dozen members of the La Crosse Area Astronomical Society arranged by LCAAS President Jeff Moorhouse, Carl moved on to Prairie du Chien, Wisconsin, where he and Carolyn were feted to a wonderful dinner attended by about a dozen welcoming members of Starsplitters of Wyalusing. The group then traveled to Wyalusing State Park for Carl's talk and an evening of viewing. Carl & Carolyn were most warmly accommodated by the club's president Jean Napp and her husband, Scott. Welcoming the guest was the family's golden, long-hair cat Fred who served as an excellent source of entertainment!

Following an excellent breakfast at the Napp home, Carl and Carolyn met with the NCRAL Chair Alan Sheidler and his wife Sara, for lunch in Bettendorf, Iowa, where they discussed NCRAL business matters. All had a fun time.

TRIP REPORT ON BLACK HAWK ASTRONOMY CLUB, AUGUST 26, 2023

~ by Alan Sheidler, NCRAL Chair ~

As part of my continuing effort to learn more about astronomical societies in the region, I visited the BHAC at their public observing session held August 26 at Prairie Grove Park, southwest of Waterloo, Iowa.

Despite the clouds, the observing session was successful. Bob Haack was already there and set up his 6" refractor that afternoon to observe the sun. He noted there were some nice sunspots. When Sara and I arrived at sunset, it was probably about 75% cloudy. We decided to go ahead and set up PAC's 10" LX200 SCT, optimistically hoping it would clear off.

We had some nice discussions with Bob while setting up. David Voigts (BHAC ALCor) arrived around 8:30 PM as it was getting pretty dark. He did not set up a scope. His Celestron 6" was having problems losing the date/time and not functioning properly, and since it was still partly cloudy, he decided not to set up another scope he had with him. Another member also arrived around this time but did not set up a scope. He kept his distance as he complained of a cold and did not want to infect anyone.

Once it got dark enough, I aligned the LX200 on Altair and Arcturus, which were opportunistically visible through holes in the clouds. Bob was pointing his scope manually at objects that were naked eye visible and easily found.

There were two visitors this evening, a mother and her 12-13-year-old son. The sky cleared enough to show them decent views of the Moon, Saturn, and several interesting double stars: Polaris, Eta Cassiopeiae, Beta Scorpii; NGC 457, the ET Cluster or Owl Cluster in Cassiopeia, and M13, the Hercules Cluster. Once Saturn got high enough, the view through Bob's Takahashi was stunning. It was a highly successful viewing session despite the cloudy conditions. We closed up shop around 10:30 PM.

Al & Sara Sheidler met Bob Haack and David Voights (club Alcor) at Prairie Grove Park, Waterloo, Iowa. Bob set up his Takahashi 6" refractor, and Al set up PAC's 10" LX200 Wide Field SCT for visual observing under mostly cloudy skies.

AstroBits

Here are some news notes that readers might find of interest or helpful. Items appear here as bullet points because they are too short to merit full-blown articles. If readers have something to share and want it to appear here, email this newsletter's editor at carlwenning@gmail.com.

- NCRAL's ***Convention Planning Guidelines*** have once again been updated. The *Guidelines* (version date June 24, 2023) now include eight reasons a Regional affiliate might want to host a regional convention. Hosts are currently being sought for conventions in 2025 and beyond. It's never too early to offer to host. Email NC AL Chair Alan Sheidler at adsheidler@gmail.com if you are interested or have questions.
- Roy Gustafson of Popular Astronomy Club was fortunate enough to get daily images of the Sun from July 8-17. Sunspot R3363 was one of the large sunspots in recent times. The images were taken with an 80mm Stellina Observation Station, a smart telescope.
- The NCRAL leadership has started a monthly newsletter for affiliate presidents and ALCors and eventually newsletter editors. It is titled ***NCRAL blotter***. The ***blotter*** will be disseminated monthly. The first issued was disseminated on September 9th. We hope to send this publication to affiliate newsletter editors starting with the October issue. If you are a newsletter and would like to be included on the email listing, please write the ***blotter*** editor at carlwenning@gmail.com. Also, as elections come and go and new officers are elected, please be sure to keep both the AL and NCRAL leadership informed.

103-Object Messier Marathon Observing Program

During its annual business meeting at NCRAL 2023, the membership established the NCRAL Messier Marathon Observing Program and rules for affiliates and at-large members with the following awards and certificates. The rules and regulations are as follows:

- **Gold Star Award:** Use a telescope to observe at least 103 Messier objects in one dusk-to-dawn interval using only *unassisted* means (Telrad, optical finder, star hopping, sweeping, drift, etc., are acceptable).
- **Silver Star Award:** Use a telescope to observe at least 103 Messier objects in one dusk-to-dawn interval using *assisted or unassisted* means (e.g., goto, setting circles, star hopping, etc.)
- **Bronze Star Award:** Using a telescope, observe at least 70 Messier objects in one dusk-to-dawn interval using any combination of assisted or unassisted means.

Those who earn the Gold Star also will receive the Silver and Bronze Stars. Those who earn the Silver Star also will receive the Bronze Star. At most, one star of each type will be awarded to a single observer.

Observations must be approved and sent by an affiliate's ALCor to the NCRAL Secretary-Treasurer, who will serve as program administrator. The observing record must be affirmed by an affiliate's ALCor or confirmed by another observer if a member-at-large. Observing records (objects and time stamps) in an electronic file should be sent to Roy Gustafson at astroroy46@gmail.com for final approval and recognition. NCRAL will provide suitable certificates, pins, and postage associated with this program. Recipients will be recognized in the *Noteworthy!* section of NCRAL's ***Northern Lights*** newsletter. Due to the more prestigious nature of this program, it is NOT permissible for two or more individuals to work together to earn this recognition. Binoculars may not be used in the telescopic program.

This observing program was approved retroactively January 11, 2023, so that anyone completing the observing program following these guidelines during the winter and spring of 2023 may receive appropriate recognition from NCRAL.

Notes: This observing program, including all 110 Messier objects, is possible only under limited conditions. The usual time to conduct the Marathon is from mid-March to early April when no Messier objects are hidden in the sun's glare. With the requirement of only 103 objects, there are considerably more days throughout the year when the Marathon might be completed. The program may now be completed at nearly any time of the year, so long as only a few M-objects are lost in the sun's glare (e.g., the Virgo cluster of galaxies from September through November.) Northerly observers need not observe items lost in the sun's glare due to their proximity to the southern horizon. Regardless, observations should be well planned and begin as soon as it gets dark and continue through morning twilight. Observations start low in the western sky and progress eastward throughout the night. Consult any of the several Messier Marathon observing guides found online for details. A checklist documenting observations is adequate because the goal is merely to "view" and not necessarily "observe" each M object. The checklist must include the date and time. Please send electronic observing records to Roy at astroroy46@gmail.com

NCRAL Seasonal Mini Messier Marathon Observing Program

The NCRAL Seasonal Mini Messier Marathon program is intended to serve as motivation to get NCRAL-affiliated members out under the stars to observe. The program permits the use of goto telescopes to find objects, and, as such, the program must not be considered proof of observing prowess. The Astronomical League's Messier observing program serves that purpose. Still, N RAL observing certificates include "assisted" or "unassisted." Certificates and pins are now being distributed on the equinoxes and solstices along with ***Northern Lights*** by the program administrator. NCRAL Secretary-Treasurer Roy Gustafson is the program administrator. Please send observing records to Roy at astroroy46@gmail.com. Up-to-da e details about the Region's four observing programs and helpful observing record sheets can be found on the NCRAL website: https://ncral.wordpress.com/awards/.

Autumn: M55, M69, M70, M75, M11, M26, M56, M57, M71, M27, M29, M39, M2, M72, M73, M15, M30, M52, M103, M31, M32, M110, M33, M74, M77, M34, and M76. (27 objects)

Winter: M1, M45, M36, M37, M38, M42, M43, M78, M79, M35, M41, M50, M46, M47, M93, M48, M44, M67, M40, M81, M82, M97, M101, M108, M109, M65, M66. (27 objects)

Spring: M95, M96, M105, M53, M64, M85, M88, M91, M98, M99, M100, M49, M58, M59, M60, M61, M84, M86, M87, M89, M90, M104, M3, M51, M63, M94, M106, and M68 (28 objects)

Summer: M83, M102, M5, M13, M92, M9, M10, M12, M14, M19, M62, M107, M4, M6, M7, M80, M16, M8, M17, M18, M20, M21, M22, M23, M24, M25, M28, and M54. (28 objects)

OBSERVING NOTES:

- ***Autumn:*** This season's objects span a wide range of right ascension and declination. With several objects located in Sagittarius and disappearing into the sun's glare by mid-autumn (M55, M69, and M70), it is best to complete the autumn observing program before the end of October. After that, they will be too near the sun to observe during late autumn

evenings. Also, no e that a late September start will require observations after 10 PM due to the late rising of two of these objects.

- ***Winter:*** It is best to begin the winter Marathon around late February or later. Any earl er in the year, observers will have to wait until later into the night for all winter objects to have risen high enough in the sky to observe. With win er weather moderating in March, it wouldn't be too late to start then so long as observations are completed by the March equinox.
- ***Spring:*** This season's objects span a relatively narrow region of right ascension, with most objects being associated with or near the Virgo-Coma cluster of galaxies. At the s art of spring, an observing run beginning near the end of astronomical twilight should allow observers to view all objects by around 10:30 PM. By mid-April, all objects should be well enough placed at the end of astronomical twilight, allowing for their fastest possible observation.
- ***Summer:*** All summer Marathon objects are above the horizon at the end of astronomical twilight on the first day of summer through the last day of summer. They are nearly all tightly clustered around the galactic center, and most are globular clusters with a few notable exceptions.

UPDATE June 4, 2021: *By fiat of the Regional Chair, it is permissible for a group of two or more individuals to work together using a single telescope on the same night to earn a seasonal Mini Messier Marathon certificate and pin, so long as the group shares a single certificate and pin. All members of a group must observe each Messier object.*

NOTEWORTHY!

The following NCRAL members have completed the following Astronomical League observing and award programs in recent months. Congratulations to all!

Multiple Star Observing Program:
Jeffrey S. Moorhouse, La Crosse Area Astronomical Society

Outreach Observing Award:
Pam Kollar, Outreach, Popular Astronomy Club

Solar Neighborhood Observing Program:
Lisa Wentzel, Binocular, Twin City Amateur Astronomers

Urban Observing Program:
Dave Tosteson, Minnesota Astronomical Society

Binocular Master Award:
Dick Francini, Neville Public Museum Astronomical Society

Note: Details about all of these observing programs and awards can be found on the Astronomical League's website at https://www.astroleague.org/observing.html

Dave Tosteson, MAS, had another article published in the September 2023 issue of ***Reflector***. His article was titled, "The Case of the Missing Matter: Observing the Mysterious NGC 1052-DF." Dave is a regular contributor to the quarterly magazine.

Alan Sheidler, newly elected NCRAL Chair, was featured in an "Around the League" article. The article gave a rundown on Al's background and serves to introduced him to the Regional and national membership.

NCRAL SEASONAL MINI MESSIER MARATHON AWARDS

SPRING:

- *Patrick Connelly,* Twin City Amateur Astronomers, Assisted, #19A
- *Allan Griffith,* Twin City Amateur Astronomers, Assisted, #19B
- *Alan Novick,* Twin City Amateur Astronomers, Assisted, #19C

SUMMER:

- *Siddharth Vikram,* Twin City Amateur Astronomers, Assisted, #13
- *Sam Springer,* Twin City Amateur Astronomers, Assisted, #14

2023 HORKHEIMER YOUTH AWARDS

Members of two of our Region's affiliates received recognition from the Astronomical League this year due to their very impressive efforts. The *Milwaukee Astronomical Society* and *Rochester Astronomy Club* should be justifiably proud of the efforts of three of their members. It should be noted that William Gottemoller is the first to receive three Horkheimer Awards, having been awarded yet another a year earlier.

Below are the 2023 winners. Because f the Horkheimer Charitable Fund's forward-thinking and generosity, the Astronomical League can offer this annual suite of Horkheimer Youth Awards. **Congratulations** to all!

HORKHEIMER/SMITH AWARD

- 1st Place ($1,750; convention trip; plaque): Christina Ding, Texas Astronomical Society of Dallas

HORKHEIMER/PARKER AWARD

- 1st Place ($1,000; plaque): Dhruva Kalyani, *Milwaukee Astronomical Society*
- 2nd Place ($500; plaque): William Gottemoller, *Milwaukee Astronomical Society*

HORKHEIMER/O'MEARA AWARD

- 1st Place ($1,000; plaque): Avni Dhargalkar, Chester County Astronomical Society
- 2nd Place ($500; plaque): Thérèse Bauer, *Rochester Astronomy Club*

HORKHEIMER/D'AURIA AWARD

- 1st Place ($1,000; plaque): William Gottemoller, *Milwaukee Astronomical Society*

To ASTRONOMICAL LEAGUE affiliates: This is the time to start thinking about 2024! Please promote, encourage, and support award-associated activities among your youth membership.

NORTHERN LIGHTS INDEX OF FEATURE ARTICLES (2016-2023)

The editor of ***Northern Lights*** has created a listing of articles he considers of considerable interest and lasting value. This listing will increase both the ease of finding and the likelihood that these articles will be read and re-read. Please review these article titles and see what you have missed since the current series of newsletters was established in 2016. This information can also now be found on the NCRAL website's newsletter archive page: https://ncral.wordpress.com/newsletter-archive/

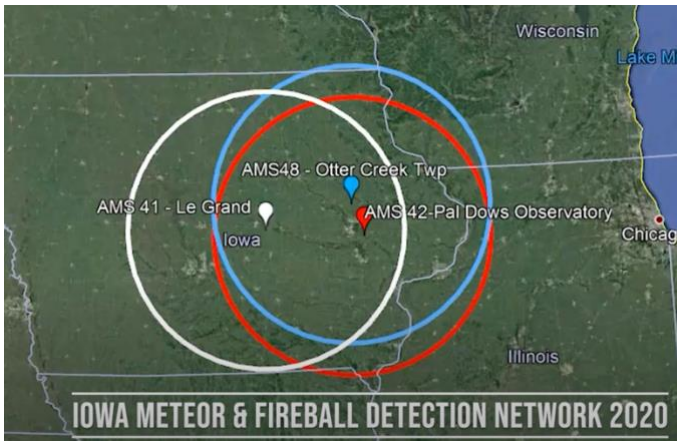
- *A Word about Hobbies*, Spring 2017
- *Getting Ready for the August Total Solar Eclipse: Indirect Viewing Methods,* Spring 2017
- *Getting Ready for the August Total Solar Eclipse: Direct Viewing Methods,* Summer 2017
- *The Results are In: Involvement with Your Astronomy Club,* Winter 2018
- *NCRAL Membership Survey Results,* Spring 2018
- *Results of NCRAL Convention Preferences Survey,* Winter 2019
- *Some Astronomical Heroes,* Summer 2019
- *Thoughts on Making Amateur Astronomy Thrive,* Autumn 2019
- *What do Members Want from an Astronomy Club,* Autumn 2019
- *NCRAL (*Seasonal Messier*) Observing Program Approved – It's Official!,* Autumn 2019
- *The Joys of Amateur Astronomy,* Winter 2020
- *The State of Astronomy Clubs: Healthy or At-Risk?,* Autumn 2020
- *What Motivates Members of Your Astronomy Club?,* Autumn 2020
- *Club Leadership for Our Time,* Winter 2021
- *A Homebuilt Solar Wind Magnetometer,* Spring 2021
- *Observing Program Pointers,* Summer 2021
- *What is Zoom Bombing and How to Prevent It?,* Summer 2021
- *Video Conferencing and Amateur Astronomy,* Summer 2021
- *Take Advantage of NCRAL's Non-profit Status & Benefits,* Autumn 2021
- *National Council Meeting Impressions,* Winter 2022
- *Draft NCRAL Job Descriptions,* Winter 2023
- *Globular Cluster Observing Program,* Summer 2023
- *NCRAL Adopts 103-object Messier Marathon Observing Program,* Summer 2023

AMATEUR ASTRONOMERS OPERATE METEOR CAMERA SYSTEMS IN EASTERN IOWA

~ by Tom Weber, Cedar Amateur Astronomers ~

If you see a meteor streaking overhead in Eastern Iowa, chances are good that *AllSky7* meteor camera systems operated by Cedar Amateur Astronomers (CAA) recorded the meteor.

The trio of camera systems operating roughly 65 miles apart in Eastern Iowa have also picked up aurora, satellites, and a rare atmospheric lightning phenomenon called sprites. During the recent Perseid shower, CAA member Jim Hannon's cameras in rural Linn County recorded 324 meteors.



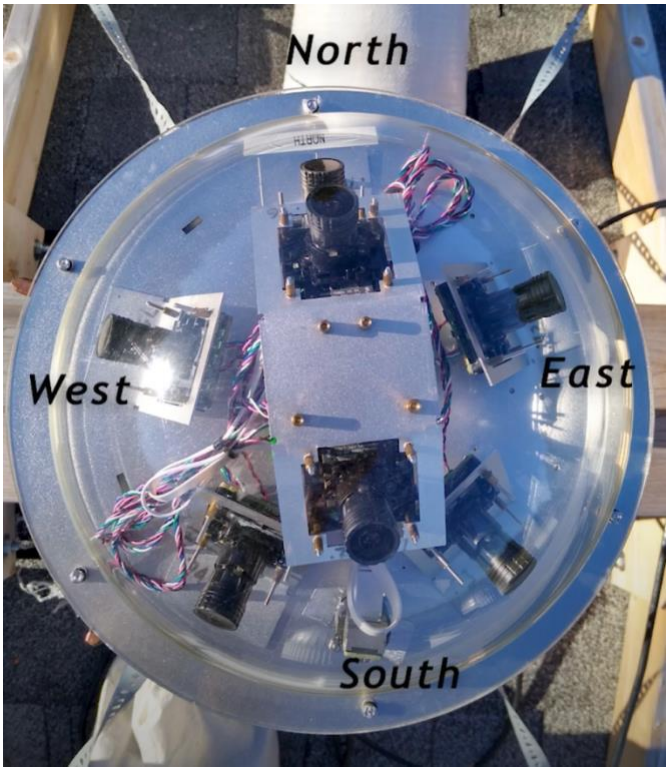
Each *AllSky7* unit houses seven cameras in a plexiglass dome arranged in a pattern to cover the entire sky from horizon to horizon. The cameras connect to a dedicated computer loaded with software that detects meteors and then records video in one-minute increments. The result is beautiful images of meteors and fireballs and information on velocity, trajectory, and direction of orbit before entering the atmosphere.

Mike Hankey is an amateur astronomer and operations manager for the American Meteor Society. Since the first operational All Sky camera prototype a decade ago, Hankey has worked to improve the hardware and continue developing its accuracy. His hope is to one day have complete coverage in the United States. The website allskycams.com gives a comprehensive look at the product and how amateur astronomers and clubs can purchase kits to add to the network.

An introduction to the Cedar Amateur Astronomer's three-camera network is available here.

The system operated by CAA is the first and only one currently in Iowa. Although there are several others throughout the country, the hope is for more coverage and, better yet, overlapping coverage.

The *AllSky7* meteor camera systems were developed by software developer and amateur astronomer Mike Hankey, who designed the systems to be affordable and easily installed and operated.



The involvement of three CAA members was almost a perfect storm of expertise for an *AllSky7* system. Hannon is a retired electrical engineer with an interest in weather; Carl

Bracken, of Cedar Rapids, is a video security system designer and installer; and Jim Bonser, of rural Le Grand, is a former computer programmer who now serves as a pastor at Stavanger Friends Church and has developed expertise in astrophotography.

In 2019, Bracken noticed some meteor imagery captured by an *AllSky7* camera posted on Spaceweather.com. This intrigued Bracken, who, in addition to being an amateur astronomer, is also a camera and video enthusiast. He researched the meteor camera system, contacted developer Hankey of Maryland, and brought information to CAA.

When Bracken suggested the club purchase meteor cameras for the Eastern Iowa Observatory and Learning Center (EIOLC), members enthusiastically accepted the idea. After he explained that the system works best when triangulating with at least one other, the club voted to allocate the funds. At the time, two *AllSky7* camera units, complete with computers and software, cost about $3,600.

The two assembled kits arrived in the spring of 2020. The club mounted the first *AllSky7* unit on the roof of the EIOLC building southeast of Cedar Rapids. CAA members Jim and Deb Bonser offered their home observatory 65 miles to the west as the second site. A third CAA member, Jim Hannon, became interested in the project. About six months after completing the Bonser's location, Hannon's site was up and running on his home weather station.

"CAA bought the assembled cameras. I opted for the kit because it was less expensive, around $1,000. But I bought a bit more powerful computer than the one that came with it," Hannon said.

The cameras are self-operational, but maintenance, such as camera replacement or new ethernet cables, will always crop up. Hannon painted part of the inside of his plexiglass dome white to reflect sunlight and help prevent the electronics from overheating. The developer provides regular software updates, and replacement parts are also available.

Hannon explained that a tremendous amount of specialized software is going on in the background.

"The software will compute the meteor's trajectory in the sky, and it's a three-dimensional render. You show it plotted and look at it over a map of Google Earth. Then there's some calculations to determine whether or not it might have hit the ground," he added.

Each of the three Eastern Iowa units overlaps with the others, which is ideal for data analysis and finding a possible landing site of any meteorite captured by all three. The cameras will typically record a handful of meteors every clear night.

When the meteors are detected, standard and high-definition videos are recorded automatically. The software developed by Hankey searches all images and then picks out what the software determines are meteors.

There are often false positives. *AllSky7* sometimes picks up birds, airplanes, cars, and fireflies as meteors. With the help of individual operators, the system's artificial intelligence is teaching itself to know the difference between false positives and the real thing.

The Eastern Iowa cameras have not yet indicated ground contact but have captured video of numerous fireballs among the thousands of meteors. The January 2, 2022, fireball was seen by all three sites, giving spectacular video and accurate trajectory data, seen here.

In a sense, the ongoing project has already come full circle for the folks at CAA. The website where Bracken first saw the *AllSky7* meteor image posted a stack of the 2022 Perseids he submitted. Bracken framed the image, which hangs in the EIOLC.

"The eye candy aspect of it was, each of these multiple cameras had this stack picture," Bracken said. "That was the software stacking one image on top of the other, so you end up with all these streaks."

PLANET OUTLOOK, FALL 2023

~ by Jeffrey L. Hunt ~

Autumn brings bright morning planets, a partial solar eclipse across the region, and lengthening nighttime hours. The stellar congregation around Orion is in the predawn southern sky during mid-October, and Orion crosses the eastern horizon at the end of twilight during mid-December. Evening skies feature the Cygnus section of the Milky Way, globular and galactic clusters, and our large galactic neighbor, the Great Andromeda Galaxy.

Sun

The new season begins September 23rd at 1:50 a.m. CDT and lasts through December 21st at 4:21 a.m. CST. The season's midpoint occurs November 6th at 2:06 p.m. CST. Daylight time ends the day before the midpoint.

An annular solar eclipse occurs across the western states on October 14th. In Chicago, a partial eclipse begins at 10:37 a.m. CDT and reaches maximum at 11:57 a.m. with 43% of the sun obscured. The eclipse ends at 1:22 p.m. Check your favorite resource for eclipse times and obscuration at your observing site.

Beginning on Halloween and lasting 102 days through February 10, 2024, darkness is longer than daylight. Here darkness is the duration from the end of evening twilight to the beginning of morning twilight.

Moon Phases	**New**	**First**	**Full**	**Last**
September	14	22	29	6
October	14	21	28	6
November	13	20	27	5
December	12	19	26	4

Moon

A partial lunar eclipse occurs October 28th at 4:14 p.m. CDT with a magnitude 0.1239. It is visible across the eastern hemisphere with the final penumbral phases occurring at moonrise in the eastern US and Canada.

Annual Halloween artwork shows a Full moon with other festive icons. This year the Halloween moon is a waning gibbous, 88% illuminated. I suppose some will call it a Full moon. The next Halloween Full moon occurs in 2039.

Mercury

Mercury has two appearances during the season and starts another. Reaching greatest elongation (17.9°) on September 22nd, the speedy planet is near perihelion, rising near the beginning of morning twilight. At 45 minutes before daybreak, it is nearly 10° up in the east and 11.2° to the lower left of Regulus. As the planet retreats into sunlight its brightness grows to magnitude −1.0. The planet reaches superior conjunction October 19th and moves into the evening sky.

Leaving bright evening twilight, Mercury reaches its greatest elongation December 4th (21.3°) setting only 75 minutes after the sun, at about the time of Nautical Twilight, when the sun's altitude is 12° below the horizon. At 30 minutes after nightfall, the planet (m = −0.4) is over 6° above the southwest horizon.

Look for the moon, 5% illuminated, and 11.1° to the upper left of the dimming planet (m = 0.8) on December 14th.

After inferior conjunction (December 22), Mercury starts the third apparition. It returns to the morning sky for another favorable view, reaching greatest elongation (23.5°) January 12th. At 45 minutes before sunrise, Mercury (m = −0.2), the planet is nearly 8° up in the southeast and 11.6° to the lower left of Venus (m = −4.0). From the 16th through 19th, the Venus-Mercury gap is 11.1°. Again, this apparition as it retreats into sunlight, Mercury's brightness grows. It passes 0.3° from Mars (m = 1.3) on the 27th, but the pair is about 5° up in the southeast at 30 minutes before sunrise.

Venus

The queen of the morning sky quickly returned to the predawn sky after the August 13th inferior conjunction. Retrograde ended September 4th as the planet gains over 100 minutes of rising time compared to sunrise during September.

The brilliant Morning Star, in the interval of greatest brightness during mid-September, reaches greatest the illuminated extent on the 19th, when the crescent covers the largest area of the sky. The planet is 40° from the sun, 27% illuminated, and 37 arcseconds across from cusp to cusp.

Late September brings Mercury, Venus, Jupiter, and Saturn, four bright planets, into the morning sky, along with dimmer Uranus and Neptune. Saturn sets about 30 minutes after Mercury rises, so seeing all of them simultaneously is a challenge.

On September 25th, Venus moves into Leo, 11.2° to the upper left of Regulus. It passes Leo's brightest star October 9. As a prelude to this conjunction, watch Venus approach and

the pass Omicron Leonis (o Leo, m = 3.5), a week before the Regulus conjunction.

Venus and Saturn are 180° apart October 10th, a planet-planet opposition when Earth is between them. Venus can be seen near the horizon, but dimmer Saturn is likely lost in the haze in the west-southwest several days before the date.

The moon makes an attractive grouping with Venus and Regulus on October 10th. The group fits into a circle 6.0° and nicely into a binocular. This is a wonderful binocular event, as well as a photographic opportunity, Two Venusian cycles away, the three celestial bodies fit into a circle 1.3° across on September 19, 2025.

On the 23rd, Venus passes greatest elongation (46.4°). Through a telescope, the planet is at the morning half phase, 50% illuminated.

During October Venus steps eastward passing Omicron Leonis (Oct. 2, 1.0°. m = 3.5), Regulus (Oct. 9, 2.3°, m = 1.3), Rho Leonis (Oct. 16, 1.0°, m = 3.8), Theta Leonis (Oct. 23, 9.9°, m = 3.3) Iota Leonis (Oct. 27, 5.9°, m = 4.0) and Sigma Leonis (Oct. 29, 1.4°, m = 4.0).

During November Venus crosses into Virgo after a wide pass with Denebola (Nov. 1, 11.6°, m = 2.1). The Morning Star passes Beta Virginis (Nov. 6, 0.5°, m = 3.6), Eta Virginis (Nov. 13, 0.5°, m = 3.9), Gamma Virginis (Nov. 17, 1.2°, m = 3.4), and Spica (Nov. 29, 4.2°, m = 1.0).

On the morning of the 9th, Venus is 1.4° to the upper right of a crescent moon. Eta Virginis (η Vir, m = 3.9) is 4.0° to the lower left, making a pretty binocular view. This event is also a beautiful photographic scene.

During December, Venus speeds away from Earth. On the 5th, the separation is 1.0 Astronomical Unit.

December 8 and 9 brings the moon through the region that includes Spica. Look for the moon and Spica on the first date and with Venus the next morning. The Venus-moon separation is 3.8°.

On the 10th, Venus and Jupiter are at opposition, with the Jovian Giant setting as the Morning Star rises. Unlike the opposition with Saturn, it might be possible to see both planets at the horizon with a clear morning and an unobstructed horizon.

Watch Venus pass between Zubenelgenubi (α Lib, m = 2.8) and Zubeneschamali (β Lib, m = 2.6), the Scorpion's classic claws, December 17-21.

The year ends with Venus near Scorpius.

Mars

The Red Planet moves from bright evening twilight to the morning predawn sky after its solar conjunction November 18th. The *Observer's Handbook* simply states, "Too close to the sun to be seen" (p. 116).

NASA JPL pauses command communications with Mars probes when the Red Planet is within 2° of the sun. The hiatus occurs November 11-25. There is great concern that operational commands might be affected by the sun's electromagnetic effects. Some probes record data for later transmission while other instruments continue to send data. While the spacecraft are largely idle, like shutting down to go to the beach, the controllers may do that.

Jupiter

The Jovian Giant retrogrades in Aries, south of Hamal during the season. It passes opposition (m = −2.9, 4.1 Astronomical Units) November 3rd a few minutes into the new calendar day.

At the beginning of the season, Jupiter rises about two hours after sundown. By December 1, the planet is nearly 30° up in the east during evening twilight.

Watch the retrograde direction carry the planet between Hamal (α Ari, m = 2.0) and Menkar (α Cet, m = 2.5), spanning 23.5°, on October 28th.

The moon is nearby on the nights of October 1st/2nd, October 28th/29th, November 24th/25th, December 21st/22nd, and December 22nd/23rd.

Recent photographs show a smaller Great Red Spot. Check your favorite resource for the Red Spot's transit times. With Jupiter's high declination and longer nights, the long-lived atmospheric disturbance can be seen twice during a 24-hour interval. One resource to predict the spot's visibility is *Sky & Telescope's* online calculator.

Saturn

The solar system's crown jewel (m = 0.4) retrogrades in Aquarius as the season opens near Sigma Aquarii (σ Aqr, m = 4.8) and Theta Aquarii (θ Aqr, m = 4.2). It is easy to locate above the southeast horizon during the early evening. By December, it is in the south during mid-twilight, setting about six hours after sunset.

Through a telescope the rings are inclined about 10° with an apparent equatorial diameter 19 arcseconds across. Look for the satellite Iapetus north of the planet on October 10th and south, November 18th. Can you find the eight satellites that are bright enough to be found easily? Does your telescope have enough aperture to see Titan's disk? The planet's retrograde ends November 4th.

The moon is near Saturn, on the nights: September 26th/27th, October 23rd/24th, October 24th/25th, November 20th, and December 17th.

Uranus

Uranus is relatively easy to find, even in urban or suburban skies, between Jupiter and the Pleiades star cluster, but it appears in a binocular field with neither. Generally, point your binocular at the space between the planet and the star cluster, adjusting as necessary to find the starfield. At magnitude 5.6, it appears in the same binocular field with Delta Arietis (δ Ari, m = 4.3), Zeta Arietis (ζ Ari, m = 4.8), Tau Arietis (τ Ari, m = 5.2), and 63 Arietis (63 Ari, m = 5.1) near the Taurus-Aries border. As the season opens, it is retrograding, passing opposition on November 13th with a disk nearly 4 arcseconds across. For those with a dark sky, can you see this planet without any optical help?

Neptune

The last planet (m = 7.8) in the modern model of the solar system is in front of Pisces, to the lower left of the Circlet, a loop of 4th and 5th magnitude stars that outline the western fish, over 20° to the upper left of Saturn. It is in the same binocular field with 20 Piscium (20 Psc, m = 5.5), 24 Piscium (24 Psc, m = 5.9), 27 Piscium (27 Psc, m = 4.9), 29 Piscium (29 Psc, m = 5.1), 30 Piscium (30 Psc, m = 4.3), and 33 Piscium (33 Psc, m = 4.6). Find it near 20 Psc as the season begins and watch the planet retrograde, opening a gap to the star. The planet is at opposition on September 19th and is high in the sky around the midnight hour. The moon moves through the region on the evenings of September 28th/29th, October 25th/26th, November 21st/22nd, and December 18th and 19th. On these nights, the moonlight overwhelms the planet but a look with a binocular identifies the starfield for a later return on a moonless night. The planet's retrograde ends December 6th, 1.6° west of 20 Psc, just inside the Aquarius boundary.

Pluto

The ninth classic planet (m = 14.4) begins the season about 25° above the south cardinal point at the end of evening twilight. In eastern Sagittarius, it is 2.9° north of 60 Sagittarii (60 Sgr, m = 4.8), part of the Dog's Kingdom asterism with Omega Sagittarii (ω Sgr, m = 4.7), 59 Sagittarii (59 Sgr, m = 4.5), and 62 Sagittarii (62 Sgr, m =4.4). Check your favorite source for a detailed finder chart, such as the *Observer's Handbook*. By mid-November, Pluto is less than 20° up at the end of evening twilight. It fades into evening twilight, reaching solar conjunction on January 20, 2024.

Happy a star filled observing season! *Jeff*

A.L. Open Cluster Observing Program

by Alan Sheidler, NCRAL Chair

I am a real fan of the Astronomical League observing programs. The Astronomical League has an observing program for everyone. No matter what type of object you are interested in observing or whether you are advanced or a beginner, the AL has you covered. The following link takes you to an alphabetical listing of the observing program offerings. Take a moment and check out the programs:

https://www.astroleague.org/alphabeticobserving/

I have been working on the Open Cluster Observing Program for the last year and a half. The Open Cluster Observing Program now allows imaging for award completion. In my case, I have been using a DSLR camera attached to a 10" Schmidt-Cassegrain telescope. Many open clusters can be easily imaged by taking a snapshot of 30 seconds or less time exposure.

Many clusters can also be imaged from a light-polluted urban environment. Some are faint and a bit more challenging, but that's all part of the fun. I have found comparing my snapshot images to views from Stellarium, *Starry Night* or other planetarium programs very useful. In this way, I have verified I have found the desired target.

To me, the most interesting aspect of open clusters is the variety of different forms they can take. Some open clusters are so compact they resemble globular clusters, while other less compact examples can assume almost any shape. Some have nebulosity or other interesting aspects, like M46, a very nice planetary nebula NGC 2438 embedded within it.

Open clusters offer those with the gift of an active imagination the opportunity to characterize what they see as an everyday or whimsical object. For example, do you see a flock of wild ducks in M11 or an arrowhead in NGC 7510? Open clusters bring fun, awe, and amazement to the viewer. Why not give the open cluster program a try? You won't be disappointed! The following link will take you to the requirements for earning an award for the open cluster program. Go for it! Keep looking up! *Al*

https://www.astroleague.org/open-cluster-observing-program/

M11, The Wild Duck Cluster. Do you see a flock of ducks here? It is a fantastic object no matter what your imagination conjures up.

NGC 2169 is located in the constellation Orion. This cluster has also been called the 37 Cluster, The “LE” Cluster, and the Shopping Cart Cluster.

NGC 7510 is a nice open cluster in Cepheus. Do you see an arrowhead or a dormouse?

M46 in Puppis is a particularly beautiful cluster. It also has within it NGC 2438, a very nice planetary nebula.

NGC 1502 is a wonderful cluster in Camelopardalis. It has also been called the Jolly Roger Cluster and the Golden Harp Cluster. What do you see?

NCRAL Seeking Future Convention Hosts

During NCRAL's annual business meeting, the Region receives offers for hosting future conventions. We are now looking for hosts for NCRAL 2025 and beyond. It's never too early to start planning to host an NCRAL convention.

Whether or not your club has ever hosted an NCRAL Regional convention, please consider doing so in 2025 or later. While hosting a Regional convention is a lot of work, it can be quite rewarding – even fun. It allows an affiliate to show case its facilities and accomplishments, supercharge the existing membership, build club camaraderie, personally get to know interesting guest speakers, and share in convention profits. You also can use such an event to grow your club's membership.

NCRAL has ***Convention Planning Guidelines*** written by three-time convention coordinator Carl Wenning (2010, 2016, and 2023). Carl has updated the most recent version with lessons learned following NCRAL 2023. To download the *Guidelines*, visit the following URL: https://ncral.wordpress.com/conventions/. Look for the link at the bottom of the page.

Please email NCRAL Regional Chair Alan Sheidler at adsheidler@gmail.com should you have any questions or wish to toss your affiliate's hat into the ring for hosting a future NCRAL convention.

Add Your Email Address to the NCRAL Member Database

Did you know that only about 425 of our Region's 1,900 members receive this newsletter? That's less than one-quarter of the membership! Please help NCRAL get its newsletter out to the membership by encouraging fellow club members to add their email addresses to the NCRAL member database. Editors, please include this information in your affiliate's newsletter. It's one of the many benefits of belonging to the Astronomical League.

When one adds his or her email address to the NCRAL member database, he or she will receive direct notifications about the availability of ***Northern Lights***. In addition, subscribers receive important and timely announcements about Regional conventions, elections, star parties, and so forth. Only blind addressing (Bcc:) will be used with this email list so that others will not see subscribers' email addresses. Email addresses will never be shared with or sold to outside entities.

No one will add your email address to this list for you, so you'll need to do it yourself. Sign-up takes only about a minute. Resubscribe if you recently changed your email address and are not receiving our notifications. You'll need to provide your name, email address, and astronomy club affiliation (or indicate A.L. membership-at-large) and let us know if you hold specific positions within your club. Go to the following case-sensitive URL to add your information to our database at https://tinyurl.com/NCRAL today, so you won't miss important future communications.

REGIONAL OFFICER & LEADER CONTACT INFORMATION

Chair: Alan Sheidler

Bio: Alan has been an active member of the Popular Astronomy club in the Quad Cities for 30 years and has held the offices of vice president and president. He is currently serving as the director of observing. Alan has been very involved in public outreach activities and in 2022 received the Master Level Astronomical League Outreach Award. He has also completed a number of AL observing programs including those for Double Stars, Globular Clusters, Planetary Nebulae, Venus & Mercury transits, and all four of the NCRAL Seasonal Messier Observing Awards.

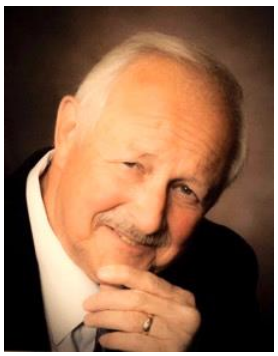
Contact: Adsheidler@gmail.com

Vice Chair: Bill Davidson

Bio: In the days of the Apollo missions, Bill first observed the moon (and sunspots!) with a 50x, 60mm JC Penny's refractor telescope. Not discouraged, 40 years later, he built and observes with a 6.25-inch achromatic doublet objective, f/10, 1600mm focal length refracting telescope. He recently retired as a college mathematics instructor, has been a member of the *Rochester Astronomy Club* (Minnesota) for more than 20 years, and serves as editor of the club's award-winning newsletter ***Rochester Skies***. (Two-year term as Vice Chair; currently in his third term, 2023-2025.) As Vice Chair, Bill manages the Region's membership awards and grants program.

Contact: rochesterskies@outlook.com

Secretary-Treasurer: Roy Gustafson



Bio: Roy, a member of *Popular Astronomy Club* (Quad Cities), got interested in astronomy when visiting the Adler Planetarium in Chicago when he was in 2nd Grade. The star projected by the Zeiss Projector hooked him and started him on the path of astronomy. He has been active in outreach and has presented astronomy programs to over 20,000 people. He was awarded the ***Master Outreach Award*** from the Astronomical League. Roy travels with his telescopes and has observed both Transits of Venus and total solar eclipses in 2017 and 2019. Roy also taught astronomy at Black Hawk Junior College in Moline, IL. Roy retired from John Deere & Company after 32 years of service. As Secretary-Treasurer, Roy manages the Region's observing awards program. (Two-year term as Secretary-Treasurer; currently in his third term, 2018-2024.)

Contact: astroroy46@gmail.com

Regional Representative: John Attewell

Bio: John's interest in astronomy was kindled during two great comet events – comets Hyakutake (1996) and Hale–Bopp (1997). For the next ten years he used a 2½-inch refractor borrowed from his brother which he mounted on a rickety camera tripod. It wasn't until 2009 that he acquired a serious telescope as a gift from his family. He start d attending meetings of the Rochester Astronomy Club in 2002, becoming a member in 2006, and Vice President in 2019. In 2017, he chaired the NCRAL annual conference held at Eagle Bluff Environmental Center in Lanesboro, Minnesota, and served as NCRAL Vice Chair from 2017-2019. John's particular interest is the history of astronomy. (Three-year term as Regional Representative; currently in first term, 2022-2025)

Contact: john_attewell@hotmail.com

Webmaster: Jeff Setzer (appointed)

Bio: Jeff has been an amateur astronomer since 1984 and has been part of the *Northern Cross Science Foundation* (Wisconsin) since that time. He is a longtime member of their Board of Directors, has held several office positions, and is currently their President. He has completed several Astronomical League observing programs, made his own telescopes and optics, and is a self-described telescope nut. You will often find him at star parties with his 22" Starmaster and TeleVue 85 telescopes. Jeff is webmaster of the NCRAL website which can be found at https://ncral.wordpress.com/.

Contact: astrosetz@hotmail.com

Newsletter Editor: **Carl J. Wenning**

Bio: Carl has been an avid amateur astronomer since being introduced to the sky by his grandfather during July 1957. He has been involved with the *Twin City Amateur Astronomers* (Illinois) since September 1978. Today he is an ***Astronomical League Master Observer*** and spends most of his free time introducing nascent amateur astronomers to observing using his club's Celestron 11" and PlaneWave 20" telescopes. He spends a considerable amount of time nowadays observing with his club's image intensifier. Carl served as editor of his club's newsletter, ***The OBSERVER,*** from 2014-2021. He received the Astronomical League's *Mabel Sterns Newsletter Editor Award* for editing his club's newsletter in 2017. He has also served as the Region's ***Northern Lights*** newsletter editor from 2016 to present. He was recognized for his Regional education and outreach efforts in 2007 when he received the ***NCRAL Region Award***. Carl served as planetarium director and physics teacher educator at Illinois State University (1978-2008). He also served three consecutive 2-year terms as Regional Chair from 2017 to 2023.

Contact: carlwenning@gmail.com

