



NORTHERN LIGHTS



NORTH CENTRAL REGION OF THE ASTRONOMICAL LEAGUE

Spring 2020 – Series II, Volume 4, Number 4

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NCRAL CHAIR'S MESSAGE

Just as I was about to send out this issue of *Northern Lights*, the COVID-19 coronavirus intruded as it has done all too often recently. In the wake of the Center for Disease Control's recommendations on 3/15 to cancel all large-scale gatherings, the hosts of NCRAL 2020 had to consider canceling this year's convention. Following a discussion with me, the leadership of NCRAL VISION 2020 – the Northern Cross Science Foundation – made the hard decision to cancel. I wholeheartedly endorse their decision to do so, though I know it will come as a disappointment to all involved. See Convention Chair Jeff Setzer's formal cancellation notice later on in this publication.

Because of this unusual and unfortunate cancellation, it is appropriate for me as Regional Chair to make a few "command decisions." In consultation with the elected officers, I feel it appropriate that we do the following:

1. The Northern Cross Science Foundation (NCSF) has offered to host NCRAL 2022 following next year's NCRAL 2021 convention to be hosted by the Neville Museum Astronomy Club in Green Bay, Wisconsin. **As Regional Chair I have made a command decision to accept the NCSF offer; NCRAL 2022 will be hosted by NCSF.** There were no other offers on the table despite repeated

requests to the membership. This will allow Northern Cross to take advantage of all the hard work they had already put in to develop NCRAL VISION 2020.

2. We need to appoint a Region member to serve as Representative to the Astronomical League as I failed to include this election last year during the business meeting. Vice-Chair Bill Davidson was appointed then to fill the position temporarily. We will not be holding a Regional business meeting this year. **As Regional Chair I have made the decision reappoint Vice Chair Bill Davidson to continue in the job of Regional Representative to the Astronomical League to complete the remainder of the original three-year term.** He has agreed to this appointment.
3. Because I don't want the Coronavirus to completely disrupt the activities of our North Central Region, following consultation with our elected leaders **I have as Regional Chair decided that we will continue with the 2020 awards programs.** Award nomination and grant application deadlines remain fixed as **March 31st**. Of interest are the *NCRAL Region Award* and the *NCRAL Newsletter Editor Award*. The *Region Award* is the closest thing we have to a service award. The *Newsletter Editor Award* recognizes the efforts of unsung heroes who often hold our clubs together using the written word. The guidelines for selecting the Newsletter Editor Award recipient have been updated recently to promote engagement of Regional affiliate memberships in NCRAL activities. Newsletter editors are now encouraged to include information about NCRAL regularly in their newsletters. This really ought to be the case due to the growing number of NCRAL membership benefits. See <https://ncral.wordpress.com/awards/> for a detailing of the updated selection guidelines. While the winners for these awards will be chosen and announced this year shortly after the March 31st deadline, the corresponding plaque, certificate, and prize won't be awarded until NCRAL 2021 in Green Bay.
4. There are two NCRAL mini-grants available in the amount of \$250 each. **As Regional Chair, I have decided that we will continue with the 2020 mini-grant programs.** The **March 31st** deadline remains unchanged. As recent experiences with the Twin City Amateur Astronomers have shown, though small, these grants can have a mighty impact on an affiliate and its members. These two

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grants serve as laboratories for affiliates to develop new ideas for membership and affiliate recruitment. The winners of these grants (if any) will be immediately informed and a check funding their proposals will be sent at the end of the selection process.

I now want to draw attention to the fact that slight changes have been made to the Region's Seasonal Messier Marathon program. Certificates will now carry an "assisted" or "manual" indicator to tell if the program was conducted using assistive equipment (goto mount, setting circles, etc.) or done manually (use of finder, star-hopping, etc.) Also worthy of note are a set of four seasonal record sheets produced by Popular Astronomy Club's Terry Dufek. These record sheets can be found on the NCRAL website Awards page. Thanks, Terry, for your thoughtful work on behalf of the Region's membership!

If you are starving for an opportunity for camaraderie and the COVID-19 pandemic has run its course, don't forget to take a look at all our Region's star parties described on the NCRAL website. Webmaster Jeff Setzer has updated these parties with the latest information but be certain to consult with the hosting club before heading out. Who knows how long the Coronavirus threat and "social distancing" will continue? Thanks, Jeff, for doing this on behalf of the membership.

Looking further ahead... Don't forget! Make plans now to attend the Astronomical League's national convention to be

held July 16-18 in Albuquerque, New Mexico. It's going to be another exciting and memorable event! Save the date and visit the convention website at <http://alcon2020.info/> for details and to register.

Winter has been mostly overcast and at times brutal this year. I have been out observing only a few times during the past three months due to the nearly constant overcast skies here in Central Illinois. Over the winter I'm sure that some have taken the infrequent opportunities available to continue their observing programs. I'm happy to announce that six hardy members of NCRAL affiliates have earned their Seasonal Messier Marathon certificates and pins for winter despite the cold weather conditions. See the announcement further on in this issue of **Northern Lights**. In addition, many of our Region's members have earned AL Observing Program awards. See information about these honors in the **NOTEWORTHY!** section of this newsletter as well.

It has finally begun to warm up and the weather-induced winter doldrums are coming to an end. If nothing else, it's time to get out there and observe – even if it means doing so in isolation due to social distancing. Keep safe!

Carl J. Wenning
NCRAL Chair (2017-2021)
Twin City Amateur Astronomers
carlwenning@gmail.com

NCRAL VISION 2020 CANCELED

~ by Jeff Setzer ~



Due to the COVID-19 pandemic and the social gathering bans that are in place, as well as our desire to keep our NCRAL friends safe, the Northern Cross Science Foundation regrets to announce the NCRAL VISION 2020 is now canceled. Refunds will be made in the coming weeks.

On the other hand, the Northern Cross Science Foundation is pleased to announce that we volunteer to host the NCRAL 2022 convention. Dates and information will be forthcoming should that offer be accepted by the NCRAL officers.

In the meantime, as we socially isolate to slow the scourge of the Coronavirus, we all look forward to attending the NCRAL 2021 convention in Green Bay, WI.

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NCRAL CHAIR'S REPORT

Each spring during the past two years I have prepared a Chair's Report for inclusion in the Region's annual business meeting. This Report then serves as the basis of our Region Report delivered to the Astronomical League's national office prior to the AL's national council meeting. I'm taking this opportunity to summarize those new developments that I would have made mention of at our Regional business meeting had it taken place as planned.

- **New NCRAL Logo** – Our Region's first 2019-2020 accomplishment started with NCRAL 2019. At that annual convention in Moline, Illinois, the Region adopted a Regional logo. That logo, produced by Terry Dufek of Popular Astronomy Club, was the overwhelming favorite in a vote held during the convention. That logo now graces the Region's website, documents, and newsletter. Congratulations once again to Terry for his outstanding work!
- **NCRAL Seasonal Messier Marathon** – Also at the NCRAL 2019 convention, the Region approved four seasonal Messier Marathon observing programs. Each season has either 27 or 28 Messier objects that must all be observed on one night within the season indicated. Those who complete an observing record and submit it to the Region's Chair through their club ALCors are eligible for color-coded certificates and star pins – one for each season. The program was not adopted to prove observing prowess; rather, it was adopted to get members of NCRAL out under the stars to observe. Observations do not necessarily qualify for the AL's Messier Observing Program; that program has different observing requirements to qualify observations. Both "manual" and "assisted" approaches are acceptable in the NCRAL Seasonal Messier Marathon. Thanks again to Terry Dufek, the Region now has seasonal observing record sheets available through the Region's website.
- **NCRAL Newsletter Editor Award** – At NCRAL 2018, the membership approved at its business meeting the creation of a Regional Newsletter Editor Award. The first award was presented to Terry Dufek, editor of Popular Astronomy Club's newsletter *Reflections*. Terry, as you can see, is heavily involved with PAC as well as the Region. Terry's extended efforts are quite exceptional. We congratulate Terry again on his success and thank him again for his contributions.
- **NCRAL Mini Grants** – At NCRAL 2018, the membership approved in concept at its business meeting two mini grant programs in the amount of \$250 each. These are aimed either at member recruitment and retention or affiliate recruitment. The Twin City Amateur Astronomers were the recipients of the inaugural member recruitment and retention grant. They hosted an autumn 2019 *Introduction to Amateur Astronomy* course that had more than two dozen participants – nearly all new members in the club. The story has been told in considerable detail in the pages of this Region's newsletter. It is an example that other NCRAL affiliates might want to copy.
- **Northern Lights Newsletter** – Our Regional newsletter continues to be successful. We have just completed our fourth year of continuous quarterly publication. Each newsletter is typically over 20 pages in length and is produced in full color. It is distributed to over 400 of the Region's 1,850 members through our self-subscribe email distribution list.
- **Star Parties** – The Region's affiliates continued to offer a number of star parties for their and other affiliates' members. These star parties cover the course of the summer and autumn and tend to be quite successful.
- **Facebook** – The Region continues to be active on Facebook. Subscribers can post the content for the entire membership to see. Most of the posts deal with astronomical events that can be observed across the entire Region.

NCRAL FINANCIAL STATEMENT

~ Roy E. Gustafson, Treasurer ~

Check #	Date	Description	Check	Deposit	Daily	Monthly	
			Amount		Balance	Balance	
	30-Nov-2019	Ending Balance				\$9,081.18	November
1011	20-Dec-2019	Carl Wenning (Mini Messier Pins and Certificates)	\$23.15		\$9,058.03	\$9,058.03	December
	30-Dec-2019					\$9,058.03	December
	31-Jan-2020					\$9,058.03	January
	29-Feb-2020					\$9,058.03	February

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CALL FOR 2020 NCRAL NOMINATIONS: REGION AWARD/NEWSLETTER EDITOR AWARD/MINI GRANTS

It's time to make nominations for the 2020 **NCRAL Region Award**. Do you know someone who has dedicated his or her time and energy to promoting astronomy? Wouldn't you like to let them know they are appreciated for their hard work? This is your chance! This award recognizes exceptional individual effort and meritorious service to amateur astronomy through the member's local astronomy club, public outreach, the NCRAL, or the Astronomical League. Using the guidelines and submission form below, we have made it easier than ever to nominate someone you feel deserves this award. This award will be presented in a ceremony concluding the dinner banquet of the next Regional convention, NCRAL 2021, to be held in Green Bay, Wisconsin, due to the cancellation of NCRAL VISION 2020. The Rules for nomination are set as follows:

1. The individual must be a member in good standing, either through an AL/NCRAL-affiliated club, association, or society or as a current member-at-large in the North Central Region.
2. The three current regional officers and the regional representative are NOT eligible for this award. Past winners are also ineligible for this award.
3. The regional officers are the voters and will base their decision on the information provided. Past winners of this award will be asked to assist in the case of a tie vote. Each member votes independently and will use his/her best judgment. All decisions are final.
4. The winner will be contacted not less than 21 days in advance of the NCRAL meeting at which the award will be presented. The winner will not be publicly revealed until the time of the presentation. Those nominated but not selected will not be revealed.
5. All non-winning nominations will be kept on file for two years after initial submission. After such time, a new nomination needs to be competed. Nominations for 2020 MUST BE RECEIVED by the date of the **March 31st**. Any nominations received after this date will be kept on file for 2021.

There are many deserving candidates within NCRAL. We look forward to receiving your nomination(s). If there are any questions, please contact Vice Chair Bill Davidson via phone or email using the contact information found below.

Submission Form for the NCRAL Region Award

Nominee's name (as it will appear on plaque) _____
Nominee's email address _____
Street address _____
City _____ State _____ Zip _____
Club affiliation _____
Nominator's name _____
Club affiliation _____
Street _____
City _____ State _____ Zip _____
Phone _____
Email _____

Submission Guidelines

Prepare a statement of the nominee's accomplishments in one or more of the areas listed under the criteria described in first paragraph on page 1. This statement should:

- Not exceed 3 double-spaced pages (1,000 words). Length does not necessarily equal strength.
- Include the number of years in office or committee membership.
- Include the dates of said membership.

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- Include the length of time participating in public education, number of presentations, etc.

Include supporting data if possible:

- Any relevant newspaper clippings, photos, and other articles that support the nomination.
- For service to groups such as schools, scouts, etc., it would help the committee if you could obtain a brief statement from the teacher, leader, chair etc. on the usefulness of the presentation.

All nominations must be sent via email to Bill Davidson, NCRAL Vice Chair, at rochesterskies@outlook.com

Let's not forget about the **NCRAL Newsletter Editor Award**. The 2020 award winner will be announced soon (if any), but the award will not be conferred until the NCRAL 2021 meeting due to the cancellation of NCRAL VISION 2020. Submission Guidelines: The president of the club/society/association should email a copy of the designated issue of the associated newsletter in Adobe Acrobat pdf file format to NCRAL Vice Chair Bill Davidson (rochesterskies@outlook.com), along with a cover letter of recommendation in the same file format. In addition, complete contact information of the editor must be included. A photo of the newsletter editor, preferably in an astronomical-type setting, must be received electronically in jpg format to the same email address by **March 31st**.

Lastly, don't forget about the two **NCRAL mini grants**. A mini-grant will be awarded following a successful written proposal originating with the president of an NCRAL affiliate. The focus of a mini-grant must be oriented to an increase in either: (1) an affiliate's membership whose mini-grant proposal must focus on both recruitment and retention (Member Recruitment & Retention Mini Grant), or (2) an increase in the number of AL-affiliated clubs, societies, or associations within the North Central Region (Non-affiliate Recruitment Mini Grant). A unified online mini-grant application must be completed by the deadline noted below. The application link may be found at the following URL: <http://bit.ly/2W2pdeA> Deadline: The application deadline for all mini-grants is **March 31st**. Mini grants, if approved, will be announced after the deadline and checks will be sent out shortly thereafter.

UPDATES TO NCRAL AWARDS PROGRAMS

NCRAL members are hereby notified of several important updates relating to the NCRAL Newsletter Editor Award and the NCRAL Seasonal Messier Marathon observing program.

The NCRAL Newsletter Editor Award's guidelines have been amended to include three new items that serve to better link the newsletter affiliate to NCRAL: (1) Is the NCRAL logo prominently placed somewhere in the newsletter? (2) Does the newsletter promote NCRAL's newsletter **Northern Lights** newsletter and provide a way to either subscribe electronically (<https://goo.gl/gS8SF>) or to retrieve from the NCRAL website (<https://ncral.wordpress.com/newsletter-archive/>)? and (3) Does the newsletter promote the NCRAL Annual Convention on a timely basis (as appropriate to the time of year)? It is only right and proper for affiliates to promote NCRAL and its events due to its substantial and growing number of benefits. These changes were recently agreed to by the Region's elected officers. The latest information about all awards can now be found at <https://ncral.wordpress.com/awards/>

The NCRAL Seasonal Messier Marathon certificates and newsletter announcements will henceforth include one of the two following words: assisted or manual. These words serve to indicate whether or not a mini marathon's observations were completed using a traditional approach (e.g., finder scope, star hopping, sweeping) or a more modern approach (e.g., setting circles, "goto" mount). This particular change was promoted by one of the NCRAL affiliates as was seen by the Regional officers as a worthy distinction. This proposal was also approved by the Region's elected officers.

In a further update about the Region's seasonal mini marathons, NCRAL members are hereby notified that **Terry Dufek** of *Popular Astronomy Club* has prepared observing lists for each of the four seasonal marathons. Observers may download each of the seasonal observing lists from <https://ncral.wordpress.com/awards/> These observing sheets make the work of conducting seasonal mini marathons a breeze. This is quite helpful in light of the fact that the seasonal marathons are intended to promote observing rather than to prove observing prowess or ability to document observations. Members are encouraged to use Terry's forms for reporting their observations to their ALCors who will then forward them to the appropriate NCRAL official for review and preparation of certificates.

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FUTURE NCRAL CONVENTIONS

During NCRAL's annual business meeting the Region receives offers for hosting upcoming conventions. The following affiliates have agreed to hosting future conventions. We are still in need for additional hosts, but especially for 2022, 2024, and the years beyond. It's never too early to start planning to host.

- 2020 **CANCELED due to COVID-19 Pandemic**
- 2021 Green Bay, WI: Neville Public Museum Astronomical Society (confirmed)
- 2022 Port Washington, WI: Northern Cross Science Foundation (confirmed)
- 2023 Bloomington-Normal, IL: Twin City Amateur Astronomers (confirmed)
- 2024 **OPEN**

If your club has never hosted an NCRAL Regional convention, please consider doing so in 2024 or later. While it is a considerable amount of work, it can be quite rewarding – even fun. It provides an opportunity to showcase your group's facilities and accomplishments, build club camaraderie, and to get to personally know interesting guest speakers. You can also use such an event to grow your club's membership.

Remember, NCRAL now has its own convention planning guidelines. The guide was developed by experienced hosts of NCRAL conventions in conjunction with one future host who asked lots of excellent questions. Significant contributions were made by Alan Sheidler (Popular Astronomy Club) and John Beck (Door Peninsula Astronomical Society). NCRAL Chair Carl Wenning, served as contributor and lead author.

The **NCRAL Convention Planning Guide** has three sections. Section 1 deals with the "preliminaries" of what it takes to host a Regional convention. Section 2 deals with programming information. Section 3 deals with budgeting information.

The guide is considered a "living document" that will be updated as new survey information becomes available. The recent NCRAL 2019 post-convention survey was included in the recently updated document. Results from the 2018 NCRAL Convention Preferences Survey are also included. The goal is to increase the benefits of convention attendance, thereby increasing attendance at our Region's conventions.

To download and review the planning guide, you may access it through the NCRAL website the following URL: <https://ncral.wordpress.com/conventions/>. Look for the link at the bottom of the page.

Please contact NCRAL Chair Carl Wenning at carlwenning@gmail.com should you have any questions or wish to toss your hat into the ring for hosting a future NCRAL convention.

NCRAL SEASONAL MESSIER MARATHON AWARDS – Winter 2020

The following individuals have qualified for the Winter award:

- #1 Rusty Case, Popular Astronomy Club
- #2 Jeffrey S. Moorhouse, La Crosse Area Astronomical Society
- #3 Alan Sheidler, Popular Astronomy Club
- #4 Terry Dufek, Popular Astronomy Club
- #5 Wayland Bauer, Popular Astronomy Club
- #6 Alex Holt, Popular Astronomy Club



NOTEWORTHY!

Should your NCRAL affiliate have short announcements such as award winners, newly-elected officers, or member accomplishments that are worthy of note, then please send notification to NCRAL Chair Carl Wenning (carlwenning@gmail.com) who compiles the content of this newsletter.

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**Popular Astronomy Club
Messier Observing** – On February 21st, several PAC members met at the Paul Castle Observatory to view the 27 objects in the NCRAL Winter Seasonal Messier Marathon list. Three of the observers were able to complete the observations.

Congratulations to those intrepid individuals who braved the winter chill and persevered! Shown here are left to right (front row) Alan Sheidler, Alex Holt, Hugh Holt, and (back row) Mary Holt, Byron Davies, and Terry Dufek.

The following NCRAL members were recognized in the March 2020 issue of the Astronomical League's *Reflector* magazine for having completed observing programs:

Asterism Observing Program:

Ken Boquist, Popular Astronomy Club

Caldwell Observing Program:

Antone Gregory, Minnesota Astronomical Society

Carbon Star Observing Program:

Jeffrey S. Moorhouse, La Cross Area Astronomical Soc.

Constellation Hunter Observing Program (Northern Skies):

Antone Gregory, Minnesota Astronomical Society

Galileo Observing Program (Binocular):

Jonathan Poppele, Minnesota Astronomical Society

Globular Cluster Observing Program:

Joe Timmerman, Minnesota Astronomical Society

Herschel 400 Observing Program:

Antone Gregory, Minnesota Astronomical Society

Lunar Observing Program:

Ron Ziss, Naperville Astronomical Association

NASA Observing Challenge – Mercury Transit:

John Zimitsch, Minnesota Astronomical Society

Transit of Mercury Special Observing Award:

Brad Nasset, Minnesota Astronomical Society

Alan Sheidler, Popular Astronomy Club

John Zimitsch, Minnesota Astronomical Society

Outreach Observing Program:

Robert Rubendunst, Champaign-Urbana Astro. Soc.

Planetary Nebula Observing Program (Advanced):

Ken Boquist, Popular Astronomy Club

Urban Observing Program:

Dale Eason, Minnesota Astronomical Society

Lisa Wentzel, Twin City Amateur Astronomers

The following NCRAL affiliate members have been recognized for **MASTER OBSERVER PROGRESSION**:

Observer Award:

Jeffrey S. Moorhouse, La Crosse Area Astronomical Society

Master Observer Award:

Antone G. Gregory, Minnesota Astronomical Society

Bill Hennessy, Neville Public Museum Astronomical Society

Joe Timmerman, Minnesota Astronomical Society

Congratulations also go out to Dave Tostesen of Wyoming, Minnesota, for his article **Meet the New BOSS** that appeared in the March 2020 issue of *Reflector*.

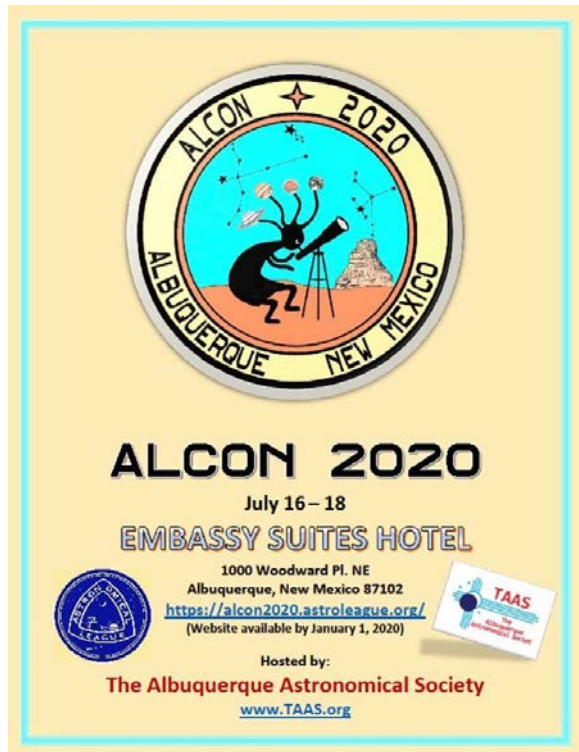
Members-at-Large are not recognized as their affiliations with the various Regions are not noted in the *Reflector*... If you'd like to have an honorable mention, please identify yourself to the Regional Chair at carlwenning@gmail.com

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NEWS NOTES

- ★ **NEAF Goes Online** – Note the following statement from Rockland Astronomical Society, hosts of the Northeast Astronomy Forum (NEAF): “Due to the Coronavirus COVID-19 pandemic, Rockland Community College, the location of the annual Northeast Astronomy Forum announced new restrictions...limiting public campus gatherings to no more than 50 people until further notice. Because of this development, the 2020 Northeast Astronomy Forum will be held virtually online instead of at Rockland Community College where it has been traditionally held for 29 years. **NEAF The Virtual Experience** will be held one day only on April 4th, attendees to this historic virtual online event will experience product demonstrations, door prizes, and amazing speakers that have made the Northeast Astronomy Forum legendary. Additionally, the Rockland Astronomy Club will reschedule NEAF at Rockland Community College later this year and NEAIC at the Crowne Plaza in conjunction with NEAF.”
- ★ **The Des Moines Astronomical Society will be celebrating its Fiftieth Anniversary June 26-27.** The Society operates and manages a double dome observatory in Ashton Wildwood Park, Jasper County, Iowa. The Celebration includes a banquet on June 26 with Cincinnati Observatory astronomer Dean Regas as keynote speaker. Dean was co-presenter of the weekly PBS TV program *Star Gazers* as successor to Jack Horkheimer. Star-B-Que and Star Party are planned for June 27 at the observatory. Dean Regas will again be on hand to speak that evening, and the founders and several early leaders of DMAS will be present to help reminisce through the years. Tours of the Ashton Observatory and Saturday night program and star party will be open to the public. A *Fifty Year History* of DMAS is being written for the occasion. Persons interested in attending the anniversary celebration are invited to visit www.dmastronomy.com or email anniversary chair Vern Naffier at vernnaffier@gmail.com.
- ★ **Regional Star Parties** – Several star parties hosted by NCRA affiliates will be held again this year as has become the tradition. Included are the following:
 - Wisconsin Observer's Weekend 2020**
The annual Wisconsin Observer's Weekend (WOW) will be held on June 18-21 at Hartman Creek State Park near Waupaca, WI. Sponsored by NCRA member society [NEWSTAR](http://www.newstar.org), this event has a maximum registration of 150 so if you're thinking of going get your form in sooner than later! Details and registration forms can be found on the club [website](http://www.wisconsinobserver.com).
 - Northern Nights Star Fest 2020**
Northern Nights Star Fest in Minnesota will be held on August 18-23 at the Long Lake Conservation Center near McGregor, Minnesota. Visit their [website](http://www.northern-nights.org) for more information.
 - Northwoods Starfest 2020**
The annual Northwoods Starfest will occur on August 21-23 at Hobbs Observatory in Fall Creek, WI. See the Chippewa Valley Astronomical Society [website](http://www.chippewa-valley-astronomical.org) for details.
 - Illinois Dark Skies Star Party 2020**
The Sangamon Astronomical Society (Springfield, IL) will host the Illinois Dark Skies Star Party September 17-19. The event will be held at the Jim Edgar Panther Creek State Fish & Wildlife Area in west central Illinois. Detailed information and registration is available at their [website](http://www.sangamon-astronomical.org).
 - Iowa Star Party 2020**
The Iowa Star Party will be held on September 17-21 at the Whiterock Resort in Coon Rapids, IA. Visit their [website](http://www.iowastarparty.org) for more information.
- ★ **ALCON 2020 Coming** – The Astronomical League's annual national convention will be hosted by the Albuquerque Astronomical Society (www.taas.org) July 15-18. Detailed information and registration is available online at <http://alcon2020.info/>

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2020 ALCON Information Paper




Host Club: The Albuquerque Astronomical Society (TAAS)

Overall Schedule:

- 15 July 2020 – AL Council Meeting
- 16-18 July 2020 – 2020 ALCON Conference Days
- 19 July 2020 – Very Large Array (VLA) Tour

Location: Embassy Suites Hotel

- All rooms are two-room suites
- Lodging Rate: \$129/night (Single or Double)
- Complimentary Wi-Fi
- Complimentary cook to order breakfast
- Complimentary evening reception
- 1000 Woodward Place Ne, Albuquerque, NM 87102



NCRAL SEASONAL MESSIER MARATHON OBSERVING PROGRAM

Don't overlook or forget about the NCRAL Seasonal Messier Marathon! The Seasonal Messier Marathon observing program is NCRAL's introduction to viewing the Messier objects. This 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 the objects and, as such, the program must not be seen as proof of observing prowess. NCRAL will permit Astronomical League's Messier observing program to serve that purpose. Still, for those who have asked for some sort of demarcation, NCRAL observing certificates will hence forth include the words "manual" or "assisted."

Up-to-date details about the Region's four observing program and helpful observing record sheets can now be found on the NCRAL website: <https://ncral.wordpress.com/awards/>. Below are the seasonal observing lists followed by some helpful observing notes.



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)

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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 glare of the sun 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.
- **Winter:** It probably would be best to begin the winter Marathon around mid-February or later. Any earlier in the year, observers will have to wait until late into the night for all winter objects to have risen high enough in the sky to observe. With winter 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 object span a rather narrow region of right ascension, with most of the objects being associated with or in proximity to the Virgo-Coma cluster of galaxies. At the start 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. The westernmost and southernmost of the object on this season's list is M83 that tends to set rather early during the night and early in the season. It would be best to conduct the summer Messier Marathon closer to the start of the season. Waiting too late in the season to start could result in the loss of M83 from view.

ADD YOUR EMAIL ADDRESS TO THE NCRAL MEMBER DATABASE

Did you know that only about 400 of some 1,850 NCRAL members are receiving this newsletter via email? That's only 22% of the membership. Still, this represents a small but important increase since that last report on the summer solstice when only 375 were on the list! 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.

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 will receive important and timely announcements about Regional conventions, star parties, and so forth. Only blind addressing (Bcc:) will be used with this email list so that others will not see your email address. 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. You'll need to provide your name, email address, 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://goo.gl/gS8SF> today so you won't miss important future communications.

JUPITER AND SATURN IN 2020: PLANET REVIEW APRIL 2020 – JUNE 2020

~ by Jeffrey L. Hunt ~

The planet activity heats up during the next three months. In the morning sky the three Bright Outer Planets (BOP)s continue to put on a display as Jupiter approaches Saturn, and Mars moves away from the pair. The giant planets' activity is a slow approach to the December 21, 2020 Great Conjunction. In the evening sky, Venus is in Taurus as it passes the Pleiades and moves toward Elnath. Then it appears to rapidly dive toward the horizon setting earlier each night as it moves toward inferior conjunction; then it moves into the morning sky.

The following summary compiles sections of articles that have been published in earlier **Northern Lights** articles. (See the archives online, <https://ncral.wordpress.com/newsletter-archives>).

Morning Sky

April 2020

The BOPs are in the southeastern sky during predawn hours. Mars passed Jupiter on March 20 and Saturn, March 31. At the beginning of the month, the planet trio spans 6.7°. Mars moves away from the giant planets as Jupiter inches toward Saturn. The Red Planet moves through the dimmer starfield of Capricornus. (See **Northern Lights – Winter 2020**)

- **April 4:** One hour before sunrise, Jupiter ($m = -2.3$), over 19° up in the southeast, is 0.7° to the upper left of Pluto ($m = 14.3$) for the first conjunction of three during this apparition of Jupiter.

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- **April 5:** Saturn ($m = 0.6$) is 6.0° to the lower left of Jupiter, and Mars ($m = 0.7$) is 2.5° to the lower left of Saturn. Mars passes β Cap ($m = 3.0$).
- **April 7:** Jupiter passes 56 Sagittarii (56 Sgr, $m = 4.8$).
- **April 14 – 16:** The moon moves past the BOPs.
- **April 20:** Mars ($m = 0.6$) passes Theta Capricorni (θ Cap, $m = 4.0$). (See *Northern Lights – Fall 2019*)
- **April 25:** Mars passes Iota Capricorni (ι Cap, $m = 4.2$). Saturn rises at 1:50 a.m. CDT, about 4 hours before sunrise. One hour before sunrise, Jupiter is over 24° in altitude in the south-southeast, 4.9° to the right of Saturn. Mars is about 16° to the lower left of Saturn.

May 2020

Jupiter and Saturn begin to retrograde this month. Jupiter retrogrades 9.8° along the ecliptic, while Saturn moves 6.6° in its apparent westward direction. Jupiter has a quasi-conjunction with Saturn near midmonth. Jupiter does not pass Saturn, but it moves within 5° as the two planets retrograde. Mars moves from Capricornus into the dim star field of Aquarius early in the month, brightening about 45% as it is nearly 1.0 Astronomical Unit away. The planet is about 40 times brighter than the stars it passes during the month.

- **May 1:** Mars ($m = 0.4$) passes Gamma Capricorni (γ Cap, $m = 3.6$).
- **May 4:** Mars passes Delta Capricorni (δ Cap, $m = 2.8$).
- **May 9:** Mars ($m = 0.3$) moves into Aquarius.
- **May 10:** Saturn ($m = 0.5$) begins to retrograde.
- **May 11:** Mars passes Iota Aquarii (ι Aqr, $m = 4.2$).
- **May 14:** Jupiter ($m = -2.4$) begins to retrograde.
- **May 12 – 15:** The moon passes the BOPs.
- **May 18:** Jupiter ($m = -2.5$) moves to within 4.7° of Saturn in a quasi-conjunction as they retrograde. At this time, Mars ($m = 0.2$), 36° to the left of Jupiter, is 21° up in the southeast.
- **May 21:** Mars passes Sigma Aquarii (σ Aqr, $m = 4.8$).
- **May 24:** Mars ($m = 0.1$), over 19° up in the southeast, is 7° to the upper left of Ceres (1 Ceres, $m = 8.0$) and 1.2° to the lower right of Delta Aquarii (δ Aqr, $m = 3.2$).
- **May 25:** Mars passes Tau Aquarii (τ Aqr, $m = 4.0$).
- **May 30:** Mars ($m = 0.0$) passes Lambda Aquarii (λ Aqr, $m = 3.7$). Mars rises before 2 a.m. CDT.

June 2020

During the month, Earth moves within 1 Astronomical Unit of Mars, while the Red Planet's brightness grows nearly 0.5 magnitude. Jupiter and Saturn rise before midnight as

both planets retrograde. Mars passes Neptune late in the month. Venus moves into the morning sky near mid-month. As the month closes, Mars rises at about 12:30 p.m. CDT.

- **June 3:** Venus is at inferior conjunction.
- **June 5:** Mars ($m = -0.1$) is 90° west of the sun.
- **June 8:** Mars passes Phi Aquarii (ϕ Aqr, $m = 4.2$) and Chi Aquarii (χ Aqr, $m = 4.9$).
- **June 8 – 9:** The moon is near Jupiter ($m = -2.6$) and Saturn.
- **June 10:** Venus ($m = -4.0$) rises at Civil Twilight.
- **June 13:** Mars ($m = -0.2$) passes 1.6° to the lower right of Neptune ($m = 7.9$). The Last Quarter moon is nearby.
- **June 19:** The crescent moon appears near Venus ($m = -4.5$) in bright morning twilight.
- **June 20:** Jupiter ($m = -2.7$) passes 56 Sagittarii.
- **June 21:** Venus rises at Nautical Twilight, about 80 minutes before sunrise. Forty-five minutes before sunrise, it is about 4° up in the east-northeast.
- **June 25:** Mars ($m = -0.4$) moves into Pisces, near 27 Piscium (27 Psc, $m = 4.8$).
- **June 26:** Forty-five minutes before sunrise, Venus ($m = -4.6$), 8.0° up in the east-northeast, passes 4.9° to the upper right of Aldebaran.
- **June 29:** Jupiter passes Pluto for the second conjunction of three.

By month's end Jupiter and Saturn are visible in the south-southeast before midnight. Jupiter and Saturn are nearing their oppositions. Venus rises about 2 hours before sunrise.

Evening Sky

April 2020

Brilliant Venus dominates the sky, even with the appearance of the bright stars of winter. It is near the Pleiades as the month opens. Watch Venus pass the star cluster during the first few days of the month. (See *Northern Lights – Summer 2019*)

- **April 3:** Venus ($m = -4.6$) passes closely to Alcyone (η Tau, $m = 2.8$). Then the bright planet passes between the Hyades and Pleiades during the next several evenings.
- **April 7:** Venus passes 37 Tauri (37 Tau, 4.3)
- **April 12:** Venus passes Epsilon Tauri (ϵ Tau, $m = 3.5$)
- **April 13:** Venus ($m = -4.7$) reaches its latest setting time, 11:33 p.m. CDT, 243 minutes after sunset.
- **April 13 – May 10:** Venus is at its maximum brightness.
- **April 14:** Venus passes Aldebaran (α Tau, $m = 0.8$).
- **April 26 – 27:** The moon is near Venus.

NORTHERN LIGHTS

- **April 27:** Venus reaches its greatest illuminated extent when the illuminated portion of the planet covers the largest area of the sky. The brilliant planet begins to approach Elnath (β Tau, $m = 1.6$), the Northern Horn of Taurus.

May 2020

Venus descends rapidly toward the western horizon as it moves toward Elnath.

- **May 5:** Venus is 35° east of the sun, and 20% illuminated through a telescope, an evening crescent.
- **May 10:** Venus has its closest encounter with Elnath, a quasi-conjunction, 1.4° . Venus is to the lower left of the star. The planet appears to slowly move away from the star.
- **May 13:** The phase of Venus' ($m = -4.6$) is only 12.5%. It is an evening crescent, $48''$ across.
- **May 19:** Venus ($m = -4.4$) sets at the end of evening twilight. On this date Mercury ($m = -0.8$) is to the lower left of Venus. Each evening Mercury appears higher as Venus descends toward its inferior conjunction. Watch Mercury's rapid movement during the next several evenings, you will see it move from Venus' lower right to its upper left.
- **May 22:** Venus ($m = -4.3$), Mercury ($m = -0.6$), and Elnath make a compact triangle.

- **May 23 – 24:** The moon joins the scene with Venus ($m = -4.2$), Mercury ($m = -0.5$), and Elnath.
- **May 25:** Venus ($m = -4.0$) sets at Nautical Twilight.
- **May 30:** Venus sets at Civil Twilight.

Watch the brilliant planet disappear from the western sky. On June 3, it reaches its inferior conjunction and moves into the morning sky.

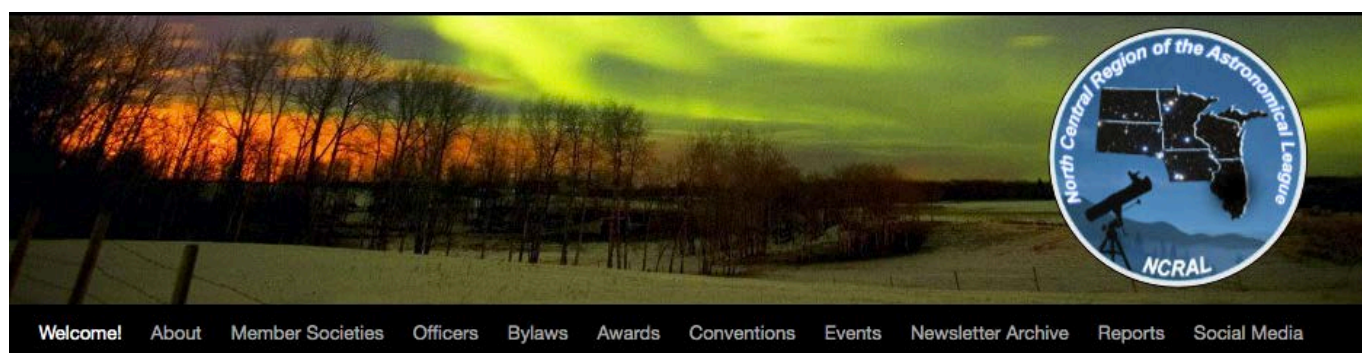
June 2020

- **June 4:** Mercury ($m = 0.5$) reaches its evening greatest elongation (23.6°). Forty-five minutes after sunset, it is about 10° up in the west-northwest. Use a binocular to find the planet. One challenge to locate this planet is that twilight lasts over 2 hours during evenings near the solstice. At different times during the year, Mercury would be easier to see. On this evening Nautical Twilight occurs 77 minutes after sunset, presenting a brighter sky shortly after sunset.
- **June 30:** Mercury is at inferior conjunction.

In the Summer 2020 issue we will preview the Mars 2020 opposition as well as the morning appearance of Venus. In July the five naked eye planets are visible with the moon. It's an exciting year to watch the motions of the planets!

NCRAL WEBSITE

~ by Jeff Setzer ~



Did you know that NCRAL has its own website? It's true, and its undergoing constant improvement! Point your browser to ncral.wordpress.com and you'll see a central repository for information about our Region and affiliates, the Region's Bylaws, back issues of *Northern Lights*, information about observing programs, awards, and grants, and much more. Will the website progress from an occasionally used reference to something more? That's entirely up to you, dear reader. If you have ideas or submissions, contact me at astrosetz@hotmail.com

NORTHERN LIGHTS

REGIONAL OFFICER & LEADER CONTACT INFORMATION

Chair: Carl Wenning (2-year term expires Spring 2021, in second term)

Bio: Carl has been an amateur astronomer since being introduced to the sky by his grandfather during July 1957. Today he is an A.L. Master observer. He has been a member of the Twin City Astronomers of Bloomington-Normal (Illinois) since 1979. He serves as the club's secretary, historian, and editor of *The OBSERVER* newsletter for which he received the AL's 2017 Mabel Sterns Newsletter Editor Award. Carl is a former planetarium director and physics teacher educator who remains actively involved in both astronomy and physics education as well as public outreach events.

Contact: carlwenning@gmail.com



Vice Chair: Bill Davidson (2-year term expires Spring 2021, in first term)

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, 1600 mm focal length refracting telescope. He recently retired as a college mathematics instructor, has been a member of the Rochester Astronomy Club (Minnesota) for 20 years, and serves as editor of the club's award-winning newsletter *RochesterSkies*.

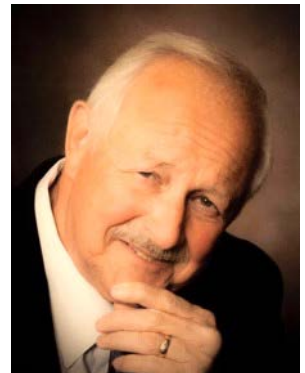
Contact: rochesterskies@outlook.com



Secretary-Treasurer: Roy Gustafson (2-year term expires Spring 2020, in first term)

Bio: Roy got interested in astronomy when visiting the Adler Planetarium in Chicago when he was in 2nd Grade. The stars 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 last year the Total Solar Eclipse. Roy also taught astronomy at Black Hawk Junior College in Moline, IL. Roy retired from John Deere & Company after 32 years of service.

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Regional Representative to the Astronomical League: Bill Davidson (Interim 2019-2020)

Bio: See above.

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NORTHERN LIGHTS

NCRAL 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.

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Northern Lights Editor-in-Chief: Jim Gibbs (appointed)

Bio: Jim has been observing the starry skies since he was 10 years old and on and off ever since. His primary affiliation is with the Twin City Amateur Astronomers (Illinois) where he has been a member for 5 years. He is also a member of the Fox Valley Astronomical Society where he has held several leadership positions. He is an avid amateur astronomer who enjoys observing and especially imaging around the TCAA dark sites and travelling around finding other dark sites. He is a software engineer and currently is concentrating in growing his small consulting business.

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