NORTHERN LIGHTS

NORTH CENTRAL REGION OF THE ASTRONOMICAL LEAGUE

Winter 2026 - Volume 10, Number 3

INSIDE THIS ISSUE OF *Northern Lights*

CHAIR'S MESSAGE

Welcome to the Winter 2026 edition of the *Northern Lights* newsletter. As I write this introduction to the winter newsletter, it is almost Christmas, though you may not see it until January. Nevertheless, let me wish you all a Merry Christmas and a Happy New Year! This is the time of year when I have more time to reflect on the happenings of this past year and to consider the possibilities of the next twelve months. 2025 has been a great year. There is insufficient space here to recount all of these events, but *Northern Lights* has documented many of the most significant activities within the North Central Region of the AL. Before launching into 2026 with all its potential, I would like to acknowledge the contributions of all of you. Our region has grown to 36 member clubs and more than 2400 individual AL members. I want to thank you all for your hard work and support of your hobby. Your accomplishments are too numerous to list, but I would like to mention a few here.

First, I am very thankful to Carl Wenning, who has done so much to support his club (Twin City Amateur Astronomers) and the North Central Region. Carl has served in numerous leadership roles, including as president of his club and as Chair of the Region. I would particularly like to acknowledge Carl's work as editor of the *Northern Lights* newsletter, a role he has faithfully filled for the last 10 years. This body of work is an amazing legacy documenting the activities of one of the most active regions in the AL. After the Spring edition of this newsletter, Carl plans to "pass the baton" and retire as editor so he can devote more time to his family and enjoy the hobby of astronomy. To ensure a smooth transition, Carl is mentoring and working with the person who will take over as your newsletter editor when he officially steps down this Spring. Your new editor will be Paul Levesque (Popular Astronomy Club). Paul is currently the editor of PAC's monthly *Reflections* newsletter, a role he has held since 2021. Paul has also written numerous astronomy-related articles that regularly appear in the Quad-Cities Dispatch-Argus newspaper. Paul certainly has "big shoes to fill" in taking over for Carl, but he is highly qualified and will do a great job as your new editor. I am very thankful to both Carl and Paul, who have and will continue to do great things in support of NCRAL.

Another person I need to recognize is Roy Gustafson (Popular Astronomy Club). Roy is a past president of PAC and currently serves as that club's ALCor. Roy is your NCRAL secretary-treasurer, a post he has held with distinction since 2018. Roy's term ends this spring, and since he has decided to retire from this post, I would like to invite you to consider nominating someone or to throw your hat in the ring and nominate yourself. Elections will be held at the next NCRAL conference (the Eastern Iowa Cosmic Conference) on May 15-17. Please let me know if you are interested in the position or know of a good candidate who might want to join our leadership team.

I would also like to thank Eric Claeys (Naperville Astronomical Society), who has served as your Vice-Chair since last Spring, when he was elected to that position at NCRAL 2025 in Minneapolis. Eric has also been very involved with his club, holding various leadership positions and supporting public outreach

efforts. Unfortunately, Eric has had to step down as your Vice-Chair so he can devote his energies to battling an illness. Let's pray for Eric's speedy recovery.

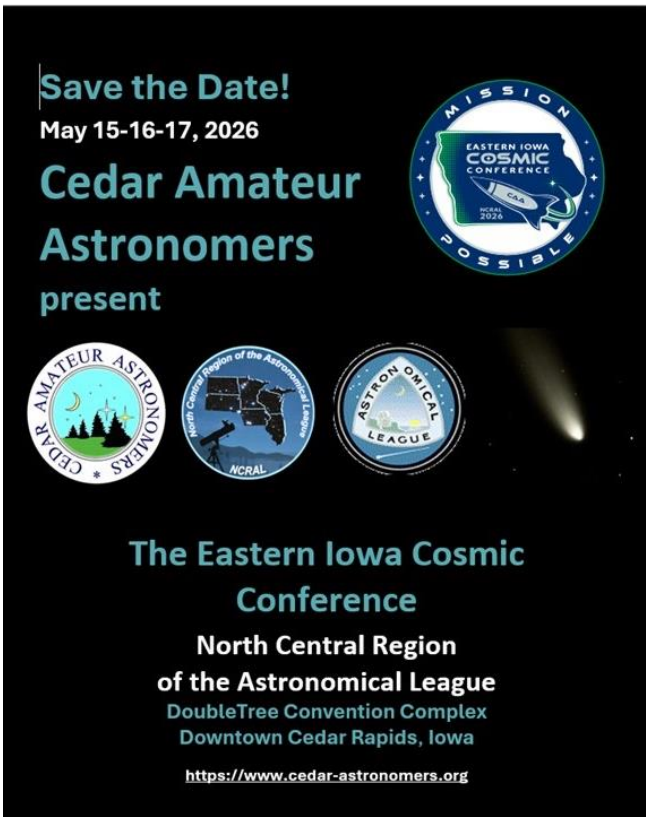
To fill the Vice-Chair position, I am very pleased to announce the appointment of Jim Dole (Planetary Studies Foundation), who has agreed to serve in this role. Jim serves on PSF's executive board and serves as their ALCor. He is also very involved with the Doug Firebaugh Observatory in Freeport, IL. He taught astronomy at Highland Community College for 14 years and has continued teaching online astronomy courses for Appalachian State University for the last 5 years. Jim brings an upbeat attitude and enthusiasm for astronomy to your leadership team.

If you would like to learn more about Jim and the other members of your NCRAL leadership team, we have recorded interviews on the following YouTube channel: https://www.youtube.com/@NCR-AL.

This YouTube channel is the brainchild of your NCRAL webmaster, Josef Chlachula (Rochester Astronomy Club). Josef has already collected several video recordings here that you might find interesting. Eventually, it would be great if we could get each club in the region to participate in an interview to introduce yourselves, show off your facilities, provide a virtual observing session, or a talk of some sort to highlight the richness and enthusiasm members have for the hobby. Would you like to participate in a future interview? If so, please let one of us know so we can schedule you.

I would also like to remind you about the NCRAL 2026 Cosmic Conference. This year's host is the Cedar Amateur Astronomers in Cedar Rapids, IA. The conference planning committee is doing a fantastic job developing a conference you will not want to miss.

I want to suggest that now is the time to remember and appreciate the contributions of our clubs and club members across the Region. The NCRAL has several award and grant programs you can use to recognize those contributions. Currently, there are two awards and two grant programs: the Region Award, the Newsletter Editor Award, the Membership Recruitment Mini-Grant, and the Affiliate Recruitment Mini-Grant. The Region Award is NCRAL's most prestigious award. It is given annually to an NCRAL member who demonstrates extraordinary skill, generosity, and devotion to promoting amateur astronomy and supporting NCRAL events and goals. These awards will be presented at the NCRAL 2026 conference in Cedar Rapids. Now is the time to consider who you would like to nominate for one of these awards or apply for a mini-grant. If you have a deserving person in your club who has demonstrated unwavering commitment to your club and amateur astronomy, why not submit their name for consideration as well? I also want to draw your attention to the NCRAL Newsletter Editor Award. This award is given in acknowledgment of excellence in content and presentation for a club-level newsletter. Newsletter editors do tremendous service for their clubs by documenting club activities and promoting their clubs more broadly. This award recognizes this critical service to an NCRAL affiliate that often goes unrecognized and unrewarded. The following link takes you to the NCRAL awards and mini-grants guidelines and applications: https://ncral.wordpress.com/awards/



Complete the form and return it to our award chairman, Jim Dole, at jbdole@gmail.com. Of course, as long as we are talking about awards, the Astronomical League has an extensive awards program that recognizes member contributions. Please take a few moments to review these awards. Do you have

someone in your club who deserves to be nominated for one of these awards? Follow the link below to the AL's awards:
https://www.astroleague.org/astronomicalleague-awards/

Thanks, and keep looking up!

Alan Sheidler
NCRAL Chair

TREASURER'S REPORT – JULY 1, 2025, THROUGH DECEMBER 1, 2025

ROY GUSTAFSON, NCRAL TREASURER

Check #	Date	Description	Amount	Deposit	Balance
	01-July-25	Balance brought forward			$7,937.12
	01-Dec-25	(no transactions)			$7,937.12

Net Change: **$0.00**

NEWSLETTER EDITOR'S FAREWELL: LEADERSHIP THROUGH SERVICE

Dear Readers,

As I prepare to step down from my role as editor of both ***Northern Lights*** and ***NCRAL blotter*** *(effective with the publication of the Spring 2026 issue of this newsletter)*, I reflect on the privilege of serving the NCRAL community for the past 10 years. Ever since starting as editor of ***Northern Lights*** in spring 2016, and continuing with the ***NCRAL blotter*** in September 2023, my guiding principle has always been "leadership through service"—listening to your needs, amplifying your voices, and working together to strengthen our affiliates, our region, and our hobby of amateur astronomy.

One of the most rewarding aspects of this journey has been meeting and getting to know so many of you, primarily through our regional conventions. Camaraderie has been one of the most rewarding facets of my journey. It has enabled me to get to know many members, fostering a sense of belonging and shared purpose. This spirit of togetherness strengthens our oneness as people are drawn to environments where they feel valued and supported. Camaraderie also encourages collaboration and innovation, as members work together to grow and sustain their club and region.

Another rewarding aspect has been learning and sharing strategies for growing and sustaining our astronomy clubs. Recruitment and retention are at the heart of a vibrant organization. I encourage you to explore the *Recruiting & Retaining Astronomy Club Membership* guide, a comprehensive repository of proven ideas and best practices. This resource compiles articles and insights from experienced club leaders and is available online. You can find it here: *Recruiting & Retaining Astronomy Club Membership* (TCAA Guide #11.)

In addition to my time as editor, I have had the honor of serving for six years as chair of the North Central Region (2017-2023). This experience, which included a seat on the AL's national council, deepened my appreciation for the dedication and passion that drive our wider community forward.

Now, as I head off into the long dark night to enjoy more fully the hobby that has been with me since my youth—amateur astronomy—I do so with gratitude for the opportunity to serve, and with excitement for the adventures that await under the stars. I am confident that our tradition of service, collaboration, and innovation will continue in my editorial successor – as it has with NCRAL Chair Alan Sheidler.

To my fellow leaders – elected officials and appointees – Gerry Kocken, Alan & Sara Sheidler, Bill Davidson, Don Klemt, Barry Beaman, Roy Gustafson, John Attewell, Jeff Setzer, and Josef Chlachula, I say thank you. Leaders are only as successful of those who provide support; you have done a commendable job for which I will be forever grateful.

To my editorial successor, Paul Levesque of Popular Astronomy Club, I say: while editorship is often a thankless task, rest assured that your work is valuable—even inspirational—and many will benefit from what you do, despite what they might not do or say. Receive solace from the fact that leadership through service is critically important and will have a lasting impact.

To the membership of NCRAL, I say: Thank you for allowing me to serve, to learn, and to lead with you. For those who have so often contributed to the ***Northern Lights*** and ***NCRAL blotter*** newsletters or assisted with Regional activities – from hosting a convention to serving as an officer - I also give you thanks, for you have helped me to lift and carry the administrative load. I shall not forget.

With gratitude and best wishes,

Carl J. Wenning, Twin City Amateur Astronomers

Here are some news notes that readers might find interesting or helpful. Items are listed as bullet points because they are too brief to warrant separate articles. If readers have something to share and want it to be included here, email the newsletter's editor at carlwenning@gmail.com.

- Make sure to mark NCRAL 2026 and ALCON 2026 on your calendar. NCRAL 2026, hosted by the Cedar Amateur Astronomers in Cedar Rapids, Iowa, will take place from May 15 to 17. Watch the *Mission Possible* descriptive video. ALCON 2026, hosted by the Cincinnati Astronomical Society in Cincinnati, Ohio, will be held from August 12 to 15. Visit their convention webpage and fill out their pre-convention topics survey today. Registration will start soon.
- The *Milwaukee Astronomical Society* has volunteered to host NCRAL 2027. In keeping with NCRAL tradition, the Milwaukee group will present a "formal proposal" during the Region's NCRAL 2026 annual business meeting in Cedar Rapids next May. The assembled membership will then vote on whether to accept the offer.
- Regarding updates, the NCRAL leadership is once again asking our regional affiliates' leadership—particularly presidents and ALCors—to keep the lines of communication open by updating their club's record. Names of presidents, ALCors, and editors, along with their contact information, will be used to update the affiliates page on the NCRAL website. Since affiliates typically hold elections around this time of year, please send any leadership changes to Chair Alan Sheidler.
- Affiliate leaders, please send the dates and details of your affiliate's star parties and other special events to Josef Chlachula (NCRAL webmaster) so he can post them on the NCRAL website's events page.
- Carl Wenning has authored another TCAA Guide. This publication—***TCAA Guide #13****: Imaging with Dedicated Digital Astrophotography Cameras*—has been posted on the club's website. It uses an AT80ED f/7 refractor, a ZWO ASIAir controller, and a ZWO ASI858MM camera riding piggyback on an 11" Celestron EdgeHD mounted on a Celestron CGEM as an example. NCRAL members who use a ZWO controller might learn a lot about astrophotography by reading this guide.
- Both Roy Gustafson (NCRAL Secretary-Treasurer) and Carl Wenning (NCRAL Editor) are stepping down from their positions after many years. If interested in serving in either capacity, contact NCRAL Chair Al Sheidler.

NORTHERN LIGHTS SPEAKERS BUREAU

The leadership of the North Central Region proudly announces the launch of this new service. Created by NCRAL Chair Alan Sheidler, the NCRAL Speakers Bureau will help connect our Region's affiliates *with professional speakers for meetings and other events. Many* individuals have expressed a willingness to serve as speakers. Most are available for presentations via Zoom, though some may also attend club meetings and other gatherings. Please contact a speaker directly via our NCRAL Speakers Bureau listing to arrange a presentation. Discuss arrangements openly, including accommodations, meals, travel expenses, and honorarium, if applicable.

NOTEWORTHY!

This item lists the NCRAL members who have completed various Astronomical League observing and award programs in recent months. Its content is taken from ***Reflector.*** As the listing shows, North Central Region members continue to shine brightly. The following NCRAL members have completed the Astronomical League observing and award programs in recent months and were recognized in the **September 2025** issue of ***Reflector.*** Congratulations to all!

Caldwell Imaging Program:

Tom Holman, Silver, Minnesota Astronomical Society

Citizen Science Special Program:

Jacob Grunhauser, Gold Class 1, Active, Galaxy Spy, Minnesota Astronomical Society

Foundations of Imaging Observing Program:

Anthony J. Kroes, Minnesota Astronomical Society

Globular Cluster Observing Program:

Doug Neverman, Minnesota Astronomical Society

Hubble 35th Anniv. Special Observing Challenge:

Heidi Bjerke, Mar., Apr., May, Champaign-Urbana Astronomical Society

(continued next column)

Jeffery S. Moorhouse, Mar., Apr., La Crosse Area Astronomical Society.

Jacob Payne, Feb., Mar., Apr., Cedar Amateur Astronomers

Miyuki Scovel, Mar., Northwest Suburban Astronomers

Local Galaxy Group & Neighborhood Observing Program:

Bill Hennesy, Neville Public Museum Astronomical Society

Outreach Program:

John Zimitch, Master, Minnesota Astronomical Society

Solar Neighborhood Observing Program:

Dick Francini, Eyes-Only, Neville Public Museum Astronomical Society

Dick Francini, Binocular, Neville Public Museum Astronomical Society

Dick Francini, Telescope, Neville Public Museum Astronomical Society

ADD YOUR EMAIL ADDRESS TO THE NCRAL MEMBER DATABASE

Did you know that only about 600 of our Region's 2,400 members (25%) receive this newsletter? That's less than a quarter of the membership! Please help NCRAL distribute its newsletter to the members 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 being a member of the Astronomical League.

When someone adds their email to the NCRAL member database, they will receive direct notifications about the availability of ***the Northern Lights***. Additionally, subscribers receive important, timely updates on regional conventions, elections, star parties, and more. Only blind carbon copy (Bcc:) will be used with this email list, so others will not see subscribers' email addresses. Email addresses will never be shared or sold.

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

JOIN US IN CEDAR RAPIDS FOR THE EASTERN IOWA COSMIC CONFERENCE
MAY 15, 16, AND 17, 2026

The Cedar Amateur Astronomers (CAA) and the Northern Central Region of the Astronomical League (NCRAL) cordially invite you to participate in the Eastern Iowa Cosmic Conference and NCRAL 2026, which will be held in Cedar Rapids, Iowa, from May 15th to 17th, 2026.

The event will be hosted at the DoubleTree Hotel and Convention Complex in downtown Cedar Rapids, IA. The three-day conference will commence Friday evening, 5/15/2026, with a visit to CAA's observatory at the Eastern Iowa Observatory and Learning Center (EIOLC). During this visit, attendees will enjoy a catered meal, tours, trivia, games, discussions, networking opportunities, night viewing, and laser pointer events with drone photography. So, bring your laser pointer! We will also be planning a "swap meet," so be sure to bring along things you'd like to get rid of.

On Saturday, May 16, 2026, the main program will commence with the NCRAL Business Meeting. Following the meeting, presentations will be delivered by esteemed speakers, including Jasper Halekas from the University of Iowa, Allison Jaynes from the University of Iowa, Charles Kerton from Iowa State University, Charlotte Christensen from Grinnell College, Sean Walker from *Sky & Telescope*, and Ryan French from the Laboratory for Atmospheric and Space Physics (LASP) in Boulder, CO. The latter presentation will be supported by the American Astronomical Society's (AAS) Harlow Shapley Lecture Program.

We anticipate that this exceptional lineup of speakers will provide valuable insights and foster meaningful discussions among attendees. That day, we will also hold a photo contest, so be sure to bring your best work to share and possibly win a prize!

On Sunday morning, your memorable visit will conclude with a series of enriching experiences. You will have the opportunity to explore the Collins Aerospace Museum, visit the National Czech and Slovak Museum and Library to witness and listen to North America's sole astronomical clock (orloj), and choose from a variety of options, including a visit to a local National Radio Astronomy Observatory (NRAO) site or the Van Allen space laboratory at the University of Iowa Department of Physics and Astronomy.

Registration for the NCRAL 2026 event will commence in a few weeks on our official website, https://www.ncral2026.org. We will offer an early-bird registration discount to encourage early participation.

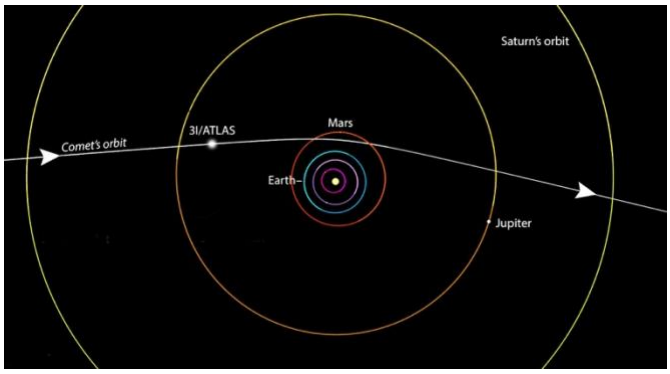
We eagerly anticipate your presence in May.

NIGHTS WITH THE ALIEN COMET 3I/ATLAS

by Bob King, Arrowhead Astronomical Society/Minnesota Astronomical Society

Soon after comet 3I/ATLAS was discovered on July 1, 2025, we knew something was up. Instead of a leisurely, sun-centered elliptical orbit, it was on a one-way, hyperbolic ride from deep space and moving fast, around 135,000 miles per hour. No way was the sun going to lasso this bronco.

By pure luck, the comet would pass through our solar system before returning to the interstellar abyss. Subsequent observations and orbital refinements indicated an origin in the Milky Way's "thick disk," a puffy region home to an older population of stars located above and below the thin spiral disk.



Path of I3/ATLAS Through the Solar System

Given its likely origin around an ancient star, combined with the long "drive" from the galactic center, astronomers estimate the comet is around 7 billion years old. Just imagine – this cold relic was touring the galaxy 2 ½ billion years before there was even an Earth to stand on.

Why this alien interloper cut loose from its home solar system is unknown. But our hunch is that it was ejected due to gravitational interactions with a Jupiter-like planet. Our own Jupiter is famous for flinging asteroids and comets hither and yon.

Passion for Dusty Ice Balls

I've been observing comets deliberately and intently since the early 1980s, when the antics of 67P/Churyumov-Gerasimenko (Rosetta's Comet) caught my eye and whet my appetite for more. Since then, I've attempted to see every one that comes within viewing range, no matter the time of day or night, whether bright or faint or contending with mosquitos or subzero weather. Comets are a delicious mix of predictability and surprise. They fall apart, grow multiple tails, and reveal evidence of nucleus rotation through jets and shells. They're also beautiful to look at. You can't help letting out an involuntary "wow" when gazing at their long, streamlined tails and subtle blue and yellow coloration.

Unlike deep-sky objects, they're always on the move, so keeping track of a comet over the weeks and months is its own reward. This get-up-and-go nature means that comets have frequent encounters with bright stars, binaries, and deep-sky objects, which only adds to their enjoyment.

Denizens of Deep Space and Time

3I/ATLAS was only the third confirmed interstellar object to visit our solar system. The first was 1I/'Oumuamua, discovered in 2017, an odd, icy shard resembling both a comet and an asteroid. The second was 2I/Borisov (2019), a true comet because it possessed an apparent coma. But it only brightened to around 14th magnitude and was poorly placed for observation. When I learned that 3I/ATLAS might reach magnitude 12 in the fall of 2025, I was cranked. If the coma were reasonably concentrated, the interstellar traveler would be within range of my 15-inch reflector. A small, compact object is relatively straightforward to see even when sporting a faint magnitude compared to a large, diffuse one of similar brightness.

Image by author, November 10, 2025, Seestar S50

Although our new visitor brightened during the fall as it approached the sun, it remained inaccessible due to solar glare. My first opportunity to look for it arrived 12 days after perihelion on November 10, 2025.

Despite the bright, waning gibbous moon, I arose before dawn and set my telescope near the shore of Lake Superior in eastern Duluth. That was one of the few places with an unobstructed "ocean" horizon. The fuzzy visitor, then located near Gamma (γ) Virginis, would only reach 10° altitude before the start of dawn.

Image by Gianluca Masi, November 19, 2025.

I started at Gamma and carefully star-hopped east, keeping a wary eye on a cloud bank just below the comet's position. Just minutes later I found it! Really? It was that easy? I padded on my feet for joy. At the same time, waves broke loudly against the rocky shoreline and pounded the pebble beach, a fitting crescendo signaling observational success.

Fortunately, the object's brightness exceeded early forecasts, with a magnitude of 9.6 and a compact, well-concentrated coma about 2.5′ across. I watched for half an hour, trying different magnifications to squeeze whatever detail the comet might reveal. At its center was a tiny, star-like core, the pseudo-nucleus. After taking a few photos with a Seestar S50, I packed up the scope in the early dawn light and wandered down to the rocky shore to watch and listen to the waves.

Alone under the stars, the beach felt like the edge of the universe, where waves ferried cosmic wonders from afar into our earthly ken. That included comet 3I/ATLAS, borne from the deeps and now finally within reach.

Image by author, December 19, 2025, Seestar S50

I've visited the comet multiple times since that morning. Once the moon departed the scene and the comet's solar elongation increased, more details became apparent, including its east-pointing anti-tail. Since early December, 3I/ATLAS has been fading, fortunately, very slowly. As we enter the new year, the fuzzy fellow still hovers around 11th magnitude. Its steady eastward motion has carried it as far as western Leo, so it's no longer necessary to wake up in the small hours to see it. Now in the first week of January, the comet is high enough to observe as early as 10 p.m. local time. On January 15th, it will pass 3½° south of the Beehive Cluster (M44) in Cancer.

This close-up is from Gemini North, taken on Nov. 26. International Gemini Observatory/NOIRLab/NSF/ AURA/B. Bolin Image Processing: J. Miller & M. Rodriguez (International Gemini Observatory/NSF

NOIRLab), T.A. Rector (University of Alaska Anchorage/NSF NOIRLab), M. Zamani (NSF NOIRLab)

Despite the unhelpful hype about alien technology, 3I/ATLAS behaved and looked like most solar system comets – fuzzy, faintish, on the move, and possessing both ion and dust tails. It also fit comfortably into size expectations with an approximate diameter of 1 kilometer. However, it did exhibit a few peculiarities. For instance, the comet has a carbon dioxide content 8 times that of water. Water typically makes up about 80 percent of the mass of familiar comets. In addition to water, astronomers also discovered methanol, cyanide, and nickel, materials also found in our local variety.

The dust grains the comet shed were larger than usual and exhibited polarization properties that indicated a unique composition and structure. These motes appear to be a mix of icy and dark materials that bear a passing resemblance to particular small trans-Neptunian objects – icy bodies like Pluto that lie beyond the orbit of Neptune.

I'm not surprised it bears unique properties given its "other" origin. Yet the thing that thrills me the most about 3I/ATLAS is how alike it is to the homegrown variety. It confirms my deep belief that wherever we look in the universe, near or far, the same universal laws operate. Elements are synthesized into stars, planets, comets, and living beings. How can life elsewhere not be anything but inevitable? As 3I/ATLAS waves its tail goodbye and vectors into the abyss once more, I am hopeful.

WINTER OUTLOOK 2026

~ by Jeffrey L. Hunt ~

Winter provides long, uninterrupted observing intervals for tracking the moon's monthly cycle, the changing visibility of the planets, and several notable conjunctions and eclipses. This seasonal outlook follows the Sun's position, the Moon's encounters, and the planets' apparitions from solstice through early spring.

Sun: The central star reaches the winter solstice point on the ecliptic at 9:03 a.m. CST on December 21. The season's duration is 88 days, 23 hours, and 43 minutes, with the midpoint on February 3 at 8:55 p.m. Earth and the sun are closest (perihelion) at 5:16 p.m. CST on January 3, when the separation is 0.9833 A.U. At Chicago's latitude, daylight again exceeds darkness on February 11, when it spans 10 hours, 26 minutes. An annular solar eclipse occurs on February 17 across Antarctica.

Moon: The season's Full moons occur on January 3 (Wolf), February 1 (Snow), and March 3 (Worm). On the night of January 2–3, the Full moon reaches a declination exceeding 27°, rising and setting near its most northerly points. On the evenings of January 6 and 7, the moon is near Regulus; it is near Spica on January 10 and 11, and near Antares on the morning of January 14.

On January 27, the moon occults the Pleiades during daylight across the region; after sunset, the lunar orb is about 2° east of the cluster. On February 2, the moon occults Regulus (Chicago disappearance at 7:45 p.m.; reappearance at 8:40 p.m.; check local circumstances). During the next lunation, the moon closes to 1.3° from Regulus before the pair sets.

2026, February 6: Before midnight, the gibbous moon rises in the east-southeast 2.0° to the lower right of Spica.

On February 6, the moon rises 2.0° to Spica's lower right about 35 minutes before midnight. The Lunar New

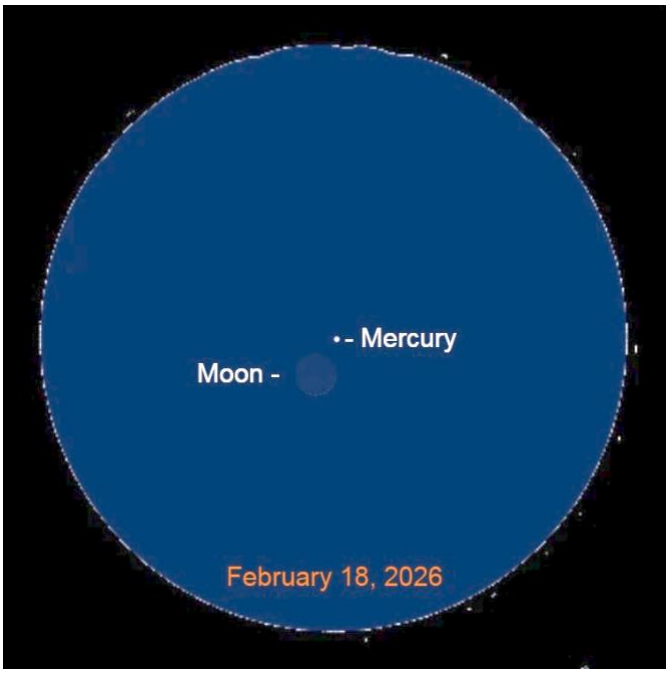
Year — the second New Moon following the winter solstice — occurs on February 17. The next evening, the crescent moon (2%) passes 0.4° below Mercury as the pair sets in the western sky.

2026, March 20: At 45 minutes, Venus is 8.6° to the moon's lower left – Old moon in the New moon's arms.

On February 23, the nearly first-quarter moon passes north of the Pleiades' main concentration, though it occults outlying stars such as 18 Tauri. A total lunar eclipse occurs on the morning of March 3. In Chicago, totality begins at 5:03 a.m., less than 15 minutes after morning twilight starts, with the moon only 14° above the western horizon. Maximum eclipse occurs at 5:33 a.m., when the altitude is about 9° near mid-twilight. Moonset occurs at 6:25 a.m., shortly after sunrise. Near the horizon, atmospheric distortion may produce unusual eclipse imagery.

On March 6, the moon passes 3.8° from Spica. Look for the Last Quarter moon near Antares on March 10.

Mercury: Following its best morning appearance of the year in early December, Mercury retreats into morning twilight during early winter. On solstice morning, it stands 5° above the east-southeast horizon, 6.0° to Antares' upper left. While not yet at heliacal rising, the planet and Antares fit into the same binocular field. Mercury brightens as it disappears into twilight, reaches superior conjunction on January 21, and moves into the western evening sky. Greatest elongation (18.1°) occurs on February 19.



2026, February 18: At 45 minutes after sunset, a binocular view of Mercury and a thin crescent moon.

On February 18, the 1.5-day-old moon is 0.4° to Mercury's lower left. A week later, the planet joins Venus low in the western sky. On February 27, Mercury and Venus are 4.5° apart, with Saturn over 8° to the upper left. Around this time, Mercury closes to about 10° from Saturn before retreating into sunlight. Inferior conjunction occurs on March 7, followed by greatest elongation (27.3°) on April 3 — an unremarkable morning apparition from a poorly inclined ecliptic.

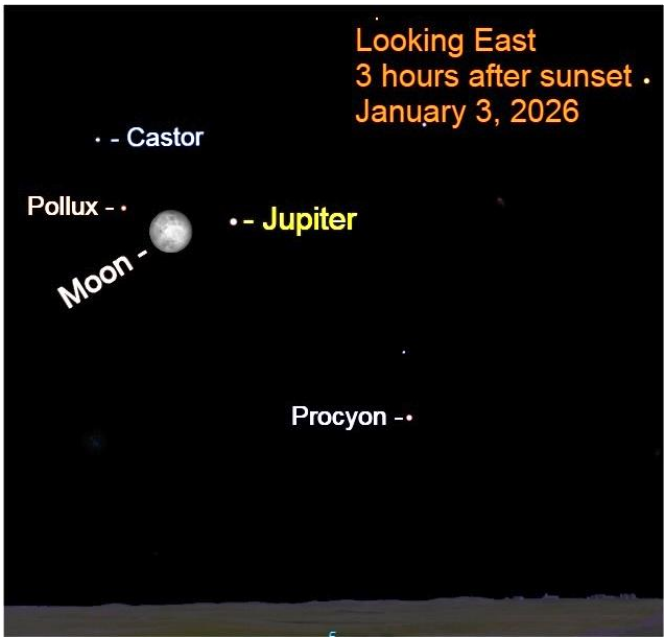
Venus: The Morning Star departs the predawn sky during late autumn. On solstice morning, Venus rises only 15 minutes before sunrise. After superior conjunction on January 6, it begins an evening apparition that carries it across Taurus and Gemini during spring. It joins Mercury in late February. A Venus–Saturn conjunction (1.0°) occurs on March 8, though Saturn's visibility is difficult with the pair only 7° above the horizon 30 minutes after sunset. Venus briefly crosses into Cetus on March 12 and 13. On equinox evening, still in Pisces, Venus (m = −4.0) is 8.4° to the lower left of a two-day-old moon — a classic "Old Moon

in the New Moon's arms" display, aided by the steep evening ecliptic.

Mars: The Red Planet remains buried in bright sunlight throughout the season, reaching solar conjunction on January 9. By the equinox, it rises only 30 minutes before sunrise.

Jupiter: With Venus near the sun, Jupiter dominates the night sky. On solstice evening, it rises in the east-northeast over two hours after sunset, passes high south after midnight, and appears low in the west before sunrise. Retrograding in front of Gemini, Jupiter passes Castor in a wide conjunction on January 5 and reaches opposition on January 10. Jean Meeus notes that the closest approach occurs the previous night at 2 a.m. CST, when Jupiter is 4.23 A.U. away. During retrograde, Jupiter passes δ Geminorum (m = 3.5) at 0.5° on January 18. Retrograde ends March 11, with the planet 10.6° from Pollux. By season's end, Jupiter is high in the south-southwest at the end of evening twilight.

Look for the moon near Jupiter on January 3, January 30, February 26, and March 26.



2026, January 3: Three hours after sunset, the bright moon is nearly between Jupiter and Pollux. The three bodies, spanning nearly 7.0°, tightly fit into the same binocular field of view.

Saturn: The Ringed Wonder offers favorable telescopic views early in the season, standing about 45° above the southern horizon as darkness falls. West of 20, 24, 27, and 29 Piscium, Saturn moves eastward and crosses into Pisces on January 15. It appears very close to 24 Psc on January 18. With a 0.25° eyepiece field, observe Titan east of the planet, with Tethys, Enceladus, and Dione nearby; Rhea and Iapetus lie west, with 24 Psc offset south of the satellites' orbital plane.

The rings open to about 1° during January and widen slowly through the season, revealing the southern hemisphere. Saturn appears dimmer than average as the rings reflect sunlight away from Earth. Look for the moon near Saturn on January 22 and February 19.

Uranus: The Tilted World begins the season retrograding in Taurus near 13 Tau (m = 5.6) and 14 Tau (m = 6.1), in the same binocular field as the Pleiades. Retrograde ends February 3, with Uranus 0.8° west of 13 Tau. A close conjunction (0.2°) with 13 Tau occurs March 18. By season's end, Uranus stands nearly 40° above the western horizon at the end of evening twilight.

Neptune: Neptune lies in the same binocular field as Saturn, though detection is difficult under moonlight and outdoor lighting. On solstice evening, it stands 3.9° to Saturn's upper left and 1.9° above 27 Psc. Use averted vision when looking for it on dark nights after the end of evening twilight. A Saturn–Neptune conjunction (0.8°) occurs on February 20, though the pair is less than 10° above the western horizon at the end of evening twilight. The next conjunction occurs June 6, 2061, in Taurus east of Aldebaran and the Hyades, near sunset.

As the season advances, the moon's recurring passages structure the winter sky, while Jupiter dominates the night and Saturn's rings present a rare edge-on appearance. Increasing daylight and shifting planetary positions near the equinox mark the transition toward spring, concluding a winter season defined by close lunar encounters, eclipses, and planetary views.

The View from Below the Equator

By Dave Leake, Champaign-Urbana Astronomical Society, Inc.

I don't know if you believe in "bucket lists" or not, but after teaching beneath the dome of the William M. Staerkel Planetarium in Champaign for 30 years, retirement had me thinking of items on the list. And the #1 item was seeing the sky from the southern hemisphere. But how?

If you peruse the *Sky & Telescope* website, there's a link for "tours." Early in 2025, I saw an entry for a trip to Chile. The thought of such a trip intrigued me, but at the same time, scared me to death. I have traveled a lot within our country's borders but never outside. We put down a deposit and were accepted. My wife, Rena, and I thought we'd have issues keeping up with everyone in the group, but during a Zoom meet & greet, we discovered we would be among the younger participants!

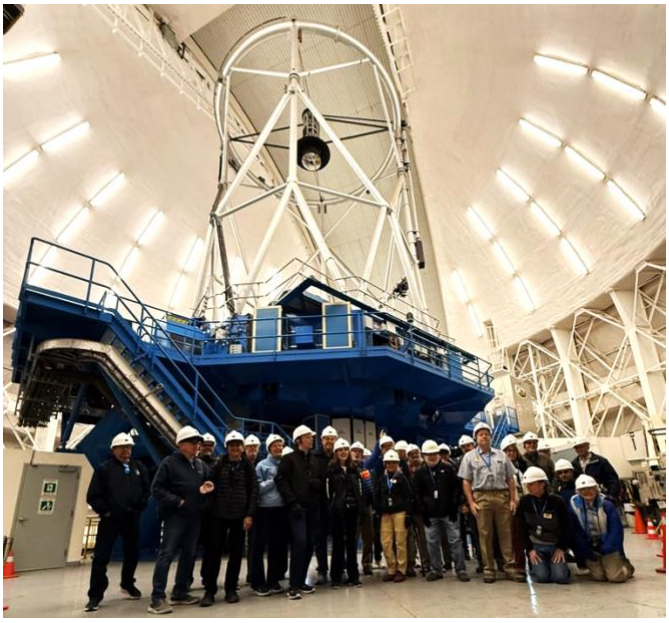
The ten-day tour would begin in Santiago. We drove to Chicago, then flew to Miami to take a 12-hour overnight flight to Chile. We were met by Jaime (hi-MAY) Drougett, an excellent local tour guide who was with us every step of the way. Tony Flanders of *Sky & Telescope* joined us a few days later.

The tour began the next day at the Santiago National Observatory at 35 degrees south latitude. Here we learned that the complex was initially started by the U.S. Naval Observatory to study solar parallax, but was sold to Chile and moved several times. The spot where we were had been the site since 1956, and it was used as a test bed for the big mountaintop domes. They had an 11-inch refractor built in Dresden in 1903 and a Gautier 11-inch Astrograph. We were able to observe Saturn through an 18-inch Cassegrain instrument. The highlight for me, though, was seeing Alpha & Beta Centauri for the first time. I had taught about them for years, but now their photons were finally touching my retina!

After a tour of some cultural sights in Santiago, including a church that dated back to the Incas, we flew to La Serena and then bused to the small town of Vicuna. Unfortunately, the skies prevented any observing that night, but that allowed us to catch up on some sleep.

11-inch refractor at the Santiago National Observatory

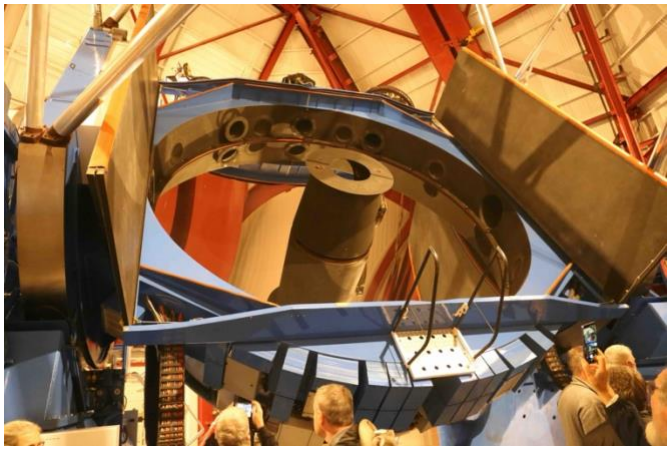
Day #3 found our group of 28 on a tour bus to Cerro Pachon, home of Gemini South, the SOAR observatory, and, of course, the Vera Rubin Observatory. Though Vera Rubin was the prize, engineering projects were in progress, which prevented us from visiting. The 8.1-meter telescope in Gemini South was certainly impressive. The instrument is controlled remotely from Santiago. The road up the 8900-foot mountain was unbelievably bumpy. In fact, we were told there was a 5.0 earthquake during the trek, and none of us felt it. It was also interesting to see your shadow near local noon extending to the south!



Gemini South and the 8-meter reflector

That evening, we took a bus up to Observatorio del Pangue, high above Vicuna, run by a group of amateur astronomers. As you might imagine, astro-tourism thrives in the country, and in fact, the group had an office on the square in Vicuna. After navigating the switchbacks, we got off the buses, walked through a darkened building, and out the other side to an observing deck, where I turned around and, for the first time, met the Large and Small Magellanic Clouds. It was quite emotional for me. We observed 47 Tucanae, the Tarantula Nebula, Comet SWAN, and NGC 253 with a 25-inch Dobsonian. Given that the lights of Vicuna were shielded (and they had Dark Sky International placards in their town square), the Milky Way's center was brilliant. Amazing! I got up early one morning and went out on our hotel balcony to see the Southern Cross.

A 100-mile bus ride the next day brought us to Las Campanas and the twin 6.5-meter Magellan reflectors. In transit, we drove past the future site of the Giant Magellan Telescope, whose seven mirrors will total 25.4 meters. Then it was back to La Serena. A visit to the beaches the next day gave way to a flight to Antofagasta, a coastal mining town.



The main mirror of the Magellan telescope at Las Campanas

The tour bus headed south the next day to Paranal, home of the four domes of the Very Large Telescope (VLT), said to be the darkest spot on the planet. Looking westward from the interferometer, one could see the fog from the Humboldt Current being blocked by the coastal mountains. It is this fact that makes the mountains of Chile perfect for these observatories. The living quarters here were used in the filming of the James Bond movie *Quantum of Solace.* In the distance, we could see the dome (under construction) of the ELT, a 39-meter scope shooting for first light in 2029.

The author at Paranal and the VLT

The next day, the bus trekked across the Atacama Desert, the driest spot on the planet. In our desert southwest, we still have cacti and other life. In the Atacama – nothing. Just sand. After lunch in Calama, we reached an altitude of 11,500 feet and amazing terrain (where they filmed *The Mandalorian*), then descended to San Pedro de Atacama, where we stayed for a couple of nights. On two nights, we visited "San Pedro de Atacama Celestial Experience." Get the acronym? Yup, SPACE. This is basically the home of Alain Maury, a Frenchman, who took the adjacent lot and placed telescopes, some of which he built. Again, astro-tourism. This is how he makes his living. We observed through reflectors with apertures of 18-inch, 20-inch, 24-inch, 30-inch, and 45-inch, none of which were go-

to. Mr. Maury would find objects, and then his assistants would keep them centered. I'm telling you, M13, M5, and M22 are spectacular globular clusters; 47 Tucanae blows them all away. The Tarantula, through a 45-inch reflector, takes your breath away. We stayed out until nearly 2 a.m. both nights. This trip was NOT one to catch up on sleep! One morning, I got up early at the hotel to see Eta Carinae, which wasn't ideally placed for our evening observing.

A subset of the group in front of the 45-inch telescope at the San Pedro de Atacama Celestial Experiences facility, with SMC/LMC in the sky

The last astronomical site to visit (there were many non-astronomical excursions, too, to a winery, a Pisco distillery, a hot springs, and even wild flamingos) was the Atacama Large Millimeter Array or ALMA. Some were disappointed that we didn't get to see the antenna array itself, but it's at 16,000 feet! Anyone working at that altitude must undergo daily medical exams and carry their own personal oxygen supply. In short, I got it. They were servicing one of the dozen 7-meter mobile antennas at the base station we visited, and we toured the science facility and control room.

One of the antennas at ALMA

The *Sky & Telescope* tour was perfect for us. The trip wasn't cheap, but well worth it, and I scratched an item off my bucket list. I hope all of you get to see the southern hemisphere's stars at least once. You won't regret it!

WHY GOOD LEADERS SOMETIMES LEAVE THEIR ASTRONOMY CLUBS

~ by Carl J. Wenning, Twin City Amateur Astronomers ~

Note: This article examines why proactive and successful leaders often leave volunteer organizations, especially astronomy clubs. It explains that burnout, lack of member participation and commitment, unfulfilled promises, poor communication, insufficient recognition, and systemic cultural issues frequently cause frustration and the loss of valuable leaders. The author concludes by urging members to take active steps—such as participating, committing, acknowledging leaders, and improving succession planning—to prevent leadership loss and maintain organizational vitality.

I have been involved in astronomy clubs throughout my entire adult life. Since starting college in 1971, I have actively participated in local, regional, and national astronomy clubs and groups. Over the years, I have held leadership roles one after another. For example, I have served as president of my club, the TCAA, three times and as chair of NCRAL for six years (2017-2023). I also chaired the NCRAL convention in 2010, 2016, and 2023.

Additionally, I spent six years as president-elect, president, and past president of the Illinois Section of the American Association of Physics Teachers. I have

also been a key leader in political, social, and religious organizations in my community. Although my leadership roles have been brief, I have consistently shown strong dedication to these organizations' causes, serving as a board member, officer, chair, and newsletter editor. Through many diverse experiences, I have gained insight into how these organizations operate and have been close enough to leadership roles to understand their inner workings.

Over the years, I have also observed effective leaders leave their organizations after completing active and successful leadership roles. This often results in a significant loss of leadership capabilities. The same is true for astronomy clubs and other organizations. Clubs should strive to prevent losing valuable human potential because, without it, they can struggle and eventually fail. As a successful leader myself, I understand what some of these departing leaders are feeling and thinking.

In my own astronomy club, I've seen more than one member who has been deeply committed to amateur astronomy for many years, only to unexpectedly leave after finishing a leadership role in the club. Sometimes their departure is sudden, while other times it happens gradually. Based on my experience with various organizations, however, this happens far too often. What are the reasons for their departure, and what might members do to prevent losing key leaders? What proactive steps could current leadership take to stop this attrition?

Leaders often leave for various personal, organizational, and systemic reasons. One of the most common causes is burnout. The demands of leadership—especially in volunteer, nonprofit, or under-resourced settings—often involve long hours, high expectations, and constant pressure. Over time, this can lead to emotional exhaustion and decreased motivation. A closely related issue is the lack of support or resources; leaders may feel they are asked to do too much with too little backing, which can cause frustration and helplessness. Another significant factor is mission drift or disagreement with the organization's direction.

Personal life changes also impact leadership decisions. Family duties, health issues, new job opportunities, or simply the need for rest and balance can cause leaders to step down or leave. Sometimes, leaders grow tired after long tenures and realize it's time for fresh voices and ideas. Others withdraw because of conflicts or internal politics. Tensions among board members, lack of trust, or constant micromanagement by certain individuals can create frustration and make leadership emotionally draining. Likewise, when a leader's efforts are ignored or undervalued—whether by board members, club members, or the broader community—they might question their influence and sense of purpose. And sometimes, it's just old age…

I offer my advice here and do not pass judgment. I hope NCRAL affiliates can benefit from these insights, thereby preventing the loss of knowledgeable, experienced, and dedicated members.

Two Leadership Styles

In leadership and organizational management, two major and contrasting styles frequently emerge: **proactive** and **reactive** leadership. These terms describe how leaders plan, communicate, and address challenges within their teams or organizations. While each style can be appropriate in different situations, understanding the key differences between proactive and reactive leadership is essential for creating effective, adaptable, and resilient organizations. Each approach influences team morale, productivity, and long-term success in its own way.

Proactive leadership is characterized by a forward-thinking, strategic approach that predicts challenges and opportunities before they happen. Proactive leaders plan ahead, take preventive measures, and prepare their teams for different scenarios. They emphasize communication, consistency, and creating systems that support stability and innovation. By spotting potential risks early and addressing them proactively, such leaders build trust, lessen stress, and foster an environment of ongoing improvement and growth. Their leadership style promotes resilience and helps their organizations adapt smoothly to change. They are less likely to feel overwhelmed by leadership duties and often stay in the same role year after year.

Reactive leadership, on the other hand, concentrates on responding to problems after they occur. This style is often driven by urgency, emotion, and quick, short-term decisions. Reactive leaders tend to focus on fixing crises rather than preventing them. While this approach can be useful in emergencies, it

often results in high stress, inconsistent communication, and a lack of clear direction over time. Teams led by reactive leaders may feel uncertain or overwhelmed due to unpredictability and inadequate planning. Without adopting more proactive strategies, reactive leadership can cause recurring problems and missed opportunities for long-term growth. These leaders are more likely to feel the strain of leadership and may be less willing to stay in a role that causes ongoing stress, sometimes leading to their departure after fulfilling their responsibilities.

Why Good Leaders Often Quit

There is little an astronomy club member can do when a good leader chooses to leave for personal reasons, such as a job change, the loss of a spouse, health issues, or reaching old age. These are beyond anyone's control. However, based on my experience, I believe that more often than not, an effective leader's departure is linked to the club's culture, which also involves other personal reasons, including organizational and systemic factors. Instead of overanalyzing the situation, I will highlight what I believe are the main causes of losing effective leadership. Here are seven key reasons:

Lack of Member Participation – Despite a leader's best efforts, most club members rarely participate in activities with enthusiasm. I'm sure any experienced club leader will tell you that only about 10 to 20 percent of the members are actively engaged in the hobby, and even fewer in leadership or service. How many times have our leaders planned an event, and hardly any members show up? This can be a discouraging experience.

Lack of Member Commitment – Over the years, I've learned not to ask, "Is such and such a good idea?" (The answer will almost always be a loud "Yes!" because nearly every activity a leader promotes seems to be a good idea.) Instead, I now ask, "Will you support this idea with your time and talents?" Leaders who ask this question often encounter silence and sheepish looks. This helps them gauge the level of commitment they can expect. This lack of commitment can discourage leadership.

Unfulfilled Promises of Support – Leaders often find themselves among members who promise help but do not follow through. This is especially true for those in elected office, who frequently do not meet expectations. Such behavior can cause frustration for proactive leaders eager to get things done. It also occurs during support for specific events, like club courses for new members or public observation sessions. Many members pledge to support these activities, but when it's time to help, these would-be helpers are often absent or only willing to offer minimal assistance. Their defining trait is doing too little and too late.

Response Failures – Sending generic emails to members is often like casting light into a black hole. The light disappears and is never seen again. Over the years, I have learned that generic emails are rarely effective. Unless a message is directly addressed to specific individuals, little gets accomplished. For example, "Who wants to help out?" often gets no response, just silence. "X, Y, and Z, will you help out?" tends to work better because it includes both specific names and a sense of accountability. Leadership needs to understand that a club is made up of members whom I call *givers* and *takers* – those who will contribute their time, talent, and resources to reach club goals; takers are those who constantly expect to receive but rarely give. Unfortunately, club memberships usually have more takers than givers.

Lack of Individual Initiative – When club members lack initiative, it can be disheartening for proactive leaders, leaving them feeling they are carrying the organization almost alone. When few people step up to help plan events, suggest ideas, or take on small responsibilities, leaders may start to feel unappreciated, overworked, and isolated. This imbalance not only makes routine tasks more difficult but also limits the club's ability to grow, innovate, and provide meaningful experiences for its members. Over time, the ongoing challenge to motivate others can sap a leader's enthusiasm, making it hard to maintain the energy and positivity needed to lead the club successfully.

Failure to Acknowledge – Too often, active club leadership works tirelessly for years to help a club and its programs succeed. Unfortunately, these efforts are rarely recognized. When they are, it usually involves a simple round of applause at an annual meeting or banquet. This is hardly enough acknowledgment for another year of hard work. Club members—many unaware of what it takes to lead a club—often take

leadership and service for granted. When other members receive recognition for minor accomplishments (e.g., taking a nice astronomical photograph or acquiring new equipment—solitary activities that do not benefit the membership), and the leader is rarely acknowledged for the demanding labor of keeping a club going, it leads to increased disappointment and sometimes even resentment.

Constant Excuses – The most common excuse I hear from members, which is rarely a valid reason at all, is that I don't have enough knowledge, experience, equipment, or time; you know or have so much more. I've seen members stay active in various clubs for years, yet they never seem to move past the beginner stage. "Not having what it takes" becomes a ready excuse to avoid contributing to a club effort, and that can get old pretty fast for leaders wanting to achieve something.

All these situations lead to frustration, discouragement, anger, consternation, disappointment, and resentment among proactive leaders. Such leaders eventually realize that trying to achieve anything is often not worth the effort. Is it any wonder that caring leaders frequently quit in frustration, despair, and disgust? Given these circumstances, it's not long before a once highly effective and proactive leader leaves a club permanently.

Societal Change

American social life has been gradually weakening since the mid-20th century, according to Robert D. Putnam in a major sociological study documented in *Bowling Alone: The Collapse and Revival of American Community* (New York: Simon & Schuster, 2000). In making his case, Putnam uses the term "social capital"—the networks of trust, cooperation, and shared norms that help society function smoothly—and shows that this social capital has declined significantly.

Because of this decline, Americans feel less connected to each other than in earlier generations. Participation in community organizations, clubs, churches, unions, and civic groups has decreased everywhere. Even families are affected negatively. How many times have you been in a restaurant and noticed a whole family sitting beside you, each member with their face buried in a mobile phone, seemingly unaware of others around them? People still do activities like bowling—but now they do them alone instead of in leagues.

In his book, Putnam documents societal declines by examining trends in community participation in social activities, including church attendance, membership in civic groups (e.g., Rotary, PTA, fraternal lodges), voter turnout, involvement in political parties, and neighbors knowing and helping one another. Putnam identifies several contributing factors:

- Generational change (younger generations are less group-oriented)
- Suburbanization and longer commutes
- More screen-based entertainment (especially television, later extended to the Internet and its social media)
- Women entering the paid labor force (leading to less available volunteer time—not a criticism, but a structural shift)

All of these result in self-isolation and, along with it, a feeling of not belonging anymore.

Stopping the Bleeding

What can rank-and-file members do to stop the decline caused by the loss of effective leadership? They can either take action or stay inactive. If they choose to do nothing, the loss of leaders will continue. If they decide to act, they should consider doing at least the following:

Participate in Activities – Members of a club should engage in its activities because it deepens their sense of belonging, strengthens the community, and enriches their overall experience by turning passive membership into meaningful involvement. Participating in meetings, events, and projects helps members build friendships, develop new skills, and share their expertise in ways that benefit everyone. Active engagement also keeps the club lively and focused on the future, making sure that ideas, energy, and enthusiasm continue to grow rather than fade. Ultimately, when members get involved in what the club offers, they gain much more value from their membership while also helping ensure the success and longevity of the organization they care about.

Commit to Helping Out – Engaging actively in a club's activities transforms simple membership into

genuine involvement and a sense of community. When members participate regularly, they not only build stronger relationships with others who share their interests but also acquire new skills, broaden their perspectives, and contribute to a lively, collaborative environment that benefits the entire club. Active participation instills a sense of ownership and belonging, making each member feel that their presence is valued and that their efforts help advance the organization. As a result, the club becomes more dynamic, more successful in achieving its goals, and far more rewarding for everyone involved.

Support Even if You Can't Help Directly – Someone can support a club's efforts indirectly, even if they cannot be present, simply by contributing in ways that help the event or initiative succeed behind the scenes. This might include offering ideas or feedback during planning, helping spread the word to boost participation, donating supplies or resources, or taking on small tasks that can be done from home, such as preparing materials, updating documents, or managing communications. These indirect contributions often fill essential gaps, lessen the workload for in-person attendees, and demonstrate a spirit of partnership that strengthens the club's overall effectiveness.

Respond to Requests – Responding to messages within a club is essential because timely communication keeps everyone informed, coordinated, and connected, ensuring activities run smoothly and members feel appreciated. When messages get prompt responses, it fosters a culture of respect and reliability, helping organizers plan effectively and preventing misunderstandings that could disrupt events or discourage participation. Even a quick acknowledgment shows members are engaged and attentive, strengthening the sense of community and shared purpose. In short, consistent responsiveness helps build trust, maintain momentum, and support the collaborative spirit that makes a club successful.

Take the Initiative – Don't always wait for your club's leaders to suggest ideas or take the lead on everything. Surprise your elected officials by suggesting new ideas or starting something new. Of course, it's essential to clear new ideas with them before taking action so their responsibilities are not usurped. That can lead to increased tension within the club.

Acknowledge Your Leaders – Don't assume that a quick pat on the back or a round of applause from the club will address the concerns and worries of the leader. These gestures are, given the significant burden leaders carry, insignificant praise. Only a personal, sincere expression of thanks and genuine appreciation can ease hurt feelings.

Don't Make Excuses – Relying on excuses to skip club activities can slowly weaken both personal relationships and the group's overall energy. When members regularly pull back, even for understandable reasons, they unintentionally put more pressure on those who always contribute, which can lead to burnout and resentment. Over time, habitual avoidance of participation also makes individuals feel more disconnected from the club, leading them to miss out on friendships, meaningful experiences, and the sense of achievement that comes from working together. For the organization, ongoing disengagement reduces momentum, limits what the group can achieve, and makes it harder to build a strong, collaborative community.

Succession Planning

Poor succession planning can also cause a failed leadership transition. Without a clear system for training and supporting new leaders, current leaders may feel isolated and overwhelmed. Some leave because they feel disempowered or undermined when their ideas are dismissed or decisions are overruled. Additionally, many strong leaders are naturally growth-oriented. They may step away simply because they are ready for new challenges or fresh environments where they can make a different impact. Recognizing these dynamics is essential for organizations aiming to retain effective leadership and build a healthier, more sustainable culture.

A Plea on Behalf of Concerned Leaders

Each of us likely bears some responsibility for the loss of leadership that might have occurred in our clubs. Still, the purpose of this article wasn't to make readers feel guilty or assign blame for the loss of leadership. Even if your club hasn't experienced leadership attrition as a result of the things described here, there are likely still leaders who feel as though they ought to leave the club for which they have taken on leadership

responsibility. Others might never do so. Regardless, I suspect there is plenty of concern to go around.

An active and engaged membership is the secret to retaining effective club leadership. I hope my expressed concerns increase awareness of the problem of leadership loss and promote changes among the membership. We all need to do something about the current situation if things are to improve.

STARTING AN ELEMENTARY SCHOOL ASTRONOMY CLUB

~ by Carl J. Wenning, Twin City Amateur Astronomers ~

The Girl Scout Gold Award is the highest honor a Girl Scout in grades 9–12 can achieve. It recognizes a young woman who identifies a community problem, develops a sustainable solution, and leads a project that creates lasting change. Earning the Gold Award demonstrates exceptional leadership, dedication, and impact—and is on par with the Eagle Scout rank for Boy Scouts.

Last summer, my then-14-year-old granddaughter, Thérèse, asked for my advice on how to implement her Girl Scout Gold Award project. Now a freshman at Georgetown Visitation Preparatory School in Washington, DC, she had decided to establish an after-school astronomy club for elementary school students at St. Peter School on Capitol Hill in Washington, DC, where she graduated this past spring.

Having just finished my third year of co-teaching Astro Camp at YMCA Camp Eberhart in Three Rivers, Michigan (see my Astro Camp article in the September 2025 issue of this newsletter), I found this an ideal time to reflect on what an after-school astronomy club meeting twice a month during the school year in a brightly lit city might look like. With my granddaughter's help, we created a series of logically connected activities that make resourcing and managing a science club easier. (As a former high school physics teacher who ran an after-school science club, I understand the importance of external support for a club to succeed.)

During her summer 2025 visit to work with grandpa on a variety of science- and math-related projects (pendula, radioactivity, optics, regression analysis, and dimensional analysis), Thérèse brought up her identified community problem in our discussion one day. The problem she saw was determining how best to promote observational astronomy among elementary school students (grades 5-8), given a highly light-polluted urban sky. Her sustainable solution was to develop an after-school astronomy club focusing on bright celestial objects.

Now, viewing celestial objects is a daunting task given that St. Peter School is located only a few blocks from the U.S. Capitol Building, the Supreme Court, and the Library of Congress. This is one of the nation's most highly-illuminated nighttime areas (Bortle scale 9), for obvious reasons. Still, Thérèse hoped she might help students at her alma mater come to know and appreciate the heavens above.

Thérèse perceived it as reasonable to focus the students' attention on the earth, sun, moon, planets, and the few bright stars that can be seen from one of the brightest urban settings in the nation, for these are the only things in the heavens above that can be seen from the vicinity of her school and the adjacent Providence Park. With this as a theme, Thérèse and I came up with the following activities for the 2026-2027 school year:

Stars:

- Constellation images and mythology
- Monthly sky map
- Sky map exercise
- Planisphere
- Planisphere exercise
- Stellarium night sky simulation
- Nighttime star study with a laser pointer

Light at Night:

- Twilight
- Dark adaptation
- Red-filtered flashlights
- Satellite observations
- Light pollution

Sun:

- Sundial construction activity
- Measuring the size of the sun using pinhole projection.

Earth:

- Is the Earth flat or spherical? What do you believe?
- Evidence for the shape of the Earth
- Measuring the size of the Earth (using GPS)
- Evidence for the motion of the Earth

Moon:

- Scale model of the Earth-Moon system
- Explaining the phases of the moon
- Viewing and recording the moon's position and phases over the course of a month
- Crater-making activity

Planets:

- Student research and reports on their favorite planet

Of course, there would be after-school Zoom "visits" by amateur and professional astronomers, as well as evening lunar and planetary observing sessions hosted by a local astronomy club. In addition, there might be a weekend visit to the Air & Space Museum's Northrop Grumman Planetarium as well as visits to astronomy-related displays at some of the Smithsonian museums on the National Mall.

While Thérèse's elementary school astronomy club is still a work in progress, I haven't let the idea sit idle. Recently, I shared Thérèse's idea with Vanessa, one of my non-traditional community college students who took my *Introduction to Astronomy* course during the fall semester of 2025. The idea came up because Vanessa's fifth-grade daughter, Luci, would sometimes attend class with her mom when she was too busy to drop Luci off at home before coming to my 5 p.m. class. Luci loved sitting in on lectures, so it was never a problem for her – and not for me either. After seeing her a few times and learning of her abiding interest in astronomy, Vanessa and I began discussing the possibility of creating an elementary school astronomy club at St. Mary's Catholic School in Bloomington, Illinois, where Luci is enrolled.

Vanessa contacted the school principal about creating a *mentored* after-school astronomy club. Within a few days, Vanessa emailed me, "I just heard from the school, and they are thrilled about the idea! I'm considering organizing a weekly session for 10 weeks or less. I created a program based on your ideas for your granddaughter's school. This draft was generated with AI, but I'd love to hear your thoughts on it." She then provided me with the following listing:

Week 1: Constellations & Mythology

- **Focus:** Stars and cultural stories.
- **Activities:**
  - Explore constellation images.
  - Share the mythology behind major constellations.
  - Begin a "Star Journal" for notes and drawings.

Week 2: Sky Maps & Planispheres

- **Focus:** Navigating the night sky.
- **Activities:**
  - Use a monthly sky map to identify constellations.
  - Practice with planispheres.
  - Planisphere exercise: locate stars for different dates/times.

Week 3: Stellarium Simulation

- **Focus:** Digital astronomy tools.
- **Activities:**
  - Use *Stellarium* software to simulate the night sky.
  - Compare *Stellarium* with planisphere results.
  - Homework: identify 3 constellations visible this week.

Week 4: Introduction to Binoculars & Telescopes

- **Focus:** How telescopes work.
- **Activities:**
  - Showcase three types of telescopes.
  - Optical bench demonstration with lenses and mirrors.
  - Display binoculars and show how to use them.

Week 5: Night Observing, Satellites & Light Pollution

- **Focus:** Human impact on the night sky.
- **Activities:**
  - Learn about twilight and dark adaptation.
  - Use red-filtered flashlights to preserve night vision.
  - Observe satellites (ISS tracking).

- Discuss light pollution and its effects.
- Compare urban vs rural sky visibility.

Week 6: The Sun

- **Focus:** Solar observations.
- **Activities:**
  - Construct a sundial.
  - Measure the Sun's size using pinhole projection.
  - Discuss safe solar viewing practices.

Week 7: Earth's Shape & Motion

- **Focus:** Evidence-based science.
- **Activities:**
  - Debate: "Is the Earth flat or spherical – what do you believe?"
  - Examine evidence for Earth's shape (photos, horizon, circumnavigation).
  - Measure Earth's size using GPS.
  - Explore evidence for Earth's motion (seasons, pendulum).

Week 8: The Moon

- **Focus:** Phases and surface features.
- **Activities:**
  - Build a scale model of the Earth-Moon system.
  - Demonstrate the phases of the Moon with a lamp and a ball.
  - Begin a month-long Moon observation log.
  - Crater-making activity with flour.

Week 9: Planets

- **Focus:** Planetary exploration.
- **Activities:**
  - Students research their favorite planet.
  - Create posters or short reports.
  - Share findings with the group.

Week 10: Showcase & Celebration

- **Focus:** Sharing knowledge and reflection.
- **Activities:**
  - Present Star Journals, Moon logs, and planet projects.
  - Group stargazing night (weather permitting).
  - Certificates of completion.

= Optional: Weekend Fieldtrips/Zoom Activities

- **Focus:** Gaining more experience
- **Activities:**
  - Planetarium program.
  - Observatory visit for nighttime telescopic observations.
  - Zoom presentation or classroom visit with area astronomers.

Vanessa and I are now engaged in fleshing out this script for this coming spring. We intend to include lots of hands-on, minds-on activities. As resources, we will use some of the many activities I have developed over the years to teach Astro Camp at Camp Eberhard in Three Rivers, Michigan. We will also build into our program visits to a nearby planetarium or have a portable planetarium visit the school. We will also incorporate a visit to the observatories of the Twin City Amateur Astronomers. Lastly, we will consider bringing in area astronomers or having them present on Zoom.

Look forward to a report in the Summer 2026 issue of ***Northern Lights***, where we will update readers on the events that actually took place during our after-school *Heavens Above Astronomy Club.*

CONTRIBUTIONS TO *NORTHERN LIGHTS* WELCOME!

Have you ever thought about writing an article for this newsletter? The Region is lively, with many notable local events. Authors are encouraged to submit stories for inclusion in ***Northern Lights*** and news items for the ***NCRAL blotter***. We are now seeking items for the upcoming editions. Contact the editor, Carl Wenning, with your questions and submissions.

If you are interested in contributing a column to assist our new editor, **Paul Levesque**, with the production of future issues, please contact him via email at levesque5562 @ att.net. (It should be noted that the author of our seasonal events column, Jeff Hunt, will also discontinue writing following the spring issue.)

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 several AL observing programs for Double Stars, Globular Clusters, Planetary Nebulae, Venus & Mercury transits, and all four NCRAL Seasonal Messier Observing Awards. (Two-year term as Chair; currently in his second term, serving 2023-2027.)

Contact: Adsheidler@gmail.com

Vice Chair: Jim Dole

Bio: Jim's interest in astronomy started in 1969 when his father made sure his family watched the Apollo 11 Moon landing. The real 'hook' to amateur astronomy came the same year while observing Jupiter's moons and cloud bands with a newly gifted 40mm Tasco refractor (which he still has). Visual observing and astrophotography have been his passion ever since. In 1993, Jim was voted onto the adult board of Freeport High School (Illinois) JETS Observatory, taking over the role of observatory director since 2001. The dedicated work of Jim and the observatory volunteers led to winning the Astronomy Day award for "Most for Its Size" in 2001 and 2005. In 2011, he worked with the local park district to merge the observatory with the Planetary Studies Foundation (www.Planets.org). This led, in 2014, to the construction of a domed observatory on site to house a 14-inch telescope and dedication/renaming of the facility (now the Doug Firebaugh Observatory). Jim is on the executive board of Planetary Studies Foundation and ALCOR for that group. He taught astronomy at Highland Community College for 14 years and, since 2021, Jim has been teaching online astronomy courses for Appalachian State University.

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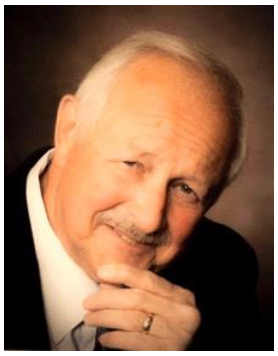
Secretary-Treasurer: Roy Gustafson



Bio: Roy, a member of the *Popular Astronomy Club* (Quad Cities), got interested in astronomy when visiting the Adler Planetarium in Chicago 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 fourth term, serving 2018-2026.)

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). He used a 2½-inch refractor borrowed from his brother for the next ten years, 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 started attending the *Rochester Astronomy Club* meetings 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 the second term, serving 2022-2028)

Contact: john_attewell@hotmail.com

Webmaster: Josef Chlachula (appointed position)

Bio: Josef has been an amateur astronomer since he was 14 years old when he first built a telescope with a 50mm aperture and a 1m focal length. Then, he built a 6-inch reflecting telescope. He was interested in spherical astronomy, celestial mechanics, and variable star observations. In 1988, he helped establish a two-week summer astronomy camp for children and teenagers, which has been held yearly since. Born in Czechoslovakia, he has lived in Rochester, Minnesota, since 1997. He is a member of the *Rochester Astronomy Club,* where he oversees outreach and is also one of the webmasters. He helped organize the NCRAL 2025 conference and became the NCRAL webmaster shortly after the conference ended.

Contact: josefch@gmail.com

Editor: Carl J. Wenning (appointed position)

Bio: Carl has been an avid amateur astronomer since being introduced to the night sky by his grandfather in July 1957. He has been involved with the *Twin City Amateur Astronomers* (Illinois) since September 1978, where he served as president as recently as 2024-2025. He is an ***Astronomical League Master Observer*** who spends much of his free time introducing nascent amateur astronomers to observing using his club's Celestron 11", iOptron 14", and PlaneWave 20" telescopes. Carl was first recognized for his Regional education and outreach efforts in 2007 when he received the ***NCRAL Region Award***. He served three consecutive two-year terms as NCRAL Regional Chair from 2017 to 2023. He has also served as the Region's ***Northern Lights*** newsletter editor since 2016. He has edited the ***NCRAL blotter***, a monthly newsletter for affiliate leadership, since 2023. He has just completed his third year as co-instructor of the week-long, summertime *Astro Camp* at YMCA Camp Eberhart in Three Rivers, Michigan. Now 73 years of age, Carl returned to teaching introductory astronomy at Heartland Community College during the autumn of 2025. Carl resides in Normal, Illinois.

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