



Roanoke Valley Astronomical Society

Amateur Astronomy News and Views
In Southwestern Virginia



Volume 41—Number 6

June 2024

RVAS May Meeting Notes

Astronomy for Disabled Veterans

By **Erin Elliott, Secretary**

Members began to gather during the Celestial Café, which started at 7:00pm. At 7:30pm our meeting began with an introduction from RVAS President, **Mike Hutkin**, along with our Membership Coordinator, **Frank Baratta**. They welcomed members and guests to the May meeting. To begin, Mike presented the evening's agenda.

Attendance: There were 27 members and 1 guest at the meeting. 13 members were in person and 14 attended virtually. And thank you to Mark Hodges for sharing snacks and bringing his View Master with astronomy slides.

New Members: We would like to welcome our newest member, **Paul Droubay**, to RVAS!

Astrophotography: We thank **Tom Cerul**, **Ed Dixon**, **Michael Good**, **Ben Hartman**, **Ricky Parker**, and **Dave Thomas** for providing their work this month. We had a variety of images focusing on near and deep sky objects.

To provide each image with the focus it deserves, we are sharing the submissions in a separate article in this newsletter. Do not miss checking out the rest of these images.



North America Nebula – Ben Hartman photo

Member Outreach Committee:

RVAS has a great turn out of volunteers to help with the Kite Festival on Saturday, April 20. A huge thank you to **Nancy Vogelaar** for organizing the outreach volunteers for this event! People from the community were able to come through our tent to play astronomy guessing games, create artwork, view telephone lines with telescopes along with learn more information about our club. There were several families that came through and were

interested in learning more about the telescopes offered through the local libraries. It was a great turn out at the festival and really nice to share astronomy with the Roanoke Valley. The following RVAS members came to participate volunteering at the Kite Festival:

- Nancy Vogelaar – organizer
- Rand Bowden
- Tom Cerul
- Erin Elliott
- Robbie Gould
- Dave Kibler
- Bill Savage
- John Sheffey
- Bruce Vogelaar

Caleb White has been leading Astronomy outreach at Salem Montessori School. They did not get to do any observation this year, but were able to learn things before going out on a school trip to the Grand Canyon.

There are more upcoming outreach events on the horizon, which include the following:

- June 6, 2024 @ 10am: Astronomy 101 presentation for Senior Citizens through Franklin County Parks and Recreation
- Claytor Nature Center/Belk Observatory is looking for partnership opportunities with RVAS. They have public programs for the community once a month and they would like us to visit or lead a program. An idea is to help with a Perseid Watch Party August 11-12. If you are interested in leading a program at Belk Observatory, you can contact the Outreach Director, [Jennifer Wills](#).

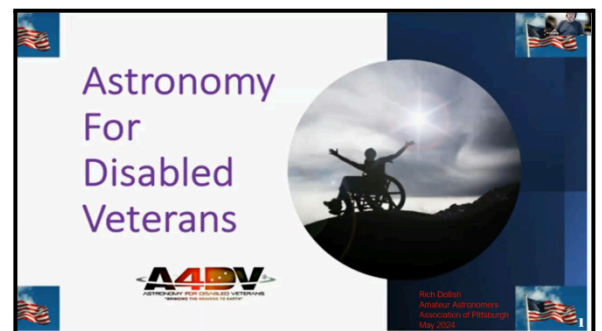


Aurora and a Scope – Jeff Reynolds photo

Star Parties in 2024: We did it! Our first Star Party took place on Friday, May 10 at Cahas overlook. It was a cold and windy night, but we were gifted with the Aurora making its appearance. We also saw a few galaxies, the moon, Zodiacal Light, and SpaceX Starlink trail of satellites. We had a nice turn out of 10 members from RVAS. The following parties are projected to be August 3, and November 22. Please reach out to **Mike Hutkin** at president@rvasclub.org to join RVAS' Google Group to stay up to date in communication on these events.

A “Thank you!” to Frank: Member **Frank Baratta** wears many hats for RVAS. He is our Treasurer, manages the RVAS inventory, and is the Membership Coordinator. He also contributes many items to the monthly newsletter including the astro quiz, monthly calendar, anniversaries, and welcome mat. For many years, he has also run our monthly “What’s Up” which looks ahead at what the coming month has to offer for astronomical events and viewing opportunities. Last month was his last month sharing his “What’s Up” and we want to thank him for all his years of sharing those presentations with RVAS!

What’s Up?: Before turning to our program for the evening, Mike asked **John Wenskovich** for his first presentation of the “What’s Up?” program on what the skies of June have in store for us. John’s PowerPoint can be viewed by [clicking here](#). The recording of the program is available by [clicking here](#). A huge thank you to John for taking over this program for RVAS!



A4DV – Zoom screenshot

Astronomy for Disabled Veterans: Rich Dollish is a member of the Amateur Astronomers Association of Pittsburgh and has helped create an astronomy opportunity for local veterans. In this presentation, he shares the journey of creating an observatory for local veterans and the impact astronomy outreach has on their community. If you would like to view the whole program by video, you may do so by [clicking this link](#).

Astronomy for Disabled Veterans:

- 1st of its kind on a VA Campus

About A4DV

- Dr. Aleo Teo conducted a study in 2015 on the impact of loneliness and depression on veterans' mental health.
- The inspiration behind A4DV was to give veterans a nighttime activity in hopes to reduce depression and suicide rates.

How it Began

- Casual discussion during a business luncheon sparked the inspiration to assist thousands of veterans.
- Donald Koenig, Director of Pittsburgh Veteran Affairs Administration
- SK James Surman, Chairman Veterans Program

Problem

- VA Hospitals are active and busy, and most activities are during business hours.
- Numerous activities, appointments, and meetings are in place for the veterans – during business hours.
- After dinner, there is minimal staff and few organized events for the residents.



Solution

- Trips to the Amateur Astronomers Association of Pittsburgh's observatories were quickly arranged.
- The reaction from veterans was overwhelmingly positive.
- A4DV reached out to the 3AP for consulting, guidance, and education.
- Plans for an astronomy program began.

Barriers to Execution

- All veterans must be able to use equipment, including the veterans with disabilities.
- \$\$\$\$
- Location
- Red tape wrapped with red tape, held together with more red tape.

Solutions

- Fundraising began.
- Approval was granted.
- Equipment was obtained.
- A much more achievable goal was established.
- Dream becomes reality.

The Unexpected

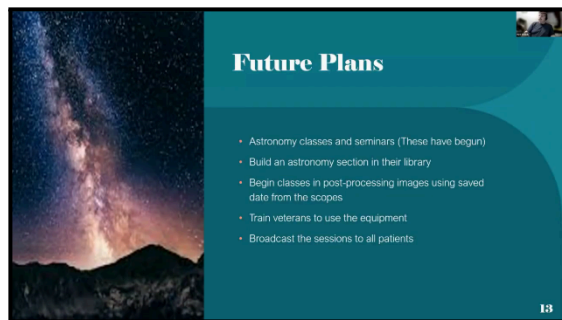
- Project was put on hold for almost 2 years due to COVID.

Persistence

- June 2022:
 - o Installation began
 - o Training began
 - o Equipment was tuned
 - o Plans were made

Success!!

- In October 2022, the observatory was opened for A4DV.
- They open the observatory a few times a month for regular programming.
- A couple times a year, they do Star Parties.
- These events have a great turn out and makes a good connection for the vets.
- They share stories and spend time together.



Future Plans for A4DV – Zoom Screenshot

Existing Hurdles

- VA Policy
- Volunteers
- User Inexperience
- Time

Future Plans

- Astronomy classes and seminars (these have begun).
- Build an astronomy section in their library.
- Begin classes in post-processing images using saved data from the scopes.
- Train veterans to use the equipment.
- Broadcast the sessions to all patients.

Equipment

- Celestron CPC 925, Wedge
- ZWO ASI585MC
- Off-Axis guide ASI220MM
- N.I.N.A
- Sharpcap
- PHD2
- Platesolve3

Astrophotography from observatory equipment

Closing Notes and FYI:

- **On the Moon Again:** Get your telescopes out and look at the moon June 14-16 to be a part of a collective event to get people excited about the moon. You can register and learn more information by [clicking this link](#).
- **Library Telescope:** Thank you to John Goss for repairing and returning the South County Library telescope!
- **Google Group in Action:** Carson Ray posted a question to the RVAS Google group requesting advice and two experts responded
- **Documentary:** *Luminous* is about Astronomy Professor Larry Molnar believes he can find the unfindable – a star that is about to explode. You can learn more information and where to watch by [clicking this link](#).

Next month: On June 17, 2024, we will have a Member's Potpourri with the following speakers and subjects:

- **John Goss:** T Coronae Borealis going Nova
- **Mike Hutkin:** Astronomical measurements
- **Tom Cerul:** Narrowband filters for One Shot Color cameras and Processing in Astrophotography (a quick overview)
- **John Wenskovitch:** What is Gravitational Wave Astronomy?
- **Bill Krause:** Precession in astronomy. Will the summer solstice move to December?

The June meeting will also include the elections of RVAS officers for 2024-2025. (For details, see page 6)..

The meeting was adjourned at 8:59 pm.

Welcome Mat

The Society welcomes Paul Droubay, of Roanoke, and Saniya Tumbde, also of Roanoke, both of whom became RVAS members since our May newsletter was published.

The Roanoke Valley Astronomical Society is a membership organization of amateur astronomers dedicated to the pursuit of observational and photographic astronomical activities. **Meetings are held at 7:30 p.m. on the third Monday of each month. See calendar on last page of newsletter for location. Meetings are open to the public.** Observing sessions are held one or two weekends a month at a dark-sky site. For information regarding joining RVAS, including annual dues, [click here](#). Articles, quotes, etc. published in the newsletter do not necessarily reflect the views of the RVAS or its editor.

Officers/Executive Committee/Editor/Webmaster

Mike Hutkin, President (president@rvasclub.org)

John Wenskovitch, Vice President (vicepresident@rvasclub.org)

Erin Elliott, Secretary (secretary@rvasclub.org)

Frank Baratta, Treasurer (treasurer@rvasclub.org)

Nancy Vogelaar, Member at Large (memberatlarge@rvasclub.org)

John Goss, Immediate Past President (immediatepastpresident@rvasclub.org)

Michael Martin, Past President (pastpresident@rvasclub.org)

Ed Dixon, RVAS Newsletter Editor (editor@rvasclub.org)

Erin Elliott, Webmaster (webmaster@rvasclub.org)

RVAS Member Anniversaries

Congratulations to the following members who reach the indicated number of consecutive years with the RVAS since joining or rejoining during the month of June:

Melanie Minnix (1994) – 30 years

Clark Thomas (2002) – 22 years *

Michael and Lauren Martin (2016) – 8 years

Rick Parker (2017) – 7 years

Todd Atkins (2018) – 6 years

Al and Beth Durham (2018) – 6 years **

John Sheffey (2018) – 6 years

Robert Murray (2021) – 3 years

* Clark was a youth member in the late 1950s of the Amateur Astronomers of Roanoke, an ancestor club of the current RVAS!

** Al and Beth were also RVAS members from Nov. 1995 to June 2009.

Thanks to all of you for being RVAS members!

RVAS 2024-2025 Elections!

Monthly Meeting, June 17, 2024

As announced in the RVAS April 2024 Newsletter, there were no self-nominations for RVAS offices by the March 22nd deadline. Therefore, the Nominating Committee's proposed slate of candidates is running unopposed and will be placed before members attending the June 17, 2024 meeting, in-person or via Zoom, for a vote of acceptance. The slate of candidates includes:

President: Michael Good
Vice President: Bill Krause
Secretary: Erin Elliot (incumbent)
Treasurer: Frank Baratta (incumbent)
Officer at Large #1: Nancy Vogelaar (incumbent)
Officer at Large #2: Caleb White

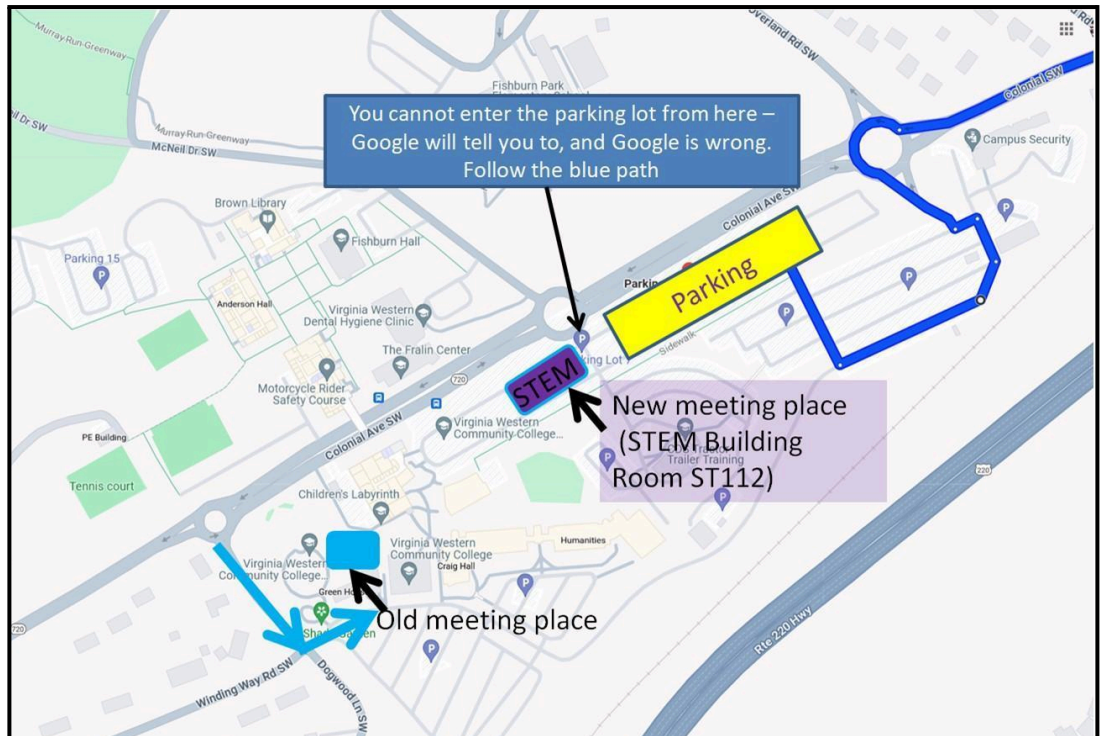
All RVAS members in Individual memberships and members within Family memberships are eligible to vote. If accepted by a majority of those voting, the candidates will begin their one-year terms of office on July 1, 2024.

Directions to RVAS Meeting Location

Virginia Western Community College STEM Building, Room ST112
3094 Colonial Ave SW, Roanoke, VA 24015

VWCC is located in the southwestern area of City of Roanoke. The STEM Building is accessed via the roundabout at Overland and Colonial Avenue, Campus Security at the right of the map. The STEM Building is at opposite end of the Colonial Avenue parking lot from Campus Security. Follow the darker blue from the roundabout park anywhere in the

Note: Google provides incorrect guidance to access the parking lot from the roundabout at McNeill Drive. That roundabout **does not** provide an entrance to the parking lot.



the

Drive
near
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June's Night Sky Notes: Constant Companions: Circumpolar Constellations, Part III



*This stunning Hubble image was assembled using observations in visible and infrared light. The galaxy's spiral arms, which wind all the way down into its nucleus, are made up of young, bluish, hot stars formed in the past few million years.
NASA, ESA and the Hubble Heritage Team (STScI/AURA)*

by Kat Troche of the Astronomical Society of the Pacific

In our final installment of the stars around the North Star, we look ahead to the summer months, where depending on your latitude, the items in these circumpolar constellations are nice and high. Today, we'll discuss **Cepheus**, **Draco**, and **Ursa Major**. These objects can all be spotted with a medium to large-sized telescope under dark skies.



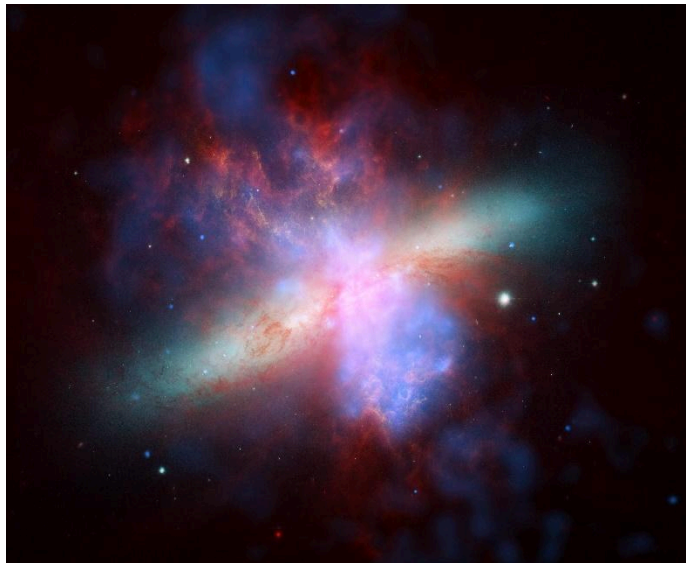
From left to right: Ursa Major, Draco, and Cepheus. Credit: Stellarium Web

Herschel's Garnet Star: Mu Cephei is a deep-red hypergiant known as The Garnet Star, or Erakis. While the star is not part of the constellation pattern, it sits within the constellation boundary of Cepheus, and is more than 1,000 times the size of our Sun. Like its neighbor Delta Cephei, this star is variable, but is not a reliable Cepheid variable. Rather, its brightness can vary anywhere between 3.4 to 5.1 in visible magnitude, over the course of 2-12 years.



This composite of data from NASA's Chandra X-ray Observatory and Hubble Space Telescope gives astronomers a new look for NGC 6543, better known as the Cat's Eye nebula. This planetary nebula represents a phase of stellar evolution that our sun may well experience several billion years from now. Credit: X-ray: NASA/CXC/SAO; Optical: NASA/STScI

The Cat's Eye Nebula: Labeled a [planetary nebula](#), there are no planets to be found at the center of this object. Observations taken with NASA's Chandra X-ray Observatory and Hubble Space Telescopes give astronomers a better understanding of this complex, potential binary star, and how its core ejected enough mass to produce the rings of dust. When searching for this object, look towards the 'belly' of Draco with a medium-sized telescope.



The Cigar Galaxy. Credit: NASA, ESA, CXC, and JPL-Caltech

Bode's Galaxy and the Cigar Galaxy: Using the arrow on the star map, look diagonal from the star Dubhe in Ursa Major. There you will find Bode's Galaxy (Messier 81) and the Cigar Galaxy (Messier 82). Sometimes referred to as Bode's Nebula, these two galaxies can be spotted with a small to medium-sized telescope. Bode's Galaxy is a classic spiral shape, similar to our own Milky Way galaxy and our neighbor, Andromeda. The Cigar Galaxy, however, is known as a starburst galaxy type, known to have a high star formation rate and incredible





shapes. This image composite from 2006 combines the power of three great observatories: the Hubble Space Telescope imaged hydrogen in orange, and visible light in yellow green; Chandra X-Ray Observatory portrayed X-ray in blue; [Spitzer Space Telescope](#) captured infrared light in red.

Up next, we celebrate the solstice with our upcoming mid-month article on the [Night Sky Network](#) page through NASA's website!

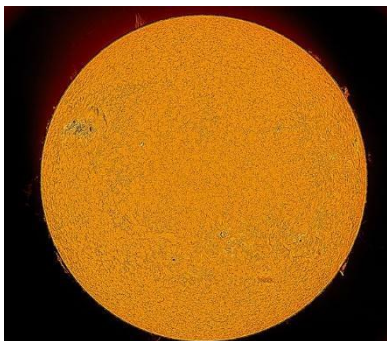
The RVAS Astro-photographers

May 2024

Ctrl- Click on the picture see the source file and additional information

<p>TOM CERUL</p> 	<p>TOM CERUL</p> 
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ED DIXON



MICHAEL GOOD



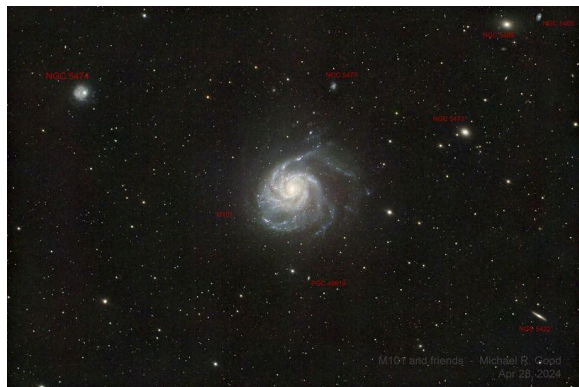
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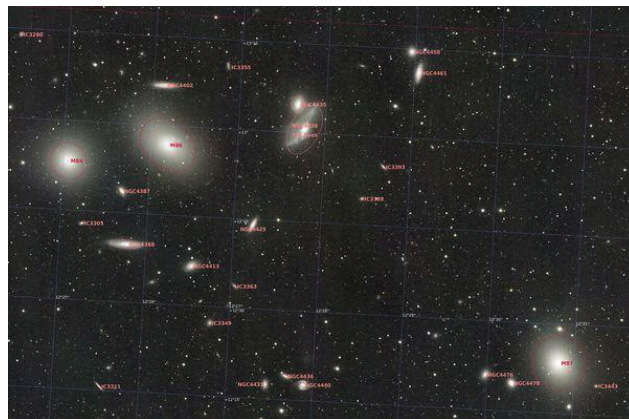
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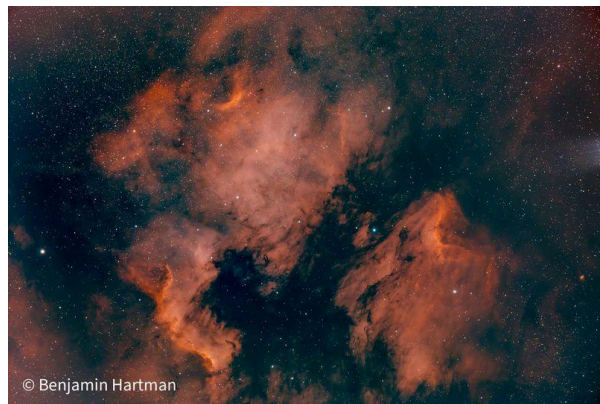
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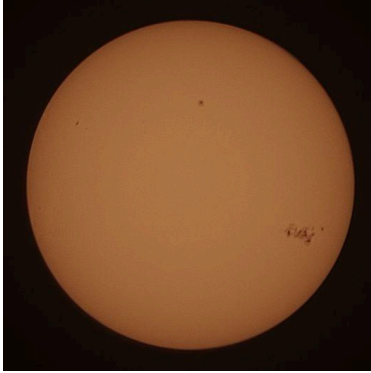
BEN HARTMAN



BEN HARTMAN



DAVE THOMAS



RICKY PARKER



Monthly Calendar

RVAS Monthly Meeting: Monday, June 17th, 7:30 p.m. (Informal “Celestial Café” chat session begins at 7:00 p.m.) STEM Building, Room ST112, Virginia Western Community College, Colonial Avenue, Roanoke, VA. (See directions in this issue.) It’s the Society’s annual June meeting and with that once again comes the election of officers who will begin their one-year terms on July 1st. Along with this important Society business matter, members and guests attending in-person and via Zoom will enjoy our evening program. This month, it’s a bevy of members presenting a potpourri of subjects:

John Goss: T Coronae Borealis Going Nova

Mike Hutkin: Astronomical Measurements

Tom Cerul: A Quick Overview of Narrowband Filters for
One Shot Color Cameras and Astrophotography Processing

John Wenskovitch: What is Gravitational Wave Astronomy?

Bill Krause: Precession in astronomy. Will the summer solstice move to December?

In addition, we’ll have our regular monthly member astrophotography, outreach and observing reports and announcements segments. Watch for the Zoom invitation and additional information during the week leading the week prior to the meeting.

Weekend Observing Opportunities: The following information on Fridays and Saturdays that may be suitable for observing is provided as a courtesy to Society members and other readers. The Society assumes no responsibility for the health or safety of anyone venturing out to stargaze, and cautions all who may do so to observe appropriate health and safety precautions.

- **Friday and Saturday, June 7th & 8th.** Sunset is at 8:39 p.m. Astronomical twilight ends at 10:31 p.m. The Moon sets at 10:23 and 11:13 p.m., respectively.
- **Friday and Saturday, June 28th & 29th.** Sunset is at 8:13p.m. Astronomical twilight ends at 9:52 p.m. The Moon sets at 3:11 and 4:23 p.m., respectively.
- **Future Weekend Observing Opportunities: July 5th & 6th and 26th & 27th.**

Astro-Quiz

Would our Sun be visible to your unaided eyes if you were looking at the night sky from a planet orbiting the star Regulus?

Answer to Last Month's Quiz: Our last quiz sought, first, the names of the four first magnitude stars lying near enough to the ecliptic to be occulted by the Moon and, second, the single word label often used to collectively refer to them. Since ancient observers studied the sky, we've known of four stars—Regulus, Aldebaran, Antares and Spica—that could be hidden by the Moon in its travels. Meanwhile, ancient Persian myths recognized four stars—Regulus, Aldebaran, Antares and Fomalhaut—as royal guardians of the four divisions of the sky containing the solstices and equinoxes. Today, we've set aside the ancient myths and apply the term “Royals” to the group of four stars including Spica. Have an answer to this month's quiz (or a future quiz question and answer to suggest)? E-mail it to treasurer@rvasclub.org!