

Roanoke Valley Astronomical Society

Astronomical Social

Amateur Astronomy News and Views In Southwestern Virginia

Volume 42—Number 2

February 2025

RVAS January Meeting Notes

A Journey to Chile!

By Erin Elliott, Secretary

You can view this month's Zoom recording by clicking this link. The passcode to view the video is: **@Rd0Tv*T**

You can find a timestamp for each segment of the meeting next to the corresponding section header and a full list of timestamps below.

- Caleb White's program | 00:21:25
- What's Up? | 0:58:21
- Visual Observing Reports | 00:19:04
- Astrophotography | 00:24:13

After wrapping up the Celestial Café, the meeting began at 7:32pm with an introduction from RVAS President, **Michael Good**. He welcomed members and guests to the January meeting before going over the agenda.

Agenda (7:00) January 27, 2024 Meeting • 7:00 Gathering VWCC room ST212 • 7:30 Visitor / Guest / Member recognition • 7:35 Leadership Review • 7:40 Caleb White & Family: CHILEAN VISIT • 8:30 What's Up February (Dr. John Wenskovitch) • 8:45 Visual Observing reports • 8:50 Monthly Astro-photos

January Meeting Agenda – Michael Good Slide

Attendance: There were 34 members and 1 guest in attendance. 19 individuals were in person and 14 attended virtually.

Program: Caleb White, one of our elected Members at Large, and his family on their visit to Chile. They spent about 10 days in the Elqui Valley and Atacama Desert to tour some ESO facilities and enjoy the dark, clear skies of the Chilean desert. They then finished with a must-see trip to Easter Island where star gazing was limited, but still awe-inspiring. Be sure to watch the Zoom for his full footage, or reach out to him if you would like to see his slideshow.



Chile 2024 - Caleb White Slideshow

Chile 2024: La Silla, Paranal, Atacama, Elqui Valley, and Easter Island | 00:21:25

La Silla Observatory

- 1st ESO Observatory in Chile
- 242 square miles of land
- FOUR active telescopes
 - o NTT
 - o ESO 3.6m
 - o MPG/ESO 2.2m
 - o ESO 1.52m
 - o SEST (decommissioned in 2003)
- Showed photos

Elqui Valley

- Showed photos, including timelapses, from Elqui Valley

San Pedro de Atacama

- ∼8000 ft ASL
- Extremely Dry
- Clear nights
- Showed panoramas, pictures and timelapses taken



San Pedro de Atacama - Caleb White slide

Valle de la Luna

- Tracked pano blend

Paranal Observatory

- VLT (Very Large Telescope)
- VISTA (Visible and Infrared Survey)
- VST (VLS Survey Telescope)
- La Residencia (hotel strictly for scientists and astronomers)

Rapa Nui/Isla de Pascua/Easter Island

- 63 square miles
- 2,300 miles off the coast of Chile
- Very cloudy
- Annular Solar Eclipse

o "ring of fire" eclipse



Photo of statues during eclipse - Caleb White slide

What's Up? | 0:58:21: John Wenskovitch gave his "What's Up?" program on what the skies of February have in store for us. John's "What's Up? Highlights" in this issue provide a summary of the program. You can watch a recording of his program by clicking the link at the beginning of the newsletter and following the timestamp listed for this segment.

Member Observation Reports | 01:18:17: Michael Good saw the Mars occultation while on a cruise this past month.



Zoom Screenshot - Noah Winslow Photo

Astrophotography | 01:19:06: We thank Ed Dixon, Michael Good, Ben Hartman, Mark Hodges, Greg Shaffer, Vincent St. Angelo, Dave Thomas, Noah Winslow, and Tara Wu 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.

You can also visit our <u>RVAS Facebook Group</u> to see photos posted throughout the month.

Next month: Timothy Naginey will be our speaker at the Feb 17th RVAS meeting. He will touch on electromagnetic radiation and astronomy/astrophysics, in particular the underlying physical nature of light and how it is used by astronomers to study stars and other astronomical bodies. He can explain the various technologies used such as radio, infrared, and optical telescopes and spectroscopes, and how these techniques have allowed scientists to determine star distances, motion, size, energy dissipation, temperature, chemical structure, etc.

The meeting was adjourned at 8:55.

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.** We meet at the VWCC STEM building ST312. Directions are below. **Meetings are open to the public.** Observing sessions may be held, weather and sky conditions permitting, at a dark-sky site. For information regarding joining RVAS, including annual dues, <u>click here</u>. Articles, quotes, etc. published in the newsletter do not necessarily reflect the views of the RVAS or its editor.

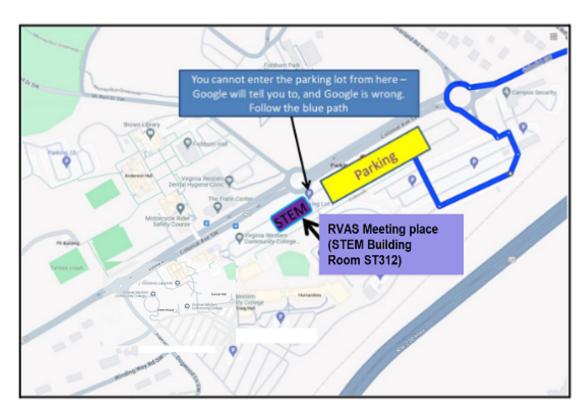
Officers/Executive Committee/Editor/Webmaster

Michael Good, President (president@rvasclub.org)
William Krause, Vice President (vicepresident@rvasclub.org)
Erin Elliott, Secretary (secretary@rvasclub.org)
John Sheffey, Treasurer (treasurer@rvasclub.org)
Nancy Vogelaar, Officer at Large #1 (officeratlarge1@rvasclub.org)
Caleb White, Officer at Large #2 (officeratlarge2@rvasclub.org)
Michael Hutkin, Past President (pastpresident@rvasclub.org)
Ed Dixon, Newsletter Editor (editor@rvasclub.org)
Erin Elliott, Webmaster (webmaster@rvasclub.org)

Directions to RVAS Meeting Location

Virginia Western Community College STEM Building, Room ST312 3094 Colonial Ave SW, Roanoke, VA 24015

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



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.

What's Up? Highlights

February 1 to 28, 2025

This Month:

The evening sky planetary richness reaches its peak in the second half of the month, with all planets visible in the sky simultaneously after sunset. If clouds aren't in the way, the 24th is the best night to balance between Mercury and Saturn being closer to the horizon. If you can't wait for a few more weeks, you can see Saturn higher above the horizon at the cost of missing Mercury in the morning sky, but all of the other planets will be visible in the evening. Venus also puts on a show all month, reaching its brightest phase on the 16th, three days before reaching perihelion. All of the outer planets have now passed opposition, but Mercury reaches superior conjunction on the 9th before emerging in the evening sky. February is a lousy month for meteor showers, but we may get a lucky atmosphere-grazing fireball from the Centaurids near the 8th. The winter constellations also dominate the evening sky, with excellent views of Orion, Gemini, Taurus, and Auriga high above the horizon (along with Mars and Jupiter). In contrast, the spring and summer constellations are prominent in the morning sky, hopefully providing a good view of the T CrB outburst that is months overdue.

Celestial Events:

- February 1: Conjunction of the Moon, Venus, and Neptune
- February 6: Moon approaches the Pleiades before moonset (2:22am)
- February 8: Peak of the α and β -Centaurid meteor showers
- February 16: Venus reaches peak brightness (Stellarium estimate -4.87 magnitude)
- February 20-28: All planets visible above the horizon at sunset (best night is the 24th, Mercury is low to the horizon earlier, Saturn is low to the horizon later)
- February 28: Binocular field-sized conjunction of the Moon and Mercury

Sunset and Twilight:

- Sunset ranges from 5:44pm (1st) to 6:13pm (28th)
- Evening twilight ends from 7:13pm (1st) to 7:39pm (28th)

Lunar Phases and Apsides:

- Perigee: February 1, 9:47pm (228,327 miles)
- First Quarter: February 5, 3:03am
- Full Moon: February 12, 8:54am
- Apogee: February 17, 8:10pm (251,582 miles)
- Last Quarter: February 20, 12:34pm
- New Moon: February 27, 7:46pm

Coming Events of Interest:

Bert Herald writes:

The Natural Bridge State Park is going to be having some astronomy programs starting in March. I met with Aaron Farmer at the park (he oversees volunteers). They would love anyone with astronomy or astrophotography experience and gear to help out or give talks. You need to go through an online background check process first (takes a few weeks). I plan on helping out when I can.

He said for interested parties from RVAS to contact him:

Aaron.Farmer@dcr.virginia.gov

For more interest in the Natural Bridge State Park Dark Sky area, see here:

https://www.dcr.virginia.gov/state-parks/natural-bridge

James Webb telescope solves 20-year-old Hubble conundrum

This could finally explain why the universe's oldest planets exist!

See below for more information about this.

https://www.livescience.com/space/astronomy/james-webb-telescope-solves-20-year-old-hubble-conundrum-and-it-could-finally-explain-why-the-universes-oldest-planets-exist

Opportunities:

The Big Lick Stamp Club is holding their Spring event and invited RVAS participation. They would provide a table for us to distribute club information, to showcase some equipment, and answer questions. They would feature exhibits of "Astronomy on Stamps" for any interested Astronomy Club members and they would advertise RVAS' participation in their advertising. Any volunteers for this?

Date: Saturday, April 12

Hours: 10:00 a.m. until 4:00 p.m.

Location: Thrasher Memorial United Methodist Church, 707 E Washington Ave, Vinton, VA 24179

Contact Mike Hutkin at pastpresident@rvasclub.org for more information.

January 2025

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

