

January/February 2023

Orion Comes Home to Earth



At 12:40 p.m. EST, Dec. 11, 2022, the Orion spacecraft for the Artemis I mission splashed down in the Pacific Ocean after a 25.5-day mission to the Moon (Photo by NASA)

After its 1.4-million-mile mission beyond the Moon and back, the Orion spacecraft for the Artemis I mission splashed down in the Pacific Ocean on Dec. 11. It was then transported by truck across the country from Naval Base San Diego in California to Kennedy's Multi Payload Processing Facility in Florida, and arrived back at NASA's Kennedy Space Center Dec. 30.

What are the next steps for Orion? At Kennedy Space Center, technicians will remove payloads from the capsule as part of de-servicing operations, including Commander Moonikin Campos, zero-gravity indicator Snoopy, and the official flight kit. Orion's heat shield and other elements will be removed for extensive analysis, and remaining hazards will be offloaded.

Artemis I was a major step forward as part of NASA's lunar exploration efforts and sets the stage for the next mission of

the Space Launch System rocket and Orion to fly crew around the Moon on Artemis II.

The River's Edge

Walking in a Stellar

Wonderland: For the second year in a row, RBAC members were treated to the best of the best astrophotography from our members. Spencer Chapman, Jeff Menz, Randy Harrison, and Brandon Runyon shared their breathtaking photos from 2022. The progression of their skills and artistic talent in capturing breathtaking views of stellar objects was incredibly impressive! Some examples are featured in the Gallery below. We can't wait to see their work for 2023!

Prodigal Son Returns: Past President and all around awesome amateur astronomer Bill Breeden and his wife Rita were able to spend time with us at our Holiday Potluck. Bill stays busy with his Francis Park outreach and YouTube Constellation Tour series. His channel is <https://www.youtube.com/@williambreeden4>.

Santa Gifts: The Menz family will have no trouble seeing in the dark after Santa tucked some handy headlamps in their stockings! Dan Brandon rewarded his loyal kitty Willie with a collar worthy of his status as an astronaut in training! See his classy new look in the Gallery!

Occult Occurrence: Jeff Menz shared “The forecast for this night was less than ideal. Hockey great Wayne Gretzky said you miss 100% of the shots you don't take and I'm so glad we took a shot at it tonight. The Moon and Mars danced around sucker holes until about 5 minutes before occultation when a large clear patch passed in front of the pair. What a sight! We were also very fortunate at the end of the occultation when another, smaller clear patch passed in front of the pair. I was so glad we were able to experience the event and to share the event with others.” For photos from this night, check out the Gallery.



Astronaut wanna-be Willie takes a well-deserved rest after a busy year of waiting for his person, Dan Brandon to give him attention! (Photo by Dan Brandon)

Changing of the Guard: The January meeting was a first for Spencer Chapman in his new role as RBAC Treasurer. His New Year's message to us is to pay up! Dues are due by March 15, 2023. Congratulations, Spencer!

Gallery



Mike Veith receives Astronomical League Awards for Outreach (Basic and Stellar), and Library Telescope from Randy Harrison, RBAC President. (Photo by Jeff Menz)

ASTROPHOTOS



IC 1805 the Heart Nebula IC 1849 the Soul Nebula in Cassiopeia; Sky Watcher GTI Mount, ZWO 294 MC PRO, Samyang 135 mm Lenses, 1 Hour 45 min (Photo by Randy Harrison)



NGC 2244 Rosette Nebula in Monoceros; Celestron AVX Mount, Celestron 8 inch Rasa, ZWO 183 MC PRO, 1 Hour 15 min (Photo by Randy Harrison)



IC1318, the "Gamma Cygni Nebula"; RGB and luminance filters, 2 hours each, Single-night imaging from O'Fallon IL backyard. Camera: ZWO ASI294MM Pro, Imaging Scope: Sky-Watcher Esprit 100, Mount: Sky-Watcher EQ6-r Pro mount, Guide Scope: Sky-Watcher Evoguide 50, Guide Camera: ZWO ASI120MM Mini, Acquisition Software: ZWO ASIAir Pro (Photo by Brandon Runyon)



OU4, the "Giant Squid Nebula"; 50+ hours exposure of OIII filter and 7+ hours exposure of H-alpha filter, Multi-night imaging from O'Fallon IL backyard, Camera: ZWO ASI294MM Pro, Imaging Scope: Sky-Watcher Esprit 100, Mount: Sky-Watcher EQ6-r Pro mount, Guide Scope: Sky-Watcher Evoguide 50, Guide Camera: ZWO ASI120MM Mini, Acquisition Software: ZWO ASIAir Pro (Photo by Brandon Runyon)

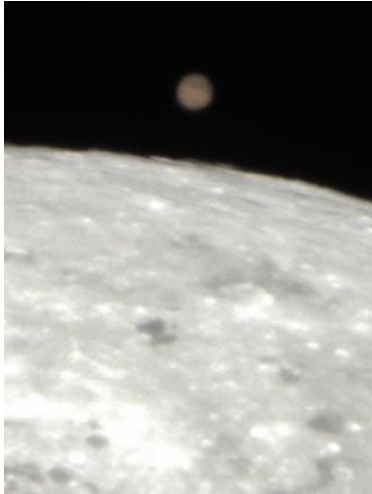


Rupes Recta or the Straight Wall, taken April 9, 2022 at 9:11pm CDT at Salem UCC, Alhambra, IL. Situated in the southeastern portion of Mare Nubium, the Straight Wall is about 70 miles in length and averages 2 miles in width and 800 feet in height. Single exposure with a Samsung Galaxy A21 cellphone attached via NeXYZ cellphone holder to Orion 10" Dobsonian telescope, 20mm Plossl eyepiece with a 2X Barlow. (Photo by Jeff Menz)



Saturn, taken October 8, 2022 at 7:07pm CDT at Mac's Family Fun Time, Highland IL. The shadow of the planet is visible on the right side of the ring. Single exposure with a Samsung Galaxy A21 cellphone attached via NeXYZ cellphone holder to Meade LX5 10" Schmidt-Cassegrain telescope, 20mm Plossl eyepiece with a 2X Barlow. (Photo by Jeff Menz)

OCCULTATION



*Celestron Evolution Mount, Sky Watcher 150mm Mak, ZWO 290 MC Camera Prime Focus
(Photos by Randy Harrison-excerpts from video)*



Samsung Galaxy A21 cellphone attached to a 24mm Plossl eyepiece with a NeXYZ cellphone holder on an Orion 10" Dobsonian reflector. Image rotated to match naked eye view. (Photo by Jeff Menz)

Awards and Achievements

Astronomical League Awards:

Outreach: Mike Veith (Stellar and Master), Terry Menz (Basic), Jeff Menz (Basic)

Library: Mike Veith (Silver), Terry Menz (Silver), Jeff Menz (Silver)

Sky Puppies Program

The Sky Puppies Observing Program offered by the Astronomical League is designed just for the younger observer. The purpose of the program is to familiarize young observers with the night sky and whet their appetite to eventually graduate from a Sky Puppy to an experienced observer and additional Astronomical League Observing Programs.

To fulfill the goals of this Observing Program and receive the Sky Puppies pin and certificate, the young observer must use only their eyes, a pair of inexpensive binoculars, pencil & paper, and charts or a planisphere. A Sky Puppy will learn the rudiments of observing, how to read a chart or planisphere, how to find and identify constellations, stars, and deep-sky objects. They also learn about the history, culture, and stories of astronomy. To qualify for the Sky Puppies Observing Program, the observer must be 10 years of age or younger and the program must be completed before age 11. For more details, see the ASL website at astroleague.org. The Sky Puppy Manual or Workbook can be obtained by contacting the program coordinator at aaron@clevenson.org.

New Members: Dennis Latinette

Eclipse Expo

Another Eclipse Expo is being planned by the Missouri Eclipse Task Force to take place in Cape Girardeau on July 22nd, 2023. Watch for more details to be posted on their website at <https://moecclipse.org/>.

Upcoming Events:

Daisies/Brownies Event, Wed. Jan 25, 6:15 to 7:30 pm, Eden Church in Edwardsville.

Girl Scout Event, Jan 28, Ballard Nature Center, 6pm

RBAC Meeting, Sat, Feb 18, 7pm, Salem UCC

RBAC Meeting, Sat, Mar 18, 7pm, Salem UCC