Roanoke Valley Astronomical Society

Amateur Astronomy News and Views In Southwestern Virginia

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December RVAS Meeting Notes

Mission Accomplished!

By Dan Chrisman, RVAS Secretary

With a table overflowing with holiday scrumptiousness and few empty chairs, **President Good** ordered the restoration of full diplomatic relations with Cuba and the opening of an embassy in Havana whoops… sorry, wrong president.

Rather, RVAS Club President **Michael Good** opened the floor to members' observing reports, the first activity of our December 15, 2014 Winter Solstice Social. **Rand Bowden** shared his weekend's unsuccessful attempt to view the Geminid meteors and his successful interaction with the Blue Ridge Parkway Police. **Frank Baratta** described his December 13 public observing session. Curtailed by approaching clouds, he presented a compressed thirty-minute night sky tour to a half dozen hardy souls that braved the cold breezy evening at the Cahas Knob Overlook. **Mark Erickson** described his visit to the D-Day Memorial in Bedford where he captured an astrophotography image that included the Overlord Arch. The members encouraged him to share his photograph for a subsequent newsletter (email to Dave Thomas, mailto:editor@rvasclub.org).

With iron resolve, **Michael** enforced his Presidential Priorities (Camaraderie before Delicious Treat Consumption) and we launched into the premiere of **Frank's** "Missions and Targets" social encouragement game. Augmented with a PowerPoint slide, each member learned that they would play a unique role as either a cosmological target (e.g. our Sun, our Moon and Mars) or an Earth-launched spacecraft. Combining the technology of 3X5 index cards and grocery bags, **Frank** distributed role assignments and the game began. Early results showed many missions successfully reached their targets. However, subsequent assessments conclusively showed that many missions never reached their targets. Visual evidence suggested that members were enjoying themselves by communicating with other missions and the wrong targets. **MISSION ACCOMPLISHED!**

Frank Baratta enjoys hosting the Winter Solstice Social game "Missions and Targets".

Photo by Carolyn Baratta

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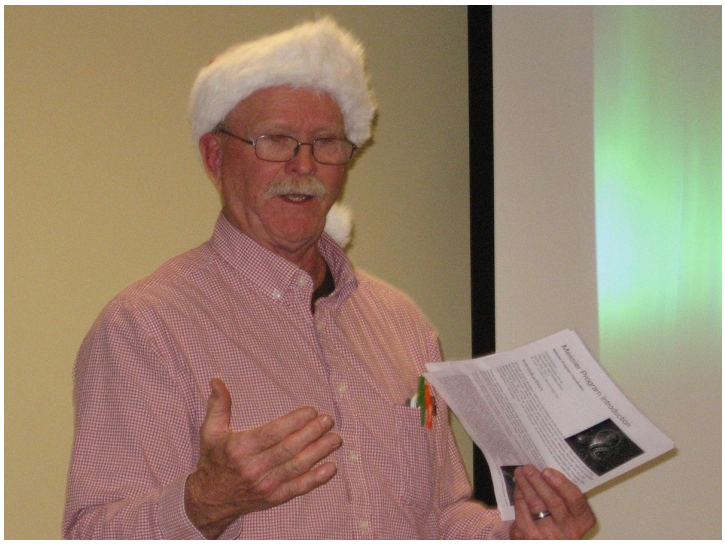
With the game completed, the thirty-three members focused on only two targets: the dessert table and the punchbowl table. All members successfully found these targets and enjoyed the food and Martian Grog.

With the members' appetites temporarily satiated, **Vice President Rand Bowden** presented a new and exciting club initiative. The club will host observing sessions where the Messier Catalog will be the focus. He shared the "Twelve-Month Tour of Messier Objects" document, which will aid the selection of an observing session's objects. To whet our appetites, **Rand** distributed the tour agendas for January, February and March. He also provided the "Messier Program Introduction" handout, which describes the Astronomical League (AL) Messier Program. While camaraderie with other members is its own reward, novice and experienced amateur astronomers can earn the AL Messier Program Membership Certificate by observing and documenting seventy Messier Objects. If one observes and documents the remaining forty Messier Objects, one earns an AL Messier Program award pin and an AL Messier Program Honorary Membership Certificate. With a show of hands, four members that were present at the social have earned the AL Messier Honorary Certificate and award pin: **Frank Baratta**, **Michael Good**, **John Goss** and **Clark Thomas**.

The location of these observing sessions is to be determined but the first planned observing dates are January

Hungry members converge on the Holiday Treats table while **Lynn Slonaker** awaits **Frank Baratta's** "What's Up".
Photo by Frank Baratta



Rand Bowden announces the club's Messier Initiative to the membership.
Photo by Carolyn Baratta

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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. Yearly dues are: Individual, $20.00; Senior Individual, $18.00; Family, $25.00; Senior Family, $22.00; Student, $10.00. Articles, quotes, etc. published in the newsletter do not necessarily reflect the views of the RVAS or its editor.

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Michael Good, President (*president@rvasclub.org*)
Rand Bowden, Vice President (*vicepresident@rvasclub.org*)
Dan Chrisman, Secretary (*secretary@rvasclub.org*)
Jeff Suhr, Treasurer (*treasurer@rvasclub.org*)
Carol Mesimer, Member at Large (*memberatlarge@rvasclub.org*)
Frank Baratta, Immediate Past President (*immediatepastpresident@rvasclub.org*)
Michael Good, Past President (*pastpresident@rvasclub.org*)
David E. Thomas, RVAS Newsletter Editor (editor@rvasclub.org)
Roger Pommerenke & **David E. Thomas**, Webmaster (webmaster@rvasclub.org)

RVAS web page: *http://rvasclub.org*

Making New Friends

By Dan Chrisman

In preparation for the Saturday, November 22 outreach event, I had focused on cleanliness. I had showered. I had also attempted to clean the mirror of my newly purchased telescope, the first time for me and likely the first time for the mirror. Taking a conservative approach, the mirror was removed, air-blown, soaped, soaked, rinsed, dried and reinstalled. We were ready.

On the event date, I arrived at Cahas Knob Overlook to 39-degree air. It was 5:20 pm and **Frank Baratta** was unloading his chair and his grab-and-go choice, a Coulter Tube Dobsonian telescope (10" mirror). Our friends had not arrived yet but a breeze had. I added one more layer of clothing and unpacked my observing chair (a repurposed walker), a 1950's slide projector table and my Astromart-sourced Orion Starblast 4.5" Astro reflector telescope.

Then we waited.

> The sun sinks crimson-red,
> Golden flames blaze in the windows,
> The gateway to the stars opens,
> Quietly night enfolds the earth…
> (*Rūdolfs Blaumnis)*

Into the darkened overlook, our new friends arrived, members of the Friends of the Blue Ridge Parkway, dedicated to protect, promote and preserve the 469-mile Blue Ridge Parkway (www.friendsbrp.org). Among those gathered was our point of contact, **Fernando Garcia**, Director of Volunteers and Programs.

Beginning his presentation, **Frank** described to the crowd our equipment, beginning with the parts of his telescope. Referencing my telescope, he emphasized that our club utilizes this model for our LiTel Library Loaner program.

Then the night sky tour began, six days before the release of the trailer for the movie "Star Wars: The Force Awakens". **Frank** wielded his green laser to direct our new friends' attention to the first of many cosmic objects including the star Albireo (a double star, one amber, the other blue-green), the Pleiades (Seven Sisters), Messier 13 (Hercules Globular Cluster) and Messier 31 (Andromeda Galaxy, far, far away).

Frank Baratta arrives early to prepare his telescope for an outreach event with the Friends of the Blue Ridge Parkway.

Photo by the author

A red glow emanated from the open trunk of his car, drawing the late arrivals to our site like moths to a flame.

As the crowd visited the destinations along the tour, **Frank** was switching eyepieces to better frame the Pleiades, emphasizing the distances of objects from Earth, tossing in star name entomologies and affixing his aperture mask as needed.

With the air temperature hitting 33 degrees Fahrenheit and continuing to drop, he wrapped up his presentation. Our new friends thanked us and departed. We stowed our gear. 7:30 pm saw us on the road heading home.

*(Thanks to **Frank Baratta** for his contribution to this article. Poetry excerpt (translated from Latvian) from 1902-published Ziemas (Winter) by Latvian **Rūdolfs Blaumnis**. D.C.).*

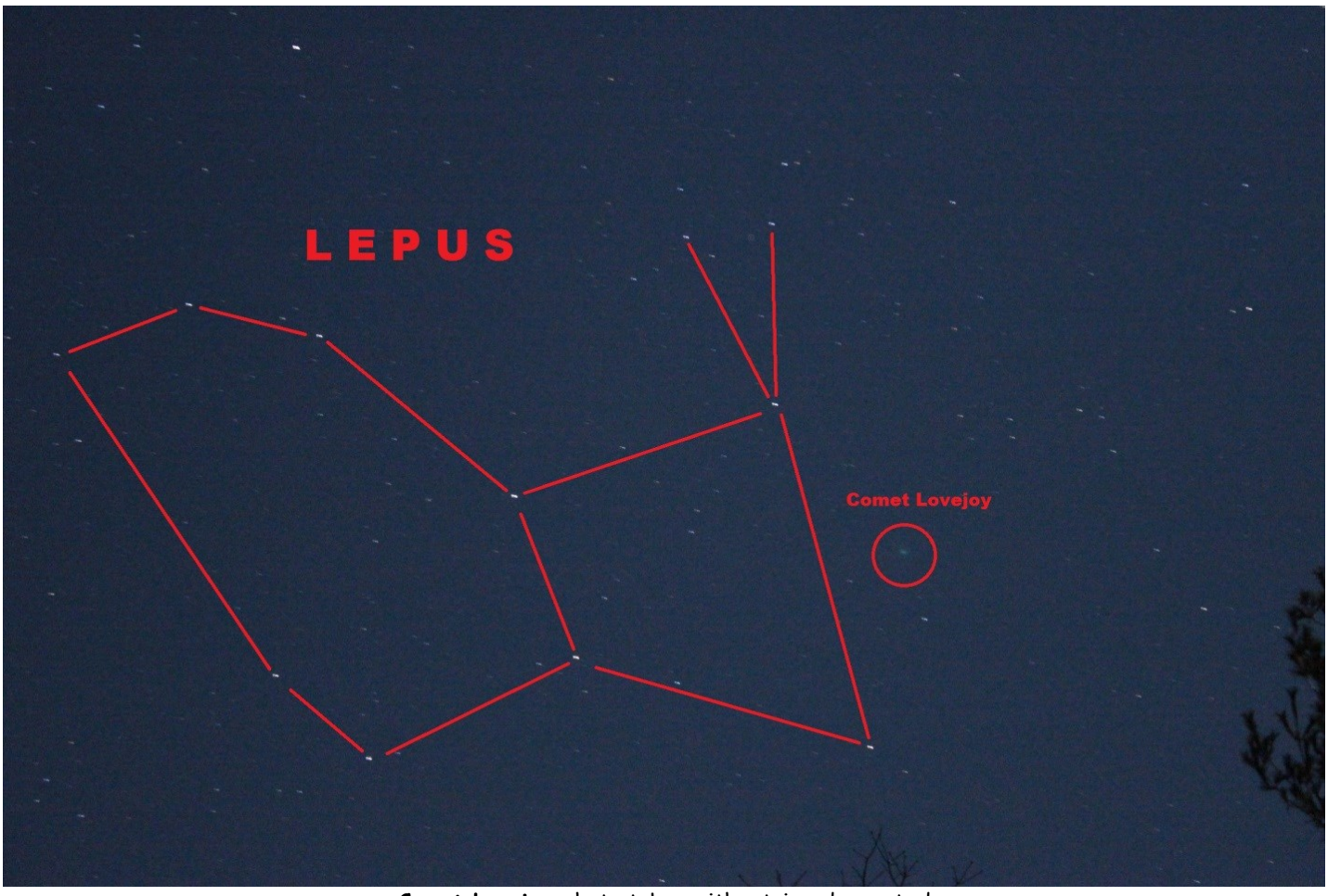
Member Observation

Comet Lovejoy on New Year's Eve

By Dave Thomas

The skies over Lynchburg, Virginia on New Year's Eve were mostly clear, but the transparency was not all that good. There was a great deal of light pollution from local sources and the first quarter Moon. I had tried to capture the Comet on the previous night, but was unable to do so.

The comet, as seen in the photo, had just crossed the constellation Lepus below the star Rigel, Orion's foot.



Comet Lovejoy photo taken with a tri-pod mounted
Canon Rebel EOS T3i on New Year's Eve
55mm zoom, f5.6, 20 second exposure at ISO 6400

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24 and 25. All members of the astronomy club are welcome to participate. Several seasoned members have offered to help during these sessions. **Clark Thomas** remarked that members may view most of these objects with a telescope (that is, a BIG telescope is not required). If one does not have a telescope, then check with our club's Executive Committee members for available alternatives.

Rand acknowledged that some members might have already begun the Messier-Program. He invited them to complete their observations. Tangentially, **Genevieve Goss** shared that she had begun the AL Binocular Messier Program. Me too. My post-meeting cross-examination of **Rand** yielded that members are welcome to work either of these programs during these observing sessions.

Rand concluded his presentation by collecting contact information from those present and interested. With this contact info, he plans to provide email messages, text messages or telephone calls as he makes the weather call for viewing that evening.

Michael complemented **Rand's** presentation with another announcement. Listening intently, I was immediately concerned that **Genevieve** had served **Michael** too much unfermented Martian Grog. Contrary to his comments, I did not see any way that RVAS Executive Committee members would be prepared for a grueling dusk-to-dawn 26.2-mile cardiovascular-challenging race. Certainly not me! Yet **Michael** kept talking about our club members participating in such an event in late March 2015, apparently sponsored by six-time NHL Stanley Cup champion **Mark "Moose" Messier**. I slowly realized my misunderstanding.

Michael announced that the club would organize a March 2015 Messier Marathon. This event will occur from sunset to sunrise session. With clear skies, each of one hundred ten Messier Objects will be visible. Held throughout the world, these events can be competitive with the goal of seeing ALL of the objects. Some clubs host this event as a "sport". In prior years, our club has hosted a less competitive event where some members attempted the goal. Other members did not stay until dawn, as their goal was to enjoy viewing what was visible during their stay. This event will provide yet another opportunity to view the night sky with friends.

Presidents **Michael Good** and **John Goss**, Club and National respectively, enjoy unfermented Martian Grog.
Photo by Carolyn Baratta

Per AL website, please note that no one recommends a Messier Marathon as an appropriate mode for earning the Messier Certificate. The expectation is that those pursuing the certificate take time observing each object as part of keeping notes on their observations.

All the while, throughout the meeting, Treasurer **Jeff Suhr** quietly collected payments and distributed 2015 Guy Ottewell Astronomical Calendars.

Settling into our chairs after several others and myself visited the table for a second time, **Frank Baratta** provided a "What's Up" for December 2014 and January 2015. After orienting us to the current night sky, he highlighted many objects to our south including the constellations of Pisces, Aquarius, Capricornus and Cetus. He also directed our attention to asterisms, which included the Square of Pegasus and the Southern Fish. Redirecting us to western, eastern and northern views, he discussed similar objects and completed his tour, which included Messier 15 (a globular cluster in the constellation Pegasus), the star Albireo, the variable star Delta Cephei and the supergiant star Mirfak. Diving into January, **Frank** mentioned the Winter Hexagon asterism and the "Two in a View" Venus-Mercury pair. He transitioned to a diagram of our solar system viewed from

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above the ecliptic plane, which showed the current locations of the planets and the sun. This diagram inspired my gift at my family's Secret Santa event: socks.

Having enjoyed **Frank's** last "What's Up" for 2014, I set aside my pen and enjoyed the third annual RVAS slideshow. It included nearly two hundred images of members (and guest speakers) taken at club activities. These activities included our monthly meetings, Astronomy Day [part of Roanoke's 2014 Earth Day celebration held in the City's Grandin Village] and the 2014 annual picnic [held at the Claytor Nature Study Center in Bedford County]. The show also included images from the 2013 Winter Solstice Social and from last July's Astronomical League national convention in San Antonio, Texas [ALCon2014]).

Michael concluded the meeting and members performed clean up duties.

With little Martian Grog remaining, **Genevieve Goss**, **Clem Elechi**, **Hank Simpson** and **Dan Chrisman** are all smiles.

Photo by Carolyn Baratta

(Thanks to **Rand Bowden**, **Frank Baratta, Carolyn Baratta, Michael Good** and editor **Dave Thomas** for their contributions to this article. D.C.).

Wanted

Astro photos by members for display on the RVAS web site. Send to editor@rvasclub.org

Observing reports or articles from members about astronomy activities in which they may be involved

E-mail any material you would like to submit for publication to: editor@rvasclub.org

Monthly Calendar

MONTHLY MEETING: Monday, January 19th, 7:30 p.m., Classroom A, 3rd floor, Center on Church, Downtown Roanoke. Join us for constellations and more under the dome of the Science Museum's Hopkins Planetarium. This evening we'll start out in our regular meeting room and then move to the planetarium to view the stars and share our knowledge of the night sky.

RVAS WEEKEND OBSERVING OPPORTUNITIES: Unless otherwise indicated, observing is held at Cahas Knob Overlook, milepost 139 on the Blue Ridge Parkway.

-- **Friday and Saturday, January 9th and 10th.** Sunset is at 5:21 p.m. Astronomical twilight ends at 6:53 p.m. The Moon rises at 9:46 and 10:40 p.m., respectively.

-- **Friday and Saturday, January 16th and 17th.** Sunset is at 5:28 p.m. Astronomical twilight ends at 6:59 p.m. The Moon sets at 2:00 and 2:52 p.m., respectively.

-- **Future Sessions:** February 6th and 7th; February 13th and 14th.

ROANOKE CITY PARKS and RECREATION PUBLIC STARGAZE: Saturday, January 10th, 6:00 p.m., Cahas Knob Overlook, milepost 139 Blue Ridge Parkway. Nonmembers must register with Parks & Rec. at 540-853-2236. Members can call 540-774-5651 for information. (Next session: February 7th, 6:30 p.m., Cahas Knob Overlook.)

Astro-Quiz

Which planet in our solar system exhibits the greatest range of sizes (angular diameters) as seen from Earth?

Answer to Last Month's Astro-Quiz: Last month we asked what the maximum separation is between the edge of the Moon and the edge of the Sun at New Moon. At New Moon, the Moon is directly between the Earth and the Sun, but almost always above or below the Sun, which is why solar eclipses only occasionally occur. The maximum separation between the centers of the solar and lunar disks averages 5.145 degrees. The minimum sizes of the solar and lunar disks (when their New Moon separation would be greatest) are 0.527 degrees (31.6 arc min) and 0.488 degrees (29.3 arc min), respectively. These parameters have ranges, so the separation of the edges of the solar and lunar disks falls within a range of values. Kudos to RVAS member James Leonard, who submitted an answer of 4.645 degrees. Well done, James! (Have an answer to this month's quiz [or a question and answer to suggest]? E-mail it to astroquiz@rvasclub.org!).