RVAS September Meeting Report

A Total Eclipse of the Club

By Michael Martin, RVAS Secretary

If the t-shirts and hats didn’t give it away, the chatter of the room quickly showed that even a month after “The Great American Solar Eclipse” the topic was still at the forefront of people’s minds for the September meeting of RVAS. Having to expand the room to fit in the crowd, 36 members and 4 guests eagerly awaited the start of the presentations. With the peaceful transfer of power behind us, RVAS President Dwight Holland opened his first meeting as President by taking time to thank the previous club officers for their service and had the new officers introduce themselves to the club.

Member-at-Large Ray Bradley then spoke of several outreach opportunities including one on September 29 at the Virginia Mountain Vineyards, and an event at Va Tech on November 4th from 10-4pm. Members interested in assisting with these events should contact Ray. Immediate Past President Dan Chrisman presented Rene Bradley with the Astronomical League’s Outreach Award for her service to the club and community. Former President Frank Baratta presented certificates of appreciation to former VP Dr. Clem Elechi and former secretary Bill Dillon. Let it be noted that in the spirit of patronage and brotherhood, past secre-

The prospect of members’ tales and photos of the August total eclipse drew an overflow crowd of 40 to our September monthly meeting.

Photo by Carolyn Baratta

retaries Rick Rader and Dan Chrisman gave a standing ovation! One hopes that the same will be done, when this secretary retires into the sunset.

Frank Baratta was then introduced to give the October installment of his popular “What’s Up?”

(Meeting Continued on page 2)
series. Of particular interest for the upcoming month are two meteor showers, Comet 96P Machholz and a close encounter with the Moon and Neptune. More can be found on these topics in the "What's Up" Highlights in this newsletter.

The main event of the evening, however, was the introduction of members discussing their experience during the 2017 Great American Solar Eclipse. Our stories began with Frank and Carolyn Baratta showing images from the club's outreach effort in downtown Roanoke to help the public view the roughly 90% partial eclipse. This included using a set of solar equipped binoculars and two telescopes, one of which was connected to a computer monitor to increase the number of participants who could view at one time. Over 130 eclipse glasses were handed out and shared among the eclipse watchers. All told, it is estimated that upwards of 500 people participated. With interviews conducted by WSLS 10 and NPR of "Hollywood" Frank Baratta, this turned out to be a fabulous outreach event for the club, while allowing the public to participate in the solar eclipse. Former RVAS President Paul Chaffrey gave some advice to Frank and team from California on how to execute this type of viewing.

Astronomical League President John Goss centered his eclipse coverage on the Astronomical League's National Convention which was held in Casper, Wyoming. He, along with his wife Geneva, Dan and Carolyn Chrisman, and Vice President John Wenskovitch attended the event and participated in viewing totality. Around 1,000 members attended "Astrocon2017" over 5 days. John played a video of people reacting to the eclipse and just hearing the sounds of those witnessing totality revealed the wonder of this celestial event.

While traveling to Wyoming Vice President John Wenskovitch turned the trip to totality into a cross country tour. He experienced such historic events.
landmarks as Carhenge and took a quick side trek to Riverside, Iowa--the future birthplace of Captain James T. Kirk. John noted the drop in temperature that occurred during totality, saying that it took a good bit of time for things to warm back up to their previous temperature.

Moving from Wyoming to Kentucky, former President Mark Hodges was the smartest of all RVAS members with his viewing of totality; instead of braving traffic, he rented a cabin in a state park to bypass traffic to and from the event. Using a DSLR camera with a 200mm lens, Mark displayed some truly breathtaking images of the eclipse. His excellent exposures revealed fine details including several solar prominences and even Regulus, which popped out during totality. A 360 degree view of the event was just icing on the cake to a spectacular presentation.

Roger and Mandy Pommerenke made the most out of the eclipse by doing some sightseeing of their own by visiting, amongst other places, Mount Rushmore in South Dakota. Retelling the story of totality, Roger showed some impressive pictures of solar prominences during totality and included some nice computer simulations of the eclipse which gave him an exact readout of when and where he needed to be to experience the 1,600 mph shadow of totality.

Unfortunately, not all club members had success at viewing totality. Ray Bradley reported that cloud cover hit his location in Andersen, SC and cooler temperatures kept them around for the event of totality. He could notice the surroundings getting dimmer, but was not able to view the event. Thankfully for Ray and his family, 2024 is just around the corner!

Mark and Mary Erickson were in Bryson City, North Carolina, for totality, and although Mark spoke of being new to astrophotography, his images of the event were quite a sight to see. He displayed various images of the partial eclipse and totality using a 650mm lens on his DSLR. If these are Mark’s astrophotography abilities at the beginning stage, we can all look forward to what else he will bring to the club down the road.

Other members such as Harry Kessler, Treasurer Larry Hill, Bert Herald and Secretary Michael Martin briefly discussed their experiences of totality in places such as Sweetwater, Athens and
Madisonville, Tennessee.

Past President Michael Goode also traveled to SE TN for the event as well, but was unable to be at the September Meeting.

Dwight ended the eclipse presentations with his own telling of totality. For him, it occurred in South Carolina, where he was fortunate to find an opening in the cloud cover at Pickens High School on a high knoll. He had hoped to see the shadow approaching over the high NC mountains to the west from the summit of the highest Mtn in South Carolina at over 3,000 feet but was not able to pull off that feat because Mt Sassafras had clouds above it. He reported there were many disappointed wannabe totality seekers on top of Mt Sassafras as he visited the site after totality to see who all was up there. He and his eclipse companion found a gap in the clouds, and saw totality from the Pickens High School location. His advice for future eclipse viewing was threefold based upon all of the general themes of everyone’s experience. One, plan for a hotel for the grid lock afterwards. Two, be mobile during the event to avoid cloud cover. Three, fully experience it and don’t burden yourself with “baby sitting” too many cameras. He ended his presentation and the meeting with some beautiful pictures he took recently while hiking to the summit of Hawaii’s Mauna Kea, the location of the Keck observatories. And, he noted that the long-duration isolation space “analog” crew had just finished up a long tour near the top of Mauna Loa-- the next volcano over on the Big Island.

With that, and thanking everyone for their presentations the September Marathon RVAS Meeting came to an end. Look for the next totality RVAS Marathon Meeting in the May 2024 edition of the RVAS Newsletter.

Reminder: Our annual picnic and star party for our members and their families is Saturday, October 14th, at Apple Ridge Farm, Copper Hill, VA. (More information on signing up for the event can be found elsewhere in this issue.) This event takes the place of our October meeting. Our next regularly scheduled monthly meeting is Monday, November 20th, same time and place.
This Month:
October offers us two meteor shower opportunities, spaced about two weeks apart. The Draconids tend to produce pretty sparse results, but have a unique feature; the Orionids may be one of the better showers of the year. Later in the month, short-period and known sun-grazer Comet 96P/Machholz makes its closest pass to the Sun. Rising just before midnight, it’s predicted to reach naked eye visibility. Even later in the month, the most distant of the solar system’s eight planets and Earth’s nearest celestial neighbor make a close pairing. The wide brightness difference between the objects may present a tricky technical challenge to astrophotographers hoping to record the view.

October Celestial Events:
- Sun., 1st, 10:06 p.m. EDT – Moon at descending node.
- Tues., 3rd – Venus at perihelion, 0.7184 AU from the Sun.
- Sun., 8th – Draconid meteors. Usually uninteresting, but were impressive in 2011. Unique in being best seen right before nightfall.
- Mon., 9th – Moon at perigee; distance 57.52 Earth-radii.
- Sat., 14th, 6:11 p.m. – Moon at ascending node.
- Sat., 21st – Orionid meteors. Best in pre-dawn hours. Peak at 7:00 a.m.
- Wed., 25th – Moon at apogee; distance 63.52 Earth-radii (10.4% more distant than on the 9th).
- Fri., 27th – Comet 96P Machholz at perihelion, 0.1239 AU from the Sun; predicted mag. 2.0. Rises 11:49 p.m.; transits 7:05 a.m. on the 28th.
- Mon., 30th – Moon 0.84° S.S.E. of Neptune (124° from Sun in evening sky).

Sunset and Twilight:
Sunset Range: 7:30 p.m. EDT (Oct. 1st) to 6:23 p.m. EDT (Oct. 31st)
Twilight Ends: 8:29 p.m. EDT (Oct. 1st) to 7:51 p.m. EDT (Oct. 31st)

Weekend Observing Opportunities:
Oct. 13th/14th
Oct. 20th/21st

Moon Phases:
Thurs., 5th - Full Moon
Thurs., 12th - Last Quarter
Thurs., 19th - New Moon
Fri., 27th - First Quarter
President's Message

FROM THE FRONT SEAT

By Dwight Holland, President RVAS

Dear Friends and Colleagues:

I felt a strange positive energy in "The Force" on our Great American Eclipse Day. It seemed like most of the country was united in fascination about this event, and all of the divisions, controversies, and the like seemed to fade deep into the background--it was a VERY refreshing time for a change! On the day prior to--and day of this event--I was in touch with several members and many on the Executive Board to see where they were, how the weather was, etc. Three of our members, Astronomical League President John Goss and his wife, Dan Chrisman, and our ace Vice President John Wenscovitch were in Casper at the League Annual Meeting to see the eclipse. VP John did a cool brief side trip on the way out to see the "future birthplace" of James Tiberius Kirk of Star Trek fame. Other members were scattered all over the nation--and if you read this Newsletter you will see some reports from the folks scattered all over the country at the monthly September Meeting.

The pictures that our members brought to the monthly meeting to share were simply amazing, with 40 people in attendance. Also present were four guests, including a Research Director at Carilion Clinic (Dr Francis "Bird" Farrell) and the new Owner of Seven Doors Vineyard (Jenn Feazelle and her mom, Shirley) who invited us to come down for a Star Party sometime since she has relatively dark skies out SE of Bedford about 20 miles.

It has been a rare treat to serve this group as your President so far--and it is definitely a TEAM EFFORT (it takes a Village of past officers to "raise" a new President!). Your Executive Board is active and engaged, and is supported heavily by a bevy of good folks including most notably former President and Membership Chair Frank "Hollywood" Baratta (or better--"just Frank"--when I suggested "Rasputin" as his Astronomy call sign :) ). Frank leading the charge with his Carolyn, Harry, and others on the Solar Eclipse Day down on the hot pavement in Downtown Roanoke on a humid day was an exceptional service for our group. And, he was interviewed by local TV several times (hence the "Hollywood" nickname for a little while :))). John Goss--despite his Presidential duties--has remained active in our group, as have our other Board members and Past President Michael Goode--who helped to brokered our use of the Apple Ridge Farms Copper Hill site for our Annual Picnic and Star Party on Oct 14th, starting around 2:30 PM.

Thanks to Carolyn Baratta for giving us nice pictures for our Newsletters, and other events.

We all deeply appreciate the Ray Bradley family’s exceptional OUTREACH efforts as well.

And, "Welcome’s" are extended to former member Eric Sheldon (rejoined), and Scott Budd (see "Welcome Mat" section by Frank).

I am sure I have missed some other folks’ contributions like Dan Chrisman for their collective excellent advice. And, hope you will forgive me for that.

Lastly, Saturday Night on Sept 23 was a beautiful, stunning night for observing weatherwise after (Continued on page 7)
(Continued from page 6)

Observing group with Frank Baratta at Cahas Mtn Overlook on Sept 23, 2017

getting skunked the weekend and Friday night before. We saw some old friends, and made a few new ones up at Cahas Mtn Overlook-- and we hope to see those folks at future meetings, or the picnic! [See photo of observing group at Cahas Mtn Overlook on Sept 23, 2017.]

See many of you at the picnic, and you know how to reach me if you have any ideas, suggestions, or thoughts.

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**Get Connected!**

Want to be more in touch with other RVAS members? Join the RVAS Yahoo Group! Share last-minute observing plans, articles, ideas, astrophotos— you name it. You’ll need to have or create a Yahoo email address. Click the link below. Once logged in, provide the information requested, including your real name since the group is only for members and those invited. You’ll receive an acknowledgement from the moderator.

https://groups.yahoo.com/neo/groups/RVAS_Club/info

For assistance, call the RVAS Message Line (540-774-5651). We’ll have you connected in no time!

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**Use Our Message Line!**

Want to check whether anyone is getting out on a scheduled observing session night or share that you’re planning to do so? Have questions about the club or need its assistance? Call the RVAS Message Line, 540-774-5651, and leave a message or listen for any information available.
Are You Receiving Your Newsletters and Other Club Emails?

To save having to download newsletters from our website, these and other items of interest are emailed to members. If you have not been receiving these items by email, please let us know by calling the RVAS Message Line at 540-774-5651. Please also check whether your spam blocker is intercepting our emails.

As for any membership organization, the RVAS experiences turnover with each annual renewal cycle. People move, interests change, work conflicts arise, and a host of other circumstances compel some members to leave as new members arrive.

In the midst of this ongoing change we can easily overlook the enduring stable core in our membership. Which is to say, of our current 64 memberships (comprising over 100 individual and family members), a large fraction has been part of the RVAS family for a long time. And it’s important to periodically recognize and thank our members for their loyalty.

Here are our current memberships (last names) that have at least 5 years with the RVAS (and a couple on the doorstep), showing the month and year their RVAS membership originated:

- 30 years or more: Hodges (1/86); Baratta (7/86)
- At least 25 years: Richert (10/89); Stinson (11/89); Montoro (3/91); Hamilton (4/91); Thomas (David and Remona; 7/92); Holtman (10/92)
- At least 20 years: Minnix (4/94); Pommerenke (10/95); Goss (11/95); St. Angelo (9/96); Mesimer (4/97)
- At least 15 years: Overstreet (< 1/83*); Caffrey (2/99); Good (11/99); Thaler (2/00); Hatfield (02/00*); Skelly (3/00); Thomas (Clark; 6/02)
- At least 10 years: Wood (11/02); Bowden (12/03); Davis/Stinnette (12/03); Dillon (8/04); Sowden (10/05); Rader (11/05); Matthews (8/07)
- At least 5 years: Wimmer (10/84*); Holland (11/03*); Crouch (4/07*); Hill (11/07); Elechi (4/08); Jones (8/10)
- Nearing 5 years: Bowman (11/12); Chrisman (12/12)

* Names with asterisked dates indicate a break in and later resumption of the membership.

Fully 50% of our memberships count at least 5 years with the RVAS. Mark Hodges wins the prize for the current member with the longest consecutive history with the club, closely followed by Carolyn and my humble self. Interestingly, the current members with the earliest joining dates are John Overstreet (our records only indicate it was prior to January 1983), and Keith Wimmer (October 1984); both left the club for many years before the unavoidable gravitational attraction of the RVAS drew them back in November 2007 and August 2016, respectively.

Thanks to these—and all—of our members for their support of the RVAS and amateur astronomy in our area!
ANNUAL RVAS PICNIC AND STAR PARTY
Saturday, October 14, 2017, 2:30 p.m. until???
Apple Ridge Farm, Copper Hill, VA.

Our annual bash for members and their families is nearly here! It’s an afternoon and evening of food, fun and friends, with prize drawings and solar viewing and stargazing, weather permitting, that you don’t want to miss!!! Bring a covered dish, salad or dessert (and serving utensils). The burgers, hot dogs, beverages and tableware are provided by the RVAS.

If you haven’t signed up yet to attend, time is running out! Call the Message Line, 540-774-5651, and provide your name, phone number, number of adults, teens and children coming and the food item(s) you’re bringing.

Need directions? Google Apple Ridge Farm, 9230 Pine Forest Rd, Copper Hill, VA 24079.

Reminder: This event takes the place of our October monthly meeting! The next regular monthly meeting, which is open to the public, will be November 20th in Classroom A, third floor, Center on Church, 20 E. Church Avenue, downtown Roanoke.

VAAS 2017
Saturday, October 21
in
Virginia Beach

• Speakers & Presentations
• Planetarium Shows
• Solar observing
• Star Party cookout
• and more

http://backbayastro.org/VAAS/index.html
RVAS from the Past

By Bill Dillon

RVAS 25 Years Ago

In October of 1992, as the last signals from the Pioneer Venus Orbiter were being received, and a 13 kilogram meteorite landed in a driveway in Peekskill, NY destroying the family’s 1980 Chevy Malibu, the Club was looking forward to a special monthly meeting in November scheduled to take place at the Addison Aerospace Magnet Middle School’s Space Shuttle Simulator. Thanks to the efforts of member Fred Hoffman, members and guests attending the November 16th meeting will get a tour of the simulator and mock mission control center.

The regular October 1992 meeting will feature a presentation by member Gary Close presenting the latest images of Venus obtained by the Magellan spacecraft. Through slides and commentary, Gary will describe what Magellan has taught us about Earth’s sister planet.

The Friday evening prior to the RVAS October monthly meeting, UVA’s Fan Mountain Observatory will be holding an open house and public star party.

The October 1992 newsletter reported on the Society’s first-ever observing session at Smith Mountain Lake State Park. The August 1st event which lasted until 11:00 PM when the park closed, was enjoyed by members Jim Way, Bill Jones, Bill Perry, Dave Thomas, Bill Wright, Gary Close, Frank Baratta and Vince and Phyllis Talley, and about 25 campers and local residents who showed up to share the evening. The viewing under clear, dark skies was very good allowing great views of Jupiter and its four Galilean satellites and many deep sky objects. The result was a good night for members and a worthwhile outreach event as well.

RVAS 10 Years Ago

The newsletter from October 2007 celebrated the 2007 RVAS Picnic touting “Door Prizes for Everyone”! Saturday, September 15th, a beautiful day for a picnic, saw 23 members and guests enjoy the great weather, good food prepared by Head Chef, Mark Hodges, and some good observing. The 23 Door prizes awarded included planispheres, books, calendars, Barnes and Noble gift cards, and several of the famous RVAS coffee mugs.

The RVAS Dark Sky Committee Chair, Genevieve Goss, was asking all club members to become familiar with the resources available on the IDA website, http://www.darksky.org. Members were also reminded that the IDA was offering a one-time reduced membership to members of the Society.

The newsletter included an interesting and thoughtful essay by Clark Thomas titled, “Zenastronomy”.

There was also an article by John Goss on “Observing for the morning person”, which touts the splendid objects that can be viewed in early morning skies at this time of the year, especially Mars, Venus, Saturn, and in 2007, the Orionid meteor shower.
Welcome Mat

The Society bids a warm and cordial welcome (back!) to Eric Shelton, who rejoined the club in July. Eric’s originally from Botetourt County and returned there in 2010, after being away for 28 years. He first joined the RVAS soon after returning, but work and other demands limited his time with the club to just a year. A 1982 Virginia Tech graduate in mechanical engineering, he’s now retired, as is Julie, his wife of 25 years, who’s originally from Waynesboro and formerly an attorney. Eric can’t remember a time when he wasn’t interested in astronomy, so with time now available he was eager to resume his RVAS membership. Equally so, Eric was keen to return to service his pride and joy 18-inch truss-type Dobsonian, which had lain dormant all too long. He’d built the instrument in 1998 using an Astro-Systems kit and a Nova Optics f/5 mirror, and then motorized it. He also has a 10” Meade LX200 SCT and is trying to apportion time to repairing its ailing electronics. When not thinking about getting out to hunt for his favorite deep sky targets—galaxies and galaxy clusters—Eric enjoys brewing beer and woodworking.

Eric, we’re glad to have you back with us! And it was a treat enjoying your company at Cahas last month and getting views through that beautiful 18-inch of yours! As far as that ailing 10” Meade, we’re sure some of our members would be happy to offer their thoughts via our Yahoo Group on how to restore it to full functionality.

Welcome Mat

The Society bids a warm and cordial welcome to Scott Budd, of Chatham, who joined the RVAS in July. Alabama-born, as a child Scott’s family moved to the Danville/Pittsylvania County area, which he’s considered home ever since. Scott was in the Navy for eight years, after which he returned to Danville and worked for a computer networking firm. Pittsylvania County soon lured him, and he’s been its IT Director for the past 18 years. Scott’s interest in astronomy began as a child, spurred by visits to his uncle, who had a classic, orange-tubed C-8 telescope. That interest lay fallow during his teens and through his time in the Navy (though he recalls magnificent nights while at sea), but was rekindled when he decided to buy a scope for his daughter. About 18 months ago he bought a 10” Orion Dobsonian, a leap forward in aperture from the 70mm and 80mm refractors he also owns. Scott recently acquired a DSLR camera and is looking for a wide angle lens, and plans to get into astrophotography, starting with wide-angle imaging of the Milky Way. Graced with decent sky at home, he favors viewing deep sky objects, especially open and globular clusters, but also planets. In addition to astronomy, Scott’s enjoys gardening around his home, barbecuing (including sampling various woods with his smokers), learning computer languages and programming, watching TV and reading.

Scott, thanks for joining the RVAS! We’re glad to have you as a member and gratified to learn that you found our meetings to offer the camaraderie and content you’d been seeking. And thanks as well for trekking (along with Patsy, your fiancée!) from Chatham to Cahas last month for observing with some of your newly found RVAS friends!
Monthly Calendar

2017 RVAS PICNIC and STAR PARTY: Saturday, October 14th, 2:30 p.m., Apple Ridge Farm, Copper Hill, VA. Our annual gathering for members and their families. It’s an afternoon and evening of food, fun and friends: solar and night sky observing; door prizes; and who knows what else! The burgers, hot dogs, beverages and tableware are provided by the club. Everyone is asked to bring a side dish, salad or dessert. See elsewhere in this issue for additional details, including how to sign up. Our regular monthly meetings, which are open to the public, resume on Monday, November 20th, at 7:30 p.m. in Classroom A, 3rd floor, Center on Church, 20 E. Church Avenue, in downtown Roanoke.

RVAS WEEKEND OBSERVING OPPORTUNITIES: RVAS members observe from various sites. Cahas Knob Overlook, at milepost 139 on the Blue Ridge Parkway, is the traditional location most frequented. For updates on members’ observing plans, log onto the RVAS Yahoo Group (RVAS members only) and/or call the RVAS Message Line, 540-774-5651, about an hour before sunset on the indicated dates.

-- Friday and Saturday, October 13th and 14th. Sunset is at 6:45 p.m. Astronomical twilight ends at 8:11 p.m. The Moon sets at 3:20 and 4:04 p.m., respectively. (Note: October 14th is the 2017 RVAS picnic and star party—see above and elsewhere in this issue.)

-- Friday and Saturday, October 20th and 21st. Sunset is at 6:36 p.m. Astronomical twilight ends at 8:03 p.m. The Moon sets at 7:31 and 8:05 p.m., respectively. (Note: October 21st is the 2017 Virginia Association of Astronomical Society (VAAS) Conference in Virginia Beach.)

-- Future Weekend Observing Opportunities: November 10th and 11th; November 17th and 18th.

ROANOKE CITY PARKS and RECREATION PUBLIC STARGAZE: Saturday, October 21st, 7:30 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: November 18th, 6:00 p.m., Cahas Knob Overlook.)

Astro-Quiz

Unlike other types of dwarf stars (red, brown and white), black dwarf stars have never been detected and, so, remain entirely hypothetical. Why is that?

Answer to Last Month’s Quiz: We asked which two types of stars are "stellar opposites": one, hot but not bright; the other, bright but cool. The first is a "white dwarf", the second, a "red giant." Interestingly, both are evolutionary phases of stars of modest mass such as the Sun. After burning hydrogen for billions of years, such stars swell into "red giants," with radii as great or greater than Earth’s orbit and surface temperatures as low as 3,000ºK. But they’re bright because of their huge size. Eventually they shed their swelled outer atmosphere, leaving behind an unimaginably dense core—a "white dwarf"—the size of the Earth, with temperatures as high as 30,000ºK and higher. Hot, but dim because of their small size. Have an answer to this month's quiz (or a future question and answer to suggest)? E-mail it to astroquiz@rvasclub.org!