METEOR


METEOR is the official publication of both the Greenbelt and Goddard Astronomy Clubs and is distributed monthly as a privilege of membership in one or both of these organizations. Articles and other contributions are welcome. Membership in the Greenbelt Astronomy Club is open to all, but membership in the Goddard club is only open to NASA civil servants and contractors. The Greenbelt club meets on the last non-holiday Thursday of the month at 7:30 pm EDT at the Owens Science Center. The Goddard Club meets on the second Tuesday of the month at the Goddard Space Flight Center at noon in Bldg.#3 Rm. #200. The address of the Editor is: 58-D Crescent Road, Greenbelt, Maryland 20770.

Goddard Astronomy Club

The Goddard Astronomy Club held its monthly meeting on Tuesday, June 14th in Bldg. #3 Rm #200. President Don Haxton started a discussion about the comet SL-9 Jupiter impacts, and the evolution of the spots as seen with different size telescopes. Some drawings of the planet that showed these impact sites evolving were shown. The Perseid Shower and Stellafane were also mentioned. A new supernova in NGC 4041 was announced. It was 13.5 magnitude and was discovered by two Italian amateur astronomers visually.

Greenbelt Astronomy Club

The monthly meeting of the Greenbelt Astronomy Club took place Thursday, August 26th at the Owens Science Center at 7:30 pm. Russ mentioned the astronomy class that was going to be taught at the OSC starting September 29th. Help is welcome. Talk to Russ if you can help. Astronomer Dr. Robert Landis of the Space Telescope Science Institute in Baltimore will be the guest speaker at the September club meeting. The Labor Day festivities was mentioned. We will have a table at the Fair Grounds on the problems with light pollution on Saturday September 3rd from noon till 5:00 pm EDT. There are two more Northway Fields Public Star Parties on the 10th of September and October 8th at 7:30 pm.

Northway Fields Star Party - by Russ Waugh

The August Star Party was held at Northway Fields on the 13th. Six dedicated observers were in attendance. Russ Waugh had his Celestron 8 and Don Butler brought his all-wood 8-inch f/6 Dobsonian. Clouds parted to allow quick peeks at the quarter moon, iter (no comet marks were seen), and several double stars, including Albireo and Mizar. In spite of the poor conditions, the observers enjoyed the outing, and look forward to the next star party. The next Northway Fields Star Party is September 10th at 7:30 pm EDT.

More on Jupiter SL-9 Impacts

Many of the comet SL-9 Jupiter impact sites have faded from view. It was dramatic to watch these spots evolve and eventually turn into a new band on the gas giant. Both Curt Roelle of the Westminster Astronomical Society, and Lynne Gilliland and I saw the G and L spots join during the first week of August. Curt used his 20-inch Dobsonian and we used my 4-inch f9 refractor at 191x. Jupiter will soon be hidden from view as it enters another conjunction with the Sun for a month or so. It will then reappear in the morning sky. It will be interesting to see what the new band looks like then, or if any of the large spots are still visible.
There was at least seven members of the Goddard and/or Greenbelt Astronomy Clubs who attended this year's Stellafane Convention, which was held the weekend of August 5th-7th. Although the sky was cloudy early Friday August 5th, by half past midnight it cleared up beautifully. Besides the many meteors that were seen, Jupiter, Saturn, and many deep-sky objects were observed. The naked-eye summer Milky Way was a beautiful sight to behold.

Goddard Astronomy Club members Dan Schultz and Tom Bryant set-up their equipment on Breezy Hill. Dan had his homemade barn door camera mount entered as an exhibit, while Tom just had his 10-inch f5.5 reflector (The Jewel Box) set-up for viewing the sky. Forrest Hamilton from the Space Telescope Science Institute had his very nice 6-inch f5 reflector binoculars entered in the telescope contest. These binoculars gave great stereo views of many deep-sky objects that night. It was a blast sweeping the starfields with them.

As usual, there was many great bargains at the Saturday swap table to be had. Those who went to it found many nice astronomy items and telescope building materials. The usual BBQ chicken dinner with baked beans and Vermont roast corn on the cob was served on Saturday evening. The Saturday evening talks included a eulogy to the late Walter Scott Houston and a talk on the repaired HST by the new STScI director Dr. Williams. The latest images of the Shoemaker-Levy 9 Jupiter encounter were shown during his excellent talk.

Saturday night was beautifully clear and many observers stayed up late or all night. Seeing Perseid and Delta Aquarid meteors darting across the Milky Way filled sky was all of fun. It was another excellent Stellafane convention for lovers of the stars.

This Year's Perseid Maximum

Several Perseid meteors were seen at this year's Stellafane convention by members of Goddard and Greenbelt Astronomy Clubs. Of the 98 meteors that were seen in about three hours of observation, 37 were Perseids. Many were seen coming from the Aquarid complex. A minor Perseid radiant near the star Xi Persei was active. At least eight meteors were seen coming from this secondary Perseid radiant. A nice -3 mag. Perseid with a ten second train was seen at 3:53 am EDT on Saturday morning. A -4 mag. or brighter non-Perseid was seen Sunday morning by many on Breezy Hill observing near the Porter Turret Telescope.

The night of the first maximum, Aug. 11/12, was cloudy for many, but reports from Greenbelt Astronomy Club members in California indicated high-rates around 12.4 UT. From Vaca Ville, Gladys Gilliland saw many Perseids watching from her porch steps; from Santa Rosa, Evlyn Goodwin reported that she saw many Perseids from a dark spot in her yard and that: "they were coming from every which way and some left long green or white tails behind them". The ZHR was estimated to be about 300 per/hr based on several reports, but lasted for only a half hour or so. By the next night, the Perseids were back to normal.

The night of the traditional Perseid peak was Friday August 12/13. Jeff Guerber and his father saw only 8 Perseids at Hopewell Observatory with scattered clouds. Both Lynne Gilliland and George Gliba went to the Mountain Meadow site in Mathias, West Virginia. This fine dark sky site belongs to members of the Westminster Astronomical Society of Westminster, Maryland. Although the weather there was also partly cloudy, they had better luck than Jeff and his father. At least 50 Perseids were seen. One seen by both Lynne and George was a -1st magnitude Perseid that split in two with the two pieces burning out and leaving a green train. Although the rates were still climbing after 3:00 am EDT, the clouds put an end to the display. Goddard and Greenbelt club member Doug Caprette had decided to get married on the day of the traditional Perseid peak. Unfortunately, the only shower they saw was the worse rainstorm in the Chagrin Valley Ohio area since the Apollo 11 Moon landing over 25 years ago. Let's hope their first anniversary has a clear sky for the Perseids. Best of luck to Doug and his wife Delride.

Shooting Stars In the High Desert

by Michael Mackowski
(McDonnell Douglas Aerospace)

This summer my family and I vacationed in Arizona, visiting family and friends in Phoenix and Tucson with a side trip to Grand Canyon National Park. I was able to time the excursion to the Canyon to coincide with this year's Perseid meteor shower.

The plan was to stay at the park's Mather campground on the South Rim the nights of August 11 and 12, which were supposed to be the best nights for the sky show. On the way up from Phoenix, we drove through some heavy
thunderstorms, and I wondered if the skies were going to clear. August is the rainy month in Arizona and nearly every day on the trip had brought late afternoon showers. We arrived early Thursday evening and set up our tents in a light drizzle. I set my alarm for 1:30 am MST (8:30 UT, August 12). The rain was slowing down and I was hoping for the best.

When my alarm buzzed I looked out of the tent and saw the glow of the Milky Way draped over the arc of the sky like a sparkling curtain. I knew then that this would be a good night for meteors. Although most of the sky had cleared, there were still a few clouds in the north and east, but they were low in the sky.

At an elevation of 6000 feet, the sky was gorgeous and full of stars. It was still damp from the earlier rain and the temperature was about 60°F, and the brighter stars twinkled quite a bit. But the dust lanes near Cygnus were very apparent with a lot of structure visible with the naked eye.

The meteor shower turned out to be very impressive, but I wouldn’t describe it as a “storm”. I’m not much of an observer or a meteor expert. I made no attempt to count or chart what I saw. I was mainly there to enjoy the spectacle and to soak in the experience of a display of Nature at her best.

The meteors seemed to come in spurts. I saw as many as three in 30 seconds and five in two minutes. Then it might be several minutes before I saw another. Of course, this is only a single observer looking in the clearest portion of the sky. Once I realized it would be a good show, I woke up the rest of the family and they were able to share the experience.

At first I spent a lot of time looking towards the radiant in Perseus. This part of the sky was fairly clear, even though that general direction was the most cloudy (especially lower, towards the horizon). While looking in other directions, like at the impressive Milky Way, I soon noticed that most of the brighter meteors, including many with the most obvious and longer trails, were near the horizon, particularly in the south and west. I saw several long trails low in these directions with the sparkly trails lasting only two or three seconds. Occasionally I would catch a very bright Perseid out of the corner of my eye, high overhead near the zenith, leaving a long glowing trail.

By their direction, I could tell that many meteors were not Perseids, and few of these seemed to have the prominent trails that seemed to be associated with Perseid members. Only one or two of the very brightest meteors showed any hint of color, that being a pale electric blue. These were not the norm, and they had only the slightest hint of color.

I took about 20 time exposures on ISO 400 black and white print film. I think two or three had meteors in the field of view while the shutter was open. I’ll report the results when I get the photos back. The next night I tried again but the rain returned and it drizzled nearly all night, washing out any further viewing. But that single night of clear skies and shooting stars in the high desert of Arizona will be remembered for a very long time.

President’s Column
Russ Waugh (ph: (301) 552-1851

Boy, was I wrong about the comet and Jupiter! The impact sites were easy to see after all, even in amateur telescopes. It is possible we will still see some lingering scars on the giant planet after it emerges from conjunction with the sun a few months hence.

As you know, there was strong public interest in this event. Let’s hope it translates into continued public interest in astronomy. Telescope sales were up, as they were for comets Kohoutek and Halley. Will these new telescopes end up gathering dust in the closet like their predecessors? We can do several things to help prevent that happening.

1. Help the club at the Greenbelt Labor Day Festivities. We have a table which will be stocked with brochures and pictures. We need as many people as possible to staff the table on Saturday, September 3, from 12 to 5 PM. Even if you can only stay an hour, we need you. Please call Russ for directions if you need them.

2. The club is co-sponsoring an adult education astronomy class with the Owens Science Center. The class will meet Thursdays from 7:30 to 9:30 PM for 10 weeks beginning September 29, in the planetarium. Several club members have already
agreed to help with presentations to the class. If you have an astronomical
topic, anything at all, that you’d like to share with the class please call
Russ. I intend to have the students learn to use telescopes, and the help of
all members will be needed for that. The time period from 8:45 - 9:30 for each
class will be set aside for outside observing. All club members are invited to
bring their telescopes during that time. Even if you don’t have a scope, come
anyway; I have several telescopes here at the Science Center that you can help
with. Of course, club members are invited to be with the class anytime, not only
telescope time.

3. The next star party is on September 10 at Northway Fields, at 7:30 PM. It
will be advertised in local papers, so I hope there will be a good public
turnout. Please, we need you to help also. The more club members are there,
the better (reminder: I can arrange for you to help with a scope even if you
don’t have your own).

4. The next club meeting is September 29 (same as class night) at the Science
Center at 7:30 PM. Dr. Rob Landis from the Space Telescope Science Institute
will be here to talk about some of the results of HST observations of the comet
impact on Jupiter. It will be good, please plan to attend!

5. A special star party at Northway Fields is planned for Saturday, October 8 at
7:30 PM. Students and teachers from Allenwood elementary School will be in
attendance, so we need lots of telescopes. Can you help?

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58D Crescent Rd.
Greenbelt, MD 20770