The Meteor
The Newsletter of the Astronomical Society of Greenbelt
Nov. 2008

The Meteor is the official publication of the Astronomical Society of Greenbelt, Greenbelt, MD. Articles and other contributions are welcome. Membership in the Astronomical Society of Greenbelt is open to anyone interested in astronomy. The Astronomical Society of Greenbelt is a not for profit community based organization with the goal of encouraging public interest in science & education in general, astronomy in particular.

More detailed information on our club activities and organization can be found at the website of the Astronomical Society of Greenbelt.

The editor of this newsletter, Craig Levin, can be contacted at clevin AT ripco.com. Unless specified, all articles were written by the editor.

Editor's Notes

I regret that events of the past month resulted in me being unable to join everyone at the star parties. Thanks to 2 good people, I am able to bring the news of what happened to everyone.

If you would like to see something in the Meteor that you currently don't see, please contact me, & I will do my best to fit it in. Please write something for the Meteor-book reviews, observing notes, whatever you'd like to write of an astronomical nature.

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<th>Officers (elected positions) for 2008-2009</th>
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<td>1 Star Party at Northway</td>
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For a preview of this month's celestial events, see the Harvard/SAO's [Current Night Sky](#) webpage. November, like October, is a great month for meteors. The famous Leonids will return to give a show on the 17th & 18th, although this year's performance probably won't be like the one from 1999.

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**Star Party & Business Meeting Reports**

10/4 & 10/5, by Alan Whittemore:
I arrived around 8:00, to find Doug, Martha, Nelson, and several non-members already set up and observing. Carol joined us soon after. Unfortunately, conditions weren’t especially good - the sky was unsteady, transparency was poor, and bands of broken cloud were beginning to pass over us from north to south. The moon was a thick crescent close to setting in the southwest, and telescopes were being turned away from it and on to Jupiter, which was higher up. Despite the unsteady sky, we saw banding on the planet, and had a good view of the bright moons. The poor transparency and increasing cloud cover hampered attempts at viewing deep-sky objects. Doug found Albireo in the 13-inch, and got a glimpse of the Double Cluster very low in the northeast, but even Mizar and Alcor were blotted out by cloud before he could line up on them.

A former member whose name I can’t recall came just before 9:00, and caught up with the news from Doug, but by then the sky was almost completely overcast, and he left without observing. The rest of us packed up and left soon after.

I did stop by the Roosevelt Center around 9:00 on Sunday night, but the moon had set, Jupiter was behind the buildings, and nobody was there.

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10/18, by Doug Love:

I got there around 7, and Alan Whittemore was setting up. We talked for awhile until 2 neighbors came to look. I set up the 13” in time to show them Jupiter with 4 moons in a ragged line to the left, and 2 nearby stars. At 8, more clouds came, and I went.

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10/30, by notes from our new secretary:

Observatory parking will be blocked by bollards when we are not around. The bollards will be supplied by the city of Greenbelt.

Sue & Mark spoke about eclipses that they had experienced. Sue has been chasing eclipses since 1972. She's witnessed one annular eclipse, & several total eclipses. While an eclipse of the Sun occurs at least once a year, it isn't necessarily in the most convenient place for an amateur astronomer, especially since the eclipses with the longest totality happen at noon in the tropics. The best sites to find out about eclipses lengths & locations are: [http://www.mreclipse.com](http://www.mreclipse.com) & NASA's [http://eclipse.gsfc.nasa.gov](http://eclipse.gsfc.nasa.gov).

Mark spoke about his experiences while chasing the eclipse of the Sun that took place this August in Siberia. As an illustration of the costs in chasing eclipses, Mark noted that his trip cost him $5,000 plus travel expenses.

The elections for our officers was held after Mark's speech. All of the officers were elected by general acclamation. They are listed above.
Pictures in the Sky


Nick Kanas, a psychiatrist in San Francisco, is a collector of antique maps & an amateur astronomer. Fortunately, he seems to have the time not only to enjoy two fascinating hobbies, but also to research the history of uranography—the mapping of the night sky—and then share his discoveries with us.

Dr. Kanas traces the history of astronomical imagery back to the rise of civilization. At first, among the ancients, placing the constellation pictures in their right places on a map or globe took precedence over placing the actual stars themselves on one. As the centers of learning shifted from Rome & Alexandria to the Muslim cities of Spain & what would eventually become Syria & Iraq, the idea of combining pictures & stars was hit upon. With the rebirth of learning in Europe, the tradition of including both constellation pictures & stars continued until the last century or so, as the constellation pictures were beginning to be seen as clutter on a map of stars & Messier objects, & lost their relevance when education no longer included a familiarity with the cultures & languages of Greece & Rome.

Dr. Kanas also looks at the history of cosmography—not so much maps of the night sky, but of the cosmos. Starting with diagrams of Ptolemy's system of the planets circling around the Earth against a backdrop of the zodiac, he takes us through the time when the systems of Copernicus, Ptolemy, & Tycho each needed to be represented, & finally to our day's images of a small Earth circling an average star, which is in turn a mere suburbanite resident of one galaxy among many. He also discusses the early history of selenography & planetography. Dr. Kanas covers the tools of the uranographer's trade both before & after the invention of the telescope, & how uranography, even today, has a distinct human & artistic element.

The book is bubbling over with illustrations, many in color. If you have ever wondered how astronomers' observations go from notes to maps, looked longingly at an old atlas with the swirling dances of the constellations, or wondered what all those lines are for, this is a book you will want to read.

The 1st Anniversary of P17/Homes Outburst

by G.W. Gliba

[parts taken from Entertainment and Showbiz! Ads by Google]

It was about a year ago that we were observing the phenomenal outburst of comet P17/Holmes. We watched it as it initially looked like a 3rd magnitude nova in Perseus, after having exploded from an obscure 17th magnitude object in a day or so, and grew into a large ghostly naked-eye object by Halloween. According to the Weekly Information about Bright Comets website, it can still be seen as a faint large extended object in a dark sky. I have not seen it again yet, but will try to see it soon, as it is now well placed in the evening sky.

Every six years, comet 17P/Holmes orbits the planet Jupiter and heads inward toward the sun, traveling the same route typically as a faint obscure comet. However, twice in the last 116 years, in November 1892 and October 2007, it exploded as it approached the asteroid belt, and brightened a million-fold in
only a few hours.

Since that time, a lot has been learned about this strange comet. Observations made by the NASA's Spitzer Space Telescope has shown that the material liberated from within the nucleus has confirmed previous findings from NASA's Stardust and Deep Impact comet missions about silicates in the nucleus of comets. "The data we got from Spitzer do not look like anything we typically see when looking at comets," said Bill Reach of NASA's Spitzer Science Center at Caltech, in Pasadena, California.

In November of 2007, Spitzer's infrared spectrograph noticed "a lot of fine silicate dust, or crystallized grains smaller than sand, like crushed gems", according to Spritzer scientist Bill Reach. "Comet dust is very sensitive, meaning that the grains are very easily destroyed," said Reach. "We think the fine silicates are produced in these violent events by the destruction of larger particles originating inside the comet nucleus," he added.

However, when Spritzer looked at the comet again in March this year, the silicates were no longer small, but were larger in size. "The March observation tells us that there is a very small window for studying composition of comet dust after a violent event like comet Holmes' outburst," said Reach.

According to Jeremie Vaubaillon, a colleague of Reach's at Caltech, pictures snapped from the ground shortly after the outburst revealed streamers in the shell of dust surrounding the comet. Scientists suspect that they were produced by fragments escaping the comet's nucleus after the explosion. When Spitzer imaged the same streamers in March 2008, they were surprised to find them still pointing the same direction as five months before, even though the comet had moved and sunlight was arriving from a different location. "We have never seen anything like this in a comet before. The extended shape still needs to be fully understood," said Vaubaillon. (ANI)