The Meteor
The Newsletter of the Astronomical Society of Greenbelt
July 2009

*The Meteor* is the official publication of the Astronomical Society of Greenbelt, Greenbelt, MD. Articles & 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's activities & organization can be found elsewhere at our [website](#).

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

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**Editor's Note**

I’m always looking for contributions to our newsletter. Pictures are as welcome as articles!

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**Elected officers for 2008-2009**

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<tr>
<th>Office</th>
<th>Name</th>
<th>Email Address</th>
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<tr>
<td>President</td>
<td>Martha Gay</td>
<td>marty_lou AT comcast.net</td>
</tr>
<tr>
<td>Vice-President</td>
<td>Glory Houck</td>
<td>N/A</td>
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<tr>
<td>Secretary</td>
<td>Elizabeth Levin</td>
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<td>Treasurer</td>
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### Notable Astronomical Events in the DC Area

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<th>Sunday</th>
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<td>Happy Independence Day!</td>
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<td>Lecture at UMD Observatory 9 PM</td>
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<td>11 Star party at Northway Field 9 PM/NCA Meeting</td>
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<td>NOVAC meeting 7 PM</td>
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<td>18 NOVAC star party Sundown</td>
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<td>20 Lecture at UMD Observatory 9 PM</td>
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<td>Star party at Northway Field 9 PM/NCA Exploring the Sky</td>
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<td>26</td>
<td>Sidewalk astronomy at Roosevelt Sq. 7:30 PM</td>
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<td>Star Party &amp; General Meeting Reports</td>
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#### June 13: Star Party: Doug's Report:

"It had been tentatively clear when I started my nap Saturday afternoon, but when I woke for dinner, the clouds had rolled in. Through the empty patches in the low-lying nimbus clouds, I saw stratus above, hearkening to the rain that would fall at midnight.

Martha arrived just before me, and opened the chain gate. I followed her up the hill, and opened the observatory. As I turned the opened dome to the south, I saw Alan Whittemore walking up the parking lot. As I checked him out on use of the 'Scope, a father and son came up to see what we were doing. We gave them the tour, complete with a view of the tulip trees across the darkening ballfields, and invited them to the next star party and meeting, where we will discuss what we need to do next at the Observatory."
We finished replacing charged batteries, and closed at 9:20. The clouds continued to roll by, until they precipitated on Greenbelt at midnight. The dog in my bed sniffed at the rain through the open window, and was happy to be indoors."

**June 25:** General Meeting: We'll run a Labor Day festival booth, as we have in the past, except that we will be giving some things out for free, such as IYA bookmarks. We'll also give a school-friendly packet to any child who correctly answers a certain fraction of the questions on a quiz that Elizabeth Levin will write. It appears that we can order a gross apiece of the components of the packet (notepad, pencil, stickers, & rub-on tattoos) for about $75-$80, for which Elizabeth will be reimbursed. We'll also raffle off a donated refracting telescope at 2 tickets for $1. Glory has volunteered to rebuild the Saturn's rings game.

There was also some discussion about the observatory. Martha will obtain a battery charger & a telescope cover. Glory will donate a pair of storage units with drawers & possibly a bookcase as well.

**June 27:** Star Party: Elizabeth & I arrived later than we expected. The sky was hazy for several degrees above the horizon. I tried to look for M.4, but Antares was surrounded by the light pollution's glow. Martha was giving a guest a rundown on the observatory & on getting started in astronomy. Kevin was alternately viewing different objects through his refractor. Elizabeth & I set up, followed shortly by Michael Chesnes (the editor of the NCA's Star Dust). At one point or another, Saturn, the Moon swimming in the haze, Albireo, ε Lyrae, M.13, & M.57 were under our scrutiny. Unfortunately, we were also under the scrutiny, & then the assault, of bugs. Eventually, Martha closed up the observatory & went home, followed by Kevin. The rest of us remained to enjoy the spectacle for a while longer, & closed up shop around midnight, as clouds swept in from the North.

**June 28:** Sidewalk Astronomy: At the time when this month's session would've begun, the view of the sky from where Elizabeth & I live was clouded over. Coupling that with the generally cloudy Accuweather™ forecast for the area, we decided to remain at home. If you ventured forth to Roosevelt Sq., please let me know, & I will include your account in the next issue.

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**June 6: Antares Occultation**

Shortly after ten on the evening of the 6th, Doug, Michael Chesnes, Elizabeth, & I met at Northway Field to witness the occultation of Antares. Michael was the first to arrive, followed in quick order by the rest of us. Doug opened up the observatory, & we synchronized our watches. I set mine earlier in the day to our computer's clock after it was synchronized to the NIST clock in Colorado. Then, we compared our watches to Elizabeth's cell phone, which gets a time tick, & we were right on the money. Doug asked us if we would like to time the occultation using the C14, but as none of us save Doug were trained on it, we declined. Instead, we set up shop just outside the observatory door & observed through binoculars.

The nearly full moon filled our binoculars with light, & the poor quality of the air created a sort of halo that made it hard to see Antares against the sky. Unfortunately, we lost sight of Antares before Doug did, with me holding out maybe fifteen seconds before he saw the star disappear behind the Moon-my wrists buckled, because they'd been holding up my 9x60 mm binocs for about ten minutes-next time, I'm using my tripod! After Antares disappeared, we turned the C14 to Saturn, & Michael took the opportunity to draw the planet, in spite of the murk to the southwest. Shortly after Michael completed his drawing, we left Northway.
Doug's Account of the Occultation

Our first research night at the observatory was a great success. I showed up a little after 10, and everyone was waiting down below. I soon opened up and invited everyone up the hill. Craig and Elizabeth Levin and Michael Chesnes set up next to the Rover, which was there to provide emergency power to the dome, as the batteries hadn't been charged. We ended up operating the Dome on the Green Circuit. The red lights flickered while the dome was opening and closing, but everything worked fine.

Nobody else wanted to observe the occultation from the 14", so I did. I set my stopwatch to start at 10:20 by Craig's watch, and recorded disappearance at 10:37:32.28, probably good to .1" This is close to 10:37:36 predicted on the IOTA website.

It blinked out immediately, not slowly as Sky and Telescope had predicted it might. I saw it disappear between Hevelius and Grimaldi, both of which were on the edge. Antares disappeared behind a bay on the southwest side of Oceanus Procellarum just northeast of Grimaldi. It resembled a crater with a diagonal gash through it, one of several large but short rays from Hevelius.

The others, with hand-held binoculars, had lost it 15 sec. earlier.

Michael Chesnes sketched Saturn for a few minutes after the occultation.

We closed at 11:05.

Summer Solstice Battle, between the fireflies and the stars

by G.W. Gliba

We went up to our cabin again on the night of June 20/21 to do some observing. It was the night when the Summer Solstice occurred. I was hoping to do a little meteor observing too, but the only meteor I saw was with 12x63 binoculars while looking for Comet C/2008 Q3 Garradd, which I was unable to spot positively, although I thought I may have glimpsed it. However, Lynne did see a nice meteor near the zenith going east to west, while I was looking at the Milky Way in Sagittarius. It was also a very windy, but serene night.

It stayed partly cloudy most of the night, until it finally clouded up completely around 4am EDT. During the time it was partly cloudy, I was able to get some good views with the naked-eye, Lynne's 8-inch Celestron SCT, and the 12x63 binoculars. We both got a good look a the globular M4 near Antares with the 8-inch, but most of our observing was done with the binoculars and naked-eye. The transparency was excellent through the sucker holes, reaching 6.6 or better at times. This allowed much structure to be seen while sweeping the Milky Way with the binoculars.

During clear periods, I was able to sweep from Cepheus to Scorpius, and saw many Barnard and Lind dark nebulae. There were also many emission and reflection nebulae, and star clusters. Most of the these were Messier objects. The Scutum and Sagittarius star clouds looked great. The small Sagittarius star cloud was particularly awesome, with the surrounding Milky Way serving as a cosmic backdrop.

Again, I noticed the void in Corona Borealis, where the variable star R Coronæ Borealis is usually seen. It is a rare type of carbon star, and like a reverse nova. It stays at maximum most of the time, which is
around 6.0 magnitude, and will drop down to 14th magnitude for a few weeks, before returning back to
6.0 magnitude. The current minimum is the longest it has been down in many years. I always look to see
if it has returned to its place in the Northern Crown, usually while meteor observing. I have been
watching this star for over 40 years now, and have never seen it absent for such a long time.

There were several fireflies visible in the nearby mountain meadows, but when it clouded up
completely, they became most numerous. It was as if there was a battle between the visibility of the
fireflies and the stars, and in the end the stars lost and the fireflies won, as the tree frogs and crickets
played in the background, punctuated by the sound of the wind blowing in the trees and meadows.