The Meteor is the official publication of the Greenbelt Astronomy Club, Greenbelt, Md. and is distributed as a privilege of membership. Articles and other contributions are welcome. Membership in the Greenbelt Astronomy Club is open to anyone interested in astronomy. The Greenbelt Astronomy Club is a not for profit community based organization with the goal of encouraging public interest in science and education in general, astronomy in particular. More detailed information on our club activities and organization can be found at Greenbelt Astronomy Club. The Editor of this newsletter, Albert T. Sheldon, Jr. Ph.D. can be contacted at greenbeltastroclub@yahoo.com.

Next Greenbelt Astronomy Club Star Party and Meeting
Star parties are scheduled on the first and third Saturday of every month at the James Wolfe Ball fields in Greenbelt. A map is available on the club web site. Hopelessly overcast skies will cause this event to be canceled. You are invited to attend and bring a friend. Since star parties are dedicated to observing the night sky, they will only be held if the sky is clear enough to permit observing. Star parties will not be held if skies are overcast or mostly cloudy.

Regularly scheduled meetings of the Greenbelt Astronomy Club occur on the last non-holiday Thursday of every month. The meeting starts at 7:30 PM at the H. B. Owens Science Center (Map) on Greenbelt Rd. in Lanham, Md. Theme for the meeting is announced in prior communications to the club by email and is posted on the club’s web site. All events and meetings are open to the public with an interest in astronomy.

Letter from the President
Since I wrote up my message for the last newsletter, I have been fortunate enough to observe two more major milestones. As I am sure you know by now, Cassini went into orbit around Saturn on the evening/morning of June 30/July 1. It was quite exciting to achieve this goal after doing my small part for the better part of the last decade, and toward which others have been working for over two decades.

Later in the month, I was thrilled to receive an invitation to attend a special observation of the 35th anniversary of the Apollo 11 moon landing. There were more people in attendance than could fit into the National Air & Space Museum’s auditorium, so Val and I had to be content to watch the ceremony on a video monitor. However, after the ceremony, I was able to see Jim Lovell, Eugene Cernan, Harrison Schmitt, Michael Collins, and Neil Armstrong in person. I missed my chance to see Buzz Aldrin because I was approaching Dr. Schmitt to introduce myself and ask for his autograph!

Most of July’s club activities were quite successful as well. In early July the officers met and discussed a variety of things. Most notably, we heard about continued progress on the observatory, and formally decided to participate in this year’s Greenbelt Labor Day Festival; my wife, Valerie, will be leading the club’s efforts for that activity. This is an important activity for the club because it allows us to reach out to people who may not know about us otherwise; it is also one of our largest fund raising events. I hope everyone can find time to help somehow.

Due to problems with the planetarium, our club meeting had to be held in the classroom in which we had most of our meetings several years ago. Doug Love gave a nice presentation about telescopes, describing how refractors, reflectors and catadioptrics work. We then had discussions about several things. I was quite pleasantly surprised at the enthusiasm club members showed for running a beginners’ course. The consensus was to start this in October. I have
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sent a query into the staff at Owens to see if we can use their facilities for this class; as I type this, I am still waiting for a response - given that they are on their summer break, they are slower responding than they might be. Using the classroom seemed to be more conducive to discussions, and I have asked to use the class room again next month; again, I am still waiting for a response.

Clear skies!

Matt

The Log Page

Aries-Triangulid & September Taurid Meteors
By
G.W. Gliba

There might be some significant activity visible from the Aries-Triangulid minor meteor shower (aka alpha Triangulids) expected this year. The maximum should be on September 12th or 13th. There is some historical evidence that this stream may be periodic, and that this year may be a more active one than usual. The primary radiant appears to be near alpha Trianguli, with a possible secondary radiant located further south near the 2nd magnitude star Hamal (alpha Arietis).

Historically, this shower seems to have a period of 5 or 6 years, according to comet & meteor researcher Gary W. Kronk. The last years with good activity was recorded in 1998 and 1999. The other known years, when two or more experienced meteor observers saw good activity visually, were in 1934, 1940, 1951 and 1993. So, it is possible that enhanced activity might be seen this year. Also, lunar conditions are very favorable and the peak occurs on a weekend. Some activity has been reported every year since this meteor stream was first discovered to be possibly annual eleven years ago. Although the IMO (International Meteor Organization) doesn’t officially recognize this minor meteor shower, it is on the ALPO (Association of Lunar & Planetary Observers) Meteor Shower List. Gary Kronk also mentions this minor meteor shower on his Comets & Meteor Showers website at: http://comets.amsmeteors.org/meteors/showers/aries_triangulids.html

The September Sky & Telescope magazine has an article on the September Taurid meteor shower, which is another possible minor meteor shower which peaks near September 14th. However, there is more controversy as to it's existence than the above shower due to it's close proximity to the northern and southern apex meteor sources, which are nearby, and thus a source of meteor pollution. Last year in WGN (World Group News), the Journal of the IMO, 31:3 (2003), an article on the existence of this putative minor meteor shower, explains that according to Arkadiusz Olech, visual meteor data from the Polish Comets and Meteors Workshop group shows no trace of September Taurid meteors from 1996 to 2000. They do mention another less plausible explanation, that this meteor shower might be real but not present during 1996-2000.

Interestingly, the Polish Comets and Meteors Workshop data mentioned in this article clearly shows activity from the Aries-Triangulum area! So, this year is a good one to try to resolve the meteor activity situation for the minor meteor shower activities in the late summer morning skies.

What’s Up For June

The Summer Solstice – Not Just For Druids Anymore
By
Debbie Fuller

By the time this is published, it will be past the Summer Solstice on June 21st but I figured I’d share some interesting tidbits about the day. In addition to being the longest day of the year, it is also the day that the Sun rises at its farthest point to the North. Every solstice, I have to stop and think how observant our ancestors had to be to notice that twice a year, the Sun seems to stop and reverse directions. How many of us these days are voluntarily awake to see a Summer sunrise, let alone notice where it is happening? Before I start to wax poetic, here are some random facts about this year’s Summer solstice:

The Summer Solstice this year will happen on June 21st at 0:57 UT
The Meteor

Latitudes above 66.5° N will have 24 hours of continuous daylight. Here in the DC area, we will have approximately 16 hours of daylight. 30,000 people are expected to descend upon Stonehenge throughout the day to celebrate the Solstice. It’s my birthday! (Yet another reason to party on the Summer solstice.)


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What’s Up for July and August

By Debbie Fuller

July and August are known as the “Dog Days” of summer, the hottest time of the year. I spent many a summer day sitting on the porch of my Grandmother’s unair-conditioned house in Indiana. So for a long time, I thought the term “Dog Days” meant the time of the Summer when all the dogs would lie around on the porch because it was too hot to move. This term actually goes all the way back to the ancient Romans who named the brightest star in the sky, Sirius, the “dog star”. During late July and early August, Sirius rises and sets with the Sun. The ancient Romans thought that Sirius added its heat to that of the Sun’s and thus the days were hotter. A The astronomer Geminus around 70 B.C. pointed out, "It is generally believed that Sirius produces the heat of the Dog Days, but this is an error, for the star merely marks a season of the year when the Sun’s heat is the greatest," but obviously he was ignored as the old belief persisted.

For the ancient Egyptians, the New Year started on the first day Sirius was spotted rising just before the Sun, called a “heliacal rising”. Because of precession, this day was around June 25th. It also warned the Egyptians that the Nile was about ready to flood and to prepare for the planting season.

For those of you industrious enough to get up before the Sunrise, Sirius will be jointed by Venus. For those of you who prefer to sleep in, Jupiter can be spotted in the evenings low in the Western sky until about 10pm. There will also be a “Blue Moon” or second full moon in a month on July 31st.

Looking ahead, the Perseids will be happening on August 11th and 12th. Unfortunately, the Western US will get the best views this year. Peak activity should occur a few hours before morning twilight.

General Constellation Info

Spring constellations Bootes and Virgo are still up, high in the sky after Sunset. Find the handle of the Big Dipper and follow its curve to Arcturus in Bootes and straight down to Spica in Virgo. Continue going towards the horizon to Corvus, the crow, which is on the back of Serpentus. Crater the Cup is next to Corvus. Remember “Arc to Arcturus, Spike to Spica and Continue on to Corvus.”

In the South, look for the fishhook shaped Scorpio with the red giant Antares. To the left is the teapot shaped Sagittarius where you look directly into the center of our galaxy.

The Summer triangle consisting of Vega in Lyra the harp, Deneb in Cygnus the Swan and Altair in Aquilla the Eagle is just on the Eastern horizon. It will be higher in the sky later on in August. For those of you lucky enough to have dark skies, look for the hazy band of the Milky Way that runs through the middle of the Summer triangle.

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Astronomical Events

Greenbelt Astronomy Club Star Future Guest Speakers
To be announced
Upcoming Events & Star Parties

Greenbelt Astronomy Club agenda for August and September

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
<th>Notes</th>
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<tbody>
<tr>
<td>August 26 - 7:30 p.m.</td>
<td>Monthly meeting</td>
<td>Owens Science Center</td>
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<tr>
<td>September 3 - 6</td>
<td>Greenbelt Labor Day Festival</td>
<td>Greenbelt</td>
<td>Last year's biggest fund raiser</td>
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<tr>
<td>September 4 - 7:30 p.m.</td>
<td>Star Party</td>
<td>Northway</td>
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<tr>
<td>September 7 - 7:30 p.m.</td>
<td>Officers meeting</td>
<td>Greenbelt Community Center</td>
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<tr>
<td>September 18 - 7:15 p.m.</td>
<td>Star Party</td>
<td>Northway</td>
<td></td>
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<tr>
<td>September 30 - 7:30 p.m.</td>
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For more information about what is in the sky this month, visit Sky & Telescope's Sky at a Glance.

Astronomy News for the National Aeronautic Space Administration NASA

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The Business Summary

Board of Directors and Observatory Committees Meeting of Thursday, 2004

SECRETARY, GREENBELT ASTRONOMY CLUB

NOT AVAILABLE

Star Party Report of <Date, 2004>

Title

By

NOT AVAILABLE

Greenbelt Astronomy Club Meeting of July 29, 2004

By Matt Elliott

SECRETARY, GREENBELT ASTRONOMY CLUB

7:30 Welcome and introductions

Old business:
- Minutes of June 24 meeting and July 7 Officers meeting
- Office of Treasurer remains open
- Observatory
  * Grant request mailed July 12 - turned down for 2004-5
  * Schematic drawing - Ed Abel
- Labor Day Festival - Valerie Elliott

Group discussion:
   Telescopes: Refractors, Reflectors, Catadioptics
   - Introduction by Doug Love

New business:
   - Insurance
      * Liability - for observatory, etc.
      * Equipment - telescopes
   - Set spending limits for officers for remainder of year
      * Normal operations
      * Observatory
   - Financial shortfall
      * Dues increase?
   - Beginner’s class? (January?)
   - Other?

What's in the sky this month - Deb Fuller

Observing reports
   - Open to floor

Announcements:
   - Open to floor

Upcoming club events:
   - Officers meeting?
   - August 14 (Saturday): Star Party at Northway (Sunset at 8:00)
   - August 21 (Saturday): Star Party at Northway (Sunset at 8:00)
   - August 26 (Thursday): Next club meeting at H.B. Owens Science Center at 7:30 p.m. Pre-meeting dinner?
   - Labor Day Festival: Sept. 3 - 6 in Greenbelt

POLL QUESTION: Rather than have a speaker at the next (July) meeting, the meeting will have a discussion format. What subject would you like to discuss?

- NASA's future direction: continue with the current diverse set of missions, or switch to the President's plan of only Lunar and Mars missions, 1 votes, 16.67%
- Astrophotography: film vs. ccd, 1 votes, 16.67%
- Telescopes: refractor vs. reflector vs. catadioptic, 2 votes, 33.33%
- Other (please email Matt to let him know), 2 votes, 33.33%