



O.A.O.G. NEWS

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1) About this newsletter...

Welcome to the 9th issue of OAOG News. This monthly email newsletter plus observing alerts, and reports are sent to all those who have responded to me. I am also mailing this newsletter to other friends. If at any time, you would like to be removed from this mailing list, please send me an email to let me know.

We did it again!

During September, we have once again focused on the Foymount all-night observing sessions. The events were held on September 4 and 11. The first night was washed out despite a clear forecast, and those of us there left in the evening as heavy clouds moved in from the south. However, things were certainly very different on the 11th! We enjoyed

some of the most transparent skies of the year, with a variety of telescopes located on the darker side of the hill. Denis Legault was there too with his innovative portable observatory. Once again, we had the visit from local Foymount residents, who immediately caught sight of our “Foymount International Stargazing” signs posted around. This star party has been a most memorable, enjoyable and productive event for many! (It certainly was for me!). You’ll see more details from Roland’s report in this issue.

Your observing reports, observing tips and astronomy announcements are all welcome for OAOG News. Simply email your submissions to me and they will be included for next month’s issue.

2) Foymount Report: A Detailed Comparison of Familiar Faint Objects Viewed...

by Roland Prevost

In August, I visited Foymount and observed from directly under the red lights, at the top of the hill there. Though my session was satisfying, at that time, I formed the opinion, based on what I could see at the eyepiece, that the views were not worth the trip. Since I live in Orleans, the drive for me takes 2 hours, which is longer than for most.

Some observing friends felt a bit disappointed by my lukewarm report on the site, and so made the suggestion that I should give it a second try, under better weather conditions, and observing from the darker area, about 500 ft south of the red lights in the communication towers.

On September 11th 1999, sky conditions seemed to promise a particularly transparent sky, so I made my way to Foymount for an all night observing session. I was the first one there arriving there around 5:30 pm and set up my equipment in preparation for the night. I paid particular attention to the instruction to let my 8” Schmidt-Cassegrain “breathe” for a bit in order to avoid possible differences in air within and outside the enclosed tube. I made sure to install all my dew zapping equipment. I had also come prepared with a variety of “test objects” to observe, so as to base a personal assessment of Foymount on things I have sketched repeatedly in the past and from a variety of sites.

What a difference it makes to be observing away from those lights! I now understand the enthusiasm with which other observers are praising this

site. Here, in abridged form are the results of my observations:

First you need to understand the sky conditions.

The limiting Mag. was 6.8 (plus). I suspect that it is quite possible that we cannot see much past that magnitude. However, I noted some details, contrast and resolution in the milky way to a degree that I do not usually see either from the O.A.O.G.s Casselman site nor from the R.A.S.C.s F.L.O. site near Almonte.

The seeing on this particular night was a relatively poor 5/10, I suspect due to changing weather and the local passage of a front. But the good transparency made it ideal for faint objects. The scope had 3 hours to cool down. Collimation was verified and then the seeing was evaluated by looking at a few double stars, including E Lyr (which surprisingly was almost difficult to split, there was so much motion!). As well, I examined hi-powered views (263x & 400x) of mag. 2 stars, and the shape of their airy disks. The star image indicated relatively poor seeing with the center of the airy disk dancing around, and the diffraction rings only partly visible some of the time.

There was substantial dewing during the night (the observing table and chair got dripping wet), but the dew zapper system kept it from forming on the optics all night, until we ceased observing around 4:30 a.m.

1. Veil Nebula: This was my best view of this nebula thus far with my SCT 8" scope. With the OIII filter, I was able to see more than a hint of structure in the object. Both the east and west portions showed about 15% - 20% more detail compared to the best view I got from the relatively dark sites of Casselman or F.L.O.

2. NGC6888: Once again, my best view of this relatively faint crescent-shaped nebulosity in Cygnus. Not only was I able to discern the brightest part of the crescent between two stars, but I also saw the much fainter and larger footprint of nebulosity extending to beyond my 0.8 degree field of view.

3. M33: On only one occasion in the past, had I been able to see M33 to the naked eye. This was from a cottage at Poisson Blanc Lake in P.Q., in July 1997, on an especially transparent night. Well, I was able to see M33 from Foymount as well. Not quite as clearly as on that perfect night in 1997,

but it was visible to my naked-eye from Foymount nonetheless. For my eyes, this represents a good litmus test for truly excellent dark sky conditions.

4. Helix Nebula: This is another faint object, though it is relatively easy with an OIII filter from any reasonably dark site. Again, in this case, this was the best view yet of this object through my optics. With the OIII, I could easily discern the donut shape of the object, as well as the beginning of some structure on the inside it. Again, a 15% to 20% increase in detail and contrast.

5. Comet H1 Lee: I had just observed this comet from a relatively good sky in Casselman the night before, and at a similar altitude. In Casselman, I could see the comet only as a spherical disk of faint silvery light. In Foymount, 24 hours later, it was easy to note a condensation within the circle (perhaps the coma?). Unless the object changed in 24 hours (possible but not probable), then I'd say that the view of this comet was much superior in Foymount, permitting detection of much more detail. Note that I had seen this central condensation in this comet only once before, and that was on my previous visit to Foymount.

6. Rosette Nebula: Very easy, especially using OIII and f/6.3 focal reducer lens, for a wider field of view. Yet another "best view ever" for me! It feels very rewarding to get "best views" of so many objects. The star cluster in the centre was bright, but the circle of nebulosity around it was quite visible, much better than the averted vision views I am used to getting. It showed even more detail when you slewed in and out of the object. I noted some variations in brightness within the nebulosity.

7. M33: Brightest view again. The small nebulosity, NGC604, located next to a nearby star in the field of view, was much more prominent and could stand much more magnification. Note that this NGC object is a very bright OIII area located in M33 itself and said to be many hundred of times larger than the Orion Nebula.

8. Saturn: I rarely get to see the crepe ring around this planet, but I was in for a treat because I could see it from Foymount. The seeing did improve for about an hour permitting the viewing of good planetary detail, but then it deteriorated again towards 3:30 am.

We all observed quite a few objects during the evening. Due to the poor seeing, I concentrated mostly on faint objects that would benefit from the

unusually transparent skies and increased contrast at this higher altitude.

Based on my comparison notes on all of these very familiar faint objects, I have to say that this observing session at Foymount showed me the best views I have had of most of these objects, thus far. I suspect that the additional altitude has something to do with this. This was a totally different experience than what I had seen observing directly under the red lights of the towers. Observing from the darker area, a bit on the side of the mountain, made all the difference in the world. Personally, except perhaps for the excellent company, I would not make the trip there to observe from under the red lights, though the view is decent enough. However, I would gladly make the trip to experience so many “best views” from the darker mountainside in Foymount.

I now feel comfortable in encouraging others to make the trip to Foymount, especially on an evening when sky conditions are good. Whatever their optics, they might very well be in for a few of their own “best views ever”.

Roland Prevost
O.A.O.G.

3) The Pinetree Line web site...

The Pinetree Line web site was created to provide background information on Canada's radar sites from the Cold war era. It is dedicated to the many thousands of men and women who spent a part of their life on the Pinetree Line. Foymount was once an active radar installation base to counter the threat of Soviet air attacks against North America. Initially, it served as a fully manual early warning or aircraft control and warning (AC&W) systems, established in a strategic location high atop the Opeongo hills. It was eventually closed down, and many of the original buildings have since been dismantled. On this site, you will find out more on Foymount history, including many photos of the base not only from the early 1950's, but also as recently as 1998!

<http://www.islandnet.com/~rlecuyer/pinetree/site16.html>

I also thought I would make you aware of campground facilities located near Foymount. The Opeongo Mountain Resort is located on the shore of Lake Clear, and offers plenty of family attractions. They even offer stargazing tours for groups upon request, such as a late night “Magical Mythical Tour of the Heavens”!

<http://www.renc.igs.net/~omresort/attract.htm>

4) Rideau Ferry Observatory open house...

by Robert Dick

I will be holding my informal autumn open house on the weekend of Friday October 1 - Sunday October 3. The OAOG are all welcome. Visitors are asked to email first <rdick@ccs.carleton.ca> so that we will know how many to expect.

Due to the extremely low water levels in the Rideau Lake, there is no running water for the toilet facilities at the cottage. However, there is an outhouse at the observatory.

The usual schedule of events are:

Friday night observing: Bring you telescopes and binoculars. Although the skies are not as dark as Foymount, it has a 0.6 metre telescope and the observatory is only an hour south of Ottawa (see Map).

Saturday is a free day. We leave for dinner in Perth at about 17:30. The restaurant will be selected on the Saturday afternoon. Please email or call if you would like to join us for dinner (i.e. reservations are required). This telephone number is no longer long distance from Ottawa. We will return to the observatory by 21:00 for a night of observing. If cloudy, there will be a great gabfest!

If you arrive late for dinner, the name of the restaurant will be posted on the door of the observatory along with a sketchy map.

5) Other upcoming activities in October...

This month, we are heading back to Foymount (located west of Renfrew) for possibly the final all-night observing of the year. This would most likely happen on the weekend of October 8-9. Foymount is located at 1835 feet altitude with very dark skies. If you would be interested in joining us, please contact Rock Mallin (adave@cyberus.ca) or Pierre Martin (p.martin@cyberus.ca), and we will keep you posted with more details.

On October 15 (rain date Oct 16), the RASC (Royal Astronomical Society of Canada) Ottawa Center will hold a public starparty at the Diefenbunker site, located near Carp. Volunteers are welcome to bring their telescopes to help out for this evening. Event begins before sunset. Weather permitting only.

With the planets (and the moon) becoming easier to see in the evening sky, we will be holding a number of sidewalk observing sessions for the public. These events will be held at various locations from within the city. If you would be interested in helping us out for one of these evenings, please let us know.

6) October meteor showers...

by Pierre Martin

The second half of the year is usually the best for meteor observing. The combination of long clear nights and higher meteor rates combine for more productive observing. The November 17 Leonids will certainly be the highlight of the year, since there is a chance that some lucky part of the world will witness a rare meteor storm. October also brings a few notable showers, but normally with much less hype.

The evenings of October 8-9 brings the Draconid (Giacobinid) meteors under favorable viewing conditions all night long. This is a periodic shower that has produced exceptional displays in the past. In 1998, Japanese observers were treated to a brief but intense display of hundreds meteors per hour, despite strong moonlight and a low radiant. Meteor storms are also a possibility, as was the case in 1933 and 1946 when they exploded with several thousands per hour! Such Draconid outbursts have only occurred when Earth happened to be relatively close to the shower's parent comet, Giacobini-Zinner. In other years, activity has been very weak or undetectable. Unfortunately, this comet is now well away from us and no activity is predicted for 1999. However, since the Draconids are a young shower, it is a matter of time before the dust gradually spreads all along its orbit. When this finally happens, then perhaps we will detect activity on an annual basis. Any Draconids will easily stand out because of their very slow paths (20 km/sec) radiating from near the head of Draco. With this in mind, it might be a good idea to keep an eye up every year to monitor this dynamic shower.

The main activity will come from the reliable Orionids, a moderate display reaching a broad peak near October 22. The Orionids are bits and pieces left behind by one famous body, comet Halley. They can produce up to 20 very swift meteors per hour from dark skies, well away from city lights. However, they are known to be slightly variable. Last year, I observed a very decent display of 30 Orionids per hour. There was also an unusual number of fireballs, including one as bright as a quarter moon, and leaving behind a glowing train of ionization for over 8 minutes! It would be interesting to see what will happen this year. Orionids radiate from a point above Orion, near the star Alhena in Gemini. It is advisable not to

always look directly at the radiant since meteors there will appear slow and short. Meteors further away from the radiant display swift and longer paths. You must have a keen eye to see Orionids, since many are faint and brief. Their high velocity of 66 km/sec will reward you with many glowing persistent trains, left behind from the luminous streak. These meteors begin to be visible after midnight, and reach their highest rates before dawn when Orion lies high in the south. Unfortunately for this year, the bright gibbous moon will seriously interfere with the shower until it sets about 2 hours before dawn. It would then be best to get up early and start observing at about 4:00 on the morning of the 22nd. If that morning is cloudy, then try a few nights before or after. The Orionids are a long duration shower, and you could expect to get in perhaps over a dozen meteors per hour even three nights away from the maximum.

If you are successful in watching these meteors, let us know!

7) Astronomy at the National Museum of Science & Technology...

A) Terence Dickinson Lecture

When: Friday October 22 at 7:30 p.m.

Where: SAT auditorium

Topic: Backyard Astronomy

Costs: adult:	\$5
students / seniors:	\$3.75
Children:	\$2.50
Families:	\$11

B) Introduction to Astrophotography Course

Mondays Oct. 18 to Nov. 8 from 7:00 p.m. to 9:00 p.m.

Instructor: Paul Klauninger

Costs: \$40 for adults
\$30 for students

info: 613 991-3044

registration: 613 991-3053

8) Next informal meeting: Friday October 1st...

You are invited to join us at our informal get-togethers, if you wish to meet us and share ideas!

The OAOG holds its monthly meetings on every first Friday of each month. Our next get-together will be on October 1st, from 6:00 to 7:45 PM. Location is at Burger King on St-Laurent Blvd, near the Museum of Science & Technology. Our meetings are very informal. We simply gather to chat and discuss our past/upcoming activities. We then head off to the RASC meeting held at 8:00 PM at the Museum's auditorium. The RASC have their meeting open to the public as well. Everyone is welcome. Please send us a note if you need more information.

Hope to see you out there. Clear skies to all for October!

9) Contact information...

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