Event Horizon

Volume 20, Number 8
June 2013

From The Editor

This will be the last newsletter until September, giving our hardworking contributors and editorial staff a much-deserved rest over the summer!

Summer is the best time to view the Milky Way and I've spent many hours in a lawn chair just looking up at it. I hope you all have many opportunities to spend similar quality time under clear, dark skies over the next couple of months. I will likely see you there.

Cheers,

Ann Tekatch
Editor@amateurastronomy.org

Chair's Report by Jim Wamsley

As per normal, this past month of May was another full month for the H.A.A.. The last classroom session of the Astro 101 groups took place May 1st, with the class learning how to find their way around the night sky, and about some of the tools and resources available to help them. The club's monthly meeting May 10th was a great success, with 78 people in attendance to hear Phil Mozel deliver his very informative talk on Astronomy of the War of 1812. May 18th saw club members gather at the Grimsby Tourist Information Centre, with high hopes of doing a public observing night. But, alas, the cloud cover didn't give us a break for more than a very few very short intervals, not even long enough for Kevin to swing his Dob to the Moon. Even though it was cloudy, we *(Continued on page 2)*

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Chair's Report (continued)

were able to educate a lot of people about telescopes, meteorites, and what the H.A.A. is all about. May 25th saw the cosmology discussion group gather in the rec-room of my place to watch a pre-recorded lecture and talk about it, and many other subjects. We were also able to open the B.C.A. on the 26th for a short, but fun, observing session. If the weather holds, it is planned to have both Astro 101 classes out to the Park for their observing session as well on the 29th.

Image taken by Jim Wamsley during our observing session for the Binbrook Fishing Derby participants.

Now June is upon us, we will have our last Club meeting June 14th with Dr. Christine Wilson delivering her talk, much delayed from the Feb. storm-canceled meeting. We now have a two month break, with no meetings till September, time for star parties, and vacations. We will still get together for public nights, observing nights at Binbrook, sidewalk astronomy, and don't forget the Perseid meteor shower and picnic August 11th , so keep an eye on your e-mail for notices. I will try to see that we open the park for observing as often as possible over the summer. The June meeting is also your last, most convenient, opportunity to pick up your tickets for the 20th anniversary banquet, Nov 2nd. Please take advantage and get your tickets early. Council has priced the tickets to just cover the club's cost for the hall and food. We must also make payments over the summer to the W.P.H.M. to cover advance deposits. This could stretch the treasury some, so your help with early ticket purchase will be a big help. By the way, the cost of bringing Bob McDonald to Hamilton from Victoria B.C. to be our guest speaker is not covered in the low ticket price of $45.00. If you can't pick up your tickets at the meeting, Steve, Brenda, Ann, and now I, (Jim) have tickets. You can contact any one of us over the summer, and we will make arrangements to get tickets to you.

The summer star party season is already upon us. Cherry Springs Star Party takes place even before our June meeting, the weekend of the 6th, 7th, & 8th, so hopefully we will have a few photos to share at the meeting. There are several others over the course of the summer. A star party is a great way to learn more about the hobby, no matter your level of experience. Some newbies to astronomy feel they don't know enough and are too intimidated to attend, but my experience has been that everyone at star parties are very helpful and willing to share a view. If you think you may find a star party fun please "go" you won't be sorry.

I hope you will consider writing a short article for the Event Horizon about your summer astro experiences. I'm sure our members will find them interesting, and I'm also sure Ann, our editor, would love to get them. Remember, this is your club and we need your input to make the club better.

I hope you all have an ASTRONOMICAL summer and will see you in September.

Masthead Photo: This month's beautiful image of the recent conjunction was taken by John Gauvreau at the Binbrook Conservation Area on May 26, 2013. He used a tripod-mounted Canon 50D dslr and 15-85mm zoom lens with an exposure of 1 second at f/5.6.

Hamilton Amateur Astronomers

20th Anniversary Banquet

At
Canadian Warplane Heritage Museum
Hamilton International Airport
9280 Airport Rd., Mount Hope, ON

Celebrate our 20th anniversary in style!

Enjoy a tour of the museum, listen to Bob McDonald of Quirks and Quarks, and dine under the wings of vintage aircraft. Tickets will be available at our general meetings or you can contact Jim Wamsley (chair@amateurastronomy.org), Ann Tekatch (editor@amateurastronomy.org), Brenda Frederick (moonspinner@sympatico.ca), or Steve Germann (treasurer@amateurastronomy.org) .

Saturday, November 2, 2013
Doors open at 5:00 pm
Cocktails at 6:00 pm
Buffet Dinner at 7:00 pm
Cash Bar
HAA Members & Guests
$45.00 per person

The Sky This Month: June by John Gauvreau

The Sky This Month
June 2013

June 4 – Venus beside open cluster M35
June 8 – New Moon
June 10 – Moon beside Venus and Mercury, low in west
June 12 – Mercury at greatest eastern elongation (best view)
June 16 – First Quarter Moon
June 18 – Moon right next to Spica
June 19 – Jupiter in superior conjunction (behind the sun)
June 20 – Mercury only 2 degrees from Venus
June 21 – Summer solstice
June 23 – Full Moon (2013 supermoon)
June 30 – Last Quarter Moon

The month of May delivered all it had promised, with a spectacular conjunction of three planets, which won't happen again until late in 2015. Mercury, Venus and Jupiter all met low in the west in the final days of the month, and many members of the club observed the trio from both Binbrook and other favourite observing locations. On Sunday May 26th, the night when the three planets were at their closest, there were about a dozen scopes and about 15 members at the club's dark sky observing location in the Binbrook Conservation Area. I'm sure that seeing all those people out there was very

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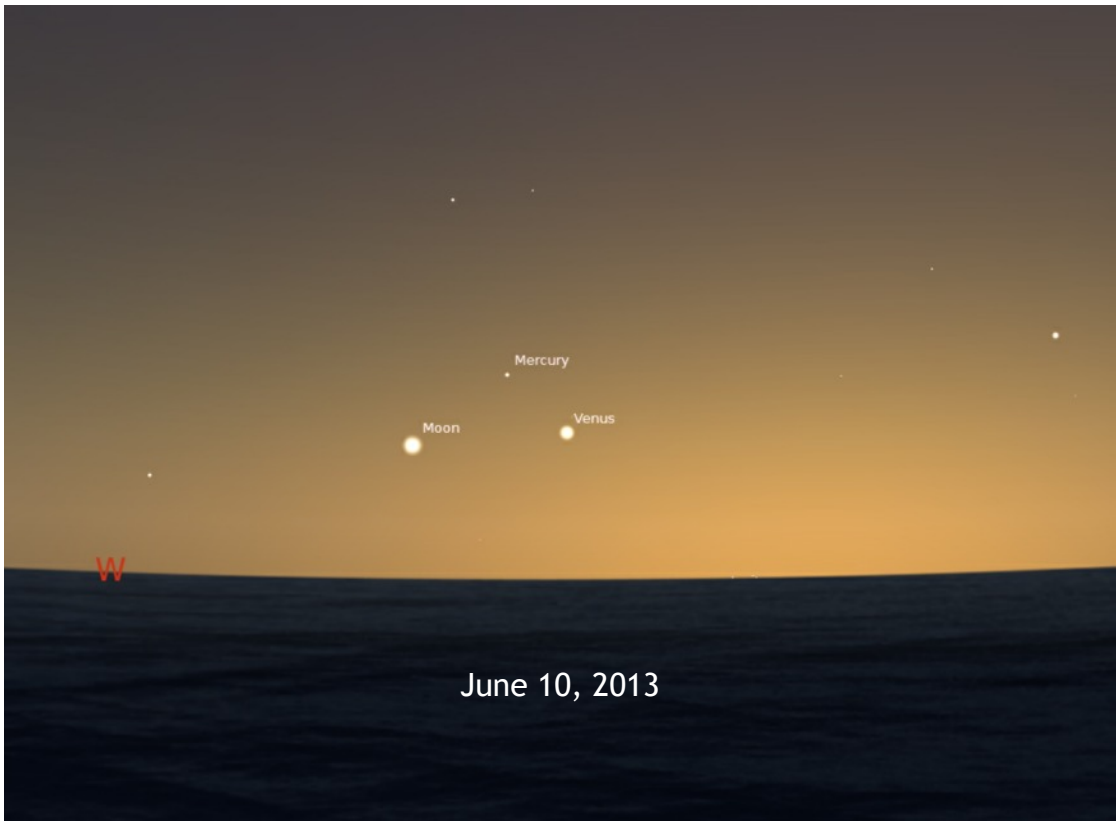
satisfying for Jim Wamsley, who opened the park and supervised the evening, but I will send my thanks anyway, on behalf of all the park users.



This month we see the departure of Jupiter and Mercury, and the arrival of summer. During the second week of June, **Mercury** is at greatest eastern elongation, meaning that it is as far east of the sun, and sit as high above the western horizon as it will get for this apparition. But Mercury moves swiftly in its orbit, so remember that it will come and go quickly. June 10th to 15th is when it will be highest, well above and to the left of Venus, and they are joined by a lovely crescent moon on the 10th. By June 20th, Mercury has dropped and is already beside Venus again, and on this night, as they sit only 2 degrees apart, there is a wonderful opportunity to compare the two innermost planets. Easily fitting in a low to medium power telescopic field of view, you will be able to see the phases of both planets, Venus a gibbous and Mercury a crescent. By month's end Mercury has sunk low to the western horizon and our chance to view it will have passed. Although the smallest of planets (an honour it attained upon the demotion of Pluto to dwarf planet status), Mercury is close to us and close to the sun, making it a fairly bright object. This month it will achieve magnitude 0, ranking among the brightest stars in the sky, but because it is always so low to the horizon and so close to the sun, it is a challenge to see. A telescopic view will show a small, pale brown disc, and the chance to see the surface of another planet should not be missed.

Venus continues to climb higher and higher through the month, but it is a slow climb and it won't achieve a very high elevation at all throughout the summer. It may not offer a very interesting view through your scope, but it will be a lovely evening star for us through the warm months, as we step out to greet the evening, face west, and see it shining brightly through the fading dusk.

(Continued on page 5)

The Sky This Month (continued)

It is **Saturn** that draws our attention this summer, sitting in the southern constellation of Virgo at dark and rising high in the south by 10pm at the beginning of the month, and 9pm by the end of the month. I have already enjoyed many fine views of Saturn this season, and it never fails to impress. From my own, small 90mm refractor, through Ann's 6" dob to Kevin's 10" dob, and many scopes in between, including Schmidt-Cassegrains and an amazing view through Tony's 5" refractor and binoviewer (and a big thank you to everyone who shares views through their scopes!), every view of Saturn seems to set a high standard for observing. This is why we spend so much money on telescopes and eyepieces, and this is what evokes the sense of wonder that drew us to this hobby in the first place. The rings are well placed this year, and Saturn is now far enough from opposition that we can again see the ring's shadow on the planet and the planet's shadow on the rings. Of course, there are also many moons to keep track of from night to night.

As we let our eyes wander and gaze around the rest of the sky, we see that already the Summer Triangle is showing itself on the eastern horizon in the late evening, and since it gets dark so late, it isn't much more of an effort to stay up and see this centerpiece of summer and the Milky Way. The great globulars and galaxies of spring are high overhead now, and the hot days and warm nights will bring out mosquitoes and other frustrations. One of the most noticeable frustrations to observers is the humidity and haziness of the summer sky. We will soon be thinking back fondly of the clear darkness of the winter sky, and the brilliant contrast of the bright winter constellations set against the velvety backdrop of the moisture-free cold air. But as the pale blue of the summer daytime sky fades through the milky gold of sunset into the pale gray of a summer night, do not be dismayed at your loss of observing opportunity. A hazy, dull sky is often a sign of steady air, and it is often through just such a haze that the planets look their best. You may get your best views and highest magnifications of Saturn on just such a night, and the steady air also aids in double star observation. Splitting a tight double is often easier when the air is steady and the contrast is reduced. If summer means that the deep sky of winter is lost to you, remember to embrace not just the warm air, but the haze and calm as a chance to see what winter could never show you; the steadiest seeing and the greatest detail in bright objects, like planets and doubles.

As always, feel free to send me any observing reports, photos, questions, or comments that you would like to share with your fellow members. I'm always happy to hear about your observing experiences. See you out there!

John
observing@amateurastronomy.org

John & Cathy observing the May 26th conjunction at the Binbrook Conservation Area. Photo courtesy of the editor.

How I Got Started in Astronomy by Doug Hammond

I have always wanted to gaze out into space and learn how it works hands on. I never did though until recently as I never knew how to start.

Fortunately I was given the little push I needed to just go out and try. I am involved in Scouting and was looking for an activity to entertain the youth during the night. Naturally astronomy was a perfect fit. So to prepare for my hour of fame with the youth I started looking at what would be needed. As I had no prior experience in this area I thought to myself, I'm going to need a telescope when binoculars would probably been a better choice to start with. I looked around and found there to be so many telescope models, manufacturers and price ranges. Being whom I am, I didn't want to settle for anything cheap, but found out that quality came at a price and almost decided to not proceed. Instead I decided that something would be better than nothing and looked on Kijiji and found an inexpensive 114mm reflector(I think that's the proper tech speak). I am glad I did. At the camp I had setup the telescope according to instructions I found online and gave the boys time to check it out. I taught them about topics I myself had just become familiar with such as right ascension and declination, how to use a star map and why east and west are reversed when you looked at one. The youth had a blast and then headed off to the campfire.

Then I got my chance alone and started looking around they sky myself. I thought would be greatly disappointed after reading so many reviews about how inexpensive telescopes just disappoint, and there I was with a $20 Celestron PowerSeeker 114EQ I found on Kijiji. I was amazed! I was able to see so many more stars and objects that I was oblivious too previously as I never could see them with the naked eye. I saw what I believed to be Saturn with its rings and a number of its moons all in a line. (I have since learned that it was actually Jupiter & its moons.) It was fantastic and excited me. I had to try to capture it so I took a picture with my iPhone through the eyepiece. The images turned out crude and you can't make out the detail I saw but now I have them to inspire me to get better images in the future and to keep trying.

Image of Jupiter & its moons taken by the author with his iPhone camera. Not an easy object to image at the best of times, the astrophotograph clearly shows three of the Galilean moons.

I would recommend that anybody interested in astronomy just get outside and do it! Don't get hung up on the techno babble that is out there that says you must purchase 1,000's of dollars worth of equipment to enjoy. The satisfaction of seeing with your own eyes what wonders are out there is priceless.

May General Meeting Summary by Bob Christmas

Another solid turnout greeted the meeting of May 10, 2013 at the Hamilton Spectator Auditorium.

At precisely 7:30pm, HAA Chair Jim Wamsley got the meeting under way with some announcements, including our Public Night in Grimsby, upcoming cosmology discussions and Astronomy 101 classes.

Jim then presented the main speaker of the evening, Phil Mozel, who is a War of 1812 recreationist as well as an amateur astronomer and astronomy educator. Phil gave his talk about events and advances in astronomy during and around the time of the War of 1812.

It was during this historical period that astronomy luminaries such as William Herschel, famous for his discovery of Uranus a few decades earlier in 1781, and for building the giant 40-foot swivel telescope at Slough, England, were making their mark.

An interesting highlight in Phil's talk that stuck in my mind was hearing that Shawnee chief and British/Canadian ally Tecumseh's brother used information he knew beforehand about two upcoming solar eclipses around the War of 1812 to spook the Americans.

It was a fascinating astronomical talk given in a very interesting historical context. Thanks very much, Phil!

After Phil's presentation, we took an intermission break, followed by Alex Tekatch and Matthew Mannering drawing the door prizes and the 50/50.

Then HAA member Kevin Salwach gave another of his great presentations of This Day in Astronomy, outlining historical astronomy and space events that have taken place on this day, May 10. Every month, Kevin's talks keep getting more detailed and more interesting, and one can appreciate the hard work he is doing putting these presentations together despite his busy school schedule. Keep up the great work, Kevin!

Finally, the HAA's observing director John Gauvreau gave his talk about The Sky This Month for the month of May, during which he showed an amazing image of the Sun that HAA Chair Jim Wamsley took through his Coronado solar scope showing beautiful detail of the Sun's photosphere and some flare activity as well as yours-truly's image of Comet PanSTARRS (you can see my photo and article on Page 10 of this EH),.

John talked about the spring sky, including how to locate the Big Dipper almost directly overhead, and follow its handle to arc to Arcturus and spike to Spica (and, this spring, to Saturn as well!).

John also noted several prominent Messier DSO's that are located around the Big Dipper, including the galaxies M101, M51, M81, M82 and M108, as well as the Owl Nebula (M97).

After the meeting, a couple of dozen of us reconvened at Crabby Joe's in West Hamilton for food, drinks, the hockey game, and further astronomy discussions.

Treasurer's Report by Steve Germann

(Unaudited)

Opening Balance	7179.80
Revenue	420.00
Expenditures	452.00
Closing Balance	7147.80

Your club spent $452 to buy more brochures. They have been used at events and also given to the library system for display in all area libraries.
Revenues for the month included Memberships 185, Banquet Tickets, $90, an honorarium from the Burlington Public Library in appreciation for an astronomy talk presented by John, $100, and 50/50 $45.

Observing the International Space Station by Joe McArdle

Catching sight of the space station is fairly easy, all you need is a watch. N.A.S.A. makes orbital information of the ISS available on their website http://spaceflight1.nasa.gov/realdata/sightings/ or at http://www.heavens-above.com

I have put together a chart for the month of June showing all visible passes by the station for the Hamilton/Binbrook area. Please note that this information is subject to adjustments as the station makes altitude changes in their orbit from time to time.

Date	Brightness	Start			Highest point			End			Pass type
	[Mag]	Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.	
1-Jun	-1.3	0:54:06	26°	NE	0:54:06	26°	NE	0:55:48	10°	NE	Visible
1-Jun	-0.6	2:27:14	10°	WNW	2:29:47	20°	N	2:32:21	10°	NE	Visible
1-Jun	-0.7	4:04:36	10°	NW	4:07:18	22°	NNE	4:10:01	10°	ENE	Visible
2-Jun	-1	0:05:52	18°	NE	0:05:52	18°	NE	0:06:51	10°	NE	Visible
2-Jun	-0.9	1:38:38	14°	WNW	1:40:37	23°	NNW	1:43:21	10°	NE	Visible
2-Jun	-0.5	3:15:35	10°	NW	3:18:07	20°	N	3:20:40	10°	ENE	Visible
2-Jun	-2.1	4:52:09	10°	NW	4:55:24	47°	NNE	4:58:38	10°	ESE	Visible
2-Jun	-1.4	23:16:39	20°	ENE	23:16:39	20°	ENE	23:17:50	10°	ENE	Visible
3-Jun	-1.2	0:49:17	15°	WNW	0:51:27	28°	NNW	0:54:24	10°	NE	Visible
3-Jun	-0.4	2:26:27	10°	NW	2:28:54	19°	N	2:31:22	10°	NE	Visible
3-Jun	-1.4	4:03:14	10°	NW	4:06:18	33°	NNE	4:09:22	10°	E	Visible
3-Jun	-2.7	22:22:40	10°	SSW	22:25:39	33°	SE	22:28:40	10°	ENE	Visible
3-Jun	-1.8	23:59:12	10°	W	0:02:19	38°	NNW	0:05:27	10°	NE	Visible
4-Jun	-0.4	1:37:12	10°	NW	1:39:40	19°	N	1:42:08	10°	NE	Visible
4-Jun	-0.9	3:14:17	10°	NW	3:17:09	26°	NNE	3:20:00	10°	ENE	Visible
4-Jun	-3.4	4:50:47	10°	WNW	4:54:07	74°	SW	4:57:26	10°	SE	Visible
4-Jun	-1.9	21:34:19	10°	S	21:36:46	20°	SE	21:39:14	10°	E	Visible
4-Jun	-2.7	23:09:58	10°	WSW	23:13:13	57°	NNW	23:16:29	10°	NE	Visible
5-Jun	-0.5	0:47:50	10°	WNW	0:50:25	21°	N	0:53:00	10°	NE	Visible
5-Jun	-0.6	2:25:16	10°	NW	2:27:56	22°	N	2:30:35	10°	ENE	Visible
5-Jun	-2.9	4:01:46	10°	NW	4:05:04	67°	NNE	4:08:23	10°	ESE	Visible
5-Jun	-3.4	22:20:51	10°	SW	22:24:09	88°	SSE	22:27:27	10°	ENE	Visible
5-Jun	-0.8	23:58:25	10°	WNW	0:01:10	24°	NNW	0:03:57	10°	NE	Visible
6-Jun	-0.4	1:36:10	10°	NW	1:38:40	19°	N	1:41:10	10°	NE	Visible
6-Jun	-2	3:12:46	10°	NW	3:15:58	43°	NNE	3:19:10	10°	E	Visible
6-Jun	-2.4	4:49:40	10°	WNW	4:52:34	28°	SW	4:55:27	10°	SSE	Visible
6-Jun	-3.2	21:31:55	10°	SW	21:35:07	51°	SE	21:38:20	10°	ENE	Visible
6-Jun	-1.2	23:08:59	10°	W	23:11:57	30°	NNW	23:14:55	10°	NE	Visible
7-Jun	-0.4	0:46:56	10°	NW	0:49:22	19°	N	0:51:49	10°	NE	Visible
7-Jun	-1.4	2:23:46	10°	NW	2:26:47	31°	NNE	2:29:48	10°	E	Visible
7-Jun	-3.1	4:00:22	10°	WNW	4:03:36	48°	SW	4:06:48	10°	SE	Visible
7-Jun	-1.9	22:19:36	10°	W	22:22:45	41°	NNW	22:25:54	10°	NE	Visible
7-Jun	-0.4	23:57:35	10°	NW	0:00:03	19°	N	0:00:00	19°	N	Visible
8-Jun	-0.4	0:00:00	19°	N	0:00:03	19°	N	0:02:32	10°	NE	Visible
8-Jun	-0.9	1:34:45	10°	NW	1:37:32	25°	NNE	1:40:21	10°	ENE	Visible
8-Jun	-3.5	3:11:13	10°	WNW	3:14:33	84°	SW	3:17:52	10°	SE	Visible
8-Jun	-1.3	4:49:49	10°	WSW	4:50:44	11°	SW	4:51:40	10°	SW	Visible
8-Jun	-2.7	21:30:19	10°	WSW	21:33:35	63°	NNW	21:36:52	10°	NE	Visible

(Continued on page 9)

Observing the International Space Station (continued)

Date	Brightness	Start			Highest point			End			Pass type
	[Mag]	Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.	
8-Jun	-0.6	23:08:08	10°	WNW	23:10:44	21°	N	23:13:21	10°	NE	Visible
9-Jun	-0.6	0:45:39	10°	NW	0:48:15	21°	N	0:50:51	10°	ENE	Visible
9-Jun	-2.6	2:22:08	10°	NW	2:25:00	53°	N	2:25:00	53°	N	Visible
9-Jun	-0.8	22:18:37	10°	WNW	22:21:26	25°	NNW	22:24:15	10°	NE	Visible
9-Jun	-0.5	23:56:26	10°	NW	23:58:54	19°	N	0:01:22	10°	NE	Visible
10-Jun	-2	1:33:05	10°	NW	1:36:12	39°	NNE	1:36:12	39°	NNE	Visible
10-Jun	-1.3	21:29:08	10°	W	21:32:08	32°	NNW	21:35:09	10°	NE	Visible
10-Jun	-0.5	23:07:06	10°	NW	23:09:32	19°	N	23:11:58	10°	NE	Visible
11-Jun	-1.4	0:44:01	10°	NW	0:46:58	29°	NNE	0:47:58	24°	NE	Visible
11-Jun	-0.5	2:20:34	10°	WNW	2:20:46	11°	WNW	2:20:46	11°	WNW	Visible
11-Jun	-0.5	22:17:39	10°	NW	22:20:09	20°	N	22:22:39	10°	NE	Visible
11-Jun	-1	23:54:54	10°	NW	23:57:38	23°	NNE	23:59:58	12°	ENE	Visible
12-Jun	-1.3	1:31:22	10°	WNW	1:32:46	23°	NW	1:32:46	23°	NW	Visible
12-Jun	-0.7	23:05:42	10°	NW	23:08:15	20°	N	23:10:48	10°	ENE	Visible
13-Jun	-2.2	0:42:13	10°	NW	0:44:53	45°	NNW	0:44:53	45°	NNW	Visible
13-Jun	-0.6	22:16:24	10°	NW	22:18:50	19°	N	22:21:16	10°	NE	Visible
13-Jun	-1.9	23:53:05	10°	NW	23:56:11	36°	NNE	23:57:04	30°	ENE	Visible
14-Jun	-0.4	1:29:48	10°	WNW	1:29:53	11°	WNW	1:29:53	11°	WNW	Visible
14-Jun	-1.4	23:03:56	10°	NW	23:06:50	27°	NNE	23:09:19	12°	ENE	Visible
15-Jun	-1.5	0:40:27	10°	WNW	0:42:08	27°	WNW	0:42:08	27°	WNW	Visible
15-Jun	-1	22:14:44	10°	NW	22:17:25	22°	NNE	22:20:06	10°	ENE	Visible
15-Jun	-3.2	23:51:12	10°	NW	23:54:24	75°	N	23:54:24	75°	N	Visible
16-Jun	-2.5	23:01:59	10°	NW	23:05:12	48°	NNE	23:06:42	26°	E	Visible
17-Jun	-0.6	0:38:59	10°	W	0:39:31	13°	W	0:39:31	13°	W	Visible
17-Jun	-1.9	22:12:47	10°	NW	22:15:50	33°	NNE	22:18:52	10°	E	Visible
17-Jun	-2.2	23:49:26	10°	WNW	23:51:51	35°	WSW	23:51:51	35°	WSW	Visible
18-Jun	-3.4	23:00:02	10°	WNW	23:03:20	74°	SW	23:04:13	44°	SE	Visible
19-Jun	-3.1	22:10:44	10°	NW	22:14:01	67°	NNE	22:16:36	15°	ESE	Visible
19-Jun	-0.9	23:48:12	10°	W	23:49:26	15°	WSW	23:49:26	15°	WSW	Visible
20-Jun	-2	22:58:20	10°	WNW	23:01:12	28°	SW	23:01:51	26°	SSW	Visible
21-Jun	-2.8	22:08:45	10°	WNW	22:11:57	48°	SW	22:14:18	16°	SSE	Visible
22-Jun	-0.7	22:57:52	10°	WSW	22:58:48	11°	SW	22:59:37	10°	SW	Visible
23-Jun	-1.2	22:07:13	10°	W	22:09:38	19°	SW	22:12:02	10°	S	Visible

HAA Helps Hamilton

To support our community, we will be collecting non-perishable food items and cash for local food banks at our general meetings. Please bring a non-perishable food item to the meeting or a donation of cash and help us help others in these tough economic times.

If you would like to help or have any questions about this initiative, please contact Jim Wamsley at 905-627-4323.

Comet PanSTARRS: May, 2013 by Bob Christmas

Comet PanSTARRS (C/2011 L4) on May 7, 2013. 20 x 2 minutes = 40 minutes total. Taken through Tamron 300mm f/2.8 lens with Canon 300D digital SLR. Settings: f/2.8, ISO 800.

In mid March, Comet PanSTARRS (C/2011 L4) swung around the Sun, then into the northern hemisphere. It was a cold, windy night at Binbrook Conservation Area, when a bunch of us HAAers observed and imaged PanSTARRS in the twilight glow of the western sky on March 14. On April 1, HAA member Everett Cairns imaged PanSTARRS when it was beside M31, the Andromeda Galaxy, from his cottage up north. Everett's image appears on Page 7 of the May 2013 EH.

I also imaged the comet from my balcony in Burlington in late March, but it would be in the beginning of May when I would finally get to see and image it under a very dark sky at Spectacle Lake Lodge, near Barry's Bay, Ontario.

I couldn't believe how warm it was up there, that first full week of May. It was 27 C for the first few days, and I was wearing shorts! At night when I was imaging, all I needed for outdoor wear was a sweater and a jacket. The nights of May 5, 6 and 7 were very dark, perhaps the darkest I've ever seen it up there. The seeing wasn't at its steadiest though, and the stars were vigorously twinkling.

I photographically and visually followed the progress of then-magnitude-7 PanSTARRS through the constellation Cepheus as it approached the north pole of the sky. In my binoculars, I could barely see its main dust tail. As I took images of the comet, I noticed its second tail, forming about a 135-degree angle with the main tail and pointing in the general direction of the sun, hence an "anti-tail". When I stacked and post-processed my PanSTARRS images, it struck me how long this anti-tail was, spanning at least 1 1/2 degrees of the sky, and growing. *(Continued on page 11)*

Comet PanSTARRS: May, 2013 (continued)

This image, by the way, is from the third night, May 7, just before midnight. It is a partial blend of 2 stacking outtakes, one stacked strictly on the stars and the other stacked on both the stars and on the head of the comet. This is the ninth comet I've bagged with my 300mm lens.

As I write this, the anti-tail is still growing, and the main tail is shrinking! More recent images on the web bear this out. The visibility and orientation of its tails depend largely on its position at the time relative to the Sun and the Earth. Here's a link to a fascinating article by Bob King on the Universe Today website about the growth of PanSTARRS' anti-tail, with diagrams and more images of the comet:

http://www.universetoday.com/102299/what-do-comet-panstarrs-and-pinocchio-have-in-common/

So PanSTARRS remains a very interesting imaging target as it moves further away from us and fades.

But wait till this November, when Comet ISON arrives. It will almost certainly put on a much more spectacular show. Stay tuned!

The World's Best Astrograph? by Mike Jefferson

At the May general meeting of the Hamilton Amateur Astronomers, John Gauvreau began his presentation of "The Sky This Month" with a beautiful photograph of Comet PANNstars taken by Bob Christmas from his favourite observing location, Spectacle Lake. It was excellent in all respects!

After the meeting I got a chance to read an article for Officina Stellare's latest Riccardi-Honders astrograph in the February/12 edition of "Sky and Telescope". It is being touted as the finest camera lens for astronomical pursuits, to date, for the better part of $10,000.00! This is for the lens only! YOU get to supply the camera, tripod, mount and other necessities, beyond this price. For the cost of a good used car you can be the best astrophotographer in the world, or so the website would have you believe!

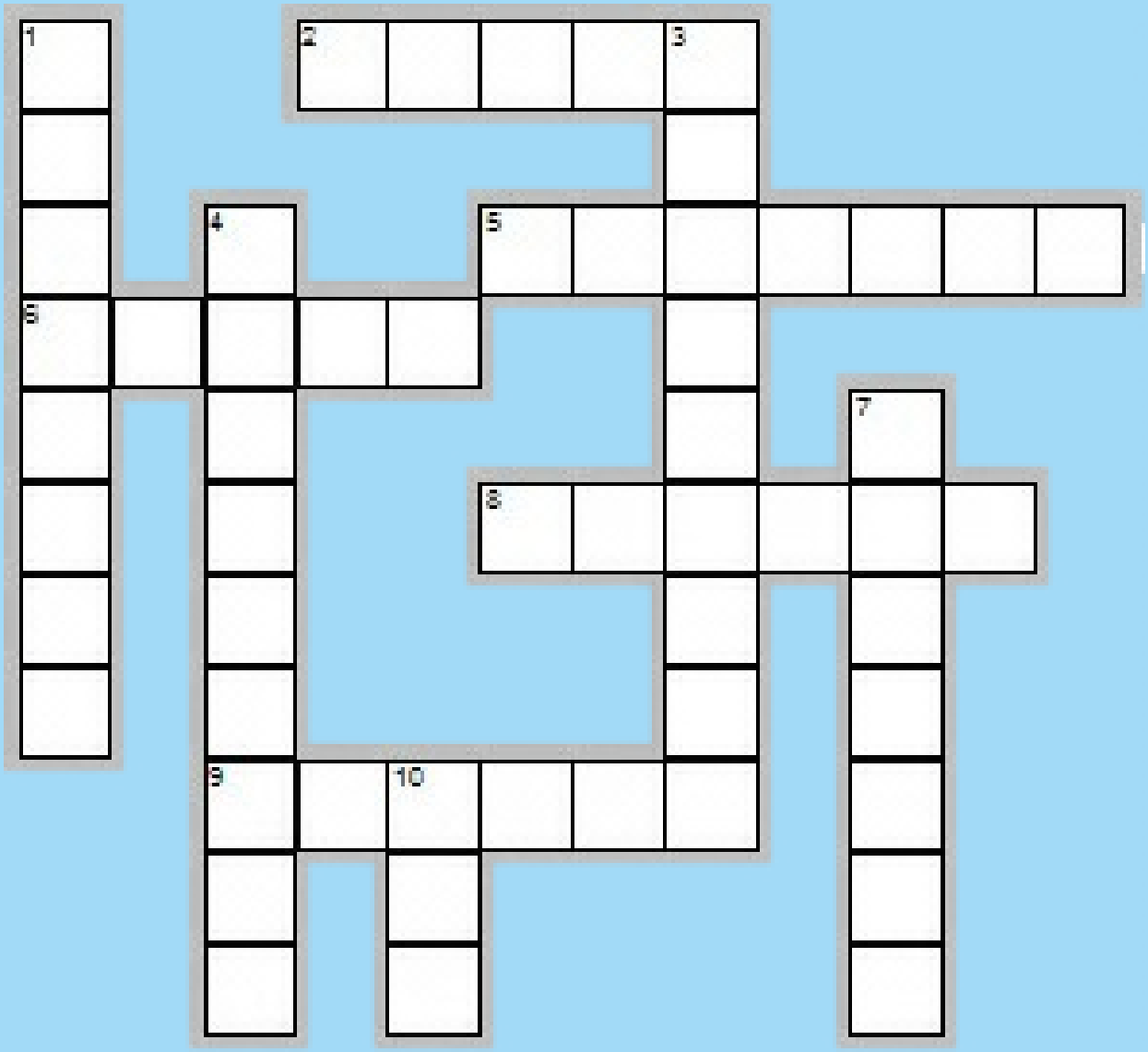
Some research on the Officina Stellare website found me lots of information about, and lovely photographs taken by, this miracle lens. Realize, too, that this is a camera lens. You cannot look through it. It is not a telescope. The central spot is far too large for visual use and the human eye entrance pupil far too small to accommodate the lens' exit pupil. At F3 this is one fast Cassegrain-Mangin instrument! It allows you to do one picture in ½ hour and not 1½ hours. I guess amateur 'telescope time' is expensive these days! (??) It has an 8 inch mirror and is ~240 mm in length. It has a 600 mm fl. And weighs 10 kg. Are amateurs into 'bragging rights' these days?

Another article in the same issue portrays shooting the entire night sky with 6 expensive Zeiss 85 mm. F2.8 Sonnar lenses, 6 Finger Lakes Instrumentation MicroLine 8300 monochrome cameras, portable computer, Takahashi mount, multiple expensive filters and lots of airline travel.

A further check of the Officina Stellare website displayed a series of astrophotographs done by the RH 200 "Veloce". Not one of them was any better than anything I have seen before done by people using different equipment.

This brings me to the topic of this article. If you look carefully at Bob's photograph (on page 10 of this issue of EH), it becomes very apparent that his image is every bit as good as what I have alluded to above and possibly even better in some areas. He did it with a DSLR, tripod, EQ mount and 300mm ordinary camera lens + a little computer processing. This points out what Roger Burroughs of Camtech has said for years – 'that cameras do not take good pictures – people do'. Bob has certainly shown that to be true at far lower expense than the 2 above-mentioned cases!

Astronomy Crossword by Mario Carr



Across

2. On June 4 this planet will be near M35.
5. On June 19 this planet is behind the sun.
6. On June 18 the moon will be close to this object.
8. Mercury can be seen low in the western evening sky after sunset and gets this way as the month progresses.
9. During June, his planet can be seen dropping lower each night in the southwest evening sky.

Down

1. On June 21 at 1:04 a.m. this event happens.
3. O no not another one of these on June 23.
4. Astronomy writer
7. On June 10 Venus will pair with this planet.
10. On June 20 Mercury and Venus are how many degrees apart?

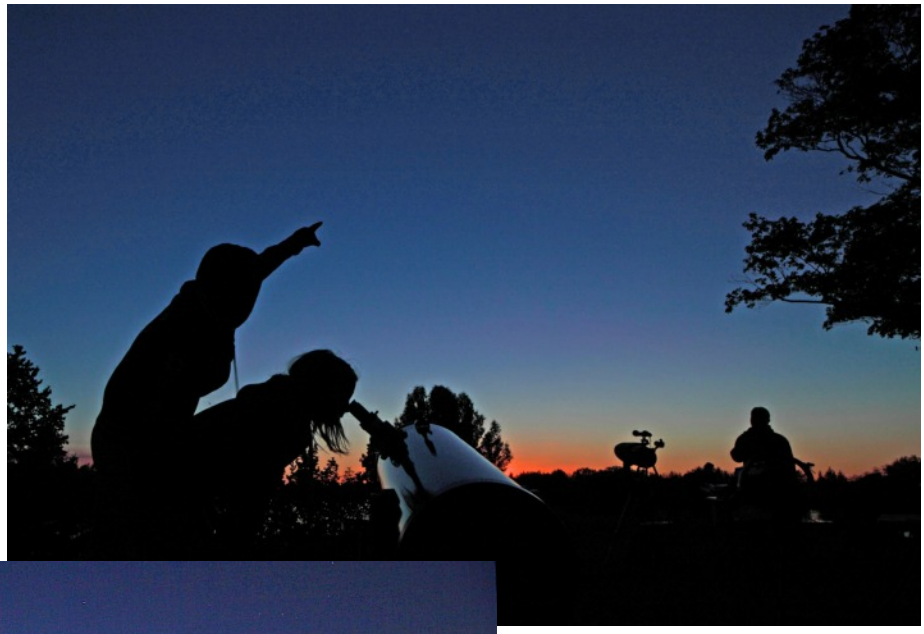
Answers can be found on page 16. (No peeking!)

May 18 Public Stargazing in Grimsby

Photos taken at our public stargazing event on May 18 at the Grimsby Welcome Centre. The top four images are courtesy of Don Pullen and the bottom two are courtesy of Ann Tekatch.

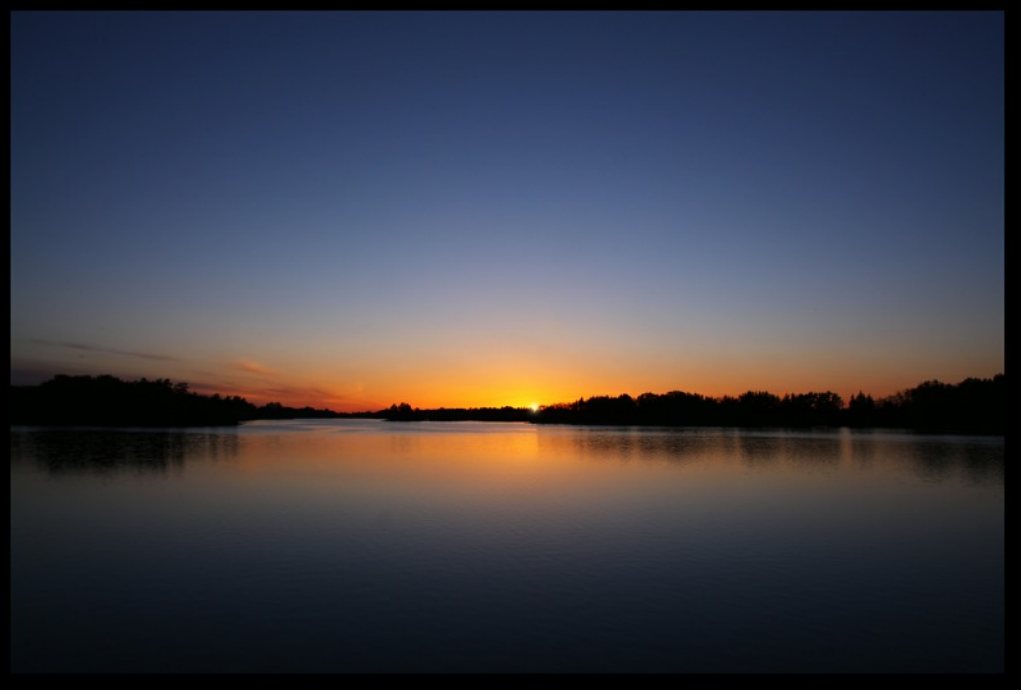
Images from the May 26th Conjunction

Right: Kevin and his sister, Jill, observing through his 10" Dobsonian telescope during the twilight. Image courtesy of Ann Tekatch.



Left: Cathy observes the conjunction of Mercury, Venus and Jupiter through a giant pair of binoculars. Image courtesy of John Gauvreau.

John Gauvreau captured the intense colours of sunset in this lovely image.



AstroCATS – 2013 by Mike Jefferson

The first ever, Canadian 'NEAF' (North East Astronomical Forum) was held on Saturday and Sunday this past weekend (May 25-26, 2013) at the Sheridan College athletic complex in Oakville. It was an experiment by RASC Hamilton Centre President Andrew Blanchard to provide a 'NEAF' for Ontarians, Canadians, Americans from the northeast U.S.A. and just about anyone else who wanted to come out and get a look at some of the latest astronomical 'toys' and apparatus. Included also was a list of speakers providing seminars on everything from narrow band filters for astrophotography and 21st century trends in backyard astronomy to 20 years of NASA education. In addition, a large number of Canadian and American equipment suppliers set up a not-to-be-missed tradeshow which also ran both days. Door and raffle prizes rounded out the offerings.

I was lucky enough to be invited to be a volunteer for the Saturday presentation. Mario Carr went along with me and attended Terence Dickinson's lecture and even got a chance to informally interview him. Matthew Mannering attended the Sunday presentation and it is known that other HAA members were also in attendance.

For a detailed outline of the entire proceedings, log on to one of the AstroCATS websites. Next year's show promises to be an even bigger event. So, if you missed it this year, be sure to put it on your astronomical calendar for 2014! Andy has definitely created a winner here!

Summer Star Parties

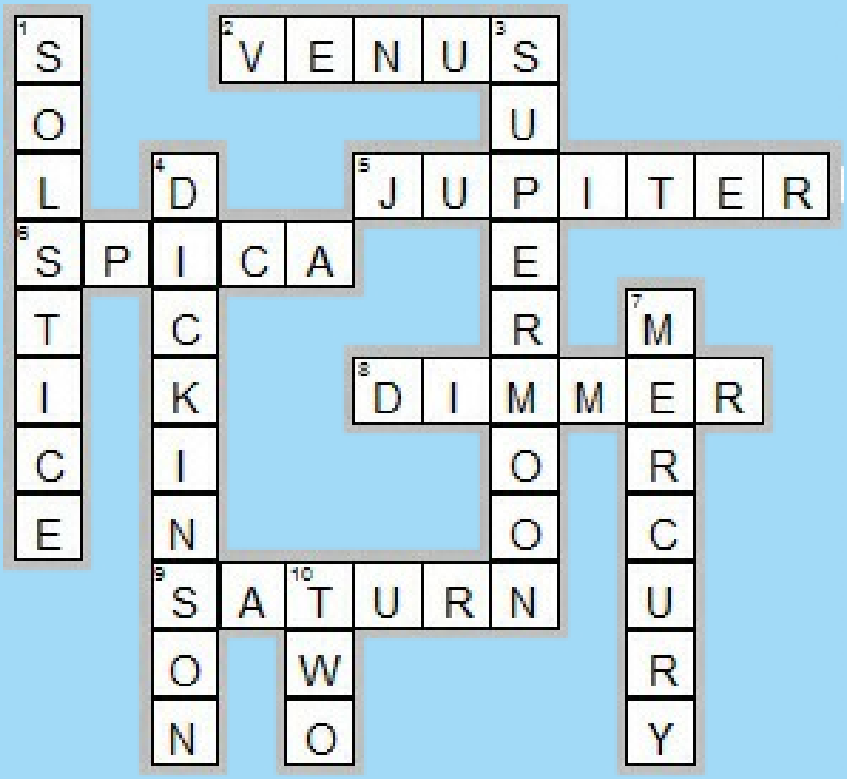
Star parties offer an opportunity to camp and observe under dark skies with like-minded amateur astronomers. Some of the more popular summer star parties are listed below. Please note that many of these events require pre-registration. Check the websites for details.

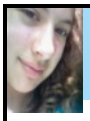
July 4-7	Gateway to the Universe Star Party, Marten River Provincial Park, Ontario. http://www.gateway-to-the-universe.org/
July 5-8	Stargazing Manitoulin,Gordon's Park, Manitoulin Island www.gordonspark.com
August 8-12	Starfest (Canada's largest star party), River Place Park (RR3, Ayton), Ontario. http://www.nyaa.ca/starfest.htm
August 9-12	Manitoulin Star Party, Gordon's Park, Manitoulin Island http://www.gordonspark.com/
August 8-11	Stellafane, Springfield, Vermont http://stellafane.org/stellafane-main/convention/
Sept. 6-8	Black Forest Star Party, Cherry Springs State Park, Pennsylvania http://bfsp.org/

For Sale

TeleVue Nagler Type 4 17mm 2 inch eyepiece in mint condition with original caps and box. Asking $425, or best offer. Inquiries can be directed to Moe @ (905) 690-8516.

Answers to Astronomy Crossword on Page 12





Cartoon Corner by Alexandra Tekatch

Amateur astronomy version of the Binbrook Fishing Derby.

UPCOMING EVENTS

June 14, 2013 - 7:30 pm General Meeting at the Hamilton Spectator Auditorium. Dr. Christine Wilson of McMaster University's Physics & Astronomy Department will be our guest speaker. Kevin Salwach and John Gauvreau will update us on This Day in Astronomy History and the Sky This Month.
July 13, 2013 - Public Stargazing event at McQuesten Park, Hamilton, Ontario
August 11, 2013 - HAA member picnic at Binbrook Conservation Area followed by
August 11, 2013 - Perseid Meteor Watch at Binbrook Conservation Area.
September 13, 2013 - 7:30 pm General Meeting at the Hamilton Spectator Auditorium.

2012-2013 Council

Chair	Jim Wamsley
Second Chair	Joe McArdle
Treasurer	Steve Germann
Membership Director	Matthew Mannering
Observing Director	John Gauvreau
Event Horizon Editor	Ann Tekatch
Recorder	Mike Jefferson
Secretary	Bob Christmas
Public Education	Mario Carr
Councillors at Large	Brenda Frederick Harvey Garden Keith Mann David Tym Leslie Webb

Observing site for the HAA provided with the generous support of the
Binbrook Conservation Area
Come observing with the HAA and see what a great location this is for stargazing, a family day or an out-door function.
Please consider purchasing a season's pass for $79 to help support the park.
http://www.npca.ca/conservation-areas/binbrook/
905-692-3228

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