Editor’s Message

Happy New Year everyone. Let’s hope that this is a less cloistered year with lots of vaccine and clear skies.

After watching the attempted coup in Washington DC earlier this week I am glad that we at the Ottawa Centre have a much more reasonable approach to the changing of our Presidents. Mike Moghadam, our Past President, peaceful left office without a fuss, transferring all his many powers to our new President, Stephen Nourse. Thank you, Mike, for all you have done. Welcome Stephen.

This year is the fiftieth anniversary of the creation of the Ottawa Centre’s observatory, the FLO. Over the coming months we will be featuring a series of articles chronicling the history of our observatory from its first days to the present written by our FLO Director, Rick Scholes. Robert Dick will also be doing some articles to provide us with background information on some of the people whose names you will have heard but have no idea who they are. It is important to remember these people and their contributions to our Centre. They laid the foundation for the vibrant, active group we have today.

As part of the celebration of the FLO this year I am introducing a new regular feature for AstroNotes called “FLO Moments”. These will be reflections by members of things that happened at the FLO or that they associate with evenings at the FLO. I have heard more than one story about strange happenings when people were alone there at night. I am also aware of some memorable nights of individual and shared accomplishment. Some will be short, some will be long, and I am counting on you to submit yours.

I want to thank my Assistant Editor, Doug Fleming for creating the Index of the 2020 issues of this newsletter. Doug does so much to help produce this newsletter and I would be lost without him. Thanks Doug, for everything you do.

Clear skies and stay safe,

Gordon
Notes from the President

I would like to take this opportunity to extend a Happy New Year to all, may it bring health and happiness to all of you.

Doubtless there are many who of you that are happy to see 2020 fading in the rear-view mirror. Unfortunately, though, despite the positive aspects of the multiple vaccines now being distributed, there are still some difficult times ahead. It will be many months before we can once again meet in person and enjoy the company and conversation of others along with the monthly talks. Likewise, it will be later in the year before we can once again share our love of the sky and its wonders with others in person.

We will though continue to be active as an organization, as we have been throughout this pandemic. I continue to be impressed by the programs, presentations, and other virtual events that our Centre has either put together or participated in. These virtual meetings are such a huge success due to your involvement and attendance. My hat’s off to you all.

I am very fortunate to have an active and engaged council, both elected and non-elected, to lean on for guidance and ideas. We start 2021 off next week with our first council meeting on the 14th. There is much we can do and prepare for when things open up.

More years ago than I care to remember I was convinced to come on to council and have been involved in some way more or less ever since. At the time I was told that “you will get more out of the society if you participate”. Well, they were right. I did, and I still do, although I never expected to end up here. If anyone is thinking they would like to become more involved in any way, large or small, I urge you to do so. Simply talk to any council member and they will point you in the right direction.

Last December, in addition to becoming President of the Ottawa Centre, I also was confirmed as a Board Member of the National Aviation Museum Society (NAMS). NAMS is a public non-profit society affiliated with the Canadian Aviation and Space Museum where, of course, under happier times we hold our monthly meetings. Its role is one of advisement, fund raising, and other roles not appropriate to a government body. Although I am there because of my past life in aviation I view this as an opportunity to strengthen and hopefully expand our cooperation with CASM. If anyone has any thoughts in this regard, please feel free to discuss them with me. I can be reached at president@ottawa.rasc.ca or at 613-219-9305 by phone.

All the best,
Stephen
January 28 - Full Moon. The Moon will be located on the opposite side of the Earth as the Sun and its face will be fully illuminated. This phase occurs at 19:18 UTC. This full moon was known by early Native American
tribes as the Wolf Moon because this was the time of year when hungry wolf packs howled outside their camps. This moon has also been known as the Old Moon and the Moon After Yule.

Quadrantids Meteor Shower. The Quadrantids is an above average shower, with up to 40 meteors per hour at its peak. It is thought to be produced by dust grains left behind by an extinct comet known as 2003 EH1, which was discovered in 2003. The shower runs annually from January 1-5. It peaks this year on the night of the 2nd and morning of the 3rd. The waning gibbous moon will block out most of the faintest meteors this year. But if you are patient, you should still be able to catch a few good ones. Best viewing will be from a dark location after midnight. Meteors will radiate from the constellation Bootes but can appear anywhere in the sky.

<table>
<thead>
<tr>
<th>Date</th>
<th>Rise / Set</th>
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<tbody>
<tr>
<td>January 1</td>
<td>07:43 / 16:31</td>
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<tr>
<td>January 31</td>
<td>07:24 / 17:09</td>
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</tbody>
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Mercury
Rise/Set 08:27/16:50 -> 07:55/18:23
January 24th - Greatest Eastern Elongation. Look for the planet low in the western sky just after sunset. The planet Mercury reaches greatest eastern elongation of 18.6 degrees from the Sun. This is the best time to view Mercury since it will be at its highest point above the horizon in the evening sky. Look for the planet low in the western sky just after sunset.

Venus
Visible before sunrise.
Rise/Set 06:17/14:58 -> 06:54/15:50

Mars
Visible in the evening.
Rise/Set 12:10/01:45 -> 10:45/01:07
Jupiter
Visible in the early evening first half of the month
Rise/Set 09:04/18:09 -> 07:27/16:48

Saturn
Visible in the early evening first half of the month.
Rise/Set 09:00/18:03 -> 07:13/16:23

Uranus
Visible all evening.
Rise/Set 12:38/02:31 -> 10:41/00:33
Neptune

Visible early evening.
Rise/Set 10:58/22:10 -> 09:02/20:16

The Ottawa Centre Observatory:
A History -
Part I: The North Mountain Years (1971-1977)

The year 2021 marks the 50th anniversary of what is now known as the Fred P. Lossing Observatory. Logbooks of the observatory activities have been maintained since day one. Six books are complete; we are currently recording in book 7. To commemorate our valuable club facility, I will present its history as reflected by these logbooks.
Reading through the logbooks provides a fascinating perspective on the activities of club members and particularly the observers. Over the years one can read of accomplishments both large and small, of failures and successes, and even some fame. Entries come in many forms: long or short, serious or humorous, useful or mundane. Names come and go. Most rewarding to read are those that convey the sense of excitement and awe that we all have felt during our time looking up. For this article I have cherry picked my favourite entries. As with any history, it is incomplete, sometimes frustratingly so. An asterisk (*) indicates that legibility was an issue, so I am guessing at what has been written. To aid in comprehension I have sometimes inserted [in square brackets] additional information from a source other than the logbook. I am grateful to Robert Dick, David Fedosiewich, and Linda Meier who helped by fact checking some details.
The first year: Bullet Holes and Stellafane

The record begins with “North Mountain Observatory Book 1”. This book covers 1971 to 1977 when the observatory was located at North Mountain, near Osgoode. It is made up of lined loose-leaf pages bound in a rigid green duo-tang type folder. On the inside of the folder is printed “Property of the Department of National Defence, Stock Number 7510-21-840-2175”. Don’t tell anyone at DND! The very first entry, in pencil, is dated 23/1/71 by [John] Conville, [Robert] Dick, and F. Lossing, who wrote, “Came to eat and maybe observe, but cloudy. Came to get some photographs but windy and cloudy.” On the following day, the second entry, by T.E.D. Bean, reads “Fitted key to lock in happy marriage. Time is 15:30hrs. Hut temp 42F, very pleasant but cloudy out.” [A hut had been obtained by Fred. The observatory was not yet built.]
There is a sense of anticipation - they are eager to use the site and anxious for clear skies. Ever thus! There is a gap of two months before the third entry on 22 March by John Conville, which was rather more exciting: “Found three bullet holes in east window, glass all over. Took 3 hrs to hitchhike here. Clear most of night. Doing transparency comparison with Q.S.” [Q.S. stood for Quiet Site, an existing RASC Ottawa observing area located at Shirley’s Bay.] Other names that appear on the first page include Barry Matthews, Tom Tothill, Gordy Grummet, and L. Higgs.

There are vague references to the observatory building construction in spring 1971 culminating in “the roof rolls courtesy of the named” (Fred Lossing, Pete [MacKinnon], Tom Tothill, John Conville) on 22 May. Also in May are the first mentions of actual observing using a 10”, and the first mention of an overnight stay by Ken Hewitt-White (to work, not to observe). Labour continued at a regular pace through June, with references to painting, stairs, electrical connections, and finally on 1 July the “16-inch Tube INSTALLATION DAY!!” by a crew of 13 including Lossing, Tothill, Dick, K. Hewitt, and others. It seems that first light was the next day on 2 July 1971, but the record only states “observing”. A few nights later there was more detail: “Observing (moon!)”
A fridge, electric frypan, and dishes were brought in for hungry observers. There is mention of a meteor camera being on site around this time. Telescope installation work continued with counterweights, camera adapters, brakes, and the like. Fred Lossing mentions taking a prime focus photograph of M31 on 25 July.

From 12-15 August the unique, fork-mounted 16” telescope with a rotating upper cage was transported to Stellafane, the amateur telescope makers convention held annually in Vermont, by a team that included Fred, Tom, Rob, and an 18-year-old teenager named Rolf Meier. It was reinstalled at NMO on 16 August with the additional help of Art Fraser, John Conville, and others, who recorded proudly: “3rd Prize in Optics - Stellafane.” It was immediately put back into use observing. The 20 August entry contains the first useful mentions of the optical quality of the new telescope: “Ring central star, saturn crepe ring, pleidies (sic) nebulosity” observed by R. Dick, A. Miller, J. Conville, and R. Meier. Clearly the mirror had been well figured. And the skies were definitely darker back then.
John Conville “brought drafting table” in September, which remains in use today at FLO. The table included a backlit portion which was used by film photographers when examining negatives. To me this table looks like a government surplus unit similar to the one my father bought years ago and which I still use as a workbench.

The NMO site was adjacent to a farm field, and so one can read about “manure smells driving observers inside” and “pickup truck racing around farm stocks about midnight (slightly inebriated)”. An amusing, uncredited entry reads: “There are cows on the road”.

Work on the telescope drives, limit switches, and the RA circle continued into September. Then on 24 September 1971 was what appears to be the first “Star Nite” with at least 30 attendees signed in. No one took time to mention the sky conditions or what was observed.
Observing and site improvements continued in parallel into the fall. Mars and Saturn were on view. Setting circles became operational, a finder scope was added, and a concrete walkway was poured. On 23 October, the official opening and cake cutting was held, with at least 47 names listed, including all the names mentioned so far plus Stan Mott (after whom our center library is named) and Walter Scott Houston (the well-known American amateur astronomy popularizer and writer for Sky & Telescope magazine), and many others. [Mr. Houston cut the ribbon.] Ken Hewitt liked the place so much he slept over and continued cleaning up the next morning ... or maybe he just lacked a ride.

Fred, Tom and John often visited together, presumably for ongoing commissioning and tune up jobs. One of their entries reads “Note: Building heaters were not turned down by the Oct.30 clots. How about a $20/month electric bill???” with an arrow pointing to the six offending users on that date. I guess that was expensive in those days. A coffee fund jar started by John Conville contained, at one point, “$15.81 plus 2 slugs.”

Rolf Meier began using the telescope regularly during the fall of 1971. He added a ‘Seeing’ column to the log on 26 November, which was maintained for many years. He arrived on 22 December for a “2-day-night stay.
Brought milk today so take note of date”. He filled the next page with detailed notes and observations on the sky, the equipment, the WC, and the cold (-3F). Canada had not yet converted to metric. He rated the transparency as 7/10 when it wasn’t cloudy. He was clearly having the time of his life and returned on 26, 28 December and 5 January 1972.

All Nighters and Skating Rinks

During this era there are often multiple names on each date; six, eight, even ten names per night. In fact, low turnouts were so unusual that if someone did find themselves alone on a clear night, they would write “Where is everybody?” In those days amateurs rarely possessed telescopes with apertures as large as 16”, so members were clearly making the most of it. The camaraderie and group effort are striking. On the night of 15-16 January 1972, a group of ten people did some Messier list observing and long exposure photography. Transparency was 8 and seeing was 9. Rolf, Ken, and Rob stayed through the night and noted at 5:20AM: “Buried with full observing honours is Rolf’s Volkswagen which finally gave up the ghost at 05:15 after 5 hours of trying to get the engine warm. We are stranded here and loving it!” It was claimed that the temperature was -20F and the wind chill was -50F. They woke up at 10AM and wrote “Will attempt to get out of here.” Later, “At 11:30 Rob Dick’s father arrived. Rob went home but Hewitt and myself decided to stay as prospects for another clear night were good.” I conclude that observers were hardier in those days.

The observers group then began observing OJ287, a BL Lacertae object [mentioned by Rolf in an Astronotes article as their first serious scientific project]. Ken Hewitt-White made hundreds of observations of this object while attending six nights in a row in February 1972, despite cold, wind and some of the nights being cloudy. That month there were 17 log entries over 11 nights by more than 20 people. Even when problems occurred there was obvious joy and lightheartedness. Fred noted “Frozen door on observatory frustrates furious Fred.” Below that Allen Miller referred to the frozen door thusly: “Canadian Security System invented.” When the door finally unfroze, Hewitt-White made “first sighting of Pluto [then still a planet] with 16” at 04:55 EST, reliability 90%.” Apparently not enough attention had been paid to drainage around the observatory, as Fred noted in March, “Skating rinks everywhere you go! The best one inside the observatory.”

Although there was a key holder exam in those days, entries (usually by Fred or one of the observatory ‘fathers’) often chastised previous attendees for leaving on heaters, lights, brakes, etc. On 20/21 May an additional backdated entry has been added in the form of a small piece of notepaper taped into the book. The author’s identity is unclear. They arrived after midnight to observe meteors and sketch Jupiter. However, a prowling “wolf-like animal” caused s/he to first “lie very still”, then “jump 10 feet while uttering exclamation of surprise”, and finally retreat “to sit in car to observe”.

Another large group of ten people on the night of 17/18 June 1972 had their observations thwarted by “TOO MUCH AURORA!!” Rolf Meier stayed overnight and then observed the sun the next day to see why. The prevalence of aurora comments in the logbook was to continue for the next couple of decades. Rolf became acquainted with the neighbouring farmer(s), who helped him start his car on one occasion. On 4/5 September, with transparency rated at 10/10, a group of seven people “Achieved definite sighting of Comet Giacobini-Zinner. Motion detectable in minutes.” That entry was again made by Rolf Meier, who estimated its magnitude as 13.0-13.5 the following night. This certainly fed his passion for comet hunting, which was to pay dividends later that decade.
Usage of the site and scope continued apace through the winter of 1973. The extreme cold that usually accompanies clear nights was not a deterrent. The name Cathy Hall begins to appear regularly around this time period, reporting on sketches, observations of Saturn, and meteor showers. She often did those thankless jobs involving upkeep of the clubhouse and grounds, for which she was thanked, and even planted a garden. By then a lawn existed. The tireless Fred Lossing even took turns mowing it, on top of painting, frequent telescope repairs, plus his own observing and photography.

Ottawa hosted the RASC General Assembly in May 1973, and naturally showed off their new observatory. Over the 24-25 May weekend there are two and a half pages of names visiting the site, including local members as well as those from Montreal, Toronto, Hamilton, London, Rochester (a certain T. Dickinson), Winnipeg, Saskatoon, and Vancouver. Then it was back to regular observing and photography. Skylab [the first NASA space station] was spotted on several occasions.

“Star Nites” and Deep Sky Weekends
The fall of 1973 was a good time for view of Mars, Saturn, and Comet Kohoutek. Jammed into the pages between December 1973 and January 1974 is a black and white photograph of Chris Martin and Ken Hewitt-White, asleep in their winter jackets, on bunks which existed in the clubhouse in those days.

A construction project to the south of the site, first noted the previous September, is mentioned by Rolf on 17 April 1974: “construction project of some kind going on, much too near for comfort. N.B. Someone has tried to push the roof off. Interesting display of aurora.” A couple of weeks later a power cord was discovered plugged in to the observatory outlet and leading to the construction site. [This was the beginning of the end for NMO. The adjacent lot had been sold and a home was being built only 20 metres away.] There is mention of a phone being installed “soon” that summer and it was in use by December. So at least people could phone for help if their car broke down. An Aero Ektar lens was also in use at that time, and film developing chemicals were kept in the clubhouse.

“Star Nites” continued to be popular, drawing 24, 40, and 38 people in March, April, and August respectively. Various groups were welcomed for outreach activities, including a group from Hillcrest High School. A “Star Weekend” held on 11-13 October was well attended despite “CLOUDS!!!” and “AURORAE!!!” The year was rounded out on 30 December by Doug Welch and others observing Eros and measuring its rotation period (presumably with a photometer).

In May 1975, the first mentions of Uranus, Neptune and Mercury observations were made, along with Venus and Saturn. Messier hunts were underway as well. On 24 May over twenty people enjoyed a “perfect”, very red total lunar eclipse. I have fond memories of viewing this event from my parent’s home in Montreal, with a high school astronomy club spread out on our front lawn. In June Rolf noted “Mars and Jupiter in same field. Wow!” In midsummer, Fred Lossing was able to boast, in relation to the diagonal on the 16”: “This is the only observatory in the world with same-day aluminizing service.”

On 11 July, Art Fraser achieved some notoriety by observing “11 M objects, 2 satellites, 3 meteors with binoculars 7x50. Observed fuzzy object near Gamma Equulei”. The fuzzy object was not shown in any star atlases. Accompanied the next evening by Rolf, Cathy, and Doug, it was plotted again, and the coordinates sent to the Smithsonian. Alas, a message came back that Comet Kobayashi-Berger-Milton had already been discovered on 2-5-7 July. Its position was plotted by various members on into August. The Ottawa Centre was certainly developing a taste for comet hunting. Then at the end of August the bright Nova Cygni was observed by Rob McCallum and others. I clearly remember spotting this new star and phoning the McGill Observatory to report it. If I’m not mistaken, I spoke with none other than David H. Levy, a Montreal RASC member at that time, who informed me that it had already been discovered.

The Deep Sky Weekend in October was attended by at least 11 people, despite transparency being listed as “-5/10” (the negative sign is not a typo). Such was the comradeship and popularity of the site that members came out even when there was nothing to see but clouds. Governance of the observatory is revealed by a Fred Lossing “Pre-winter maintenance” entry which reads “Note to NMO members from returned chairman of the NMO committee” and went on to list various repainting and repair jobs he was hoping to delegate, ending with “Have fun!” To spread astronomy news in those days, Art Fraser regularly “delivered IAU circulars”.

In March 1976 Rolf Meier and Doug Welch reported “Comet West 25-degree tail (maybe 30) - gas and dust tail both visible. One of the most fantastic things I’ve seen”. There are occasional references by some observers to
exams and leaving for or returning from campuses, indicating a strong youth component within the club. Doug George makes his first logbook appearance that spring, noting “good clouds” on a May Star Nite. Overnight stays by different people continued.

The Relocation

The first reference to site relocation occurred on 25 July 1976 when Art Fraser noted: “Took a series of photos to correspond with series taken by site testing group at the Mill of Kintail.” Eleven months later he wrote: “Took measurements of observatory and clubhouse.” The last night of observing took place on 18 August 1977, attended by Rolf, Doug Somers, Ross V...(*), and Doug Welch, with a seeing rated at 9/10. Besides some sort
of Shakespearean English passage, the astronomical notes were simply: “Aurora tonight. 1 hr. C.S.” [comet search]. The telescope was disassembled the next day.

The moving process was a big group effort with 30 or more members involved over six weeks. It was claimed that the roof weighed 800 pounds. Rolf appears to have been the main scribe. Here are the milestones:

27 August: “Moving day. Only we didn’t get very far. Stopped by OPP on hwy 4 just 5 miles west of North Gower. Clubhouse, roof, and various other stuff dumped at side of road because no permit for a wide load.”
3 September: “We made it! The clubhouse was moved to the new site today. Roof to follow shortly.”
5 September: “Meeting Drummond Brothers as they unload the roof!”
9 September: “Rivington Electrical installing poles and wires today.”
24 September: “Here for scope installation”
4 October: “The hydro was installed today .... First official night of viewing ... Fine view of Comet Koehler. Initial hydro reading 00001.”

The final entry in book 1 was made on 7/8 October 1977, when an Observers Group meeting kicked off another Deep Sky Weekend. Frank Roy stayed overnight and left at 10AM.

Next Month: Part II: The Indian River Observatory and Comet Fame (1977-1980)
Walter Scott Houston
(1912–1993) and his Connections to the Ottawa Centre

Douglas Fleming

It’s a bit forgotten that Walter Scott Houston, the popular American astronomical writer, officially opened the Ottawa Centre's sixteen-inch telescope at the North Mountain Observatory (NMO) near Osgoode on Friday, October 22, 1971.

A brief account of the ceremony by Rolf Meier appears in the October 1981 issue of AstroNotes, then edited by Tom Tothill.

As Rick Scholes outline in this issue of Astronotes, the NMO was the precursor of the Fred Lossing Observatory, our centre’s current facility near Almonte. In what follows, I provide a brief biography of Mr. Houston, based on what I’ve been able to gather from Wikipedia, Astronotes, and the Sky and Telescope and Stellafane Amateur Telescope Building Convention archives.

picture: Walter Scott Houston giving the Shadowgram Talk next to the Porter Turret Telescope at Stellafane in 1973.

Houston earned an English degree at the University of Wisconsin (in his native state) and then taught at various universities and public schools throughout the American mid-west. During the Second World War, Houston taught pilots in
Louisiana. After the war, he was the editor for American Education Publications, a post he held until his retirement in 1974.

Houston had a deep interest in amateur astronomy from an early age. He built several microscopes and telescopes and observed all 103 Messier objects even as a boy. While a student, Houston joined the American Association of Variable Star Observers and over the course of his career contributed more than 12,000 variable star observations. In the 1950’s he helped pioneer the automation of the radio monitoring of meteor activity. If that wasn’t enough, in 1956 Houston made significant contributions to satellite spotting, most notably through the Smithsonian Astrophysical Observatory’s ‘Operation Moonwatch’, the largest collaboration between professional and amateur astronomers to date.

Throughout his career, Houston published *The Great Plains Observer*, a newsletter for amateur astronomers based in Kansas and penned pieces for many popular periodicals such as *Scientific American*. Houston was well known for his humour and lighted heartedness, most notably demonstrated by his perpetuation of an April Fool's hoax that claimed that the moons of Mars were actually artificial satellites. The prank fooled many.

Houston’s most significant contribution to the hobby, however, was his Deep-Sky Wonders column in *Sky and Telescope*, which he started in 1949. His last column was published shortly after his death in 1993. The columns were collected in book form by Stephen O'Meara and published by Sky Pub Corp in 1998. It is still in print and readily available on-line. In Cloudy Nights, a glowing review of the book by John Ford can be found: https://www.cloudynights.com/articles/cat/user-reviews/books-software/general-interest-books/deep-sky-wonders-by-walter-scott-houston-r156

In his review, Ford emphasises that “Scotty” approached observations from a visual non-technical point of view and helped him realize that “the chase is sweet, but never so sweet as to find objects by depending primarily on the eye's acuity and one's observing skills rather than on brute force aperture.” Indeed, as I myself found in the columns I was able to gleam online, Houston’s practical advice and enthusiasm for discovery makes for very joyful reading. In an Astronotes account of Stellafane meeting in 1969, prominent Ottawa member Ken Hewitt-White met Houston and emphasised his generosity and openness.

Houston received numerous honors, most notably through the North East Region Astronomical League, which has named its lifetime achievement award in his name. The main-belt asteroid 3031, discovered in 1983, was named in his honor.

As evidenced through photos Houston posted on the Stellafane website, “Scotty” visited Ottawa with his family at least three times after 1971 (1973/5/6) and was great friends with Fred Lossing. So, his connections to our centre were significant.

Life and memory are short, as we all know too well. It’s a shame that Houston’s connections to the Ottawa Centre has faded a bit over time. Hopefully, my notes here help remind us that the Ottawa Centre has had an interesting history and that the many contributions from our members have been recognised by some of the best in the field, Walter Scott Houston among them.
FLO Moments

I was leaving the observatory clubhouse one night in late October. It was already quite bright outside when I was locking the door. I pushed the button, listened to the electronic whirl of the lock, turned around and froze, astonished: some 30m from me, on the newly built observing mound across the parking lot, there was someone, someone big, looking at me. Being sleepy and exhausted after a long whole-night photo session, I connected this shape to a deer only after some delay, during which we were immovably looking at each other. I flinched, ever so slightly, and that very same moment the majestic stag jumped off and left gracefully, perhaps having noticed my movement. On my way home I was thinking of the beautiful ways that Nature can manifest itself for us – from twirls of infinitely distant galaxies in the darkness of space to earthly creatures with big eyes in the morning dew… Do deer ever look at the stars?

Taras Rabarskyi

50th Anniversary Events, So Far

As mentioned in Rick Scholes article, this is the 50th anniversary of the found of what is now the FLO observatory. We feel it is important to recognize and celebrate this occasion, so several events are planned to commemorate events 50 years ago.

The first event will be a star party on Saturday, January 23 to coincide with the date of the founding of the original North Mountain Observatory on January 23, 1971. This will of course be weather and COVID restrictions dependent. A Go/No Go call will be made in the usual manner through the group email.

The second event will be another star party to be held on the anniversary of the first “Star Nite”. September 24, 1971. Our star party will be held on Friday, September 24. There were 30 people showed up for that event. Let’s try to get 50 people out for our star party.

October 24, 1998 is the date the Indian River Observatory became the Fred Lossing Observatory. That happens to be a Sunday this year, so we will have to see. I will likely plan another star party for the Saturday night since it will stretch into Sunday the 24th but I am open to suggestions.
I would like to hold a barbecue sometime during the summer as well. Here again this will depend entirely on the state of COVID and the vaccinations campaign.

The FLO is a valuable resource that we are very fortunate to have. This year will see the completion of the two new observatories as well as the opening of the new mound extension. Members will then have an 18” dob, a 14” SCT and a long tube 6” planetary refractor at their disposal under a darker sky than most of us have in our backyard. Let’s get out and celebrate!

Hot Topic!

Last month we compiled a group of email exchanges on a discussion about leaving your mount outside in the cold weather. After our publication Bob Olson posted the following.

Hi Folks,

Sorry to be a little late to this thread. I leave my mount out all night in the winter and bring it in for the day. The mount is on wheels and is able to run outside where it is cold while I am inside and warm.

The concern most mentioned in this thread has been the durability of the wires and while this is important to me, I am also interested that the wires stay flexible when cold as stiff wires will interfere with the mount when slewing and tracking.

This summer I had 2 cables fail. Not because of the cold. (It was summer.) One 15-year-old cable just died of old age and the other was the victim of a snag on an unattended slew. Both cables were 8 wire signal cables. While they were not internet cables, they were the same gauge, so I replaced them by rewiring them with Cat 6 cable.

As Jim has already noted, Cat 6 cable can be a really bad choice. My replacement cables got as stiff as a pool cue when the temperature started to drop this winter. The casing did not crack but I suspect it would soon. Time for some research on cold resistant cables.

It soon became obvious that the two main factors in cold wire flexibility were stranded wires and covering material. Several jacket cover materials will work but polyethylene is excellent and available. I settled on this part number from Digikey.ca 2320-2170489-DS-ND

Found here:

https://www.digikey.ca/en/products/detail/lapp/2170489/11200122?s=N4IgTCBcDa4MxgAwFowEYDsiAsAOAnMgCIDKyAckSALoC%2BQA

The data sheet can be found at:

I ordered 50 feet ($178 Canadian) which arrived in 3 days. I have tested it down to -13C tonight and it remained as flexible as at room temperature. My ordinary Ethernet cable got stiff at -7C)

Ginny liked the teal colour.

I still need to find USB and power cables that are cold flexible.

Have a great day, Bob

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   https://therationalviewpodbean.com/mf/play/jhiae7/What_is_Science8_bfw01.mp3

(08)• Obituary: Lloyd Albert Higgs
• telescope for sale (Celestron 11-inch SCT)

(11)• telescope for sale (recently dis-assembled Dob)

(12)• Paul Comision Observer of the Year Award: Paul Klauninger
• Rolf Meier Planetary Observer of the Year Award: Taras Rabarskyi
• Presentation of the Year Award: Jeremy Kuzub
• AstroNotes Article of the Year Award: Taras Rabarskyi
• Service Award: Rick Scholes
• Service Award: Gordon Webster

Features

(01)• Member profile: Dr. Janet Tulloch

(02)• Astronomy on Calton Hill in Edinburgh: Douglas Fleming

(03)• The Antikythera Mechanism by Richard Taylor
• Member profile: Jim Thompson

(04)• Understanding Astronomical Filters Part I: What Are They? by Jim Thompson

(05)• Astronomy Day 2020 – Virtually by Jim Thompson
• Daytime Venus by Taras Rabarskyi

(06)• Letter to the Editor: Brian Burke
• Understanding Astronomical Filters Part 2: How to Use Them by Jim Thompson

(07)• Member Profile: Taras Rabarskyi
• Tips & Tricks: $25.00 Crutches Tripod by Dave Chisholm
• How to Get Your Scope Under the Night Sky More Often (Wheels for Your Scope) by Bob Olson

(08)• Cell Phone Astrophotography Adaptor by Hugo Lama

(09)
AstroNotes Newsletter of the Ottawa Centre, RASC

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- Astro Echoes – Sky and Telescope, 1941 by Paul Sadler
- Member Profile: Bob Olson

(10) - Smartphone Astronomy – Reducing white light from the screen by Paul Sadler
- Adventures in Alignment by Douglas Fleming

(11) - Member Profile: Paul Sadler

(12) - Hot Topic! Leaving your mount outside in the cold weather: A summary of email exchanges

Submitted Images

(05) - Bob Olsen: M95; NGC 2905; NGC 2906; Abell 1060; Abell 1060 (inverted); M101; M13
- Jim Thompson: M64; M68; M94; M109: NGC2903; NGC3189; MGC37187; NGC4449; NGC4490; NGC4559: NGC4618; NGC4631; Crater Pioccolomini
- Jim Sophia: M1; M20; M94; NGC2174; NGC2392; Sh2-274
- Paul Klauninger: Comet Atlas

(06) - Paul Klauninger: Comet PanSTARR; Comet Swan (2); Leo 1 Dwarf Galaxy and Regulus; Supernova SN2020jfo; Orion Nebula

(07) - Howard Simkover: Crescent Moon and Venus conjunction (3)
- Bob Olsen: M64; NGC5529; NGC6578; NGC 6578 (labelled); M6; M17; M21; M25; M62; NGC6992

(08) - Calvin Klatt: Simeis 57; Comet Neowise

(09) - Paul Klauninger: Comet NEOWISE & Aurora; Comet Neowise (4); Milky Way & Perseids; Quasar 3C 273 and jet; Twin Quasar
- Bob Olson: The Bubble Nebula

(10) - Douglas Fleming: Sunsets (5)
- Paul Klauninger: Mars

(11) - Taras Rabarskyi: Mars (2)
- Paul Klauninger: The Elephant’s Trunk; Hoodoos and Milky Way; IC 1396;

(12) - Paul Klauninger: Wolf 359 in 3-D [New Horizons (left) and PK (right)]
- Gordon Webster: sketches of NGC 7331; M57; NGC 7619, 7623, 7626; NGC 7464?
- Bob Olsen: M51; Double Cluster in Perseus; NGC 7331; M78; M42

Regular Departments
• Editor’s Message: Gordon Webster
• Ottawa Skies: Dave Chisholm
• Monthly Challenge Objects
• Estelle’s Pick of the Month from the Stan Mott Library: suspended due to COVID-19
• FLO Star Parties
• Carp Star Parties: suspended due to COVID-19
• Next Meeting
• Centre Information

Monthly Challenge Objects
By Oscar Echeverri

Observing Challenge

Last Month

Beginner Challenge: M77
Intermediate Challenge: NGC660
Advanced Challenge: NGC2263 & 2266
Lunar Challenge: Crater Pitatus
Deep Sky Challenge

Beginner Challenge
Messier 45

- Open star cluster in the constellation Taurus
- Also known as the Pleiades
- ~444ly away
- Visible to the naked eye under suburban skies, great binocular target

Deep Sky Challenge

Intermediate Challenge
NGC1055

- Spiral galaxy in Cetus
- 52Mly away
- 11.4 apparent magnitude
- 7.6’x2.7’ apparent size
Deep Sky Challenge

Advanced Challenge

IC1613

- Irregular dwarf galaxy in Cetus
- 9.9 apparent magnitude
- 2.4Mly away
- 16.2’ x 14.5’ apparent size
- Large, but low surface brightness

Lunar Challenge

Mare Cognitum

- Ancient lunar impact crater
- 350km diameter
- Landing site of Ranger 7 lunar probe
Observing Challenge

Beginner Challenge: M45
Intermediate Challenge: NGC1055
Advanced Challenge: IC1613
Lunar Challenge: Mare Cognitum

In Search of Mayall’s Object

Bob Olson
Some of the December challenge objects were interacting galaxies. When I was reading about interacting galaxies in general, I came across a photo of Mayall’s Object. This looked a ton more interesting than the objects that Oscar had chosen for us. I had never heard of Mayall’s Object. The photo looks so unusual that it is hard to believe that I had not seen it before. Clearly this was a brand-new discovery.

There is not a lot of information about this object, but Wikipedia indicated that: “It was discovered by American astronomer Nicholas U. Mayall of the Lick Observatory on 13 March 1940, using the Crossley reflector.” Well, there goes my theory about it being a recent discovery and I now know where its name came from. And the NASA website describes the photo as: “This image is part of a large collection of 59 images of merging galaxies taken by the Hubble Space Telescope and released on the occasion of its 18th anniversary on 24th April 2008. It was taken by the telescope’s Wide Field and Planetary Camera 2, which was designed and built by JPL.” So, this photo has been around for at least 12 years. I really need to pay more attention.

I was able to find the RA and Dec coordinates of Mayall’s Object and that it is 500 million light years away. I entered the coordinates in my telescope and slewed to that spot in the sky. Since the object is so far away, I figured it must be pretty dim. So, I set up my camera to take a nine-hour exposure. That should be enough.
As you can see from my photo there is nothing there. You would think that I might have been clued in by the fact that their image was taken by the Hubble Space Telescope and that the object is half a billion light years away.
But wait, there is something unusual in the image, but it is not quite centered. My telescope uses JNOW coordinates and I may have entered J2000. The earth wobbles a bit on its spin axis, so the stars appear to move a bit each year. My pointing error is probably due to the 20-year axis angle change.
When I zoom in to the strange spot in my image and magnify that crop to a ridiculous size this is the result. Fuzzy and blurry but clearly Mayall’s Object! Astronomy can be such fun.
Submitted Images

M 77 – Bob Olson

NGC 660 – Bob Olson
NGC 2024 The Flame Nebula – Bob Olson
The Great Conjunction, Almost – Gordon Webster
Lunar Oddity – Gordon Webster

Jupiter – Saturn Conjunction December 18, 2020 – Paul Klauninger
Moon with Leibnitz Beta peak illuminated – Paul Klauninger

Estelle’s Pick of the Month

The Library is closed until our physical meetings resume.

Carp Star Parties

We are looking for a Public Star Party Co-ordinator. If you are interested in taking on this fulfilling position please contact our new President, Stephen Nourse at president@ottawa.rasc.ca

FLO Star Party Dates for 2020

☆ Our Ottawa Centre’s Members’ Star Parties at the FLO will continue this winter. If you haven’t attended before, be sure to mark at least one of these dates on your calendar. You are welcome
to bring family members or a guest. The GO/NO GO call will be made on the Centre mailing list, about noon the day of the star party.

**SUMMER & FALL DATES**

- November 14 – Waning Crescent, 29 days old, 0.01% illumination
  - GO
- December 12 – Waning Crescent, 27 days old, 4.2% illumination
  - NO GO
- January 16 – Waxing Crescent, 3 days old, 14.5% illumination
- **JANUARY 23 – 50th ANNIVERSARY of founding**
- February 13 – Waxing Crescent, 2 days old, 4.5% illumination
- March 13 – Waxing Crescent, 30 days old, 0.3% illumination

**Next Meeting**

7:30 PM **Friday February 5, 2021** This will be **A VIRTUAL MEETING ON ZOOM. Watch for email updates.** Note **there will be no $4.00 parking fee.** The meeting runs until 9:30 pm

PLUS: all our regular meeting features: Ottawa Skies, 10-minute Astronomy News Update, Observation Reports and, sadly, no Door Prizes!

All RASC monthly meetings are **free** and open to members and non-members alike. Refreshments will be available, and this will be a wonderful opportunity to meet new friends who share a common interest and chat in a relaxed, stimulating, and fun environment. Please join us!

**Centre Information**

To subscribe (or unsubscribe) to our members-only discussion list ([rascottawa@googlegroups.com](mailto:rascottawa@googlegroups.com)) please contact [secretary@ottawa.rasc.ca](mailto:secretary@ottawa.rasc.ca).

**The Ottawa Centre 2020 Council**

President: Stephen Nourse ([president@ottawa.rasc.ca](mailto:president@ottawa.rasc.ca))
Vice President: Dave Chisholm
Secretary: Chris Teron ([secretary@ottawa.rasc.ca](mailto:secretary@ottawa.rasc.ca))
Treasurer: David Parfett ([treasurer@ottawa.rasc.ca](mailto:treasurer@ottawa.rasc.ca))
Centre Meeting Chair: Dave Chisholm ([meetingchair@ottawa.rasc.ca](mailto:meetingchair@ottawa.rasc.ca))
Councillors: Carmen Rush, Gerry Shewan, Jim Sofia
National Council Representatives: Paul Sadler, **OPEN**
Past President: Mike Moghadam

**2020 Appointed Positions**

Membership: Art Fraser
Star Parties: **OPEN**
Fred Lossing Observatory: Rick Scholes ([flo@ottawa.rasc.ca](mailto:flo@ottawa.rasc.ca))
Light Pollution Abatement:  OPEN
Public Outreach Coordinator: Jean-Sebastien (JS) Gaudet
Hospitality: Art & Anne Fraser
Stan Mott Astronomy Library: Estelle Rother
Ted Bean Telescope Library: Darren Weatherall
Webmaster:  Mick Wilson (webmaster@ottawa.rasc.ca)
AstroNotes Editors: Gordon Webster & Douglas Fleming (astronotes@ottawa.rasc.ca)