

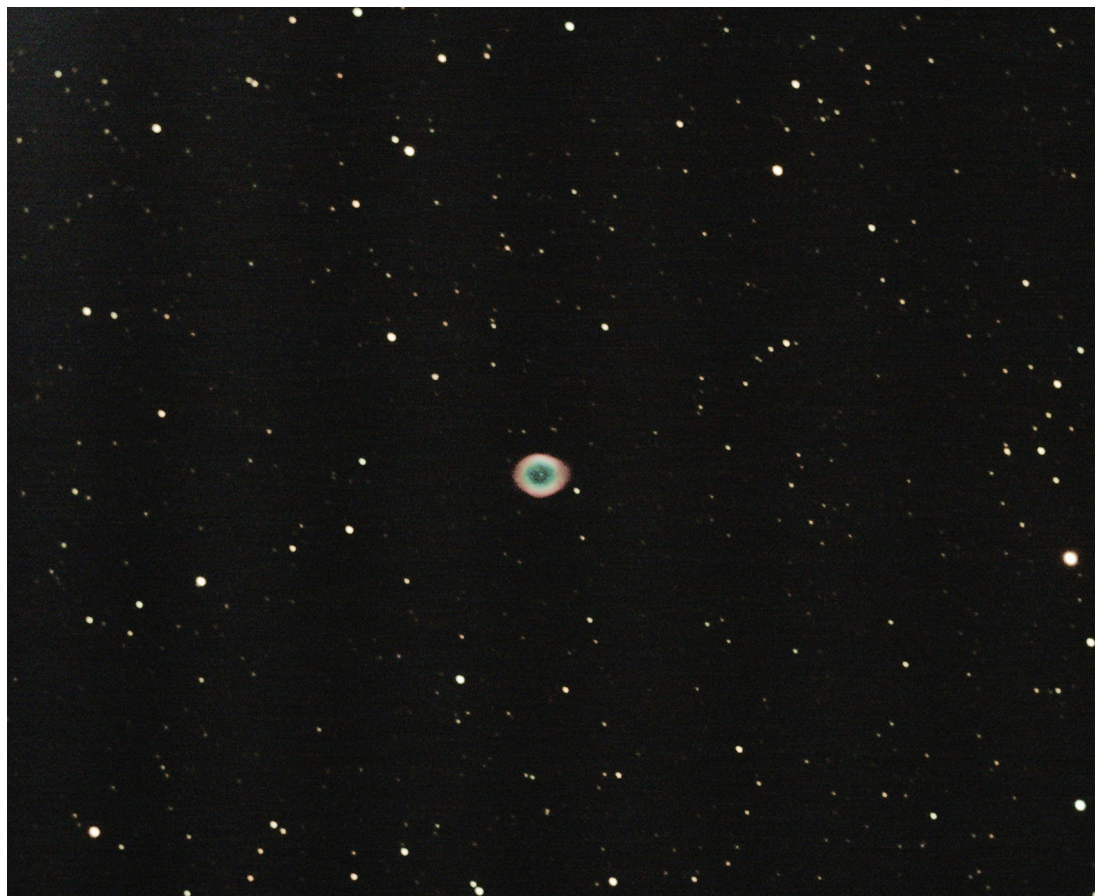
STARDUST

Newsletter of the
Royal Astronomical Society of Canada
Edmonton Centre



June 2015

Volume 61 Issue 10



M57, the Ring Nebula. Image by Tom Owen, 12 stacked 25-second images, taken 2015-05-18.

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Councillor	Clayton Knoll	councillors
Councillor	Alex Neilson	councillors
Councillor	Tom Owen	councillors
Councillor	John Woolley	councillors
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Observing Group Director	Larry Wood	observing_group
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New Member Advisor	Murray Paulson	new_member_advisor
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Archive Liaison	Roxy Garstad	archive
Equipment Director	Ross Sinclair	equipment
Light Pollution Abatement Chair	Bruce McCurdy	lightpollution
Telescope Rentals	Orla Aaquist	rentals
Outreach Coordinator	Clayton Knoll	outreach
Dark Sky Preserve Coordinator	Sherrilyn Jahrig	dsp.coordinator

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On the web <http://edmontonrasc.com>
<http://www.facebook.com>
<https://twitter.com/EdmontonRASC>
<http://www.youtube.com/user/edmontonrasc>

Stardust submissions: Submit articles by email to the editor (see above). **Submission deadline** is the 2nd Sunday before the monthly meeting. Meeting dates are on the following page. Any standard document format is fine (MSOffice, OpenOffice, LibreOffice, AbiWord,) but **plain text is preferred**. Do not try to layout and format your article; your labour will only be discarded. Graphics may be submitted as separate files, and clearly identified; indicate references to them within the text. Do not consider your article successfully submitted until you receive a confirmation email from the editor.

Upcoming Events, Meetings, and Deadlines

Regular Meetings are held monthly (see below) from September to June at 7:30pm in [Telus World of Science, 11211 – 142 St.](#)

Admission is free, and **everyone is welcome** to attend, member or not. Follow the signs from the main entrance.

Observers meetings are held monthly (see below) at [Boston Pizza, 10543 – 124 St.](#) Contact the observing_group @ edmontonrasc.com for details.

Council meetings are held monthly (see below) from September to May at 7:15 in room 1-033 of the [CCIS* Building](#) on the U of A campus. Any RASC Edmonton member may attend.

* Centennial Centre for Interdisciplinary Science

MEETINGS 2015

2015	Regular	Council	Observers	New Moon	Full Moon	Blackfoot
Jan	12	26	5	20	4	16-17
Feb	9	23	2	18	3	13-15
Mar	9	23	1	20	5	13-14
Apr	13	27	8*	18	4	17-18
May	11	25	4	17	3	15-17
Jun	8	--	1	16	2	19-20
Jul	--	--	6	15	1,31	17-18
Aug	--	--	10	14	29	14-15
Sep	14	28	9*	13	27	11-12
Oct	5**	26	5	12	27	9-10
Nov	9	23	2	11	25	13-14
Dec	14	--	7	11	25	11-12

* indicates date bumped by [statutory holiday](#)

** indicates date bumped to accommodate speaker

Edmonton Area Astronomy Discussions:

To subscribe, send a blank email to:
with the subject line:

astro@mailman.srv.ualberta.ca
astro-request@mailman.srv.ualberta.ca
subscribe

The above mailing list is completely independent and is not associated with RASC Edmonton Centre in any way.

OCTOBER 2015 MEETING DATE

PLEASE NOTE that this meeting date has been changed to **OCT 5, 2015** to accommodate a special guest speaker.

GENERAL ASSEMBLY 2015, HALIFAX, NOVA SCOTIA, July 1 – 5

For information, see <https://www.rasc.ca/events/home>

President's Message by Luca Vanzella

Jupiter and **Venus** are still prime viewing position and **Saturn** is rising as we head into all night twilight and the summer break of Edmonton RASC meetings.

I'm pleased to report that on May 11, 2015 the Centre received **\$81,955** in Casino proceeds, thus securing our operating budget for the next two years and permitting us to continue with the great astronomy outreach we do and equipping the RASC Observatory at TWOSE with fabulous gear. Thank you to Peter Hall for organizing the casino and all of the volunteers for working it!

Speaking of outreach, **Clayton Knoll** is developing a roster of outreach volunteers so the Centre can become more efficient in responding to outreach requests. If you have any questions or want to be added to the roster, connect with Clayton at the June 8 meeting or email him at outreach@edmontonrasc.com.

At the **June 8 meeting**, which will be in the **IMAX Theatre**, we will again be handing out feedback forms again, to get your opinions on how our meetings go. Please take a couple of minutes to fill out a form and hand in it. Feedback can be anonymous. Clayton will be collecting forms.

Alex Neilson will be continuing with a brief Centre Highlight at each meeting. In April, Alex highlighted how to join RASC, the benefits of membership and the Telescope Loaner program. If you have any thoughts about Centre Highlights that should be presented, ping Alex at councillors@edmontonrasc.com.

I have expanded the Member Moment opportunity at each meeting to 10 minutes (5 slides max) but there have been no takers. If you have a short presentation you'd like to do, contact me at president@edmontonrasc.com. Some ideas: Show and Tel-escope, a project you're working on, a piece of astronomy

equipment you like to use, a trip you recently took, a memorable observation you made, some astroimaging tips.

Did anyone notice that the **Stardust Blog** on the website disappeared? Sadly, the idea gained no traction. If you think it could, then let me know and we can make it happen.

Last call for suggestions: The November and December meetings are still open for a Guest Speaker, so if you have any suggestions for guest speakers, I'd love to hear them. We have funds to bring in speakers, so you can think big (within reason of course). Contact me at president@edmontonrasc.com.

Since we are not meeting again until the fall, let me plug the two big events in early September.

Beaver Hills Dark Sky Preserve 10th Annual Star Party, Saturday, September 5 at [Miquelon Lake Provincial Park](#) and Sunday, September 6, 2015 at [Elk Island National Park](#). See:

<http://edmontonrasc.com/2015/09/beaver-hills-dark-sky-preserve-10th-annual-star-party-september-5th-6th-2015/>

Northern Prairie Star Party 2015 September 8-13, 2015, **Black Nugget Lake**. See: <http://edmontonrasc.com/npsp-2015>

Have a great summer and we'll see you at the September 14 meeting - a Members' Night. I hope to unveil two new, members-only initiatives, at that meeting.

Administrative note: The 2015 budget and all meeting minutes are stored on the Centre's OneDrive. If any member wishes to view these documents, please send an email to executive@edmontonrasc.com for a link to the folder.

Clear skies.

Donating to the Provincial Archives by Roxy Garstad, Archive Liason

As you start your spring cleaning, consider donating your RASC-related materials to the Provincial Archives of Alberta (PAA). I recently donated a box that I inherited several years ago from a member of council (as seen in the accompanying photo, next page). I took a sneak peek inside and found meeting minutes from the 1990s, expenditure proposals, and other interesting documents. You might also have related material stored in your house. Donating to the PAA is a good idea, for many reasons:

- The materials are kept safe in a climate-controlled environment. No more worrying about a flood destroying historical documents!
- All records will be described and these descriptions would be available in an online database.
- Present and future scholars would benefit from access to the type of RASC-related material you might have in your home. You never know when someone might want to choose the topic of *The History of the RASC-Edmonton Centre* for their PhD dissertation!
- Most importantly, the materials would be available for the public to view – this includes all of you! Many people might find it interesting to know what was

important to members from 30 years ago.

What types of materials should you donate? According to the PAA web site,

The Provincial Archives are interested in records that document the core functions of a business or organization. They reflect the way organizations develop and grow – they document essential activities, decisions, legal obligations and responsibilities. Examples of these types of records include policies and procedures, minutes, legal agreements, correspondence, architectural plans, records of assets, maps and photographs. Records follow function and are created for a purpose, which often have legal implications.

See <http://culture.alberta.ca/paa/donating.aspx> for more.

To donate one or more boxes of material, all you need to do is bring the box(es) to the Provincial Archives, located at 8555 Roper Road. Front desk staff will ask you to fill out a very short form indicating your name, a brief description of the contents of

the box, and whether or not you'd like to have non-accepted material returned to you or destroyed (an archivist recommended to me that we always check "destroy"). Then, you will leave the box with the staff member at the front desk (and your basement will be cleaner!).

Here are some tips:

- While it is certainly OK and expected that you'll check the content of the box, archiving practices dictate that you should not disturb the order of materials in the box. The order in which the contents of the box were placed is an important piece of information for archivists. Think of this as saving you a lot of work – no

organizing or sorting to do beforehand!

- Don't worry about finding a nice or archive-friendly box to place your contents in. The PAA has acid-free file folders and boxes in which they will place your materials.
- Visit the archives during business hours from Tuesday to Saturday. For hours of operation, please see: <http://culture.alberta.ca/paa/contact/default.aspx>.

Finally, while you are thinking about donating RASC-related records, consider donating your personal records, as well. If you have any questions, feel free to email me at archive@edmontonrasc.com.





The Moment of Full Moon as photographed by 6 people simultaneously from 6 different locations in Edmonton on Sunday, 2015 May 3, at 21:41:45 MDT. Images courtesy of and copyright (clockwise from left) Warren Finlay, Bruce McCurdy, Linda Mahoney, Alister Ling, Luca Vanzella, Ross Sinclair. View the montage in high resolution at <http://www.vanzella.com/momentoffullmoon.html>.

Photographing the rise of a Full Moon is a popular thing to do since the Moon can be quite photogenic while it is rising. While it is still low in the sky, the Moon can appear very striking hovering above an interesting foreground such a landscape or a city skyline. Around the date of Full Moon, the Moon rises near the time the Sun sets, so the lighting can be especially interesting. Most of the time, when I'm photographing a full looking Moon rising, it is either just before full or just past full, from a few hours to as many as 30 hours. For me, as long as the Moon is at least 98% illuminated, I consider it full for the purpose of photographing a Full Moon. But occasionally, the Moon reaches 100% full after it rises and it is still low enough in the sky for a nice image that includes the foreground. I call this the Moment of Full Moon.

As I scanned the list of Full Moon photo opportunities for 2015, kindly provided by my good friend Alister Ling, I noticed that on Sunday, 2015 May 3, at 21:41:45 the Moon would be exactly full, neither waxing nor waning, and sitting an altitude of 6.3° above the horizon. The time of Full Moon would be 7 minutes before end of civil twilight, so there would still be enough light for an image including the foreground. The Moon's azimuth at The Moment would be 123.6° (ESE) so I knew, from having shot moonrises for several years, that The Moment could be photographed from several vantage points around Edmonton. I had shot the moonrise from all these locations before and so I had a bit of a "been there, done that" feeling for the May 3 opportunity.

But then an idea occurred to me. Why not shoot The Moment of Full Moon from all of these locations at the same time? There are a number of "nightscape" shooters in the RASC Edmonton Centre, so doing this should not be too difficult. All I would need to do is determine the locations, prepare reference images, define a way to coordinate the shots and enlist some photographers. The resulting images could then be assembled into a montage that shows how The Moment looked from different vantage points.

From my collection of reference images, I chose six locations in Edmonton. I then enlisted five other photographers for the project. As a bonus for me, one of the locations was one that I had long thought about but never shot from. Here are the locations and the shooters that agreed to do it.

1. Groat Bridge North -- Bruce McCurdy
2. St. Georges Crescent -- Linda Mahoney
3. Downtown Apartment Balcony -- Ross Sinclair
4. Kingsway Avenue Service Road -- Warren Finlay
5. 156 St. Overpass at Yellowhead Freeway -- Alister Ling
6. Mark Messier Trail North of 137 Ave -- Luca Vanzella

The afternoon of May 3 was a fair mix of sun and cloud but it looked promising for that evening's moonrise. Environment Canada said "Clearing this evening" and the 19:00 MDT satellite animation looked encouraging on the AB/SK border in the general azimuth of the moonrise. Earlier that day, Alister gave his professional meteorologist's opinion by saying said it would be "nip and tuck". To me, that meant we had to try for it. So we did. And it paid off.

The skies cooperated (although it was quite breezy and crisply cool) and Moon made its appointment with fullness. I was successful, as were Ross, Warren and Alister. Bruce reported he got the money shot, but with issues. Linda reported she had a camera issue around the critical time, but might have something.

Warren and Alister sent me composite images while Bruce and Ross sent me single captures from which I created composite images. Bruce had some focus and exposure issues but even so, I was able to create a decent composite. Linda sent me a single capture while she worked through the issues with her other images. After I assembled the montage, seeing all of the final images together, it struck me how different the same Moment of Full Moon can look.

This event started as a "light rise" (Moon rising in a

relatively bright sky) but at The Moment, the Moon was in a rather darker sky, typical of a "dark rise". I did not prescribe when to take the foreground images, so the sky looks quite different amongst the final images. Since we did not all use the same white balance, the sky colour (and Moon colour to some extent) differs among the images. Bruce and Alister used cameras modified for astrophotography (Canon "a" series, which means a filter normally present in the camera has been removed), so this caused other differences in colour. Differences are also due to

which foreground image is used for making a composite. These differences serve as an instructive opportunity to show how the same moment can be captured differently.

Read the full story and view the montage and the individual images at in high resolution

<http://www.vanzella.com/momentoffullmoon.html>

Gallery



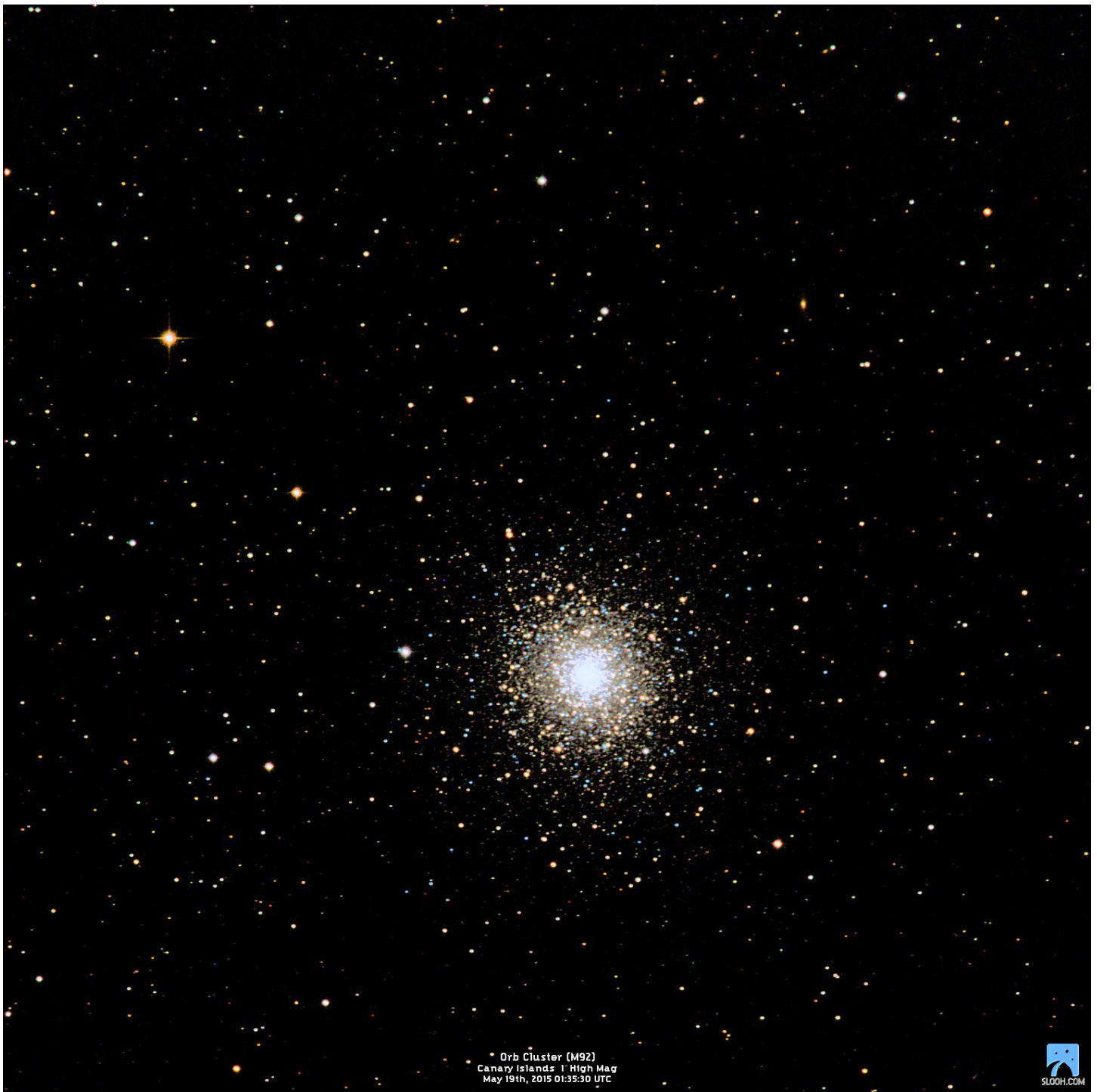
M13, Hercules Cluster. Image by Tom Owen, 2015-05-18. A stack of 31 25-second frames.



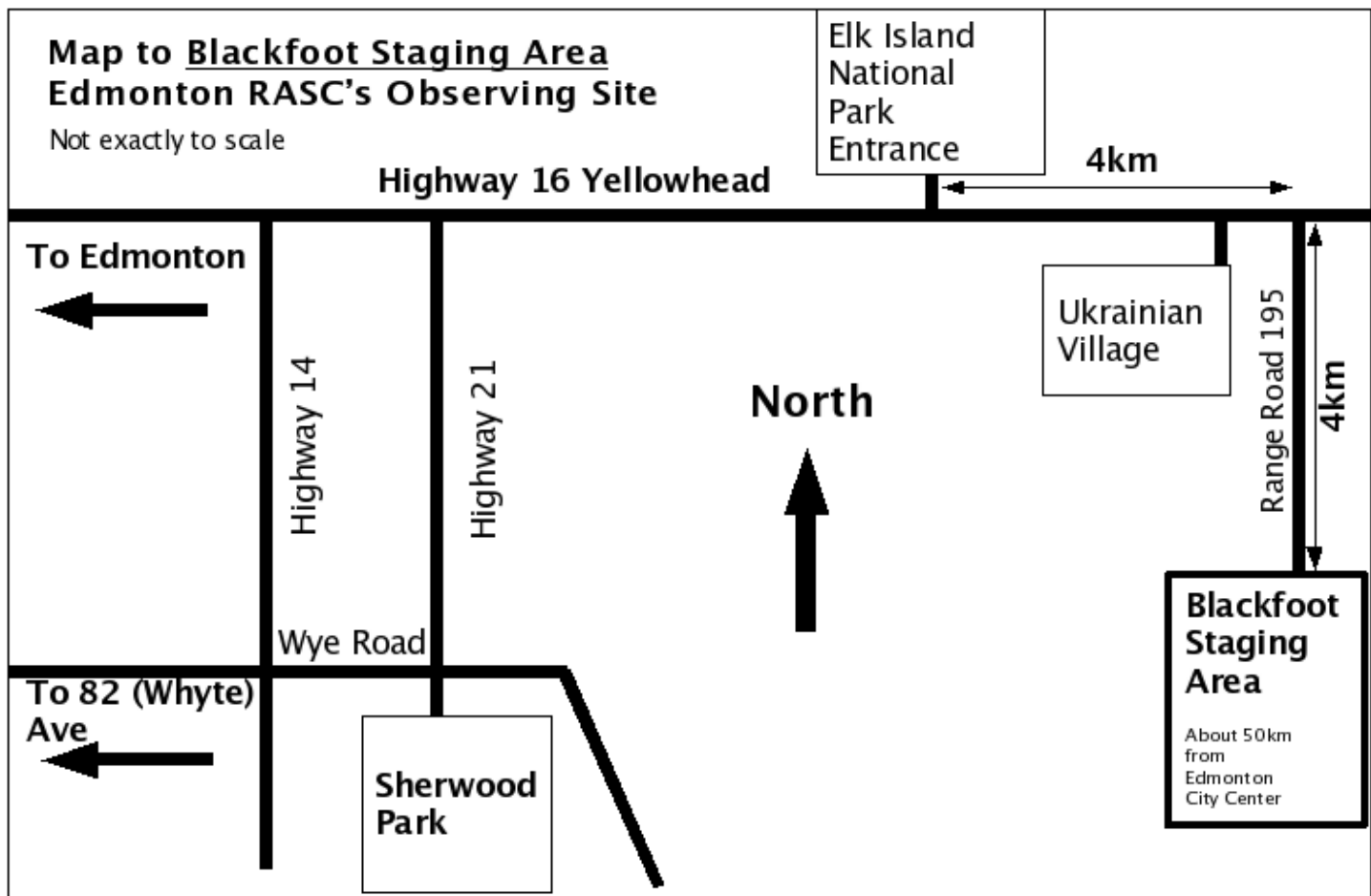
The Iris Nebula (NGC 7023).Image by Franklin Loehde and [SLOOH](https://www.slooh.com/).



NGC 457 by Franklin Loehde and [SLOOH](https://www.slooh.com/).



The Orb Cluster (M92). Image by Franklin Loehde and [SLOOH](https://www.slooh.com).



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