

STARDUST

Newsletter of the Royal Astronomical Society of Canada
Edmonton Centre



February 2012

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Doug Hube, Greg Sivakoff, and Murray Paulson (L-R), speakers at the most recent Northern Prairie Star Party, September 27 – October 1, 2011. See story, page 4.

Inside this Issue

Contact Information.....	page 2
Upcoming Events, Meetings, Deadlines, Announcements.....	page 3
MONEY MOTIONS.....	page 4
Northern Prairie Star Party.....	page 4
Observers Report.....	page 5
The Planets.....	page 5
GA Report.....	page 6
2012 General Assembly.....	page 7

Telephone numbers should be preceded by **780** unless otherwise indicated.

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Centre Website	http://www.edmontonrasc.com
Observing Deck	452-9100 ext 2249
Stardust	Articles for Stardust may be submitted by email to mward@interbaun.com . Submission deadline is the last day of the previous month (e.g. for the May issue submit by 30 Apr). Submit in any standard document format (MSOffice, OpenOffice, AbiWord, plain text). TimesNewRoman 10pt single-spaced is preferred. Don't bother with fancy formatting, odd spacing, strange fonts, etc.; it will only be discarded. Graphics (GIF or JPG please) may be submitted as separate files, and clearly identified. Do not consider your article successfully submitted unless you receive a confirmation email from the editor.

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MEETINGS 2012

2012	Regular	Council	Observers	New Moon	Full Moon	Observing at Blackfoot
Jan	9	23	4	23	9	20-21
Feb	13	27	6	21	7	17-18
Mar	12	26	5	22	8	16-17
Apr	16*	23	2	21	6	20-21
May	14	28	7	20	5	18-19
Jun	11	--	4	19	4	15-16
Jul	--	--	2	18	3	20-21
Aug	--	--	6	17	1, 31	17-18
Sep	10	24	3	15	29	14-15
Oct	15*	22	1	15	29	12-13
Nov	12	26	5	13	28	9-10
Dec	10	--	2	13	28	14-15

* denotes a changed date for the Regular Meeting

MEETING LOCATIONS 2012

Regular General Meetings are at 7:30pm in Telus World of Science, 11211 – 142 St follow the signs from the main entrance

Council Meetings are TBA

Observers Meetings: location varies



General Assembly 2012 Program Cover Image Contest

Attention astro-imagers of the Edmonton Centre! Would you like a chance to have one of your astro images (photo or sketch) on the full colour cover of the Program Booklet for the 2012 General Assembly? If interested, please submit astro photos or sketches to web2012ga@edmontonrasc.com by February 29, 2012. The final selection will be editor's choice (single image or collage). Note: the size of the program booklet will be 14 cm x 21.6 cm (5.5" x 8.5"). There is no prize, just the glory of having your image immortalized on the cover.

Volunteers Needed for the 2012 GA

A significant number of volunteers will be required to successfully run the 2012 GA here in Edmonton. Please consider giving a portion of your time to help us run this event.

Volunteers are needed for

- Driving (airport, bus, train pickups, drop offs, tours, etc.)
- Technical support (paper sessions, exhibits, during National Council meetings, General Assembly, & Murphy) 2 per shift
- Hospitality volunteers (hospitality suite)
- Registrations (assisting delegates, handing out packages, giving directions, etc.)
- Exhibits Area (security, information)
- Physical (setting up displays, & other physical work)
- Local Information Experts (Campus / Bus / Attractions information)
- Tour Guides (for Monday's tours)
- **We also need a volunteer coordinator**

Volunteers Numbers Required:

Position	Required	Have
Drivers	6 to 10	2
Technical Support	3 to 4	1
Hospitality	4 to 6	1
Registrations	6 to 8	3
Exhibits	3 to 5	2
Setup / Physical	4 to 6	3
Local Information	3 to 5	0
Tour Guides	3 to 6	0

The numbers above reflect volunteers who have signed-up for more than one position. Why not join their numbers? We'll make it worth your while!

Volunteer Rewards: For each **shift** worked a non-driving volunteer will be refunded \$10 off their initial registration fee. This means you could get your registration fully refunded. In addition, drivers will be compensated for distance travelled to either airport, bus, or train terminal. Please note, however, that **all rewards will be reimbursed after the GA is completed.**

The Friends of Cypress Hills Park "Astronomer in Residence" Program

Gerald Gartner, CEO of the Friends of Cypress Hills Park in Saskatchewan wants to acknowledge and thank us for our \$1500.00 gift to their non-profit group dedicated to bringing astronomy to its many visitors and preserving its pristine dark skies.

He writes that they have created a program that brings short or long term- "Astronomers in Residence" guest amateur astronomers throughout the year but especially in September and October. Guest Astronomers would receive free camping and full access to the observatory and classroom.

For more details contact Melody Nagel-Hisey at <Melody.Nagel-Hisey@gov.sk.ca>

The Edmonton Centre has been added to their Honour Wall in the Observatory Classroom.

MONEY MOTIONS

In 2008, a motion was passed by the General Membership to create a **Light Pollution Abatement Exhibit** in the amount of \$15,000. This project has not moved forward since then and it was agreed by the proposer and Council to cancel this motion and release the funds. As per our by-laws, as this was a motion passed by the General Membership, the General Membership must also pass the motion to cancel the expenditure and release the funds. The motion for the cancellation of this expenditure will be voted on at the next General Meeting.

Motion to cancel the expenditure for the LPA Exhibit project from September 2008 and release the funds back to the Casino Account (\$15,000). Moved by Krista Stefan, seconded by Franklin Loehde. Carried.

FOR SALE

8 inch (20 cm) f/13.3 R. E. Brandt achromatic refractor lens, plus nearly completed Dobsonian mount for folded refractor. \$1500. Contact Tony Whyte, twhyte@shaw.ca, 780-439-9367.

Northern Prairie Star Party, September 27 – October 1, 2011 by Susan and Rick Bramm

This year's Northern Prairie Star Party was held at the Black Nugget Lake camp ground south east of Tolfield. The event officially began on Tues Sept 27 and ended Sunday October 2 - with most of our group activities occurring on Saturday, October 1.

This year's event attracted 40 participants, some arriving as early as Wednesday for clear sky viewing, and the rest coming out Friday and Saturday. We had lots of "regulars" but also members from as far away as Smoky Lake; and three from the Camrose Astronomy Club joined us on Saturday to check out the site and learn more about our star party. We even had a father and son from the RV section of the camp ground register and attend, having heard about it at the camp ground office!

Our Saturday program was very well attended; with about ten hardy hikers taking part in the nature hike that started at noon (see photo of our hikers). Presentations began with **Doug Hube's** talk at 3 p.m. on *Solar Cycles, Past, Present and Future* (Doug is a Professor Emeritus, University of Alberta). About 3:45 p.m. University of Alberta Associate Professor **Greg Sivakoff's** gave a talk entitled *Black Holes and Revelations*. Next, **Murray Paulson** discussed Alberta's **Whitcourt Meteor Impact Crater** and the successes of his crew in discovering and cataloguing numerous associated meteorites (see photo of our presenters; left

to right **Doug Hube**, **Greg Sivakoff** and **Murray Paulson**). We concluded with our potluck BBQ close to cook shelter. Unfortunately the Saturday night's weather was decidedly poor, so we didn't get in any viewing after the potluck.

A big thank you goes out to our three presenters as well as many others who helped with getting some of the supplies together (**Cornelia Blunck**, **Donna-Lee May**) and with other logistics (**Doug and Joan Hube**, **Mike Noble**, **Barton Satchwill**, **Patrick Heinz** to name a few).

This year we spread out the draws for the more than 20 door prizes amongst all the events. The prizes were very well received and included binoculars, several types of lenses, gift certificates, children's prizes, calendars, a fleece blanket and a Tele Vue Radian eyepiece. Thanks to **All-Star Telescope** from Didsbury and Edmonton's **Science Shop** for many of the prizes. We also had gave away free copies of Sky News as well as ball point pens from All Star Telescope.

This year we also had another distinctive t-shirt, designed by Rick Bramm. **To the Max**, this year's shirt theme, refers to the solar cycle and the Sun's increasing activity.

Mark your calendars for next year's **Northern Prairie Star Party Sept 11-16, 2012.**



Some NPSP hikers.

Observers Report by *Larry Wood*

December 29, 2011

Got 5" Apo set up in backyard around 6 p.m. Seeing 2.5/5, Transparency 4/5. First target was Venus. Venus seemed very pale white, 3/4 illuminated by the sun, no clouds detected even at 212x magnification.

Next was Neptune which hasn't moved very far from Iota Aquarius. I resolved Neptune into a tiny blue disk at 212x, no moons turned up.

From there I went to Uranus, a scant jog WSW from 21 Pisces. Nicely acquired a blue-green disk much brighter and larger than Neptune. I could not peek out any moons at 212x magnification.

Finally I pushed my refractor to Jupiter, the king of planets. I wanted to see some moons I admit! A wonderful sight at any power, Callisto and Ganymede were dancing off the left side of

Jupiter and only Europa was visible to the right of the gas giant.. Many cloud bands were visible even in the difficult seeing conditions (street lights, sky glow, etc..). The NEB, NNEB, SEB, SSEB as well as both polar clouds were easily visible at 212x. At 6:45p.m. little Io peeked out from behind Jupiter to join Europa on the right side of the giant planet.

At this point I had a quick look at the moon. Spotted Picard, Yerkes and Lick craters in Mare Crisium with moments of good seeing at 212x. Enjoyed great views of Atlas, Hercules craters at 136x with Rimae Atlas visible at 212x. Also spied an interesting crater called Tarantulas, it had a very interesting flow patterns around it, steep walls and a very rough looking floor. The north wall has been crushed by another crater called Cameron, which has very steep deep walls.

The Planets by *Murray Paulson*

Mercury has swung down from a good Decembers morning elongation to a superior conjunction with the sun on February 7th. It will head to its next elongation much quicker than this leisurely descent. In the last week of the month, look for it about 1 hour after sunset near the horizon where the sun set. It will be shining at magnitude -1. By the 5th of March we will see the greatest eastern (evening) elongation of Mercury. On this date Mercury will shine at magnitude -0.1 and will display a 42% illuminated 7.5" disc. Note, on March 4th, Uranus sits 2.4 degrees below Mercury and shines at magnitude 5.9.

Venus has really jumped into prominence in the evening sky. At magnitude -4.1, the moon is the only thing brighter in the night sky. In an eyepiece you will be treated to a 72% gibbous 15.75" disc. Venus now stands 41 degrees from the sun. Over the month it will brighten imperceptibly to magnitude -4.2 as it catches up to us in our orbit and it gets closer to Earth. By March 7th it will have expanded to a 60% illuminated disc of 19.7" in diameter. Venus is now 45.1 degrees from the sun. It will only move out another .9 degree before it will start its journey back to the sun.

Mars is brilliant and red in the morning sky, shining at magnitude -0.7. It now subtends 12.4" and is 97% illuminated. It is about 90% of its maximum size, so it is well worth hunting down. Mars now rises just after 8 pm and if you are up at midnight, it sits 30 degrees above the horizon just below the haunches of Leo in the south east sky. I have seen images taken

in the last few weeks of Mars that are just outstanding. The North polar cap is quite striking and the disk is obviously gibbous with lots of details. Over the month Mars just becomes more and more available for viewing. On March 3rd, we come to Mars's opposition, where the red planet will shine at magnitude -1.2 and will show a 14.3" disc in the eyepiece. Mars's north pole is tilted at an angle of 22 degrees towards Earth, so we will get a really good view of it this apparition.

Jupiter is getting low in the sky but is still a respectable beacon shining at magnitude -2.3. Jupiter is in Aries now and will be making M33 hard to see. In the eyepiece it will show you a 38.3" disc with a great interplay of moons. On February 26, a crescent moon passes 3 degrees above Jupiter. It will make for an excellent photo opportunity. By early March, Jupiter will have faded to magnitude -2.1 and the disc will be 35.4". It still is worth watching and you will now notice the terminator side, the trailing side, is softer than the other side.

Saturn rises just around midnight and is 7 degrees east of Spica. It will be a while before it is an evening planet, but at 9 degrees south declination, it will not rise too high in the night sky. It shines at magnitude 0.5 and will show you a 17.8" disc in the eyepiece. Over the month it will show up earlier in the night sky and by early March, it will rise just before 10 pm and will brighten to magnitude 0.3. Its disc will expand to 18.6" and by midnight will sit 15 degrees above the SE horizon. I think that is

above the trees out at Blackfoot, so it may be a good dark of the moon target.

At the beginning of the month there was a Venus-Uranus conjunction, February 9th. Uranus still shines at magnitude 5.9, but it is disappearing fast and you have to catch it quickly before it is gone in the early evening sky. By early March it will be lost

to the evening twilight glare, and it will be gone for another season.

This month **Neptune** is in conjunction with the Sun on February 19th. It is lost to the twilight glare and we won't expect to see it again until the summer. Pluto was in conjunction with the sun in late December, and also will not be available at our latitude for observation until the summer time as well.

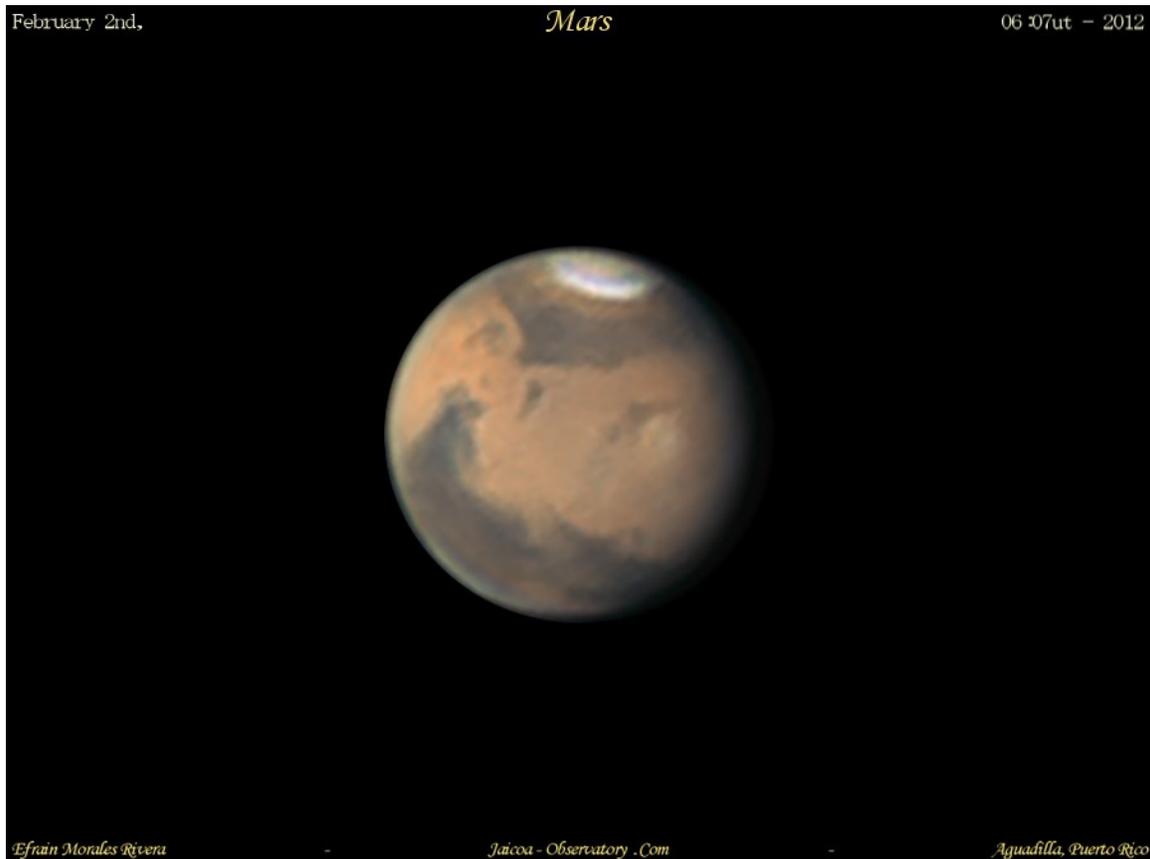


Photo Credit: Efrain Morales (www.jaicoa-observatory.com), Aguadilla, Puerto Rico, 01/27/2012, 08:31UT
Equipment: LX200ACF 12 in. OTA, F30, CGE mount, PGR Flea3 Ccd (618) FireWire 800, Astronomik Ir-R-G-B filter set, TeleVue 3x barlows. Approximately 2200 frames per channel at IR 55fps, R+G 35fps, G 30fps. Gain set at approximately 70-74%, Gama, Cont., Bright. N/A (factory set). Capture Software: FireCapture

G. A. Update Report for February 2012 by Howard Gibbins

For those of you who aren't at the meeting and reading this, here is an update on what's happening with the planning for the General Assembly. As of tonight we have 136 days until the start of the GA, and the registration system has been on-line now since the first part of January.

We are still in need of volunteers to assist us, but these numbers are climbing rapidly. So far we have 16 people who have volunteered to help: Alan Porter, Ron Salzyn, Michael Noble, Sharon Tansey, Lorraine Kirby, Murray Paulson, Mark Zalcik, Sheldon Helbert, Harold Jacobsen, Kent Martens, Tim Bylmer, Dave Roles, Jeb Carroll, Orla Aaquist, Bruce McCurdy, and Janet Couch. So thank you to all of you for offering your assistance.

For those of you who attended the Winnipeg GA last year you may have noticed a distinct lack of displays, in fact I believe there was only one. Now hopefully this phenomena will not repeat itself this year, but in the event it does then I would like to

draw your attention to the fact that we have enlarged the concept of "displays" to include photography, sketches, art work, and so on. Now a number of years ago Murray Paulson organized a banquet in St. Albert and a portion of the evening was devoted to an astrophotography display by members of the centre. As we have such a large number of photographers in Edmonton Centre I would like to encourage them to consider exhibiting their works to the other delegates who come to the GA. In addition to photographers we have a few people who do sketching, and at least one member who paints (on silk I believe). I would invite them to exhibit their work as well. In the event any of the above people are also interested in selling their photographs (or prints thereof) then the GA committee is quite open to this.

If you have any questions about this or any other aspect of the GA please contact me or another member of the committee who will be able to answer your questions.

53rd General Assembly of the Royal Astronomical Society of Canada June 28 – July 1, 2012



The Edmonton Centre welcomes the RASC to our fine city for the 2012 General Assembly (GA). All Edmonton Centre members are encouraged to register for and attend this excellent opportunity to mix and mingle with fellow astronomers from across the country. The local organizing committee has put together an amazing program of exciting speakers together with some outstanding social events. Some great tours have been lined up, including an opportunity to meet a dinosaur face-to-face and a chance to hunt for a meteorite.

The GA will take place at the **University of Alberta** main campus, the principal venue being the



Centennial Centre for Interdisciplinary Science (CCIS) – the newest building on campus and a vibrant environment for learning and discovery. Lodging for out-of-town visitors will be on campus at the Lister Centre.

Featured Events

National Council BBQ

We are continuing the fine tradition started in Fredericton by hosting a BBQ for National Council delegates and their guests. Menu will consist of a choice of steak, chicken or fish entree* barbecued to your liking. Pre-registration is required.

[Thu June 28]

Wine & Cheese Reception

This will be a great opportunity to relax and mingle in the astronomy themed West Atrium of the CCIS. Admire the stellar terrazzo floor and the solar system mobile, tour the observatories on the roof, participate in Murphy Night. This reception will be kicked off with an invited talk by **Dr. Martin Connors**.

[Fri June 29]



Helen Sawyer Hogg Public Lecture

This public lecture will be presented by **Dame Jocelyn Bell Burnell**, best known as the discoverer of pulsars. A reception will follow the lecture.

[Sat June 30]

Closing Banquet

The closing banquet in the Maple Leaf Room at Lister Centre will feature a choice of beef tenderloin, stuffed chicken, or glazed salmon for the entree*. The featured speaker at the banquet will be **Dr. Chris Herd**. [Sun July 1]

* Vegetarian options available upon request for all catered meals.

Other Invited Speakers



Dr. Martin Connors
Athabasca University

Invited Talk
“Earth's Trojan Asteroid: A Space
Odyssey to a Space Oddity”

Dr. Christopher Herd

University of Alberta
Banquet Speaker
“When the Sky Falls: Meteorites as
Probes of Other Planetary Bodies”



Tours

The following tours are being offered.

- Whitecourt Meteorite Crater
- Elk Island National Park & Beaver Hills Dark Sky Preserve
- Fort Edmonton Park
- Enjoy Centre
- Jurassic Forest
- Muttart Conservatory
- TELUS World of Science – Edmonton

Display Competition

We will have three display competitions, open as follows:

- Project displays (adult RASC members)
- Project displays (students – open)
- Photography and Visual Displays (open)

Call for Papers

We will have two sessions of papers where delegates can share their astronomical experiences, data, and insights. Submissions close April 1, 2012.

Registration

Registration is now open! Registration fees are:

- \$110/person by March 31, 2012
- \$135/person by May 31, 2012
- \$150/person June 1, 2012 onwards

Online registration closes June 18, 2012.

Contact Us

GA Chair

Howard Gibbins, 2012ga@edmontonrasc.com

Papers & Posters

Doug Hube, papers2012ga@edmontonrasc.com

Registrations & Accommodations

Ross Sinclair, register2012ga@edmontonrasc.com

Transportation

Geoff Robertson, transport2012ga@edmontonrasc.com

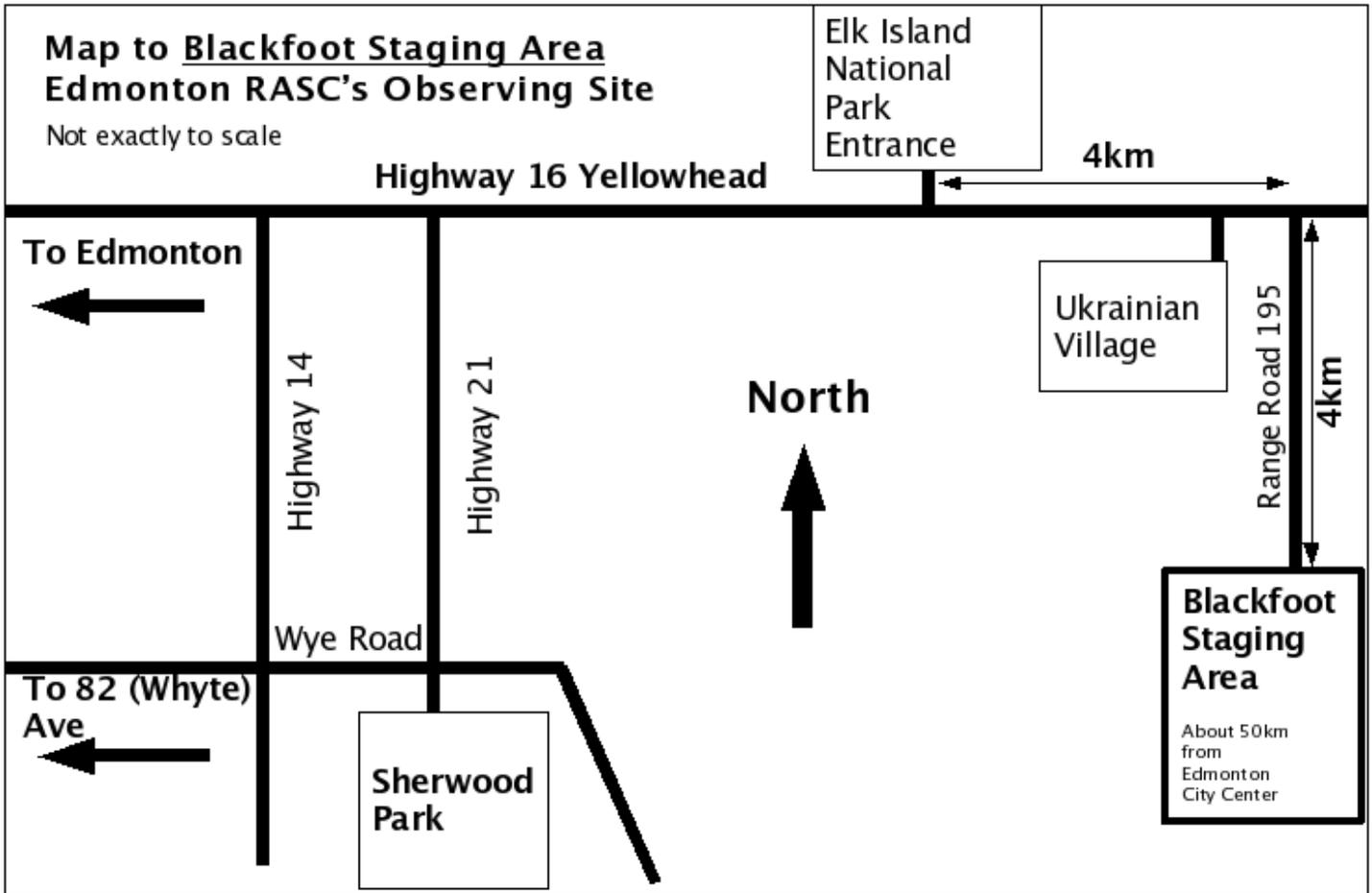
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