

Saskatoon Skies

The Newsletter of the Saskatoon Centre of the Royal Astronomical Society of Canada

Vol. 43, No. 01

January 2012



Composite of about 1,000 images since the moon was full on Sept. 12, 2011 near Yellowknife.

Photo by Yuichi Takasaka



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To view *Saskatoon Skies* in colour, see our Website:
<http://homepage.usask.ca/~ges125/rasc/newsletters.html>

MEMBERSHIP? JOIN TODAY!

Regular: \$80.00 /year

Youth: \$41.00 /year

Associate: \$33 /year

The Saskatoon Centre operates on a one-year revolving membership. You will be a member for the next 12 months no matter when in the year you join. If you do not want to join at this time, ask to get onto our FREE 3-month Temporary Membership list. You will receive regular mailings of our Saskatoon Skies newsletter and will be invited to participate in Centre activities. Members are encouraged to renew early to avoid disruption in publications. Renew through the National Office at <national@RASC.ca>!

Benefits of Membership in the Saskatoon Centre

- knowledgeable & friendly amateur astronomers
- use of the Sleaford Observatory
- use of the U of S Observatory (after training)
- Saskatoon Skies Newsletter
- Observer's Handbook
- Journal of the RASC (electronic format)
- SkyNews Magazine (bimonthly)
- use of the Centre library
- rent the Centre's Telescopes
<http://homepage.usask.ca/ges125/rasc/telescopes.html>
- discounts to Sky & Telescope Magazine*
- free, no-cost, no-obligation, 3-month temporary membership if you don't want to join right now!

*New subscription or renewal of Sky & Telescope? Send new info or renewal notice, plus credit card # to Norma Jensen, 128 – 4th Street East, Saskatoon, SK S7H 1H8, or email her at norj@sasktel.net.

U OF S OBSERVATORY

The U of S Observatory is open to the general public every Saturday of the year. Admission is free. The observatory is located on campus, one block north of the Wiggins Avenue and College Drive entrance. On clear nights, visitors may look through the vintage 6-inch and tour several displays. Current events are recorded on the Astronomy Information Line at 966-6429.

Observatory Hours:

January–February	7:30-9:30 pm
March	8:30-10:30 pm
April	9:30-11:30 pm
May–July	10:00-11:30 pm
August	9:30-11:30 pm
September	8:30-10:30 pm
October–December	7:30-9:30 pm

SASKATOON CENTRE'S MAIN OFFICERS:

President – Jeff Swick, 373-3902
Secretary – Ron Waldron, 382-9428
Vice-President – James Gorkoff, 644-1343
Treasurer – Norma Jensen, 244-7360

Bottle Drive & Canadian Tire \$

By Colin Chatfield

If you cannot make it to a meeting but would like to contribute your Canadian Tire money please call me at 934-7046.

Newsletter Editor – Kathleen Houston

Copy & Collate – Les & Ellen Dickson

Labels & Temps – Mark de Jong

Web Posting – Gord Sarty

Saskatoon Skies is published monthly by the Saskatoon Centre of the RASC. Distribution is approximately 100 copies per issue. Saskatoon Skies welcomes unsolicited articles, sketches, photographs, cartoons, and other astronomy or space science material. **Articles can be sent by mail in any format to the Centre's mailbox.** Submitted materials can be returned upon request. Submissions may also be sent by e-mail to the editor at e.b.a@sasktel.net as a .doc, no indents, no tabs, one line between paragraphs. Images: .jpg please, no larger than 1 – 1.5 MB, sent by e-mail as attached files.

A separate by-mail subscription to Saskatoon Skies is available for \$15.00 per year. Saskatoon Skies is also posted on our Saskatoon Centre homepage as a .pdf file and can be downloaded free-of-charge. Members may choose to receive the newsletter by regular mail or via the Internet. Articles may be reprinted from Saskatoon Skies without expressed permission (unless otherwise indicated), provided that proper source credit is given. **DEADLINE for submissions** for each month's issue is the 1st of the month. Saskatoon Skies accepts commercial advertising. Please call the editor 306-665-3392 for rates. Members can advertise non-commercial items free of charge.

LIGHT POLLUTION ABATEMENT
WEBSITE AT:
www.ras.sk.ca/lpc/lpc.htm

RASC CALENDAR OF EVENTS

Jan 12	SSSP Committee meeting. New committee members welcome!	Les Dickson	249-1091
Jan 14	Observers Group – Dusk, Sleaford Observatory	Larry Scott	934-5801
Jan 16	RASC Executive Meeting –6:30 pm, 175 Physics, U of S	Jeff Swick	373-3902
Jan 16	RASC General Meeting – 7:30 pm, 175 Physics, U of S	Jeff Swick	373-3902
Jan 31	Asteroid 433 Eros , closest pass.		
Feb 11	Observers Group – Dusk, Sleaford Observatory	Larry Scott	934-5801
Feb 13	RASC Executive Meeting – 6:30 pm, 175 Physics, U of S. Please note, one week early to avoid Family Day.	Jeff Swick	373-3902
Feb 13	RASC General Meeting – 7:30 pm, 175 Physics, U of S	Jeff Swick	373-3902
Mar 17	Observers Group – Dusk, Sleaford Observatory	Larry Scott	934-5801
Mar 19	RASC Executive Meeting –6:30 pm, 175 Physics, U of S	Jeff Swick	373-3902
Mar 24	MESSIER MARATHON! Sleaford Observatory.	Larry Scott	934-5801
Mar 19	RASC General Meeting – 7:30 pm, 175 Physics, U of S	Jeff Swick	373-3902
May 12	Astronomy Day. Farmer's Market, 8-14h	Barb Wright	249-1990
May 12	Alan Dyer, “The Transit of Venus”, 20-21h Venus gazing 19h-20h, Star Gazing 21h-23h - Bethlehem Catholic High School theatre and grounds	Kathleen Houston	665-3392

For a complete list of club events, please check out: <http://homepage.usask.ca/~ges125/rasc/activities.html>

RASC SASKATOON CENTRE GENERAL MEETING

MONDAY, January 16, 19h30

Room 175, Physics Bldg., U of S

Speaker: Ron Waldron

Topic: Planetarium program *Starry Night* and how Ron integrates the program into his classroom.

NOTE: There will be an executive meeting at 18h30.



What a splendid winter it's been so far. In spite of this warm spell, I've only managed 2 observing nights since early December. Slowly the days get longer and from my observing location in the city, Orion will be visible.

Heading into spring our committee activities pick up. The SSSP committee has been busy planning for August and, of course, in June we have *Sky and Telescope*'s Alan Dyer visiting to speak on the transit of Venus. There has been some discussion as to combining Mr. Dyer's visit with our annual Astronomy weekend, which makes sense from a volunteer resources point of view.

This will be discussed at the upcoming Executive meeting. If you are looking to get involved on some of the committees, you can call or shoot me an email or contact our Events Co-coordinator, Barb Wright. Our speaker for January's General meeting is Ron Waldron. For those new

members who have not yet had opportunity to meet Ron or hear him speak, this is an evening that will be well worth your time. Ron is a school teacher by profession and will be speaking on the planetarium program *Starry Night* and how he integrates the program into his classroom. Being a *Starry Night* user myself I will be very interested in his presentation. Ron is also a past-president of our Centre, and was my first introduction to the RASC when I was given a TASCO telescope in grade school as he volunteered at the campus observatory.

In closing, I would be remiss if I didn't say a BIG THANK YOU to Bernice Friesen for reading some of her upcoming book at our Christmas potluck. This is the second time Bernice has done a reading for us and I always enjoy looking around the room as she presents to see everybody drawn into her stories. You can pick up any of Bernice's books at the major booksellers here in town.

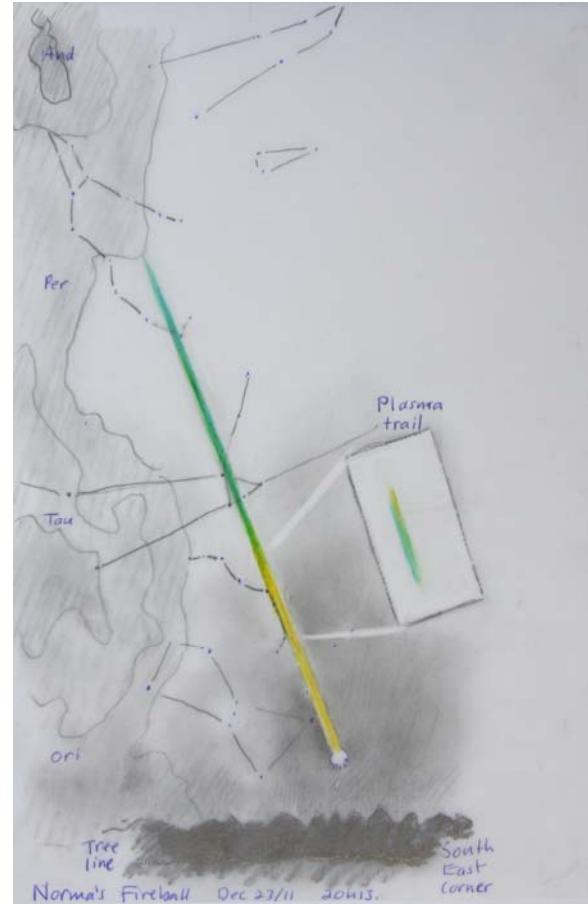
Norma's Fireball, or Luminous Flight – Fireball at Sleaford! By Norma Jensen

December 23rd, a pleasant -5.4 degrees with some wind, skies clear. Seeing and transparency average to poor. A quiet night. Combing the skies for nebulae, clusters spending time doing the usual.

At 20:13, while standing looking eastward, a light appeared in the east (really!) A line of colour, blue-green, then yellow, crossed the sky out of Perseus through Orion's bow to disappear in a flash of diamond light just above the tree-line. Fast and luminous, it left a plasma trail of 5-degrees through the bow, a multiplex of blue and green and yellow fading light, and awe at what had occurred.

I e-mailed Tenho to ask if the camera had recorded the fireball and he sent me the data on it. Talking to Kathleen, we decided to collaborate on creating a drawing and Rick interpreted the data Tenho sent. A photo from Gord and here we are: observer, photo and data. The object was an earth-crossing meteor from between Jupiter and Saturn. The meteor trail colours signify the elements that are interacting with the atmosphere: yellow is nitrogen, green is ionizing oxygen. The suspected drop point is by Souris River.

It goes to show that getting out under the night skies, weather conditions often questionable, will at times, offer up something spectacular.



Drawing by Kathleen Houston

Norma described to me the fireball and I interpreted what she told me. The little inset describes the plasma trail left behind that Larry also saw, once he turned around. Please see *Observer's Group* notes.



December 10th, 2011. Lunar eclipse. Morning hazy with moments of clarity. Composite photo taken by Jim Huziak, from a hand held DSLR camera and 300mm lens, Yorkton, SK.



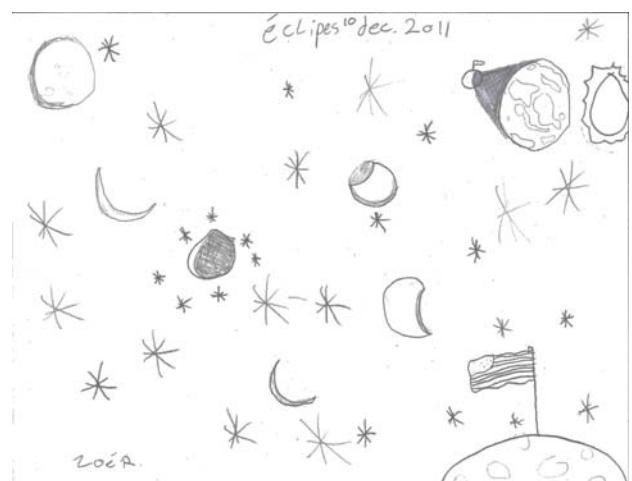
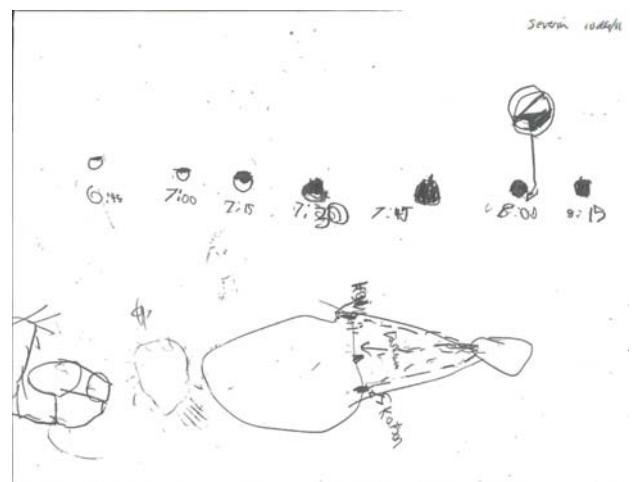
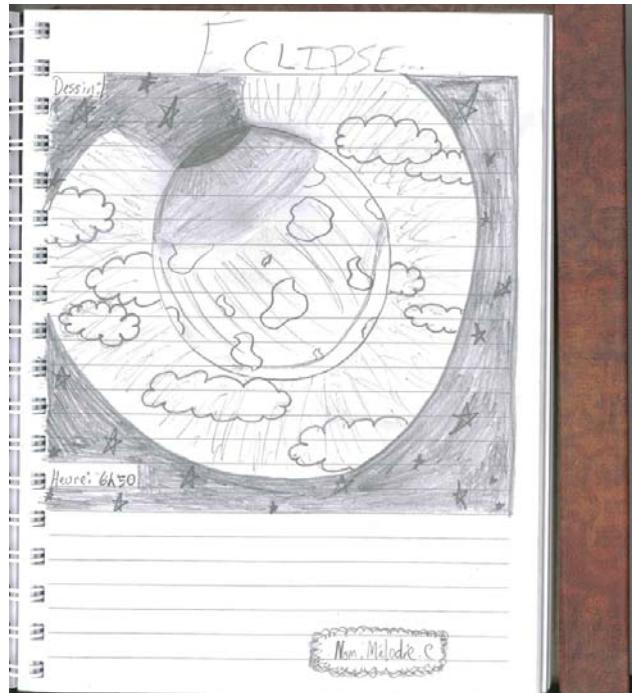
Photo by Kathleen Houston
Diefenbaker Hill, Saskatoon. We had quite a great turnout on the hill as well as at the parking lot by the river. I would say around 35 people came, and the parking lot was full! Unusually calm for the hill. We went for breakfast together.



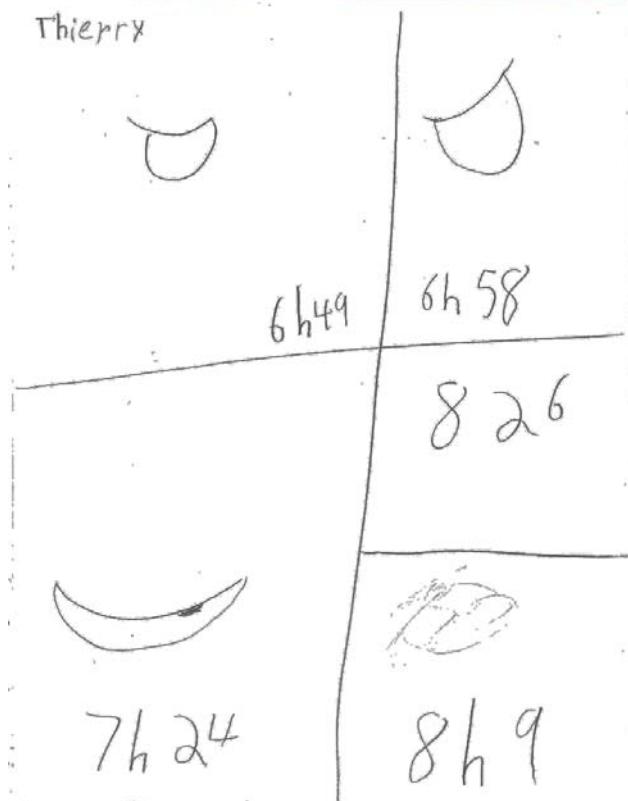
Youth in Astronomy

Grade 5 students from École canadienne française take on observer's challenge! Kathleen

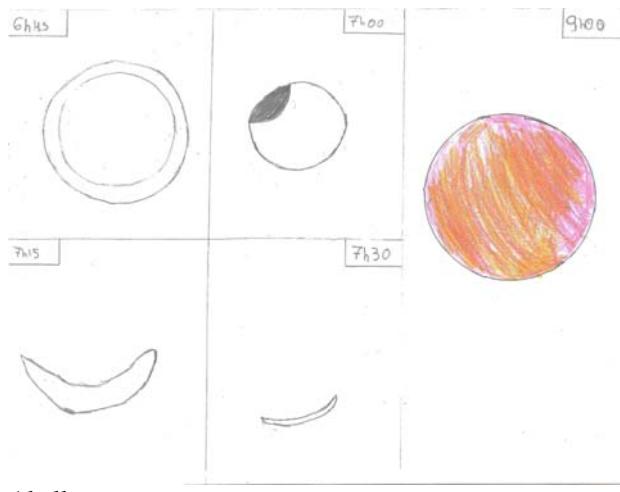
Houston told her students that if they do a drawing of the December 10th lunar eclipse and write the time, they would each receive a prize! 11 students triumphantly handed in their work. Here are 9 of them.



Thierry



Samedi 10 dec/11
Jenna



Akello





**Observing the Observers
as a Raw Beginner:**
**Sleaford Open House, Oct.
2011**

By Bernice Friesen

What a great event my first Open House was! Though I'd bought my 10" Dob six months before, I'd only taken it out three times, and still felt too stupid to bring it along.

As a beginner, I am very aware of the technological barrier between myself and expert observers. The barrier is the object known as the telescope – something that isn't even a machine, something I'm in awe of, something that's so simple it's more like a scalpel – just bits of glass and the distance between them. I think the average Joe or Jane probably shares my feeling of intimidation.

I still thought I might be able to contribute to Open House. Most of my experience is from looking up and orienting myself in the night sky, as well as using binoculars to find some of the easier Messier objects. I thought I could share this.

I brought my binoculars along, both my newer, steady-cam version, and the cheap pair my parents gave me some Christmas thirty years ago, and I kept my ears open.

One of the more experienced astronomers left her telescope because there was a great crowd of people entering the site, not knowing where to go. When someone said this was just like last year, when hardly any visitors came to the telescopes set up on the other side of the roll-off shed, I went to solve this problem, so those with telescopes could stay with them.

"Does anybody work here?" was the plaintive cry I heard.

I told people where all the scopes could be found. I took the guy from the press past the line-up so he could talk to Rick Huziak. As people kept coming, I talked about turning off flashlights and cell phones so their eyes would get used to the dark, and they would be able to see where they were going -- *and* they would be able to see the faint fuzzy objects in the scopes.

When I wasn't orienting newcomers, I pestered people waiting in the line-up to the shed.

"Want to look at Jupiter through my binoculars?" was my usual question, and the answer was almost always an enthusiastic "Yes!"

When people politely declined, I said "You can see some of the moons..." and in the dark, their faces would light up.

One woman, in a Muslim headscarf, held the binoculars, but told me she couldn't see a thing. I suggested she move her view around a little, and soon she was thrilled – thrilled at what she could do all by herself.

It was what they could do *by themselves* that was thrilling them to pieces – the kids, of course – but then I met the cool dude who had his own binoculars.

He kept shaking his head at my every invitation, too laid-back to be interested, until I said, “Okay – first binocular challenge – find the Andromeda Galaxy.”

Dude gasped.

I oriented him on Cassiopeia, told him to imagine a line through the last V -- and miracle of miracles, one of you blessed astronomers shot a laser beam right where I wanted it! Dude found the Andromeda Galaxy, *by himself*, with his own equipment, *with his own hands*. He was absolutely transported back to the ecstatic age of nine.

And so was I.

I’m still in my first childhood when it comes to astronomy. Though I’ve stepped out onto the high platform of my telescope, I mostly dwell on the staircase leading up to it.

While experienced astronomers lifted our guests into the starlight by elevator, what I was doing, was giving guests the key to the stairwell, so they could climb up on their own, whether they were at Open House, or not. I think these people are now more likely to *look up*, look *through*, and maybe even *join up*.

Being a mother of young children, whenever anyone suggests to me that I could be doing more, I become almost white with rage, but here are my suggestions anyway, for the next open house – and I *am* volunteering for duty.

1. An orientation volunteer posted where visitors come onto the site – a great way to get a beginner astronomer to contribute to the event and get those flashlights off.
2. A binocular viewing area with a wall to lean against (thanks Norma) a table set up, and 4 or 5 sets of old binoculars, and someone like myself – yes, I *am* volunteering for this – to give guests training and a challenge or three – also a good place to park the club’s laser pointer.
3. Offer the Pocket Sky Atlas for sale in the warm-up shed beside the pamphlets and the membership sign-up.
4. Invite people to bring their own binoculars on the posters.

People don’t know how much they can do themselves unless we show them.



Bernice at the Christmas potluck supper, reading from her soon to be published novel.
Photo by Jeff Swick.

Message from the Editor

I am delighted with being Saskatoon Skies Newsletter editor. What an adventure, and many great events on the horizon. I have helmed three newsletters, but the guidance of Tenho to begin. I started Youth in Astronomy and connected with a great network of contributors. But, alas, my horizon is too full and I am stepping down from this amazing perch. So, due to health reasons and a new teaching contract, this is my last newsletter.

I strongly urge a team of two to take this position: one to gather and edit, the other to do layout. Could be a good time (if you have the time) and if you really like being part of community.

Kathleen Houston



The Planets for January 2012

Murray Paulson,
RASC Edmonton
Centre

Mercury starts off this month at the end of a long morning apparition and takes a leisurely dive back to its February 7th conjunction with the sun. It is headed around to the far side of the sun and its pace going is much more sedate than its coming. In daytime observations, Mercury will brighten as more of its disc is visible from earth. In the beginning of the month, it shines at magnitude -0.4 and shows a 5.5" gibbous disc. Over the month it will brighten to magnitude -1.1 as the disc fills out and shrinks in size.

Venus is a brilliant magnitude -4.0 in our evening sky and is obviously gibbous and the 82% gibbous disc has a 13.0" diameter. On January 13 Venus passes a little more than 1 degree below **Neptune** and they will make an interesting pair in an eyepiece. Neptune will shine at magnitude 7.9 and sits 30.8 AU away with a 2.2" disc. Venus is 12 magnitudes brighter and sits only 1.2 AU away and shows a 13.7" disc. Both are on the far side of the sun. Nice juxtaposition. Early in February, we have another nice conjunction with Uranus on the 9th. This is a close one with Venus and Uranus only 18' apart. Don't miss this one.

Mars now rises just around 10:00 pm and will be up high enough for late night observing. Its distinct magnitude 0.0 red glow is unmistakable and in an eyepiece it resolves into a 10.1" gibbous orb. Its north pole is tilted at a 23-degree incline toward us with a great view of that shrinking polar cap. Over the month the view gets better and by the beginning of February it will rise just after 8 pm and the disc will swell to 12.5". It now shines at magnitude -0.7 and sits on the Virgo – Leo border and will transit

the meridian at 3 am where it will sit 43 degrees above the horizon, which is just 4 degrees short of where Jupiter sits when it transits the meridian. If you are a Mars lover, the show has begun and it is well worth spending some quality time behind an eyepiece. Remember, there are only so many good nights of great seeing, and you have to be out there to find them.

Jupiter is still well placed for early evening viewing and really dominates the evening sky. At the beginning of January, Jupiter shines at magnitude -2.5 and shows a 43" disc. On January 30, the Moon and Jupiter are 3.6° apart. By early February, Jupiter will have receded from us and will be 38" in diameter and shine at magnitude -2.3.

Saturn starts off the month at magnitude 0.6 and in the eyepiece it shows a 16.9" disc. It now is 80 degrees from the sun and rises at 2 am. This is great for those out in the early morning hours. By early February, Saturn will rise around midnight and shines at magnitude 0.5. In the eyepiece it presents a 17.8" disc and sits just east of Spica in Virgo.

Uranus sets early, just before midnight in early January and is around for early evening observing. It has a close conjunction with Venus, which is worth the effort in early February. See the Venus paragraph for details.

Neptune is flirting with the sun right now and will be in conjunction with the Sun next month. We do get a nice conjunction with Venus in early January. Check out the paragraph on Venus for more details. It will be at the summer star parties before you have the chance again to hunt it and its moon Triton again.

On December 28, **Pluto** was in conjunction with the Sun, so it will be a very difficult challenge indeed to find it in any sky for a few months time. Check back in April...

Observing Clubs and Certificates

Join the Club! Observe all 110 Messier, 110 Finest NGC, 400 Herschel I or II, 140 Lunar, 154 Sky Gems or 35 Binocular objects, or Explore the Universe and earn great OBSERVING CERTIFICATES!

MESSIER CLUB

Certified at 110 Objects:

R. Huziak, G. Sarty, S. Alexander,
S. Ferguson, D. Jeffrey, D. Chatfield, B.
Christie, K. Noesgaard,
M. Stephens, B. Hydomako, T. Tuomi, L.
Scott, G. Charpentier, B. Johnson, M.
Clancy, L. Dickson, B. Burlingham

Kathleen Houston	Done!	110
Norma Jensen		109
Ron Waldron		105
Wade Selvig		75
Garry Stone		57
Bernice Friesen		45
Wayne Schlapkohl		43
Barb Wright		40
Ellen Dickson		34
Jeff Swick		24
Graham Hartridge	New!	9

Chatfield BINOCULAR CERTIFICATE

Certified at 35 to 40 Objects:

M. Stephens, T. Tuomi, M. Clancy,
R. Huziak, K. Maher

FINEST NGC CLUB

Certified at 110 Objects:

R. Huziak, D. Jeffrey, G. Sarty,
D. Chatfield, T. Tuomi

Larry Scott	Done!	110
Scott Alexander		97
Norma Jensen		43
Sandy Ferguson		23
Kathleen Houston	Up!	23
George Charpentier		13
Mike Clancy		7

EXPLORE the UNIVERSE

Certified at 55 to 110 Objects:

M. Clancy, T. Tuomi, K. Maher,
B. Gratias

Wayne Schlapkohl	Done	55
Sharon Dice		31

Isabel Williamson Lunar Observing Certificate

Certified at 140 Objects:

T. Tuomi

Norma Jensen	133
Jeff Swick	29



HERSCHEL 400 CLUB

Certified at 400 Objects:

D. Jeffrey, R. Huziak, D. Chatfield, T.
Tuomi

Gordon Sarty	251
Scott Alexander	117
Sandy Ferguson	18
Larry Scott	Up!
	6

HERSCHEL 400-II CLUB

Darrell Chatfield	366
Rick Huziak	246

LEVY DEEP-SKY GEMS

Certified at 154 Objects:

Tenho Tuomi	New!	4
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The Messier, Finest NGC and David Levy's Deep-Sky Gems lists can be found in the *Observer's Handbook*.

The Explore the Universe list is available on the National website.

On-line Messier and Finest NGC lists, charts and logbooks: <http://www.rasc.ca/observing>

On-line Herschel 400 List: <http://www.astrolounge.org/al/obsclubs/herschel/hers400.html>

Binocular List is at: http://homepage.usask.ca/~7Eges125/rasc/Chatfield_Binocular_List.pdf

Copies of the Isabel Williamson Lunar Observing Program Guide can be purchased at meetings.

Program details can be found at: <http://www.rasc.ca/williamson/index.shtm>

Observers Group

by Larry Scott

Norma took over the December 17th group and there were poor skies and two attendees.

Norma and I did make it out on December 23rd, which had decent skies early on but became worse as the night wore on. At about 20:15, having just finished setting up my telescope, I looked up to the southeast where the lights of a plane had caught my eye. As I turned west towards the warm-up shelter I saw Norma walking up to me. Surprisingly, her face was lit up, along with the rest of the yard and her shadow was

stretched out behind her. She was reaching out with both hands to spin me around as I thought, "Those are some bright lights on that plane." A second later I was staring at the still glowing remnants of a meteor's trail in Orion! There's always something going on up there and I'll hopefully be pointed the right direction next time!

Next Observers Group is scheduled for January 14th with moonless evenings from about the 12th to the 25th.