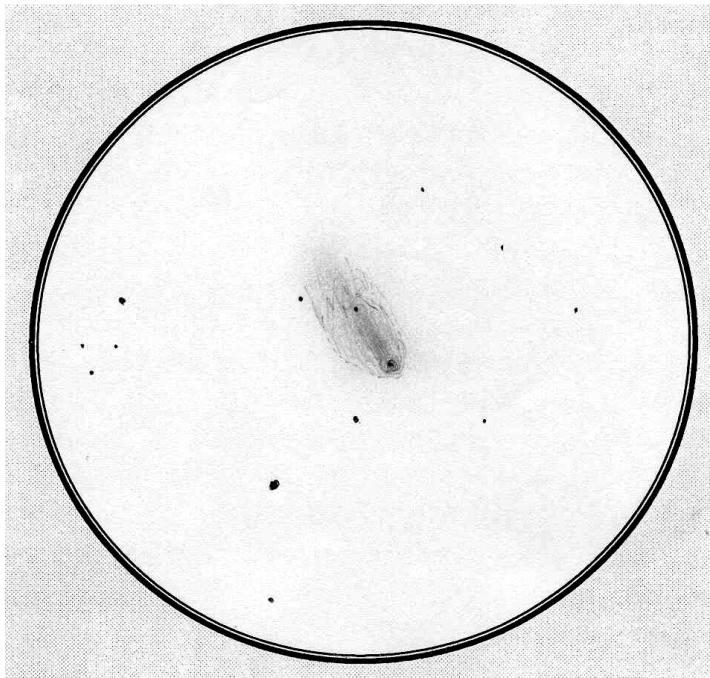


Saskatoon Skies

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

Volume 32 November 2001 Number 11



Comet LINEAR C/2000 WM₁ (God! Not another LINEAR!) graces our skies over the next few months. Currently near 5th magnitude, this comet can be found in binoculars as it crosses lower Perseus, and will be visible for the next while to the naked eye (just barely) as it reaches magnitude 4.9 around November 25th. This sketch was done through Rick Huziak's 10" Dobsonian on November 11th. It currently sports a short tail. The comet passes through Aries, Pisces, Cetus and Sculptor before it heads down south. See the ephemeris inside.

RASC Calendar Happenings

Date (2001 / 2)	Event	Contact	Telephone
Nov. 16	Youth Group at Nutana Collegiate	Tyrone Klassen	652-4599
Nov. 17/18	Leonid Meteor Peak	Rick Huziak	665-3392
Nov. 19	The is NO November Executive Meeting		
Nov. 19	General Meeting , City Hospital, 7:30 pm	Les Dickson	249-1091
Dec. 7	Youth Group at Nutana Collegiate	Tyrone Klassen	652-4599
Dec. 13	Geminid Meteor Peak	Rick Huziak	665-3392
Dec. 17	General Meeting , City Hospital, 7:30 pm	Les Dickson	249-1091
Jan. 2 & 3	Quadrantid Meteor Peak	Rick Huziak	665-3392
Jan. 21	General Meeting , City Hospital, 7:30 pm	Les Dickson	249-1091
Apr. 2002	Edmonton Centre Georges Moores Astronomy & Teachers Workshop	Rick Huziak	665-3392

Sky Buys and Mirror Sells
The Saskatoon Centre's Swap and Sale Page!

Wanted: 25mm eyepiece, 1.25", any technology. Call Rick Huziak at 665-3392.

Wanted: I'm looking for a 6mm eyepiece – most any type will do. Call Gord Sarty at 966-2321 (work).

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Saskatoon Centre

The Royal Astronomical Society of Canada
 P. O. Box 317, RPO University
 Saskatoon, SK, S7N 4J8
 URL: <http://prana.usask.ca/~rasc/>
 E-mail: lcdickson@sk.sympatico.ca
 Telephone: (306) 249-1091

Newsletter Editor - Richard Huziak
 Copy - Brian Friesen & WBM
 Collate - Friesen, Christie, Dicksons,
 Ferguson & Essar



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Saskatoon Skies is published monthly by the Saskatoon Centre of the RASC. Distribution is approximately 165 copies per issue. *Saskatoon Skies* welcomes unsolicited articles, sketches, photographs, cartoons, and other astronomy or space science articles. Articles can be sent by mail in any format to the Centre's mailbox. Submissions may also be sent by e-mail - preferred as **plain unformatted ASCII text files without line breaks**. Images sent by e-mail should be attached .GIFs, .TIFs .JPGs or similar. Send e-mail submissions to the editor at <chuziak@SEDSsystems.ca>. Submitted materials can be returned upon request. Please send articles in "generic" formats, with standard grammatical formatting appreciated - 5 spaces at the beginning of paragraphs, two spaces after periods, one space after commas. A separate subscription to *Saskatoon Skies* is available for **\$15.00** per year. Articles may be reprinted from *Saskatoon Skies* without expressed permission (unless otherwise stated), but source credit is requested. **DEADLINE for submissions is the 26th of each month.** *Saskatoon Skies* accepts commercial advertising. Please call the editor for rates. Members can advertise non-commercial items free of charge.

SaskValley School Tours at the Living Skies Observatory

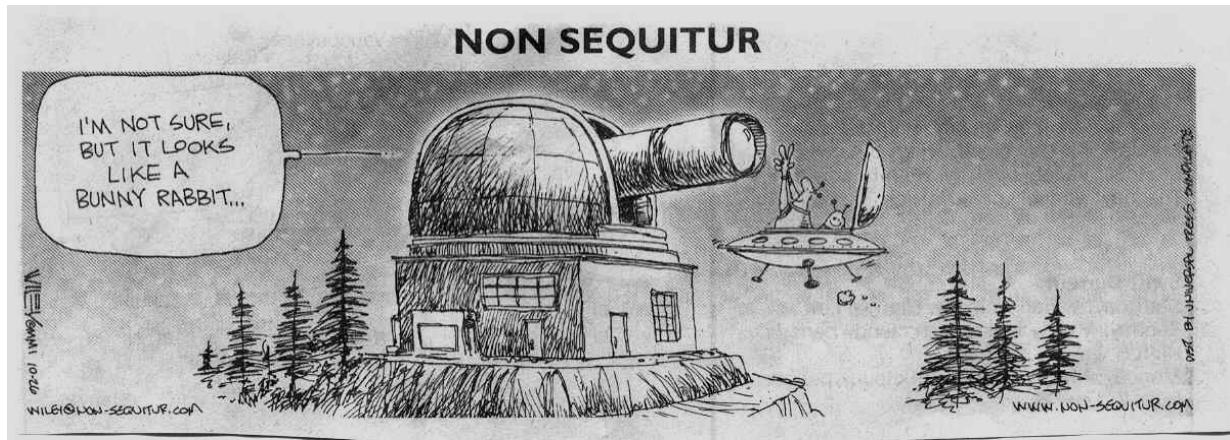
By Dale Jeffrey <dale.jeffrey@sk.sympatico.ca>

Operating an observatory, even in a remote area like SaskValley, still makes even the most dyed-in-the-wool hermit busy, as word gets out that school tours are possible. Since 1998, when the observatory was first operational, over 2500 students and their parents have visited for an evening under the skies. This fall was no exception. Each group was first visited at the school for an afternoon astronomy seminar, and then they came out to the telescope. This year we have hosted Hepburn School, Valley Christian Academy of Osler, Rosthern Elementary School, Waldheim School, a Rosthern home-schooling group, and even a birthday party! Many more bookings are coming up.

The classroom seminar utilizes NASA's *Grand Tour of the Universe* slide series (available through the Astronomical Society of the Pacific), and is divided into two convenient

modules - *Solar System* and *Beyond the Solar System*, each spectacular but with one proviso: these contain the usual gee-whiz Hubble Space Telescope slides and so comprise what Father Luc used to call *Virtual Reality*. They are great, but can lead to disappointment at the real eyepiece. As a result, we have decided to reverse our process, and henceforth will only do star nights BEFORE slide presentations. That should still allow for the magic of first-time views through a telescope, and still enable oohs and aaahs over the slides!

You don't need an observatory to guide children through the heavens. Please consider doing some astronomical education, either through schools locally, scout groups, church youth groups, senior centres, or group homes. Believe me, you'll be appreciated and maybe (who knows?), one of these visitors will continue with the interest and become astronomers themselves!



Cartoon submitted by Debbie Anderson

The Deepsky Observer

By Scott Alexander s.alexander@sk.sympatico.ca

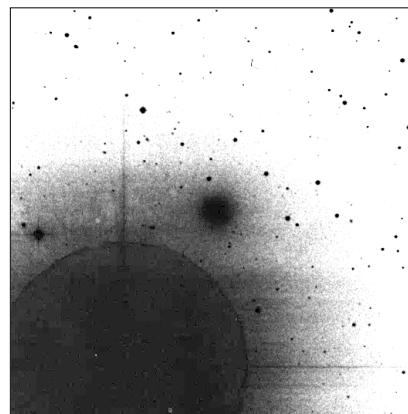
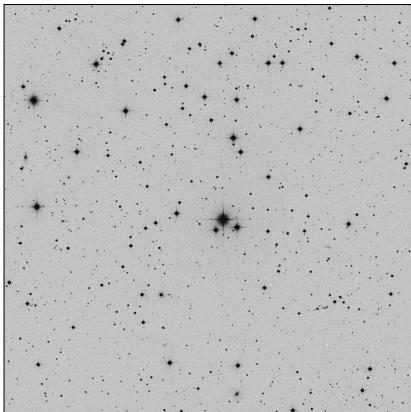
This month I thought that we would do some objects in the Herschel list and also the open cluster list from your Observers Handbook. The first two objects that I will write about are called NGC 752 and NGC 404. Both are in or very near the border of Andromeda and are a easy target for a 4-inch telescope or larger. NGC 752 really is a binocular object, 10 x 50's show it really well, and is really easy to see. NGC 752 is a cluster of about 50 stars this is a very spread out cluster, it does not look all that impressive

in a telescope but with a pair of binoculars it takes on a whole other appearance. I first saw this cluster on the night of October 16, 2001 at my farm. I was using my Bausch & Lomb 4000 (4 inch telescope) to try and finish my Herschel list. I described it as "*not bad and very spread out*". Give it a try with a pair of binoculars first to see what you can see than switch to a telescope for another look. NGC 752 is located at R.A. 01h 57.8m, DEC +37d 41m and it is at magnitude 5.7. (See image at right from the DSS. The image is 30' across).

The next object to go for is NGC 404, the galaxy right next to the star beta Andromeda, which is also called Mirach. Mirach is this star right in the middle of the 3 bottom stars in the constellation of Andromeda about 7 degrees south east of the galaxy M31; or in other words find M31 and than take a left 3 finger-widths held out in front of you back to the left and you will find the star with the galaxy right next to it. The star is a magnitude 2.06 and is also a variable with a small variation of 0.06 magnitudes. It is also a binary star and is only 199 light years away.

This galaxy is a tough object to see with anything less than a 4-inch telescope. With larger scopes this galaxy should be a very nice object to see. What I saw was a small fairly bright center and a round faint haze around the center. I did not see any detail in the galaxy. When I looked at a picture from the DIGITIZED SKY SURVEY I was not able to make out any detail even on that long exposure picture. The star right next to it overwhelms it so much that it is a wonder that you can see it at all (see above - in the very centre of the field. This image is 15' across)! But it is visible in a good telescope of 4 inches or bigger in size but try and get the star (Mirach) out of the field of view to better your chances of finding the galaxy. Give both of these objects a try and see what you get.

Good luck and clear skies. See you next month.



The Planets this Month - November 2001

By Murray D. Paulson, Edmonton Centre

The beginning of November saw the end of Mercury's and Venus's morning dance and the start of Mercury's plummet back to its December 4th date with the sun. Early in the month, Mercury will still be visible in the morning twilight glow at magnitude -0.8, just below Venus. Mercury will show a 5" gibbous disk in early November. Both **Mercury** and **Venus** are now on the far side of the sun, receding from us. In a telescope, they are best viewed in the daytime, away from the seeing problems of the horizon. In late October I caught the pair in a 60X eyepiece field; Venus a bright gibbous disk and Mercury small pale and gibbous.

Venus starts out the month showing a 10.4" gibbous disk and shines at magnitude -3.9 from its 1.60 au distance. At the beginning of the month both Venus and Mercury were 17 degrees from the sun, but over the next month's time Mercury will dash back to join the sun in a superior conjunction while Venus will move at a much more pedestrian pace and will have covered less than half this distance. It will lie 10 degrees from the sun in early December and will show a slightly fuller and smaller disk. It will shine at the same magnitude.

Mars begins the month passing **Neptune** as it swings into Capricorn. Their contrast in distances is impressive. Neptune is 30.19 astronomical units away and magnitude 7.9 while Mars is only 1.1 au away shining at magnitude 0.1. Mars will show an 8.6" disk in contrast to Neptune's diminutive 2.2" disk. Mars's disk is getting small, but features are still observable on it; in fact it is getting better as it climbs the ecliptic. This month if you catch it in twilight, you will be able to see it 16 degrees above the horizon, much better than any time during the opposition. On November 26th **Mars** and **Uranus** will lie 3/4 of a degree apart. Uranus will shine at magnitude 5.8 and show a 3.5" disk almost half the diameter of Mars's 7.5" disk. Neptune lies at a 20.2 au distance in contrast to Mars's 1.24 au.

Jupiter lies in the foot (feet?) of Gemini, between the twins, for the month of November. It shines at magnitude -2.5 and rises after 9:00 pm. Early in the month, Jupiter shows a 43.3" disk and sits at 4.54 au. It takes until after 10:30 pm for it to rise above 20 degrees altitude and out of the muck. By early December it will expand to 46.3" and it will brighten to magnitude -2.7. At 11 pm, it will sit 34 degrees above the horizon. Jupiter now rises early enough to make a good observing target. Along with the details in the cloud belts and the other features in the Jovian atmosphere, the satellite events are a real treat to watch. The *Observer's Handbook* has a complete listing of the events and only a few details are necessary to help you interpret its tables. November's events are tallied on page 187 of the *Handbook*, and the events are listed as to their Universal time, or UT. UT is the time as seen along the longitude of Greenwich, England. We are 6 hours earlier here in Saskatchewan. This is also further complicated by the fact that the date changes over at 6 pm our time. So, when you see that there is a shadow transit of Callisto listed on November 8th at 5:08 UT, you will have to convert to our time by subtracting the 6 hours. You will find that the event occurs at 23:08 CST, or 11:08 pm on the evening of November 7th. The shadow egress occurs at 7:00 hrs on the 8th, which puts it at 1:00 am on the 8th. I go through my *Handbook* and pencil in the correct evening beside interesting events so that I can mark my calendar. One more interesting event will be the close conjunction of Jupiter and the Moon on December 3rd at 5:17 am when the waning gibbous moon will lie 50 minutes of arc above Jupiter.

Saturn is certainly the jewel of the night sky. It lies in the horns of Taurus, shining at magnitude -0.8 and will reveal its 20.4" disk in an eyepiece view. Its rings are tilted well toward us and extend above the

polar region. Over this next month you will be able to watch Saturn's shadow projected upon its rings switch sides as it passes through opposition on December 3rd. On this date, **Saturn and Mercury** will sit on opposite sides of the sun. There is a good conjunction of the **moon with Saturn** on November 30th. The Moon will rise with Saturn right above it. In Edmonton, it will pass 6.5 minutes of arc above the moon, with closest approach at around 5:20 pm. If you travel south, you could actually place yourself on the graze line or the total occultation but you would have to travel quite some distance. Next month, we get the graze opportunity in our own back yard. More details next month.

Comet Ephemerides

Petriew P/2001 Q2

Date	RA	Decl.	Mag.
2001 11 17	10 19.39	-06 00.1	13.0
2001 11 22	10 25.56	-07 15.7	13.2
2001 11 27	10 30.86	-08 26.3	13.3
2001 12 02	10 35.28	-09 31.6	13.4
2001 12 07	10 38.79	-10 31.5	13.6

LINEAR C/2000 WM1

Date	RA	Decl.	Mag.
2001 11 22	02 24.6	+30 59	6.1
2001 11 28	01 58.6	+15 07	5.5
2001 12 04	01 08.7	-05 39	5.1
2001 12 10	00 21.9	-24 20	5.1
2001 12 16	23 40.8	-37 02	5.1



Christmas Stocking Stuffer Books 4 Sale

Books For Sale: The Saskatoon Centre has a number of Books left over from SSSP sales, and these are now available to general members to purchase at discount rates! There are only one or two copies remaining of the following titles. **Contact Debbie Anderson at 242-8854 or bazoo.inc@home.com.** Prices include GST, shipping and handling.

The Universe and Beyond (hardcover) - \$22.00

Binocular Astronomy (hardcover) - \$37.00

Astrophotography (G. N. Patterson) - \$15.00

Exploring the Sky by Day - \$7.00

Beginning Observer's Guide (BOG) - \$15.00



Cambridge Star Atlas - \$35.00

RASC 2002 Calendars - \$12.00

SkyWatchers 2002 Calendar - \$12.00

Moon Map - \$5.00

RASC Stickers - \$0.50

Other Worlds - \$7.00

Extraterrestrials - \$7.00

Saskatoon Skies is Going ON-LINE

By Rick Huziak, Editor, huziak@SEDSystems.ca

Well – we’re finally doing it! *Saskatoon Skies* will be offered as **an ON-LINE subscription** beginning with the December 2001 issue. Gord Sarty and I have been busy converting older newsletters to Adobe. pdf files, and all new issues (including this one) will be placed up on the Saskatoon Centre internet homepage so that you will have the option of downloading it yourself.

Those who do not have the Internet, do not despair, since we will still be printing and mailing copies to anyone who does not want an electronic subscription – **this is your choice**. We will always have to print some copies for paper subscribers and promotional giveaways.

We are doing this for a few reasons:

- To reduce the monthly mailing expense.
- To reduce the printing cost (together with the mailing cost is the single largest yearly expense of the Centre).
- I have to do an all-electronic newsletter anyway!
- So that other Centres and prospective members can download our newsletter and see what we are doing!

In this way, we can use the monetary savings to produce better programs for all of our members. For now, the size of the page will remain as an 8.5" x 5.5" size, so a printed page will appear “in one corner” of an 8.5" x 11" page. However, over the next few issues, I will revert to the full-page size. Advantages of on-line subscriptions are:

- You will get the newsletter one week earlier than the mailed copies.
- Quality of graphics will be whatever your printer can print, including colour material.
- There may be supplemental material past the 16-page limit that we can mail (due to printed weight)
- Immediate links to Internet sites that are listed in the Newsletter.

To subscribe, just email me at Huziak@SEDSystems.ca indicating that you would like to change your subscription to the emailed version, and that you would like to *STOP* receiving the printed copy. Please also make clear to what email address I should send the Notice, since many of us have both work and at-home addresses. Every month, as soon as the newsletter is available, I will email you:

- The Notice that you can now download and print *Saskatoon Skies*.
- The *Calendar of Events* for the upcoming months (incase you do not download immediately – we don’t want you to miss any events!)
- The URL of the location of the newsletter (which will be the same each month – our web page!)

I will NOT email the entire file, since it is often a megabyte or more in size! As I said, it is your choice to continue receiving a snail-mailed copy or to choose to receive the newsletter on-line. Suggestions are always welcome, so please feel free to give me feedback.

Oh yah....and by the way, the Editor’s in-bunk is still really lame. **Articles are still wanted.** It’s time to write about your favourite astro-things and let everyone else know what you are doing.

RADARSAT-1 Celebrating its 6th Year in Space

More than 220,000 Images Captured

Media Relations, Canadian Space Agency

St. Hubert, November 5, 2001 - The Canadian Space Agency (CSA) today announced that RADARSAT-1, Canada's first commercial remote sensing satellite, has successfully completed its sixth year in space capturing more than 220,000 images. Since its launch on November 4, 1995, at 9:23 a.m. (EST) from the Vandenberg Air Force Base in California, RADARSAT-1 has completed more than 30,000 orbits around the Earth and travelled almost 1.3 billion kilometres.

"Exceeding its nominal 5-year lifetime, Canada's world renowned RADARSAT-1 continues to greatly contribute to the development of a leading-edge Earth Observation space industry in Canada," said the Honourable Brian Tobin, Minister of Industry and Minister responsible for the Canadian Space Agency.

"With its unique set of instruments, capable of monitoring our planet day and night in all weather conditions, RADARSAT-1 has established an unparalleled international reputation and standard in Earth Observation that embodies Canadian innovation at its best."

Designed initially for frequent repeated surveillance of the entire Arctic region, the RADARSAT-1 mission has provided useful information in the fields of agriculture, cartography, hydrology, forestry, oceanography, ice studies and coastal monitoring to nearly 600 clients and partners from almost 60 countries.

One of the highlights of the RADARSAT-1 mission was the Antarctic Mapping Missions (AMM) conducted in 1999 and again in 2000. Ken Jezek, main investigator of the mission at the Byrd Centre of the Ohio State University, developed an unprecedented high-resolution map of the entire frozen continent following each mission. RADARSAT-1 operations at the CSA performed the difficult task of rotating the satellite 180° during the AMM in order to provide the needed angle of incidence for Antarctic mapping. The AMM also demonstrated the capacity of RADARSAT-1 imaging to be used to track ice flows, using its Synthetic Aperture Radar (SAR) in an interferometric mode, over several repeat passes.

Canadian Space Agency's RADARSAT-1 also plays a major role in the "International Charter on Space and Major Disasters" which includes the European Space Agency and the French Space Agency (CNES). Established through the framework of UNISPACE III Conference of the United Nations in 1999, and launched in October 2000, the International Charter is the expression of a collective resolve to put space technology at the service of rescue authorities in the event of a major disaster.

Building on the success of RADARSAT-1, RADARSAT-2 is currently under construction by prime contractor MacDonald Dettwiler and Associates and is scheduled for launch in 2003. RADARSAT-2 will ensure the continuity of data to users around the world and support the evolution of the Earth Observation business in Canada.



Ten Commandments of Amateur Astronomers

*Taken from the SAA newsgroup. Additions are from a forward to the New Hampshire Astronomical Society list.
submitted by Ron Waldron*

1. *Thou shalt have no white light before thee, behind thee, or to the side of thee whilst sharing the night sky with thy fellow stargazers.*
2. *Thou shalt not love thy telescope more than thy spouse or thy children; as much as, maybe, but not more.*
3. *Thou shalt not covet thy neighbor's telescope, unless it exceeds in aperture or electronics twice that of thy wildest dreams.*
4. *Thou shalt not read "Astronomy" or "Sky & Telescope" on company time, for thine employer makes it possible to continue thine astronomical hobby.*
5. *Thou shalt have at least two telescopes so as to keep thy spouse interested when the same accompanies thee under the night sky or on eclipse expeditions to strange lands where exotic wild animals doth roam freely.*
6. *Thou shalt not allow either thy sons or thy daughters to get married during the Holy Days of Starfest.*
7. *Thou shalt not reveal to thy spouse the true cost of thy telescope collection; only the individual components, and that shall be done with great infrequency.*
8. *Thou shalt not buy thy spouse any lenses, filters, dew shields, maps, charts, or any other necessities for Christmas, anniversaries, or birthdays unless thy spouse needs them for their own telescope.*
9. *Thou shalt not deceive thy spouse into thinking that ye are taking them for a romantic Saturday night drive when indeed thou art heading for a dark sky site.*
10. *Thou shalt not store thy telescope in thy living room, dining room, or bedroom, lest thou be sleeping with it full time.*

Addenda:

- *Verily, observe not through thy neighbor's AP or Tak, lest thee be utterlin a flame...*
- *Verily, observe not through thy neighbor's Dob of Goliath, lest thee be lain bare to the fires of aperture-fever, and thy sanity, thy sacroiliac and thy life savings be crushed as ye grapes of wrath.*

The Sleaford Observatory

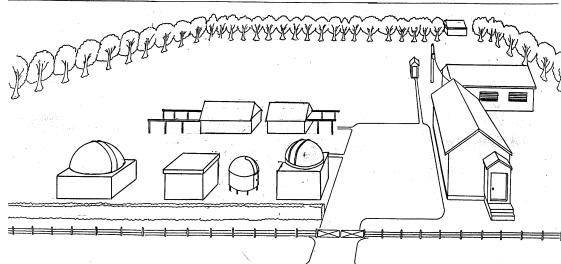
Longitude: 105 deg 55' 13" +/- 13" W

Latitude: 52 deg 05' 04" +/- 08" N

Telephone: (306) 255-2045

by Rick Huziak

Work at the Site – The amount of work is diminishing with Bill Hydomako's efforts in getting the Patterson Dome wired and operational. It is now wired and the C-8 is back on the pier. There is a bit of work to do to get the dome turning freely though; Bill had some troubles during the recent Open House. Over the years, the dome seems to have jammed a bit. The Open House also pointed out a few other things that need to be done: the U of S "porch-light" on the Roll-off Observatory is *way* too bright, and needs to be reduced from a 100+-watt to a 7.5 watt lamp! We also should do some wiring in the Schoolhouse to add in better circuits for coffee pots (so we don't keep tripping breakers), and we should add a bank of all-red lights so that we can operate under full reds during star-nights.



Teacher's Workshop Oct. 17 – A Public School Teacher's Workshop at the observatory was held on October 17th and the weather cooperated fully with decent warmth and clear skies. 14 teachers attended, of which about ½ were "Brightwater teachers" (ie. those who have taken their classes to Brightwater). These teachers had heard me spout the "*wonders of the Sleaford site*", and they were not disappointed. The teachers toured the facilities, especially liking the old schoolhouse, the indoor plumbing and especially the Warm-up Shelter! Mike Stephens and our teacher/member Ron Waldron helped out with a telescopic grand tour of the sky, learned constellations, how to use the telescopes. After coffee and cookies (provided by Brightwater Co-ordinator Louise Jones), I also gave the teachers a Binocular Tour of the sky, where they reviewed all the things we had observed during the night – but with a twist – they had to follow the tour and find the objects themselves! Everyone succeeded, and they were duly amazed at what binoculars could see. The 7x35 binoculars also made the trip from Brightwater. These binoculars are used by school classes for birding and wildlife observing, and now we hope, for astronomy, too! In appreciation, the Centre received a large and unexpected honorarium.

The Regina – Saskatoon Winter-Warm-up – Oct. 20 – This joint tour began at Bonanza on 8th Street, where I met Vance Petriew, his family and 10 members of the Regina Centre. This was the coordinating point for the Saskatoon-based activities. (Also showing up at Bonanza was Wade Selvig, the Saskatoon member from Shaunavon, who had driven more than 3 hours to attend)! From Bonanza, we went over to SED Systems to tour the Rosetta Satellite Transmitter/Receiver project that will be sent to Perth, Australia soon for installation. We also toured the production floor, which as several satellite-based projects being built, such as WorldSpace, XM-Radio and Inmarsat communications systems. The tour concluded with a visit to the Radarsat Tracking Station attached to SED Systems.

Once done there, we all went out to the Sleaford Observatory for a barbecue and site tour. Here the Regina crew was met by 14 Saskatoon members or spouses, and we put on a fine hamburger barbecue in the schoolhouse. (Thanks to Al H. and Ellen D. who cooked all the burgers, and to everyone else who helped with set-up, serving and clean-up). As is common in this hobby, the weather did not cooperate. We had a temperature hovering around zero, and later in the evening we experience our first snowfall. Anticipating this, Vance Petriew and I gave video and slide presentations.

The Winter Warm-up gave us all a chance to do some meeting and catching up, since there never seems to be much time at the SSSP! Regina also got to see what we have. Next year, it's their turn, with a tour of their Davin Observatory!



Vance took a large number of digital pictures of the day's activities. (The one shown above is his). These can be viewed at:

<http://www.ras.sk.ca/ClubPhotos/SWW2001/SWW2001.htm>

The Sleaford Open House and Starnight – Nov. 10 – This event went off very well, despite a lower than expected turnout of Saskatoon Centre members (only 9 in total). Those of us that did attend had a great time, and we were very busy! Over 200 people from Saskatoon, Meacham, Colonsay, and the surrounding area came to see what we were about! Bill Hydomako, Al Hartridge, Mike Stephens and I manned the RASC scopes, while Stan Shadick, Tyrone Klassen and 3 other lab demonstrators manned the U of S scopes. Sharon Hartridge spent over 2 hours folding almost 500 Centre brochures! Other Centre members (George Charpentier, Ron Schnor and Jim Young.) helped out where they could. (Forgive me if I've forgotten anyone)! Jim and Ron's efforts to park dozens of cars were greatly appreciated! They were half-scared out of their wits when Stan's snake of more than a dozen vehicles from Saskatoon came rolling up! The sky cooperated, being exceptionally clear, and the temperature was above zero for most of the night, so viewing was comfortable. Everyone had a great time and excellent views. After the crowds had dispersed, I was very pleased to see a half-dozen members stay behind and keep observing well into the very wee hours of the morning. (I got home at 6 am). Bill Hydomako commented after viewing Saturn that this was the finest view of the planet that he had ever seen. Saturn and Jupiter were rock-steady the entire night, bearing all powers up to and beyond the 400x that I threw at it! It was an amazing night!

Minutes of the General Meeting – Oct. 15, 2001

Held in Room 8313, City Hospital
Recorded by al Hartridge, Secretary

1. Presentation: *Discovery and Stellar Spectra* by Bob Garrison, National President RASC.
2. Approval of Minutes: It was moved by Scott Alexander and seconded by Ron Waldron that the minutes of the previous be accepted as read. Motion was carried.
3. Herschel 400 Award: Presented to Rick Huziak by Darrell Chatfield.
4. Chatfield Binocular Award: Presented to Mike Stevens, the first recipient of this award by Darrell Chatfield.
5. Treasurers Report: Barb Young stated that the present balance for our center was \$13,765.61.
6. Sleaford Report: A hand cart for Eetook, a ramp off the deck of the warm up shelter, a railing for the deck, dome carpeting and wiring have been done.
7. Youth Group Report: only one kid showed up for the first meeting held last week.
8. Sleaford Open House: will be held on November 10th, 2001. Also a barbecue and get together with the Regina club will be held on October 20th, 2001.
9. Election of Officers for the New Executive:

1. President: Les Dickson
2. Vice President: Darrell Chatfield
3. Honorary President: open
4. Past President: Rick Huziak
5. Secretary: Al Hartridge
6. Treasurer: Barb Young
7. Centre Rep: Sandy Ferguson
8. General Meeting Coordinator: Rick Huziak and Dale Jeffery
9. Newsletter Editor: Rick Huziak
10. Librarian: Sandy Ferguson and Ellen Dickson
11. Councilors:
 - o Scott Alexander
 - o Jim Young
 - o Merlyn Melby
12. Youth Coordinator: Tyrone Klassen
13. Observing Coordinator: open
14. Activities Coordinator: Mike Stevens
15. Membership Coordinator: Bob Christie
16. Fundraising: Darrell Chatfield
17. Sleaford: Bill Hydomako
18. Publications/ Sales: Debbie Anderson

10. Meeting Adjourned at 10:10pm.

Messier, FNGC, H-400 & Binoc Club

MESSIER CLUB

Certified at 110 Objects: R. Huziak, G. Sarty, S. Alexander, S. Ferguson, D. Jeffrey, D. Chatfield, R. Christie, K. Noesgaard

Mike Stephens	**ACCEPTED!! **	110
Wade Selvig		71
Bill Hydomako		68
Mike Oosterlaken		68
Andrew Krochko		42
Lorne Jensen		39
Brent Gratias		39
Stan Noble		28
Les & Ellen Dickson		20
Debbie Anderson		17
Brian Friesen		15

FINEST NGC CLUB

Certified at 110 Objects: R. Huziak, D. Jeffrey, G. Sarty, D. Chatfield

Scott Alexander	89
Mike Stephens	32
Ken Noesgaard	24
Sandy Ferguson	23
Mike Oosterlaken	15

HERSCHEL 400 CLUB

Certified at 400 Objects: Dale Jeffrey, Rick Huziak

Darrell Chatfield	** GETTING THERE**	373
Gordon Sarty		171
Scott Alexander		98
Ken Noesgaard		44
Mike Oosterlaken		44
Sandy Ferguson		18

Chatfield BINOCULAR CERTIFICATE

Certified at 400 Objects: Mike Stephens

Mike Oosterlaken	32
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**Join the Messier,
Finest NGC, H-400 &
Binocular Club!**

Observe all 110 Messier, 100 FNGC or 400 H-400, or 40 Binocular objects and earn your
CERTIFICATES!

The first 2 lists can be found in *the Observer's Handbook*. The Binocular List & Herschel 400 list will be available at each general meeting for 50 cents (covers photocopying) or can be mailed out on request to distant members. Each month I'll be posting updates.

Hey, Observers!

This month, I've received updates only from Mike Stephens. Is anyone out there observing? With the great weather, I'm not sure why the sky isn't being taken advantage of!

Mike, however, was at the National Council Meeting in Toronto when his Messier Certificate award was voted on, so he "knows" now that he will be getting one for sure!

I was also fortunate to have my Herschel 400 certificate and hat pin presented at the October General Meeting. I guess its now onto the Herschel 400 II, or some other observing program. (Over the last year, I've been doing mostly variable star observing, but a recent observing session under a superb sky has got me back to the real deep sky!).

Send observing numbers to
huziak@SEDSystems.ca

**Notice of the General Meeting of
the Saskatoon Centre**
Monday, Nov. 19, 2001
at 7:30 p.m.
Room 8313 City Hospital

Presenting
Dale Jeffrey
“Organized Observing”
A system of planning and recording
observations – what to observe and
how to observe lists such as the H-400
and H-400 (II) lists.

Rick Huziak
*In Pictures: Naked Eye Geosyncs and
the Sleaford Observatory from the air.*

U of S Observatory Hours

**The U of S Observatory is open to the
general public every Saturday in November -
February from 7:30 p.m. to 9:30 p.m.**

Admission is free. The observatory is located on campus, one block north of the Wiggins Avenue and College Drive entrance. On clear evenings visitors may look through the 6-inch refractor to the moon, star clusters and other exciting astronomical objects. For further information, phone the recorded Astronomy Information Line at 966-6429.

Interested in Saskatoon RASC Membership?

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Youth - \$27.50 per year

It's never too late to join!

The Saskatoon Centre operates on a one-year revolving membership. You will now be a member for the next 12 months no matter when in the year you join.

Benefits of Membership in the Saskatoon Centre

- knowledgeable & friendly amateur astronomers
- use of the Sleaford Observatory
- use of the UofS Observatory (after training)
- Saskatoon Skies Newsletter
- Observer's Handbook
- The Journal of the RASC (bi-monthly)
- SkyNews Magazine (bi-monthly)
- use of the Centre library
- discounts to Sky & Telescope Magazine
- discounts of Sky Publishing merchandise
- discounts to Firefly Books
- free, no cost, no obligation, 3-month temporary membership if you don't want to join right now!

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VISTA MOON FILTER - \$10 - a stocking stuffer
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RED L.E.D. FLASHLIGHTS - \$20 - a STAR PARTY Must)



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