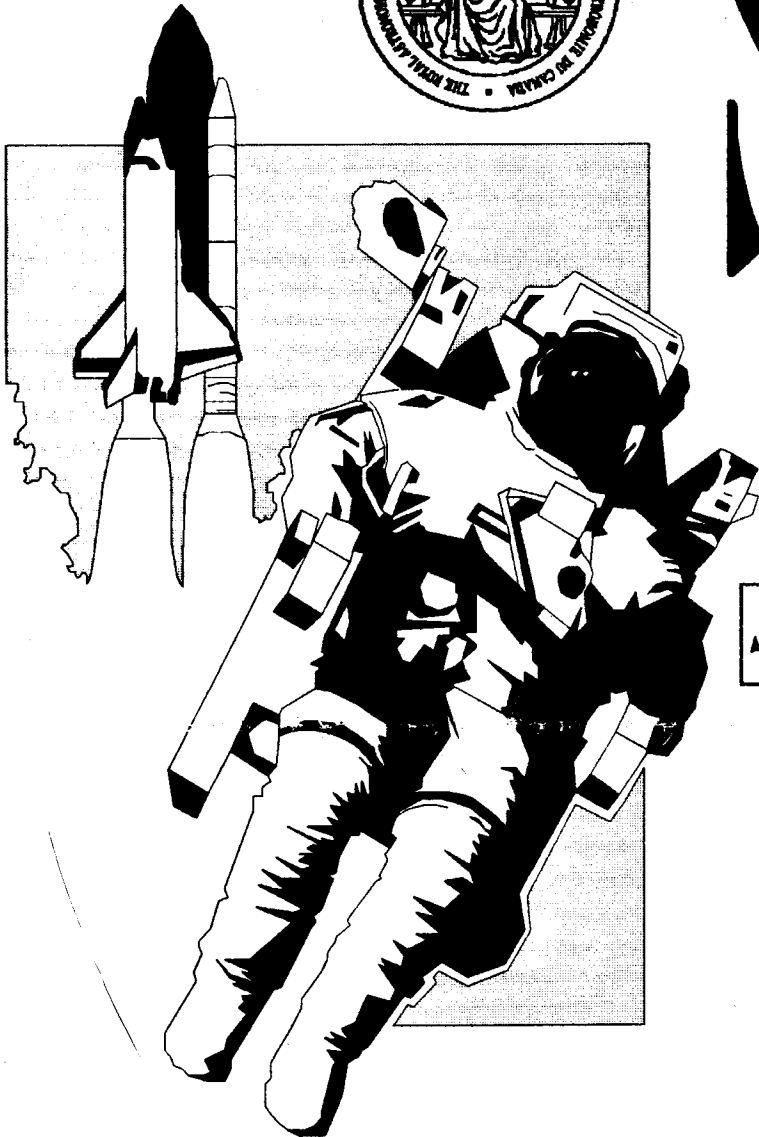


Saskatoon Skies



Volume 27,
Issue 07 & 08
July/August 1996

Special Announcements

There is lot's of great things going on this month so check it all out. Also this is the only issue of the Saskatoon Skies that will be put out for July and August combined.

The next issue of Saskatoon Skies will arrive in your mailbox the first week of September. Enjoy the summer and clear skies?????

Saskatoon Skies is published monthly by the Saskatoon
Centre of The Royal Astronomical Society of Canada

**The New Observatory "Key
Incentive Program
by Rick Huziak**

This new incentive program was introduced at the June 17, 1996 Executive and General Meetings. The program is designed to raise interest and participation in location new observatory site and developing the site and buildings. Currently, the majority of the work is being done by only a few people, and since this is a Centre facility, it makes sense that as many members help in the site selection and development.

**The Key Incentive Program -
Introduction**

There are a great many jobs to do in order to establish a new observatory dark site. Land must be located and either bought or leased, observatories must be designed and build. Materials must be scrounged or bought. Funding must be raised. People must be called and organized. Piers, roll-offs, shelters, trenches have to be designed and constructed. The new observatory will not happen overnight and will take the combined efforts of as many members as possible to develop the site. For lack of a better estimate, assume we will consume 1000 hours and \$35,000 in construction of the new facility!

In order to promote work toward the new site, we are establishing an "Earn Your Key" incentive program to make sure that the work eventually gets done, to assure that many members participate, and to allow those who worked the hardest get the most immediate benefits. The job will simply NOT get done if it is left to only a few, already busy, members!

To earn you key to the new observatory, you will have to put in 25 earned hours of service toward the establishment or construction of the new site. You can either put in direct hours of service by searching for a site, negotiating for the site, raising funds, doing construction, etc. or you can buy your way in by straight donations of cash as the rate given below. Alternately, you can use any combination of work and buy.

Earning your key does NOT exempt you from paying any annual key fee that may be established.

Benefits of Helping Out

No one in the Centre will be 'banned' from the new site if they do not participate. It simply means that you will not be able to get your own key for the site before September 30, 1998. Those who help out will have key-access as soon as they earn it. Those that don't help will have to phone up key members and beg to go observing. No one who cannot or does not participate in this program will be shunned in any way (except for the accompanied access) as we realize that not everyone is physically able or able time-wise to participate. This is a friendly and flexible program.

Length of the Program

The program begins on Tuesday, June 18, 1996 and ends just over 2 years later, on September 30, 1998. Those who have already put in time toward the search will not be rewarded at the expense of others who have so far not been asked to participate. All times will be 'reset to zero'. When the program starts, we are all on the same footing. After September 30, 1998, anyone can apply for and receive a key for the site after sufficient training and payment of the key fee, regardless of how much work they have done on the site in the past.

**Members Who Join After the Start of
the Program**

All members who join after the start of the program will have the option of participating in the program, and will have to put in their 25 hours of service to earn a key, until the program ends on September 30, 1998.

Exemptions

Exemptions to the program apply to the University of Saskatchewan participants and U of S astronomy students using the site. This is because the University plans to build their own piers, roll-offs and

warm up shelter on their own time. No RASC members are exempt.

Keeper of the Scorecard

Rick Huziak, current president of the Centre will keep impartial score. When you have done something worthwhile, call 665-3392 and talk to Rick. If Rick is not there, talk to the answering machine. You will be asked to detail what you have done, and will be awarded hours as a result.

**Things to Do: How You Can Earn
Your Key?**

There is almost always something to do. If you do not know what to do, call one of the site search committee members and ask. Although jobs are not always available, especially during the site search, we will make every effort to get you doing something. Fund raising is important now, and physical construction will be needed later. Land search members are:

**Rick Huziak 665-3392
Eric Keser 374-4262**

1. Site Search

Drive the roads of Saskatchewan and look for decent site for the observatory. We have land survey maps available of the entire search area. There are thousands of miles of roads and areas to cover. Alternately, you may be asked to review a site under consideration and to give an opinion of it.

Considerations for a new site are as

*How to Reach
The Editor*

If you have an article or an ad or picture that you want to submit to the Saskatoon Skies please mail them to the address below. If you have any questions please call. Check the last issue of the newsletter to find out when the deadline is to make sure you don't miss getting your submission put in the issue you want it in.

*The Editor
522 Devonshire Crescent
Saskatoon, Sask
S7L 5W1
(306) 384-1807
Email gbreth@webster.sk.ca*

ollows:

- preferred to be E, NE, SE or S of Saskatoon, though other directions will be considered
- good winter access
- reasonable security
- long term agreement possible or land purchase
- parsing of property allowable by the RM
- excellently dark skies
- availability of power nearby
- good horizons
- location 15 to 75 km (approx.) from Saskatoon
- future darkness of skies assured

You will be awarded one key hour for each search hour, no matter on the success of the outcome, plus hourly awards for donated vehicle gas at the rate of an additional 15 minutes per hour of actual search time. As a passenger, you are awarded only straight search time.

2. Observatory Planning

Plan the observatory building and draw up blueprints, count up materials and work out site and building details. Straight time for time worked. Some sort of result must be presented, such as sketch, blueprint, materials list, etc. Just thinking about it doesn't cut it, though meetings with planning work groups would.

3. Fund Raising

One hour of key time is awarded for each hour of fund raising activity - letter writing, meeting with groups, etc. Also, one additional hour is given for each \$100 of donated money received as a result.

4. Donations

Members who do not want to do physical work may buy their keys at the rate of a \$20 donation per hour of key time. A \$500 donation buys a key (and provides desperately needed funds for development). Combinations of donated funds and 'real' work are welcome. There is no additional benefit for 'over'-donation, except for deep gratitude.

5. Observatory and Site Construction

Dig, trench, fence landscape, pound nails, pour concrete, run electrical wires, build electronics. Do what it takes. One hour of key time per hour of service.

6. Scrounging

Scrounge around for materials. Building supplies, electrical supplies, instruments etc. Awards are one hour of key time per hour of scrounge, plus an additional hour of time earned for each \$100 of estimated material value accumulated.

7. Instrument Construction

Building or working on any instrument that will be used at the new site. The 16-inch telescope, piers, site Dobsonians, etc. apply. Awards are one hour per hour of activity.

8. Other Worthwhile Undefined Activities

Any other activity that you can think of that will benefit the new site is awarded one hour per hour served.

The Saskatoon Centre will be taking advantage of this Summer's conjunction of a New Moon, a warm Summer weekend, and the beginning of the most spectacular meteor shower of the year to hold a family barbecue and Campout at Douglas Park. Join us for a pleasurable evening of evening or two of eating, gabbing, and meteor watching (and stargazing, of course!). This form of scientific data gathering can be done lying back in a lawn chair, and is so demanding that daughter Ariel was able to fully contribute two weeks after she turned four- you can bring your whole family.

Douglas Park offers the possibility of group camping and rates, if enough of us are interested, as well as a variety of organized recreational and nature activities. Based on informal commitments around the June 17th general meeting, it sounds like at least a dozen Saskatoon RASC members will be there. If this can be confirmed then we could get a group campsites. Please help to make our first attempt at a Summer Star Party a success by committing yourself as soon as possible, and by offering any advice or help you can, so that we can finalize dates for group camping and arrange some group meals, as well as any possible presentations, or events, swap meets, or activities for children.

Please call Erich at 374-4262 or E-mail keser@duke.usask.ca ASAP so we can arrange for group camping and the barbecue. Ideas and, most important of all *** VOLUNTEERS*** are needed!

Advertising Info

Commercial advertisers are encouraged to advertise in the Saskatoon Skies. Your ad will give you access to all Canadian members of the Royal Astronomical Society.

Commercial advertising is accepted in the Saskatoon Skies with three sizes of ads available. Artwork must be camera ready and supplied by the advertiser.

One quarter page.....\$25.00
 One half page.....\$39.00
 One full page.....\$50.00

For further information please contact me or mail your questions to the address below.

The Editor
 522 Devonshire Crescent
 Saskatoon, Sask.
 S7L 5W1

Our Own Star Party
 by Eric Keser

August 10-12th Family Barbecue & Perseid Watch at Lake Diefenbaker

URGENT

Based on a recent attempt by Barb Wright and myself to put a stargazing session for a Beaver pack (kit?) at Pike Lake, we should also be concerned with any campground lights. If you know this campsite please me immediately of any potential problems in this area, so we can arrange to have them turned off or shielded.

**Star Parties This Summer
by Eric Keser**

Friday July 12th to Sunday 14th we will be helping the Regina RASC with their annual Starfest in Cypress Hills.

The stargazing will take place at the highest point between Ontario and the Rockies. (1 500 metres - so high that Regina's t Ross Parker claims that it is mosquito free. Most of us will camp at the dark edge Pine Hill Campground and observe from the crest of Lookout Hill. We will each book our own campsites, but a good turnout will allow us to book a group campsite in the future. Parker reports that all campgrounds are well- serviced, that there are ample recreation facilities, including a pool and sauna, and plenty of activities for children. There is also a campsite with full trailer hookups (book early!), and a nearby Lodge for those who would rather not camp..

This event is both as a chance for some great seeing (away from the eternal twilight here!) and an opportunity for Saskatchewan's two RASC Centres to work together. We've booked a park meeting hall, at which there will be several presentations, including the images of our US member, John Leppert, whose work has been published in Sky & Telescope. Cypress Hills is one of the most beautiful places in this province, and a sizable Saskatoon RASC contingent could make this a wonderful event! You can contact Parker via E-mail at RParker136@aol.com, or call me so that I can forward your questions and suggestions for you.

July 19-22nd, Northern Prairie Star Fest, (near) Sarles, North Dakota

I can guarantee the wonderfully dark skies, huge clear horizons, and cozy, laid back friendliness of this event. It takes place on John Leppert's 1.75 hacienda, which is miles away from even the nearest hamlet, and though camping is the obvious way to attend, there is plenty of power (even for my electric hot plate!) and ready access to the bathrooms, shower and other amenities of John and Jill's house.

The gourmet BBQ Jill treated us to last year will be repeated, as will the day trips to the International Peace Gardens and Manitoba's incredible Spruce Woods Dune's Park. This is another nice family event: last year there were three kids and a dog in constant motion. John Leppert own registration form appears below. Please refer to it for registration fees and other details,.

GA in Edmonton.

13. Summer Star Parties

-Persied watch 2nd week in Aug. at Diefenbaker Lake. -Northern Prairie Star Fest-Sarles ND -Cypress Hills July 12th-14th Alberta Star Party

14. Gastronomy

Night-Al Hartridge and Erich Kesser will arrange for later part of May.

MINUTES OF THE GENERAL MEETING

May 1996

1. Membership- We are proud to have our first international member, John Leppert, from Sarles, ND, USA.

2. Membership coordinator- Kim Mysyk has agreed to take on this position

3. Astronomy Day- Sandy reported that the display at Lawson Heights Mall was fairly successful, we may have acquired 6 or 7 new members as a result. Star night was however clouded out.

4. Beaverie- 120 kids age 5 to 7, conditions poor, however had a look at large dish at SED Systems with 2 small telescopes.

5. Greystone Heights School- Sandy and Rick gave a talk to some of the students at this public school.

6. Western Space Resource Center- Rick is now an associate member.

7. Observers Session- will attempt to hold an observers group this Friday or Saturday May 17 or May 18 at the Pit dark site.

8. Report on new dark site- Rick drew a map and gave an extensive talk re possible locations for a new dark site.

9. Fund raising- several suggestions have been made to help raise funds bingo lecture series - car wash

10. Meewasin Valley- requesting a lecture series quarterly and star night.

11. Telescope Rental System- could help with fund raising- Gord Sarty will work on this.

12. GA meeting- there will probably be 8 to 10 people going to the

Minutes of the Executive Meeting

May 1996

1. Call to order- 7:00 pm.

2. International member- our first international member has joined our center, he is Mr. John Leppert from Sarles ND, USA.

3. Membership Coordinator- Kim Mysyk has agreed to take on this position.

4. Astronomy Day - Sandy stated that the display was moderately successful this year, there was a good response from members to help at the display. A few members or temporary members may come out of this.

5. Presentations: - Sandy gave talks at Beaver Creek and the Main Library recently.

- Beaverie at Archibald Park- over 100 kids attended.

- Western Space Resource Center- Rick

It was suggested that we ask for a formal letter of thanks from these people since this may help us in raising funds in the future.

Membership Info

Membership in the Royal Astronomical Society of Canada and the Saskatoon Centre is open to anyone and has many benefits.

Below are the prices for memberships. Should you require additional information please contact Rick Huziak at 665-3392.

Regular membership (21 & up).....\$40.00
Youth Membership (21 & under).....\$22.50
Club Newsletter (12 issues).....\$10.00
Observer's Handbook.....\$18.95

Note: Lifetime memberships are available on request for \$900.00

6. Site Search- Four new sites have been looked at, one site on the old road to Blackstrap could be promising. Also the Western Space Resource Center has a possible site.

7. Telescope Rental System \$10 per month, one person will be in charge- Gord Sarty will look after this.

8. GA meeting - probably about ten people will attend the Edmonton meeting.

9. Summer Star Parties- please see list under general meeting.

10. Gastronomy Night - Al Hartridge and Erich Kesser will look into this.

**MINUTES OF THE
EXECUTIVE MEETING
June 17, 1996**

1. Rystrom Observatory maintenance - Mertlyn installed red light last Thursday but may make further alterations in the future. He suggests that it be switched to a 12 volt system.

2. New Observatory land search update - Erich described several new possible sites. These will require further investigation.

3. New telescope Report - Bill and Rick temporarily set up mirror and tube with eyepiece and saw stars.

4. New Site Key Incentive Program. Rick - described how members could earn a Key to the new site by putting in 25hrs. of service toward the establishment or construction of the new site.

5. News!etter -there will be just one

Important Info

The Rystrom Observatory

Members are welcome to use the observatory at any time but **please phone ahead**. Call Nelson or Gloria Rystrom at 955-2370 before 9:00 p.m. if you intend on going out. This lets them know that someone will be roaming around their yard. If they do not answer go anyway. Drive through the yard slowly, and dim your lights as a courtesy to others who may be observing.

**The Mirror Finish
by Gordon Sarty**

As an amateur telescope maker, I have had to apply a shiny surface to my homemade mirror. I've tried two methods: (1) silvering the mirror myself and (2) sending it away for aluminizing. Since the silver coating tarnishes after a couple of years, my mirror is currently aluminized. I sent it by courier to California and ended up paying an unreasonable amount of money to a broker to get my mirror back across the border. But, thanks to the rasc listserver I now know of two Canadian places that aluminize homemade mirrors. On Wed, 15 May 1996, John Adlington <jon@islandnet.com> wrote to the listserver:

"Can any body recommend a good Canadian source for mirror recoating? I've got a 12.5" mirror to do and I'd like to avoid the hassles of sending it to the States."

Replies came from Patrick Kelly <pkelly@tuns.ca>, MK <santryl@cadvision.com>, and Doug Hube <dhube@phys.ualberta.ca>. These guys recommended two possibilities:

1.. Barry Arnold, Department of Electrical Engineering, University of Alberta, Edmonton, Alberta, T6G 2E1 e-mail: arnold@ee.ualberta.ca

2. Moonward Vacuum Coatings, Suite 250, 800 Lasalle Blvd., Sudbury, Ontario P3A 4V4 Phone: Alan Ward (705) 566-7924 FAX: (705) 566-1833 e-mail: moonward@osiris.isys.ca

Moonward Vacuum Coatings sounds like a commercial venture as opposed to Barry Arnold who seems to offer the service as a favor. However, MK mentioned that Barry may be willing to refigure a bad mirror as well! In any case, Moonward Vacuum Coatings can supply the following services. They provide four levels of aluminum: bare aluminum; protected (coated with SiO); semi-enhanced (coated with MgF2) and enhanced (MgF2/Zns). Turn around time is 1-2 weeks for the first three, 2-3 for the last one. Secondaries are done free if sent with the primary. The complete price list is given below, applicable taxes and shipping are extra.

Size	Protected Bare Al	Semi-enhanced (SiO)	Enhanced (MgF2)	Enhanced (MgF2/ZnS)
6"	\$36	\$36	\$42	\$48
8"	\$48	\$48	\$56	\$64
10"	\$60	\$60	\$70	\$80
12.5"	\$75	\$75	\$87	\$100
13.1"	\$78	\$78	\$91	\$104
14"	\$84	\$84	\$98	\$112
16"	\$96	\$96	\$112	\$128

On Friday, May 17, Peter Ceravolo <ceravolo@fox.nstn.ca> wrote to the listserver with another source of aluminizing for larger mirrors: "For the big stuff I recommend my old workplace, the National Research Council Of Canada's Optical Components lab. They can handle mirrors up to about 30" and will put on an overcoat. They are expensive, about \$450 for a coating.

"Call Glen Fraser (supervisor) or Tom Cassidy (coating Tech) at (613) 993-2850. Don't tell them I sent you--they might hang up on you!"

Gord Sarty

ewsletter this summer.

6. List of Summer Activities:

- Cypress Hills Star party, July 12-13
- July Public Starnight at Diefenbaker Park, July 19, 20.
- North Dakota Starnight, Sarles, July 19, 20.
- August Perseid Starnight at Lake Diefenbaker, Aug 10-12.
- Mount Kobau, Aug. 14-18.
- Alberta Star Party, Sept.
- September Public Starnight, location TBD, Sept. 13, 14.

7. New Business:

A payment for power usage at Rystrom observatory will be made as soon as possible.

be provided for telescope clock drives and for camping.

Additionally, day trips to the International Peace Gardens and the Spruce Woods Park (MB), and July 21st evening barbecue are planned. Travel to parks will be individual, but car-pooling will be encouraged. Peace Gardens entry is \$7 per vehicle; the Provincial Park is free.

Presentations and the photo contest are open to participants, and will include CCD imaging, Comet Hyakutake, the Winter Star Party and the Bolivian solar eclipse. Please limit presentations to one hour and please advise us of any equipment you will need. The photo contest winner will have all fees refunded.

Hotel accommodation is also

available (registration fees still apply) in Rolla (27 miles SW) at the Bilmar Motel (701) 477-3157, the Northern Lights Motel (701) 477-6164 or (800) 535-6145, or the T M Hotel (701) 477-3101. We can pick up PILOTS at the hard-surfaced Rolla airport operated by Rolla Flying Service (701) 477-5145.

The page after this is an observation form you might want to start using. Following that are two forms needed for the Northern Prairie Star Fest. Please take a moment and fill them out and send them away. Have a good summer....Ed

MINUTES OF GENERAL MEETING- JUNE 17, 1996

1. Meeting called to order at 8:10 p.m.
2. New Observatory land search update - Rich and Erich described some new site possibilities and encouraged members to go out and investigate on their own.
3. New Site Key Incentive Program - This was described to the members present at the meeting and there appeared to be a general consensus that this was a good program.
4. Programs:
 - Summer Activities: please see minutes of executive meeting for details.
 - The GA Lecture - Ed Kennedy
 - The New Astronomy Trivia Calendar - Stan Shadick
5. Meeting Adjourned at 9:50 p.m.

Northern Prairie Star Fest by John Leppert

JULY 19-21 1996
The Northern Sky Astronomical Society (University of ND, Grand Forks) will hold the second annual NORTHERN PRAIRIE STARFEST under pristine skies near the North Dakota-Manitoba border, on wheat farm, next to an that houses a Meade 8"SCT and a Sirius Instruments CHIP-12 CCD camera/ autoguider. Space for telescopes and camping will be provided. We plan presentations, a photo contest, swap meet, and viewing. Electricity will

Come... see all the true Superstars!

Featuring: the ANDROMEDA NEBULA, over 2 million light yrs. away!
the MOON, only 4 days old! NGC 188, the oldest known open star cluster!

with Special Appearances by: JUPITER, COMET HALE-BOPP

Plus:
breath-taking DEEP SKY OBJECTS and DOUBLE STARS made visible by the TELESCOPES on display!

How many can you see?
THE INTERNATIONAL ASTRONOMY DAY

PUBLIC STAR NIGHT "FUN FOR ALL AGES"

• TWO NIGHTS *Only* FRI. and SAT.
at DIEFENBAKER PARK July 19 & 20, 1996
(SOUTH SIDE NEAR RAILROAD TRACKS) SASKATOON 9:00 PM

EVERYONE is WELCOME! NO ADMISSION CHARGE

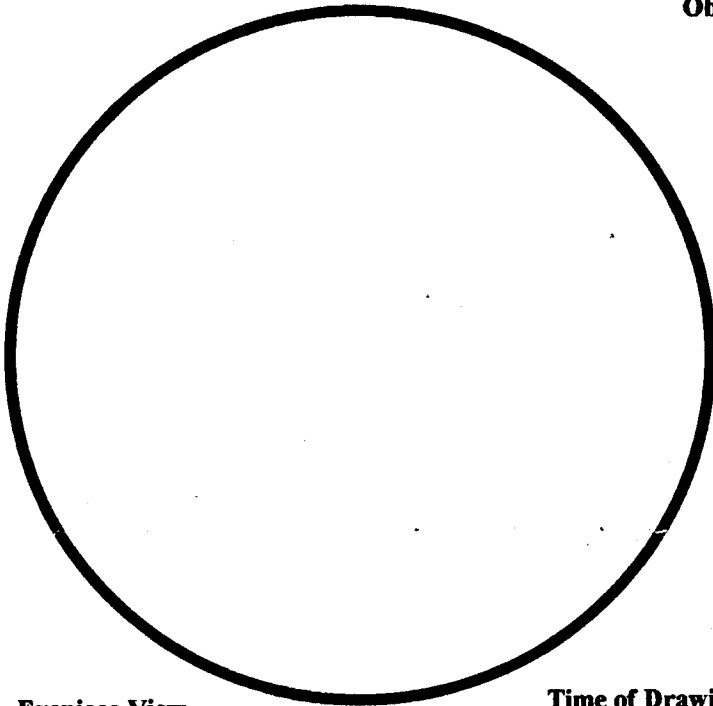
Please dim lights when approaching. No flash bulbs please.

A presentation of the SASKATOON CENTRE, ROYAL ASTRONOMICAL SOCIETY OF CANADA in conjunction with the universe.

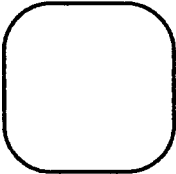
For more information call..... Mr. Brian Friesen 384-2963
or Mr. Richard Huziak 665-3392

Observation No. _____

Date: ___/___/___



Compass



Eyepiece View

Time of Drawing _____ m

Location : _____ Clear ___ / Cloudy ___ / Foggy ___ / Windy ___ / Northern Lights ___ / Temp ___

Seeing : 1 ___ / 2 ___ / 3 ___ / 4 ___ / 5 ___ / 6 ___ / 7 ___ / 8 ___ / 9 ___ / 10 ___ / (1=Excellent.....10=Poor)

Aperture _____" Magnification ___ x Scope used _____ F/___ Magnitude _____

Eyepieces used : 1) ___ mm 2) ___ mm 3) ___ mm Filters used _____

Observing Notes

[Faint handwritten notes are visible in this section, but they are illegible.]

Dear Friends of NPSF96,

Earlier this month you were sent e-mail or snail mail regarding the second annual Northern Prairie Star Fest scheduled for the 19-21 July weekend. Presently it appears that we will likely have astronomers coming from Chicago, Minneapolis, and Saskatoon.

I realize that NPSF96 is a month away, and that many of you may or may not have finalized your plans. However, would you be so kind as to respond to the following questionnaire, and return same via e-mail. Without my knowing some definite numbers, it is difficult to plan the barbecue, and schedule presentations.

_____ I am definitely planning to attend, and will be returning the registration form by June _____ / July _____.

_____ I would like to give a presentation(s) on the following subject(s) _____

I will need to have available the following audio/visual equipment _____

_____ My chances of coming are GREATER than 50/50, and will decide by June _____ / July _____.

_____ My chances of coming are LESS than 50/50, and will decide by June _____ / July _____.

_____ I have definitely decided not to attend.

Thanks for your help in planning and interest in NPSF96!
John Leppert. Deneb Observatory (ND / 48°56'07"N, 99°09'40"W)

**REGISTRATION FORM & FEE SCHEDULE
NORTHERN PRAIRIE STAR FEST - JULY 19-21, 1996**

You may pay on arrival, but please register by post or E-Mail ASAP so we can plan the barbecue.

US	CND	
----	----	
\$15.00	\$20.00	(registration per individual)*
20.00	27.00	(registration per family)*
10.00	13.00	(per adult for barbecue)
4.00	5.00	(per child for barbecue ages 6-12)

*registration fees will include use of camping, water, electricity, and bathroom/shower facilities

Name _____ Individual _____ Family _____
 Society Affiliation _____
 Address _____
 City _____ State/Province _____
 Zip/Postal _____
 Phone _____ E-Mail Address _____

Yes, I would like to make a Presentation (check here) _____
 Topic will be _____

Number Attending & Fees: (see Fee Schedule)	Number	Fees
Number Attending & Fees: (see Fee Schedule)	Number	Fees

_____ \$ _____

Barbecue & Fees:
(see Fee Schedule) _____ \$ _____
 Total Cost: \$ _____

Fees enclosed _____ Will pay fees upon arrival _____

Remit Checks Payable to: NPSF96
 Send along with Registration form to: John Leppert, Deneb Observatory,
 RR 1, Box 25, Sarles ND 58372-9618

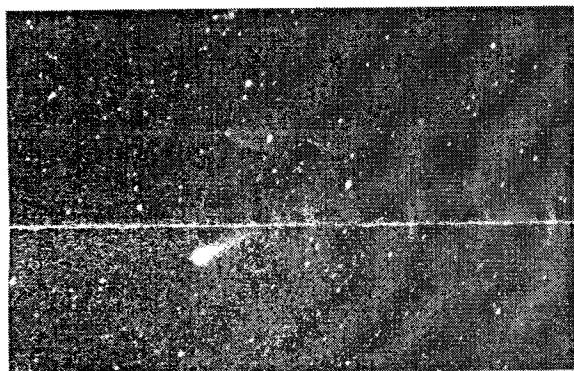
You can also forward your form or any questions via E-Mail him at
 73424,3533compuserve.com or phone (701) 697-5225.

ASTROPHOTO CORNER

July-August 1996

RASC SASKATOON CENTER

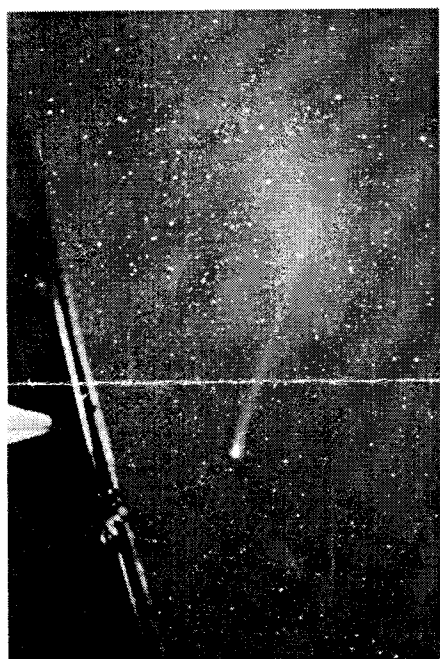
MEMBERS PHOTO GALLERY



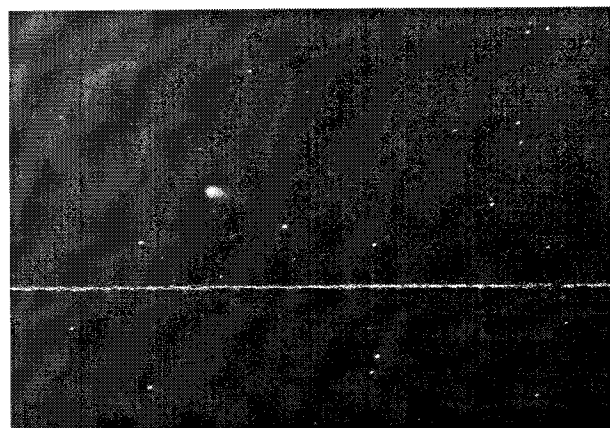
Erich Keser Hyakutake B2



Rick Huziak Noctilucent clouds



John Leppert Hyakutake B2



Brian Friesen Hyakutake B2

Thanks to Erich,Rick,Brian and John for submitting these great photos.

Clear skies and good guiding ----- Al Hartridge