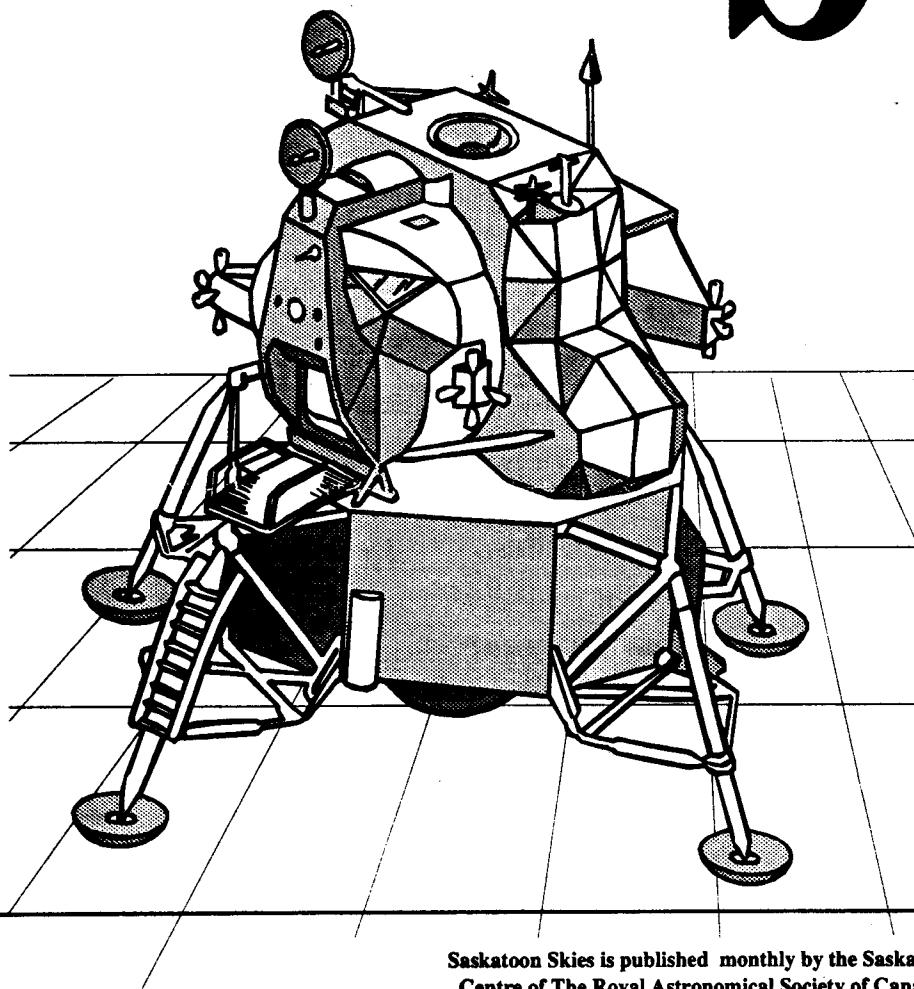


Saskatoon Skies



Volume 27,
Issue 10
October 1996

SPECIAL ANNOUNCEMENTS

COME TO THE MEETING OCTOBER 21ST
IN THE USUAL PLACE.
ROOM B-111
HEALTH SCIENCES BLDG.
U OF S CAMPUS
8:00 PM
IT'S ELECTION TIME!

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

The 1996 Alberta Star Party by Richard Huziak

I had the great fortune to attend this year's Alberta Star Party. The Alberta Star Party is held yearly at the Eccles Ranch, near Caroline, Alberta, 671 kilometers from Saskatoon, a fresh 5.5-hour drive. The site of the ASP is pretty good, and getting better. In a previous life, the site was a dry oil drill site, which was generously restored by Chevron (at no charge!) for the Calgary and Edmonton Centres as a dark site for the ASP. This year Chevron bulldozed the drill pit into a gentle hill to improve drainage thus eliminating the quagmire problems they had in past years when it rained. The site consists of several acres, part of which is a nature preserve that may be developed into trails for short hikes to give the kids and spouses something to do during the day. There is also a permanent observatory being built. Support facilities are sparse at this time.

There is no power or water, but there is a two-seater outhouse, so you have to be somewhat self-sufficient. Things are likely to improve in the future. If you have an RV, it's not so bad, as you can set up right at the observing area; the gravel clearing. If you are tenting, you may want to set up in the pasture about 100 meters away to trade fist size rocks for grass and cow pies under your sleeping bag.

The ASP was well attended, with more than 50 RV's and tents that I could count, implying a hundred or more attendees. Yet the atmosphere was very 'down-home' with everyone welcoming everyone else and being glad we all came. Good group here!

Due to time limitations, I arrived on the Saturday just as it was getting dark. (The ASP ran from September 12 - 15). Everyone was at the Eccles Ranch, a mile away, watching a few presentations by John Mirtle and others, so I set up my tent and visited with the few stragglers who were around the site. Prospects for observing did not look good. It was mostly cloudy, about 10 degrees C, and occasionally, it would spit droplets of rain on us. However, no one there was a Doubting

Thomas; we all came to observe, and Positions are chosen by democratic vote observe we would, even if we had to sit by the membership.

up all night and pretend. So we set up a campfire, composed solely of red flash-lights pointing at a rock, and sat around telling 'Don Friesen' stories and the like until the wee hours. Then it happened! The sky DID clear off wonderfully at proxy will be gladly accepted. Please about 1:30 am and off we went. No one really wanted to sleep, so someone laid on a car horn and annoyingly work up all the astronomers.. Everyone scurried to set up their scopes, and we all enjoyed great (though wet) observing until sunrise. The The following Executive positions are dark sky here was beautiful, and objects available. Those shown in brackets cur-like the Veil Nebula stood out bold and rently hold the position:

bright, even in binoculars.

Although I didn't know until after I had returned to Saskatoon, Jenica Dyck also attended the star party, coming from her new university home of Calgary. Thus, our Saskatoon contingent became two! Jenica said she liked the people, but also stated that her dark skies of Christopher Lake were far superior to what was here! Generally, though, she enjoyed herself. But as least the ASP now has a permanent

Hon. President Ed Kennedy (not vacant)

President Rick Huziak (not vacant. 2nd year of two year term)

Vice-president Erich Keser (not vacant. 2nd year of two year term)

Secretary up for grabs (Al Hartridge)

Treasurer up for grabs (Mike Williams)

Centre Rep. up for grabs (Rick Huziak)

Activities Coord up for grabs (Brian Friesen)

Newsletter Editor up for grabs (Garr Brett)

Membership Coord up for grabs (Kim Mysyk)

Observing Chair up for grabs (Darryl Chatfield)

Because I had to drive the next morning, I went to bed before sunrise, and at 7:30 am, awoke, wet and frozen solid in my little tent, as it fell to 2 degrees C with frost on the ground. A word of warning for next year's attendees - there's COLD in them there foothills!

All in all, this is a good star party. The Edmonton and Calgary Centres are great and very hospitable, and the site offers dark skies. See you there next year!

OCTOBER'S ANNUAL ELECTIONS

The Annual Elections for the RASC Saskatoon Executive positions will be held at the October 21st General Meeting. An Executive position is open to any member of the Centre in good standing.

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
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(306) 384-1807

contribute to your Centre, please participate by voting or becoming a member of the Executive. We have no problem with inventing new executive positions as required, if the position warrants addition.

MEMBERSHIP DUES ARE DUE

Please note that membership dues are due. Membership fees are the same as they were last year - we're holding the line - so please pay up as soon as you can. Note that the membership year begins on October 1st. We'd love to have you back.

Regular \$40.00
Youth \$22.50 (21 yrs and under)
Life memberships on request

Please make cheques payable to "RASC Saskatoon" and send payment into our mailbox (RASC Saskatoon, PO Box 317, RPO University, Saskatoon, SK, S7N 4J8), or pay by cash or cheque at any general meeting.

NEW MEETING ROOMS FOR THE GENERAL MEETING

*New Meeting Room for General Meet-

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 SW1

ings Members should note that the General Meetings have been moved from room A-226, to room B-111 in the Health Sciences Building. This has been at the request of several members who would like easier (ground floor) access to the meeting room to facilitate bringing equipment into the meeting room, such as telescopes for display. This room can be evaluated in the next few meetings, and if we don't like it, then we can always move. Comments are welcome.

Non-members are welcome. There is no admission.

SHUTTLE RE-ENTERS OVER SASKATOON (KIND OF!) BY RICHARD HUZIAK

On the morning of September 26, Western Canada had an unusual treat; at least those who had clear skies had an unusual treat. On this morning, the space shuttle Atlantis reentered in the dark, morning sky to the delight of those who saw it. The shuttle was scheduled to pass south of Saskatoon, in full reentry mode, on its way to an early morning landing in Florida. Furthermore, 6 minutes later, the Russian space station, MIR, passed overhead. The shuttle and MIR were attached together only 3 days before!

At about 5:48 a.m., Calgary saw it, and Saskatoon member, Mike Wessowowski writes: "Saw it! The description from the email was quite accurate (color, trail, etc.). Didn't hang around for the sonic boom though...". Another Calgary observer, Sid Lee reported on email: "The setting full Moon was dimly visible through the clouds, as was bright Venus, and a few other brighter stars. The bright orange light from the shuttle appeared near the western horizon in the same part of the sky as the Moon and passed almost directly overhead passing very close to Venus and dropping into the eastern horizon leaving an easily visible trail looking much like a contrail all the way across the sky. An unmistakable sight easily visible to anyone willing to drag out of bed and look up! A few minutes after the shuttle disappeared over the horizon I heard a distinct "pop" as the sonic boom reached the ground."

Another Calgarian, reporting through Carey Hydama of Saskatoon said: "What a cool show!! I missed the MIR, but the shuttle was all I expected and more. My cousin and I got up at 5:00 a.m., jumped in his truck, headed out of town. We got about 20 min. out of the city, where we stopped and cooked breakfast. He has a little stove, so we had bacon and eggs, while we watch the

NOTICE OF THE GENERAL MEETING

The General Meeting of the Saskatoon Centre of the RASC will be held 8:00 p.m.

Monday, October 21, 1996
Room B-111
Health Sciences Building
University of Saskatchewan

Please note the room change for the meeting! The meeting will consist of the Annual Elections of the Executive, plus feature a presentation by Kim Mysyk on the 1996 Cypress Hills Star Party, and by Rick Huziak on the Results of the 1996 Perseid Meteor Shower.

shuttle pass over head. I didn't expect the shuttle to be so bright or to last so long. I was a little disappointed on the boom. I had heard one was when I was about 8 or 9 years old, and I remember it being much louder."

Unfortunately, Saskatoon was in the midst of the densest fog bank in history (most likely!), but at 5:50 a.m., 20 km to the north, residents of Martensville reported the wonderful sight. Regan Zintel and Lorne Maximuk reported: "The shuttle appeared in the west as a bright orange streak above a distant cloud bank. Half way across the sky the shuttle turned purple and disappeared in the distance. Six minutes later, MIR made a brilliant pass directly overhead!".

Seeing the shuttle in reentry is a rare treat. First, the shuttle has to be in an orbit high enough to pass near Saskatoon, and it rarely is, except when visiting MIR, and secondly, it has to be dark over Saskatoon, but daylight on Florida. We may not get another chance like this for a long time!

1997 RASC CALENDARS ARE AVAILABLE

The new 1997 RASC Calendars will be available for purchase at the October General Meeting. The calendar makes great stocking stuffers for Christmas and other occasions. It features color and B&W photographs by Canadian amateur astronomers. The cost is \$11.00 each.

HUBBLE SEES EARLY BUILDING BLOCKS OF TODAY'S GALAXIES

New Hubble Space Telescope images reveal what may be galaxies under construction in the early universe, out of a long sought ancient population of "galactic building blocks."

Hubble's detailed images, taken with the Wide Field Planetary Camera 2, re-

veal a grouping of 18 gigantic star clusters that appear to be the same distance from Earth, and close enough to each other that they will eventually merge into a few galaxy-sized objects. They are so far away, 11 billion light-years, that they existed during the epoch when it is commonly believed galaxies started to form.

These results add weight to a leading theory that galaxies grew by starting out as clumps of stars, which, through a complex series of encounters, consolidated into larger assemblages that we see as fully-formed galaxies today.

The finding is another step back into the dim past, where astronomers ultimately hope to uncover the earliest seeds of galaxy formation which arose shortly after the birth of the universe, or the Big Bang.

Astronomers at Arizona State University, Tempe, AZ, (ASU) and the University of Alabama at Tuscaloosa found 18 of these cosmic building blocks packed into an area about two-million light-years across. "It's the first time anyone has seen that many star-forming objects in such a small space.

The astronomers will publish their findings in an article, authored by ASU graduate student Sam Pascarelle, in the September 5 issue of the journal Nature. The co-authors are ASU's Rogier Windhorst and Stephen Odewahn, and William Keel of the University of Alabama at Tuscaloosa.

The building blocks seen by Hubble consist of only about a billion young stars each, and Hubble shows star formation is underway through the presence of many blue stars and glowing gases. The objects typically measure only 2,000 light-years across. "That's not very big. Our own galaxy is 100,000 light-years across," Odewahn says. The objects are much smaller than even the central bulge of the Milky Way, which measures about 8,000 light-years in diameter.

"We think that by repeated merging, they will grow big enough to become the bulges of nearby galaxies," says Keel, citing other Hubble studies that have shown that the galaxy merger or collision rate was higher in the past. "In fact, at least four of the objects in this field show double structure in their centers only a

few thousand light-years apart, as if we've caught them in the act of falling together."

Hubble shows a new level of detail for determining the true nature of these "pre-galactic blobs." Hubble resolved clumps as small as 2,000 light-years across (1/10th of an arc second). These were seen in a two-day (67-orbit) exposure by Hubble of a small region of sky in the northern part of the Hercules constellation near the border with Draco.

"We've never seen so many of these objects in a single exposure and so small," says Pascarelle. "We are convinced that these objects are not peculiar, but part of the general formation process of galaxies in the early universe."

Astronomers see stars form, because star formation is an ongoing process. However, astronomers have never directly seen galaxies form, because their formation may have happened a long time ago, or because galaxy formation is not as spectacular as once believed, and is therefore much harder to observe.

The idea that galaxies grew from small pieces coming together, rather than through the collapse of a gigantic gas cloud, has been predicted from previous theoretical work and ground-based observations. The Hubble observations offer some of the best direct visual evidence to date, says Pascarelle.

"Though many of the objects are isolated in the image, they are close enough together in space that most of them should eventually merge," according to Windhorst. He sketches a scenario where two or more objects will pass through each other, drawing out hydrogen gas to

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 request for \$900.00

form more stars later. (Although the term "collision" is used, their individual stars don't collide.) They may then evolve to form the numerous faint blue galaxies, a distant population of galaxies seen by Hubble and other telescopes. Later, surrounding hydrogen gas then settles into a disk to form a spiral galaxy.

If this construction plan is correct, our Milky Way galaxy contains all the pieces of the assembly process. The older, redder stars in the Milky Way's central bulge came from the merged clusters, or "sub-galactic units," seen by Pascarelle and collaborators. The spiral arm that our Sun inhabits was made later after hydrogen settled into a disk. Some of the 140 globular star clusters which orbit the Milky Way may be "left over" smaller building blocks which formed before the larger units seen by Pascarelle and collaborators, but were never pulled directly into larger assemblages.

In some of the deepest exposures of the universe (apart from the Hubble Deep Field) yet obtained by the telescope, the astronomers found 18 objects in one image, in the vicinity of a faint radio galaxy they were studying. The researchers used an optical filter precisely tuned to detect the ultraviolet emission from glowing hydrogen gas heated by newborn stars that formed early in the universe, but shifted to longer visual wavelengths by the universal expansion. "This is a case where Hubble is uniquely suited to study sub-galactic objects at these great distances," says Windhorst, "because these objects are so compact that it would be very hard to recognize them from the ground."

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.

Follow-up spectroscopic observations with the Multi-Mirror Telescope at Mt. Hopkins, AZ, showed at least five of the clumps are all at the same distance from Earth. The team confirmed that another five objects were at the same distance by imaging another redshifted hydrogen line in the near infrared with NASA's Infrared Telescope Facility, and through spectroscopic follow-up at the 10 meter W. M. Keck Telescope, both on Mauna Kea, Hawaii (the latter by Drs. Nicholas Scoville and Lee Armus of Caltech). The amount of redshift corresponds to a distance of 11 billion light-years -- far enough to probe the early universe during the period where many of the giant galaxies were being assembled.

In a companion paper in press for the Astrophysical Journal Letters, Stephen Odewahn, Windhorst, Keel, and Simon Driver (from the University of New South Wales in Sydney, Australia) show that the counts of faint blue objects in this field are no different than that in other deep Hubble fields. Astronomers interpret this to mean that in almost every direction an observer should see similar activity going on at these distances -- the gradual construction of galaxies from faint blue sub-galactic building blocks.

The Space Telescope Science Institute is operated by the Association of Universities for Research in Astronomy, Inc., for NASA, under contract with the Goddard Space Flight Center, Greenbelt, MD. The Hubble Space Telescope is a project of international cooperation between NASA and the European Space Agency.

SEPTEMBER 26 LUNAR ECLIPSE BY JOHN LEPPERT

I awoke about 7 o'clock to find the day, as I had feared, deep in overcast low cloud. An hour later light rain began to fall, and by 9 o'clock we had intermittent moderate rain. After checking the weather forecasts for the state and Manitoba, I called the FSS at both Grand Forks and Winnipeg and was informed

that no one in this region was going to see tonight's eclipse. Perhaps Saskatchewan or Montana, but not here. Saskatoon appeared to have a slight possibility, Prince Albert looked better, as did Glasgow. So I decided to start driving west as soon as possible, since by then I had 12 hours until totality. Finally by 10:30 I had the Olds packed with the telescope, camera, various charts and tables.

Upon reaching Hansboro, I had finally decided to head north, and so I crossed into Manitoba a few minutes before 11 o'clock. Reaching Melita on #3, I turned north again on #83, and then turned west on #2 at Pipestone and reached the Saskatchewan border about half past 1 o'clock. By the time I reached Stoughton I had decided to head to Regina on #33 since the cloud was middle layer and beginning to look like it might become broken, since I had finally run out of the intermittent showers.

I was thinking that if it continued to improve, I'd stop there for fuel, call Regina FSS for a final update, and then call Erich and head to Saskatoon to join him and the other RASC members for tonight's eclipse. Upon reaching Regina at half past three, I spent the better part of the hour at a local filling station talking to the local FSS, and afterwards to Erich. The forecast wasn't as good as it was beginning to look --- broken to scattered with occasional brilliant sunshine --- and so I decided to head southwest towards the Saskatchewan border and perhaps further south to Glasgow.

So, at nearly 4:30 I took the Trans-Canada west to Moose Jaw, and then #2 southwest to Assiniboia, and continued south on #2, finally turning west on a gravel road, I reached #358 and turned south towards Wood Mountain where the sky was clearing nicely as the broken cloud deck slipped north and east of my position, arriving there shortly before 7 o'clock, having by then driven nearly 500 miles. I had thought I'd set up near Wood Mountain in a provincial park, but discovered it to be closed for the season, and so I drove a quarter mile west on a prairie trail and through an open gate into a pasture. The site was high with an unobstructed view of the east, but since I

had hoped to set up within the protection of some trees ---stupidly thinking there MUST be areas onward south where I'd locate some.

I drove on. Just before the village town site, I turned east on a gravel road and drove for many miles through the steep hilly rangeland as the road wound east and south. By half past seven I was beginning to worry about finding a suitable site, noting both the time and the fact that as I advanced further east I was edging closer to the cloud deck that was slowly moving southeast, all the time cursing my having left my original site at Wood Mountain. I reached #2 at Killdeer, drove northeast a few miles and then turned back north on Canopus Road, another gravel trail, stopping 7 miles north, and then I drove through an open gate into a wheat stubble field as the Sun sank to the western horizon and sunset a few minutes before 8 o'clock (I had decided NOT to change my clocks to Saskatchewan's standard time; I didn't need the distraction nor the confusion, since all my tables were in central daylight time format.)

I quickly set up the telescope and camera while awaiting the Moon's climb above the worrisome eastern and northern cloud deck's slow advance southeastward. Shortly after half past eight, the Moon, a quarter into the umbral phase, slipped free of cloud and I shot four frames at 8:39 (see ADDENDUM: Film #122) at the prime focus. Within ten minutes the Moon was again overtaken by cloud; at 9 o'clock I decided to try and find another site south. I quickly put the SCT on the back seat, the tripod in the trunk, got out of the field, and drove south, reaching #2 near 9:30, and drove to Killdeer where I turned to head towards the port-of-entry and Montana.

As I passed the road sign my eye caught a disturbing message: "Port-of-Entry Hours -- 9:00 A.M. - 6:00 P.M." Committed to remaining in Saskatchewan, I turned round and drove northeast on #2, occasionally seeing the totally eclipsed lunar disk and Saturn in a star studded sky, all the time fearful I'd not get a SINGLE photograph of totality! After driving ten miles I reached a large area of clear sky, turned off the highway unto an approach to rangeland pasture, jumped out, grabbed my tripod, mounted the camera and telephoto lens, and began shooting my first frames of totality at 10:04

as I noted that about 65% of the 70 minute eclipse had elapsed (see ADDENDUM: Film #123).

After taking 14 frames while awaiting the passage of several vehicles, I then grabbed the SCT's tripod and mount from the trunk placing it just to the left front of the car, mounted the telescope, did a quick polar alignment, attached the battery pack, started the clock drive, and attached the camera to the prime focus, as a pickup passed by and then backed up to my position, the driver shouting, "Are you having any trouble?" I explained what I was doing and he replied that he and his wife were driving home and had been admiring the eclipse from out their window. I welcomed them to join me, and they called out, "We'd be delighted to do so." As they walked up to the telescope, I began taking another set of images at 10:30 as the total phase was ending. I couldn't believe my luck!

I remarked how very bright this eclipse appeared, "...on the 0-to-4 Danjon brightness scale most viewers put this event at 2 or 2.5..." (SKY & TELESCOPE NEWS BULLETIN: SEPTEMBER 28), the lunar disk suspended among the stars of Pisces dressed brightly in hunter orange, the solar-like diamond ring stark white sliver along the upper left-hand limb signaling the end of totality, Saturn as a fine yellow jewel less than 20 southwest, the sky filled with early autumn's stars, the great Milky Way bisecting the universe, and brilliant Jupiter crowning the declining Sagittarius "teapot" in the southwest.

After I finished the roll at 10:35, we spent several minutes looking at the advancing umbral shadow, Saturn and four of its moons aligned due east of its ring plane, the "...satellites [being] Tethys, Rhea, Titan, and Iapetus..." (SKY & TELESCOPE NEWS BULLETIN: SEPTEMBER 28), and Jupiter and three of its Galilean satellites in a field of several stars with the 14 mm 2-inch ultra wide binocular. Afterwards we visited awhile longer about the year's crops and abundant rangeland grasses for their cattle before they departed for their home about a quarter past 11 o'clock. At 11:21 I began shooting the closing stages of the umbral phase (see ADDENDUM:

Film #124), taking my last frames at 12:14 as the last of the visible penumbral phase slipped from view.

By 12:25 I had placed the tripod and mount back into the trunk, the telescope again on the back seat, and drove off towards Rockglen feeling VERY happy and satisfied with my having managed to see this, the last total eclipse of the twentieth century, while thinking my chances of seeing the January 20, 2000 eclipse may be better, given winter's typically clear brutal cold nights. I reached Rockglen, 13 miles east of the eclipse site, at 12:43, located the Valley City Motel that my friends had recommended, and finally slipped into bed for some much needed sleep at half past 1 o'clock.

**THE NEED FOR A NEW MEETING
SIGHT FOR MEETING
BY GARRY BRETT**

I think that the time has come for our club to give some thought to locating a more accessible place for our general and executive meetings. The University is just not a good meeting place if we want our club to grow.

The University can be an imposing place to hardened students, let alone a potential new member, and I think that we are losing members because getting to our meetings is difficult..

Most people who have never been to the University will almost always get lost, get frustrated and then go home. Who knows how many potential new members have tried to find our meeting place only to go home fed up and saying forget it. I sure that this has happened a few times.

Secondly, a lot of people do not feel safe walking through the University grounds to find our meeting place. This place is imposing during the day and moreso at night.

Thirdly, the University is going out of its way to make parking impossible for anyone and this is the biggest reason that we need to find a more inviting place

hold our meetings. Most people do not mind a short walk but to get to our meetings means parking in the Hospital parking lot and being overcharged or parking anywhere from one to five blocks from the University and hiking in. In the fall and spring the walk is not bad but at -35 the walk is impossible.

I think that if we could locate a more central meeting place that has ground level access, has ample close free parking and allows coffee we would see a great increase in the attendance of old members and new potential members.

It would also be nice to see a few telescopes at some of our meetings. Some potential first time at our meeting members might get motivated to stay in our club if there were a few telescopes to look at and admire. Currently bringing a telescope to the University is a major chore. If we had meetings in a location where a large dolly could be used, the loading and unloading of a couple of scopes would be easy.

There will never be a perfect meeting place and some people will complain if we did move the meeting place. There is no perfect solution to this problem but the only way to encourage a good turnout is to move the meetings to a more accessible and inviting place.

I have two potentially good meeting places to check out and I will do so before the next executive meeting, at which time I plan on suggesting a move if one of these sites meets all of the above conditions. If anyone has any input they would like to contribute the suggestions will be more than welcome.

SASKATOON CENTRE TELESCOPE
LOANER PROGRAM
BY GORDON SARTY

Beginning in August 1996, Saskatoon Centre is making its telescopes available for rent on a monthly basis. We have four telescopes available for rent:

1. 4 inch Tasco refractor
2. 4 inch Astroscan compact reflector
3. 6 inch rich field reflector
4. 5 inch C-5 Celestron reflector

The telescopes will remain at the Rystrom Observatory when they are not being rented in order that they might be used by visitors to the observatory. Here's how to rent one:

1. Cost is \$10 per calendar month; \$5 for less than half a calendar month. Example 1: pick up on Oct. 12, return Nov. 5, cost = \$15.

Example 2: pick up Oct. 10, return Oct. 31, cost = \$10.

Example 3: pick up Oct. 12, return Nov. 20, cost = \$20. (The best deal is to use for 15 days completely within a 31 day month like October, cost = \$5.)

2. Fill in your name, telephone number, sign in and sign out dates on the form applicable to the telescope you wish to rent. These forms are tacked to the inside wall of the warm-up shelter at Rystrom's and can be removed for easy writing.

3. Phone Gord Sarty at 665-6448 (home)

or 655-2332 (work) and leave the following information if you get an answering machine: your name, the scope you have, when you took it or when you brought it back, and your phone number.

4. You can make your payment at the monthly meeting of the Centre (find Gord Sarty) or mail a cheque payable to "Saskatoon Centre RASC" to Gord Sarty at 629 9th Street East, Saskatoon, S7H 0M4.

5. You may keep the `scope for a minimum of one month; that is if someone else wants it, I will phone you and ask you to return the telescope to the observatory at the end of the month (i.e. the 28th, 29th, 30th or 31st - whichever is applicable) or before so that the next person may pick it up on the 1st. You will not be asked to return the telescope if you've had it for less than a month.

6. You can pick up the telescope at any time during the month with costs as in item 1 to apply.

7. If you do not have an observatory key, phone Gord Sarty and I will meet you at Rystrom's to pick up the telescope.

8. If the telescope is bust, phone Gord Sarty and we will fix it.

9. This is pretty much an honor system and will only work if you follow these rules.

10. If you are poor or think that the rental fees are outrageous, please borrow the

FOR SALE OR TRADE

One 10" F/5.4 Richfield Newtonian telescope on a Dobsonian mount. Scope also comes with a split ring equatorial mount. Telescope is made from Birch with Oak and Polished Brass trim. Scope has a 50mm finderscope with a fibre optic quick sighter. Scope gives pinpoint images and has been given the Rick H. seal of approval. Will sell for \$850.00 or will swap for a Cassegrain. Call Garry at 222-3120 for details.

FOR SALE

For sale: One C-8" telescope with the wedge, a tripod and accessories. This scope is in excellent shape. For details call Darrell at 374-9278

For sale: Astronomy magazines. Have the issues from July, 1986 to December, 1991. For information call Darrell at 374-9278

telescope anyway and pay what you can. But please PHONE me and leave a message that you have either borrowed or returned a telescope. This way I can keep the web accessible log of where-the-telescopes-are up to date.

Have fun with the `scope and thanks for supporting our Centre! The web accessible log of telescope history can be found on Saskatoon Centre's Web page at <http://maya.usask.ca/~sarty/rasc/rasc.html>

HERE ARE SOME E-MAIL ADDRESS OF CLUB MEMBERS BY RICK HUZIAK

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kmysyk@webster.sk.ca

THE MINUTES OF THE SEPTEMBER MEETING BY AL HARTRIDGE

- 1.The meeting was called to order at 7:00 pm.
- 2.Executive Positions and Opening of Nominations Erich described the vari-

ous executive position to be filled this year. Darrell Chatfield has volunteered to become coordinator and Gord Sarty is willing to remain as "Webmeister", Coordinate the Loaner Program, and to stand for National Rep.

3.Financial Report. deferred.

4.Membership- Kim Mysyk has polled a number of the old members re their reasons for not rejoining. Also has raised the question of a phoning tree.

5.Planning and Budgeting and Fundraising must start now.

6.A report is needed on the GA. We have opted out of the new membership proposal.

7.Telescope Loaner program will start in October.

8.Proposal that we start a kids' group starting with our own kids.

9.Meeting adjourned at 8:00pm.

MINUTES OF THE GENERAL MEETINGS

1.The meeting was called to order at 8:00 pm

2.Executive Positions and opening of Nominations Erich described the positions open and offices to be filled for the coming year. Darrell Chatfield has agreed to become the coordinator for the observer group. Gord Sarty is willing to remain in charge of the Center's Web Page and to coordinate the Loaner Program, and to stand for National Rep.

3.New Observatory Site Search: Erich gave a lengthy description of the different sites presently under consideration. The pros and cons of these different sites.

4.Report on Star Nights - Given Brian Friesen Beaver Creek Conservation Area appears to be a much more attractive place for public star nights and will be used in the future. We will try to have members scattered around at different venues for the upcoming total Lunar Eclipse.

5.The Telescope Loaner Program will start in October.

6.Binocular Program. Sandy has agreed to get another binocular program going for this fall.

7.Kids Program will start with members kids that are interested.

.Presentation on Summer Star Parties:

Cypress Hills Dave Cornish will give a full presentation in October.

Northern Prairie Star Fest - Erich gave a brief report .

Douglas Campsite, Diefenbaker Lake. report was given by Darrell Chatfield.

Lake Namekis- report given Bob Christi

9.Meeting adjourned at 10:00 pm.

WANTED...EDITOR FOR THE SASKATOON SKIES

Elections are this month and I would appreciate it if someone else out there would volunteer to take over the newsletter. I do not have the needed time to do this letter anymore and as a result it is getting out later and later each month.

I am sure there is someone out there who would like to take over and do the newsletter on a monthly basis. I hope that you will come forward at the meeting and have someone elect you.

I will continue to do the newsletter until such time that a replacement editor can be found. The deadline for the next issue will be October 27th. Thanks