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Volume 21, Number 12

December, 1991

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#### Saskatoon Skies Information

Next month's deadline is Friday, January 3, 1992. Please have any submissions in to me by then in order to be included in the next issue. *Saskatoon Skies* is a monthly publication of the Saskatoon Centre of the Royal Astronomical Society of Canada. Submissions may be sent to one of the following:

Mike Wesolowski  
1813 Easthill  
Saskatoon, Sask.  
S7J 3C2  
373-0137 (home)  
931-3425 (work)

OR

Saskatoon Centre RASC  
Box 317, Sub P.O. #6  
Saskatoon, Sask.  
S7N 0W0

Submissions mailed to the Centre's address may not be retrieved in time for inclusion unless you tell me it's there.

**Minutes of the Executive Meeting  
University of Saskatchewan Observatory  
November 18, 1991**

**Attendees:** Jim Wood, Al Hartridge, Ed Kennedy, Mike Wesolowski, Mike Williams,  
Don Friesen

<u>Item</u>	<u>Detail</u>	<u>Action</u>
24.	Meeting called to order 7:00 P.M.	D. Friesen
25.	J. Wood read a letter from Ruth Lewis on the subject of light pollution. He will take out a membership in the International Dark-Sky Association (IDA).	J. Wood
26.	The January Observer's Group meeting will be set for January 4, 1992, at 7:30 P.M.	M. Wesolowski
27.	School presentations are continuing at the rate of about once a week for M. Wesolowski and about half that for R. Huziak. No presentations are currently scheduled after the end of November.	M. Wesolowski
28.	Per the suggestion from last month's executive meeting, the anniversary date for the insurance policy will be changed to February 1.	M. Williams
29.	It was proposed that Mike Williams write a letter to the National Council discussing the impact of fee increases.	E. Kennedy
30.	E. Kennedy discussed the Montreal Centre's proposals regarding reduction in the cost of producing the <i>Journal</i> .	E. Kennedy
31.	E. Kennedy discussed the possibility of an endowment fund being named after the late Peter Millman.	E. Kennedy
32.	The Saskatoon is not getting enough coverage in the <i>Bulletin</i> . M. Wesolowski should ensure that material is forwarded for inclusion..	M. Wesolowski
33.	The Saskatoon Centre has been criticized for not having any displays at the Vancouver General Assembly, especially in light of previous years. We should make an effort to provide a display for the Calgary general assembly next year.	E. Kennedy
34.	M. Williams will review the model constitution for the RASC.	E. Kennedy
35.	The following names were proposed as councillors for the coming year: – Al Hartridge – Richard Huziak – Carol Blenkin – Jim Young	M. Wesolowski
36.	Meeting adjourned at 7:55 P.M.	

Minutes of the General Meeting  
Room B-111, Health Sciences Building  
University of Saskatchewan  
November 18, 1991

<u>Item</u>	<u>Detail</u>	<u>Action</u>
37.	Meeting called to order 8:08 P.M.	D. Friesen
38.	It was noted that the next Observer's Group Meeting will be on December 14, at 7:00 P.M.	D. Friesen
39.	The University of Saskatchewan Observatory is open Saturday evenings until the end of February.	D. Friesen
40.	The members present were asked if any were interested in assuming a councillor position. Al Walker asked to have his name added to the list. The official list of councillors is: – Carol Blenkin – Al Hartridge – Richard Huziak – Al Walker – Jim Young	
41.	Ed Kennedy presented a short talk on the new 10 metre Keck telescope, based upon an article which had appeared. He also discussed "time balls", which were used to provide a visual indication (from a great distance) of when a particular time of day occurred.	E. Kennedy
42.	M. Wesolowski showed some slides showing the appearance of Venus and Jupiter in the morning sky, some attempts at photographing M31 and M33, and some general constellation photo to be used in school presentations.	M. Wesolowski
43.	Meeting adjourned 9:00 P.M.	B. Hydomako J. Young

### UNIVERSITY OBSERVATORY HOURS

The University Observatory will be open to the public from 7:30 – 9:30 P.M. Saturday evenings until the end of February.

### DEADLINES

The January issue of *Saskatoon Skies* will probably be issued somewhat later in January, because the two main events of interest, the Observer's Group meeting and the General Meeting, take place too early in the month for me to get the issue out on time (look for the notices of events in January in *this* issue). If at all possible, I would like to see submissions for *Saskatoon Skies* by January 3, 1992.

## **NOTICE OF GENERAL MEETING**

The next meeting of the Saskatoon Centre of the Royal Astronomical Society of Canada takes place on December 16, 1991, 8 P.M., in Room B-111 of the Health Sciences Building on the University of Saskatchewan Campus. Topic is TBD.

## **NOTICE OF JANUARY'S GENERAL MEETING**

If you thought I was trying to get your attention, you were correct. The January General Meeting will not take place on the third Monday in January as one would normally expect. For this month only, the meeting has been rescheduled to Wednesday, January 8, 1992, in order to allow us to take advantage of the presence of the National President of the RASC, Damien Lemay. The meeting will be at 8:00 P.M. in room B-111 of the Health Sciences Building. The only thing that changes is the date. The topic of Damien's presentation will be "Amateur Astronomy: A Hobby and a Science" and will include a slide presentation. Mark this date on your calendar!

## **NOTICE OF OBSERVER'S GROUP MEETING**

The Observer's Group meeting for December has been set to December 14, 1991, at 7 P.M. The date was selected to coincide with the maximum of the Geminid meteor shower. This shower is apparently as good as the Perseids in August; unfortunately, it peaks at a cold time of year so is not as popular.

The Observer's Group meeting for January has been set for January 4, 1991, starting at 7:30 P.M. This date has a guaranteed new moon since there is an annular solar eclipse on this date! This eclipse will unfortunately not be visible from Saskatoon, even in its partial phases, as it will start after sunset.

## **WANTED**

Do you have an old telescope that you don't use any more, because you've got a bigger and better one? I was contacted by a gentleman by the name of Terry Matheson who wishes to purchase a small telescope for his daughter. If you have a telescope in reasonable condition, contact Terry at 373-2144.

## **DUE\$ DUE**

A gentle reminder that annual dues are due now (actually past due). At the present time, they amount to \$35 for adults and \$20 for youth members (I confess to being uncertain as to when youth are considered to be adult by the RASC, but I'm sure Mike William knows). Members holding a key to the Rystrom Observatory are asked to donate an additional \$5 to assist in covering maintenance expenses for the observatory. These can be mailed to the address on the cover of the newsletter, or paid in person at the General Meeting this month.

## EDITOR'S NOTES

(1) I'd originally intended to publish the September Executive and General Meeting minutes in this issue along with the November minutes (since they hadn't been published in the October issue) but space considerations necessitated moving them to the January issue. The addition of the financial statement to this month's issue gave me a nine page newsletter and concerns about whether or not the newsletter would weigh enough to require paying extra for postage.

(2) As I type this, I'm thinking about the fact that we are supposed to have a mild winter. I guess that means that we won't have the excuse of it being too cold when we explain why we haven't done any observing...

(3) As I make final revisions to this newsletter, I'm looking at the above paragraph and thinking about how the temperature is now dipping to -25 C tonight...

(3) As noted elsewhere in this issue, the National President, Damien Lemay, is visiting the Centre on January 8, 1992. This will be the date of the General Meeting. There will be no meeting on January 20, the third Monday in January. I don't expect the January newsletter to be published until after January 8, so mark your calendar now!

(4) The date for the Observer's Group meeting has been set as January 4, 1992. Mark this date on your calendar as well.

(5) The 1992 *Observer's Handbooks* are now available from Mike Williams. He will be attending the December General Meeting where he will be distributing them to paid up members.

## INTRODUCING...

The following is the list of the Centre executive (including councillors) for the coming year. If you have any questions about Centre activities, you should be able to contact any one of them for assistance.

Past President	Darryl Rybotycki	249-2083
President	Don Friesen	343-1136
Vice President	Jeff Phillips	664-6091
Secretary	Bill Hydomako	384-4781
Treasurer	Mike Williams	668-4365
Editor	Mike Wesolowski	373-0137
Librarian	Jim Wood	373-6007
National Council Rep.	J. E. Kennedy	374-4614
Councillor	Carol Blenkin	244-1927
	Al Hartridge	373-0034
	Richard Huziak	665-3392
	Al Walker	1-378-2731
	Jim Young	343-0971

## THE DECEMBER 21 LUNAR ECLIPSE

On the morning of Saturday, December 21, observers in Saskatoon will be able to observe a partial eclipse of the moon, a precursor to the solar eclipse which occurs on January 4 in the new year. Unfortunately, at least as far as spectacles go, only a small part of the southern (bottom) part of the moon (about 9%) will actually be inside the Earth's umbral shadow, although some shading over the rest of the moon due to the penumbra (the "fuzzy" part of the Earth's shadow) should be visible. According to *Astronomy* magazine, this is the least spectacular partial eclipse of the moon in thirty years (as if it didn't have enough strikes against it, being in December at 4:30 AM!)!

The circumstances are as follows:

- moon enters penumbra	- 2:25 AM
- moon enters umbra (partial phase begins)	- 4:00 AM
- maximum eclipse	- 4:33 AM
- moon leaves umbra (partial phase ends)	- 5:06 AM
- moon leaves penumbra	- 6:41 AM

According to the December issue of *Sky and Telescope* magazine, the penumbral shading should not be visible until about 3:10 AM. Binoculars will help in viewing this event. Because of the shallowness of the eclipse, very little colour is expected.

You may wish to attempt photography of this event. Use of a telephoto lens (at the very least) is recommended, primarily to increase the image size of the moon on the film (a 50 mm lens will yield an image size for the moon of only 1 or 2 millimetres). There are no restrictions on the type of file you use, but since the full moon is so bright, you might want to use a slower film, in the ASA 64 range or slower.

The equation for determining your exposure time is as follows:

$$T = f^2 / S \times B$$

where

T = exposure time in seconds

f = focal ratio of system (f/stop on lens)

S = ASA speed of film

B = brightness of moon = 220 (from *Handbook of Astrophotography for Amateur Astronomers* by G.N. Patterson)

Thus, if you used ASA 64 film and a lens set to f/8, your exposure would be 1/220 second. If you have, as I do, a camera with a single manual setting for the exposure, you may want use this as an input for "T" and determine an optimal f/stop using a known film. For example, my camera's manual setting is 1/90 second. Assuming I use ASA 64 film, I then find that the optimum f/stop is f/12.5, or, using what's available on the camera, f/11.

The above equation, while sounding authoritative, cannot account for everything that will conspire against you to ensure the exposure is incorrect. Always bracket the optimum exposure with pictures exposed for both a longer and a shorter time (e.g., 1/2 and 2x). In this way, you maximize your chances of getting a good picture. Good luck!

The Royal Astronomical Society of Canada  
 Saskatoon Centre Incorporated  
 Balance Sheets  
September 30, 1991 and 1990

	<u>1991</u>	<u>1990</u>
<b>Assets :</b>		
<b>Current Assets;</b>		
Cash	\$ 720	537
Savings (Telescope Fund)	4,439	4,276
Accrued Interest Receivable	190	-
Input Tax Credit Receivable	11	-
Total Current Assets	<u>5,360</u>	<u>4,813</u>
<b>Fixed Assets @ cost;</b>		
Rystrom Observatory	4,642	4,642
Warmup Shelter	4,773	4,773
Underground Wiring	3,015	3,015
Storage Shed	<u>653</u>	<u>653</u>
	<u>13,083</u>	<u>13,083</u>
<b>less accumulated amortization</b>	<u>7,190</u>	<u>6,592</u>
	<u>5,893</u>	<u>6,491</u>
<b>Library</b>	1	1
<b>Equipment</b>	<u>4,475</u>	<u>2,474</u>
<b>Total Fixed Assets &amp; Equipment</b>	<u>10,369</u>	<u>8,966</u>
	<u>\$ 15,729</u>	<u>13,779</u>
	=====	=====
<b>Liabilities and Equity :</b>		
<b>Current Liabilities;</b>		
Prepaid Membership	\$ 32	-
Prepaid Newsletter	3	—
Total Current Liabilities	<u>35</u>	—
<b>Equity:</b>		
(per accompanying statement)	<u>\$ 15,694</u>	<u>13,779</u>
	<u>15,729</u>	<u>13,779</u>
	=====	=====

On behalf of the Executive :

----- President

----- Treasurer

----- Auditor

The Royal Astronomical Society of Canada  
 Saskatoon Centre Incorporated  
 Income Statement  
Years Ended, September 30, 1991 and 1990

	<u>1991</u>	<u>1990</u>
<b>Income :</b>		
Membership Fees	\$ 1,172	1,005
Life Member Grants	40	40
Donations	2,301	217
Newsletter Subscriptions	114	411
Sale of Handbook	14	11
Interest	377	385
Travel Grant - G.A.	118	254
Miscellaneous	\$ 35	10
	4,171	2,333
<b>Expenses :</b>		
Educational Activities	\$ 35	15
Fees to National Office	731	634
Office Administration	96	61
Newsletter & Postage	384	360
Subscriptions	34	25
Insurance	260	338
Travel Grant	118	254
	1,658	1,687
Surplus before amortization	2,513	646
Amortization - Buildings 20 years	(598)	(598)
Net Income for year	\$ 1,915	48
Equity beginning of year	13,779	13,731
Equity end of year	\$ 15,694	13,779
	=====	=====