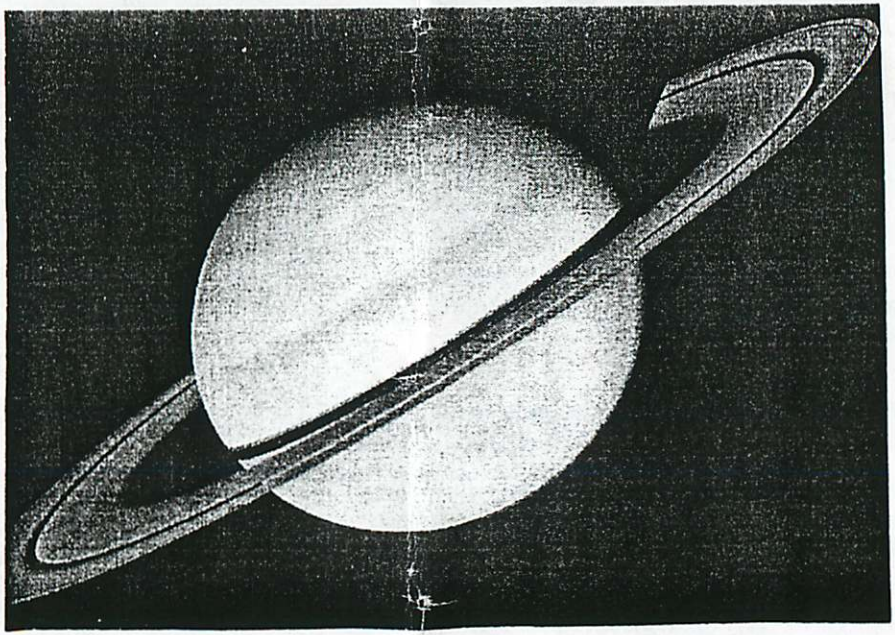
SASKATOON SKIES

Newsletter of the Saskatoon Centre of
the Royal Astronomical Society of Canada
November 1996. Vol. 27, No. 11



....our Search for a dark Observatory Site is taking us MUCH much further out than anticipated!

President's Message

First, I'd like to thank everyone in the Centre for the lovely card I received. As some of you know, my father passed away on October 29. We were all sad to see him go, but he had lived a full life at 90 years and passed quickly, as he'd wished, from a heart attack. My aunt passed away only 6 days later, so I've been a bit busy lately! To top this off, as soon as I got back to work, my department gave me the plague (or something similar) and I've been on my back for 4 days. Now that all this has past, I feel much better, thank you!

For this coming year, I'd like to see some continuation on a few programs that we've started. The Temporary Membership Program, run by Kim Mysyk, continues to increase our membership, and I'd like to make sure we attain our 70 member goal sometime soon, to reach our "break-even"' revenue point and because I don't think that we are effectively reaching all of Saskatoon and surrounding communities though our programs, yet.

We will most likely also choose our new observatory site in the next few months, and I'd like to make sure that as many members as possible review our potential sites (especiallv SMUTS) and make honest comments back to the executive. I have to be certain that the new site will fulfill the majority of the wants and desires of ALL Centre members, and not just the core of experienced observers. We simply can't afford to support a site that won't be used regularly. Your opinion counts - but get it in SOON!

Please also be aware that we will be shifting our monthly meeting location soon. Please read the newsletter before attending the next few meetings! We are being eased off campus by the ridiculous cash-grab of 24-hour 'permitting' of all parking lots. If we can't park on campus, we don't want to use the meeting rooms. This is too bad, since we've had a great last 25 or so years there. Garry Brett is trying to secure a meeting room for us at the Parktown Hotel. This opens up wonderful future opportunities.

Best wishes to everyone during the upcoming year. My ear, phone, and Email are always open for comments from you members, unless, of course, I've gone observing!

Rick Huziak

DUES ARE DUE

Membership fees are due:

Adult	**$40.00**
Youth	**$22.50**
Newsletter	**$10.00**
Handbook	**$18.95**

SASKATOON CENTRE R.A.S.C.
P.O. BOX 317, RPO UNIVERSITY
SASKATOON, SASKATCHEWAN
S7N 4J8

President:
Richard Huziak - 665-3392

Editors: Erich Keser - 374-4262
Sandy Ferguson-931-3184

Contents

****

NOVEMBER GENERAL MEETING: MONDAY, NOVEMBER 18th, ROOM B-111, HEALTH SCIENCES BUILDING, U of S CAMPUS, at 8:00 p.m. The program will include presentations by Prof. Ed Kennedy, entitled "A 19TH CENTURY SURVEYOR'S COMPASS" and by Gord Sarty, entitled "HOW TO USE THE OBSERVERS' HANDBOOK". Other presentations of approximately 5 minutes duration are welcome to be made by any member. The meeting is open to the general public.

What Price a New Observatory?

It may be presumptuous to begin a new job by voicing an opinion, but editorials are a perk of even "co" editorship and this involves a vital question for our Centre. It is proposed (see Bingo article) that we finance our new observatory by operating bingos.

Such cost estimates as twenty, even thirty thousand dollars make such a plan seem attractive, even necessary. We are told that such bingos could generate up to ten thousand dollars a year, and there have been few other fundraising ideas, so we *seem* to be confronted with the only way of getting our new observatory.

But let us look at the scale and nature of the proposal: *ten to fifteen* of us would work in bingos halls *ten times a year.* Thus, bingos would become our largest single project. However, people join our Centre to stargaze and learn about astronomy. Working in smoky, noisy halls - especially on good observing nights- would hardly enhance the interest of new members - or the morale of old ones.

Then let us look at the RASC, which was granted a federal charter in 1968 (when our own Dr. Kennedy was President): to ***stimulate interest and to promote and increase knowledge in astronomy and related sciences.*** Thus we are *not* a private club devoted just to the interests of our members, but a non-profit society committed to public education. And for many of us, introducing others -especially children- to our science is a primary motivation. How are we to reconcile this with heavy involvement in gambling?

Entering into bingos on such a scale would be a serious mistake. However, some alternatives are posed in the ensuing pages. Instead of being paralysed by astronomical estimates, we can slash costs by choosing an opportune site (Smuts article), by using donations in kind and ingenuity (Sudbury article) and by building in stages (see Step by Step). In the process, we can raise the funds that are required for each stage, using methods that are more in line with the RASC charter and even relate to Astronomy (see Fundraising).

erich keser

BINGO !

As most of you may know, our Centre has been looking for a new site because of the increasing light pollution problem at our current observatory on the Rystrom's farmland. We are very close to choosing a site and plan on installing the famous sixteen inch telescope in a permanent observatory there. Eventually other equipment will be moved to the new site as well. However, obtaining and maintaining the new site will require money.

As the newly elected fundraising coordinator, I will be looking into various options for raising money. One of the best ways of raising money, from the point-of-view of long term stability, is to host bingos. I have talked with people who are involved with small, community-based, non-profit clubs like gymnastics clubs, karate clubs and a horse riding club. These clubs all raise money through bingo.

So how do we get involved in bingo and what are the pros and cons of doing so? Getting involved is a matter of applying to the individual bingo halls in Saskatoon (there are about 7 halls in the city) by writing them a letter. In this letter we need to outline our club's budget, total expenses, other sources of income and how much money we expect to raise from bingo. The letter of application will then be reviewed and, if accepted, we will be put on a one to two year long waiting list. However, once we get in, our position will be secure. Clubs seem to hold an average of ten bingos per year, raising about $1000 per session (so about $10,000 per year). This is a good level of income and with that we could support our new facility.

So, what are the pros and cons of running bingos? The big pro is that bingo can provide the money we need. The cons are:

1) it is a lot of work, ten people from our Centre are required to run each session,

2) bingo halls are extremely smoky --not the place for anyone with allergies and

3) it is gambling, with the gambling being done by those who can least afford it.

Social issues aside, bingo does seem to be the solution that most small clubs fall back upon to resolve their financial troubles. I would therefore like our membership to seriously consider bingo. If you are interested in working bingo sessions (might not happen for a year or two) please let me know in writing. You can hand me a note at the next meeting, or mail it to my home address:

Gord Sarty
629 9th St E
Saskatoon, SK
S7H 0M4

(continued on P.

Learn the Sky:

PEGASUS and ANDROMEDA

Now that we are well into Fall observing it is a good time to get to know Pegasus and Adromeda, two fairly bright constellations easily seen from the city. As always, it is important to get away from any direct lights. There are a number of good objects to track down, whether using your naked eye, binoculars or a small telescope. These are all easily found or recognized by newcomers to the sky, some without optical equipment, as all the objects on the accompanying sky charts are brighter than 10th magnitude.

OK--let's get going! Pegasus and Andromeda are easily found these evenings, as they are almost on the meridian around 9:00 PM during November. The meridian is the imaginary north -south line that runs from Polaris in the north overhead to the point on the horizon due south. When a constellation or an object is 'on the meridian', that means it has reached its highest point in the sky. This is generally when it can be best seen. From that point it starts to set westward, getting lower as it goes, and becoming more difficult to observe due to atmospheric problems, lights, trees, etc. close to the horizon.

Figure 1 shows how you can locate these constellations using that all-purpose asterism, the Big Dipper.! Use the 'pointers' of the Dipper to locate Polaris., then extend this pointer in a straight line almost double that distance to locate Sheat, the upper-right corner star of the "Great Square" of Pegasus. This will enable you to recognize the Square, which represents the body of Pegasus, the winged horse of Greek mythology. (Actually, Pegasus 'flies' upside-down, with the star Enif representing its head, but don't let that throw you!)

Once you've found the Square,, you will have no trouble locating Andromeda. The upper left-hand star in the Square is Alpheratz, which is just over the border of Pegasus in Andromeda, which spreads out from Alpheratz eastward toward Perseus in a trumpet shape. Both constellations will be around until January, but become progressively lower in the sky and more difficult to observe.

Naked Eye: As always, observe the orientation of the two constellations as they rise and set. At this time of year they have risen and are high in the sky by the time you get out to view them. But late on a summer evening you will see the star Scheat and the 'front legs' of Pegasus clear the northeastern horizon first, quickly followed by the head, Great Square and Andromeda, the trumpet shape rising horizontally As the night goes on and they become higher in the sky, they attain their traditional appearance, with Pegasus flying upside down.

continued opposite

Then even later as they set in the northwest Pegasus is the first to disappear, and the trumpet shape of Andromeda is the last to go, setting vertically.

The Asterism (an Asterism is a pattern of stars which resembles an everyday object) of the Great Square is easily identified without optical equipment. The four bright stars being Alpheratz, in the northeast (Andromeda), Scheat in the north-, west, Markab in the southwest and Algenib in the southeast. Stretching eastward from the square you will recognize the trumpet shape of Andromeda. This consists of two rows of four fairly bright stars which meet at Alpheratz, the fourth star of each row. (I have always thought of this pattern of stars as the hind legs of Pegasus, although they are really part of Andromeda.

Figure 2 shows us where some interesting objects are located. The treat in this part of the sky is one of the most, if not the most, spectacular objects in the northern hemisphere --the Andromeda Galaxy, also known as M31. Granted, you have to be well away from lights and have your eyes dark-adapted, but you can see this wonderful object without optical aid without too much searching.
You might try and see how many stars you can count within the Square. If you can count more than twenty-five, you are considered to have very good vision. (Not me! I can't get more than fifteen or so!)

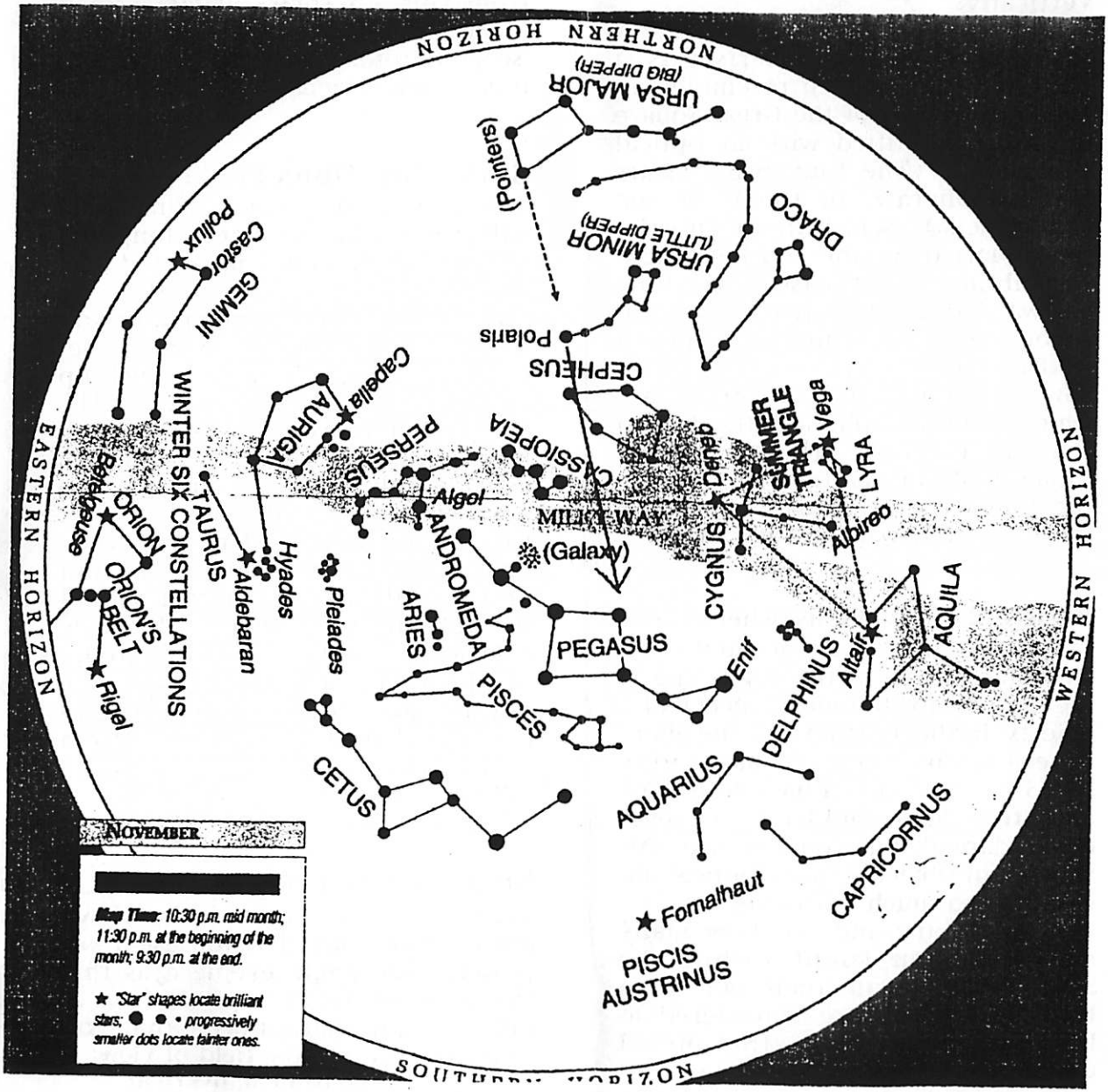
Again, it helps to have really dark skies, of course! Heading back to Pegasus, try to locate M15, a beautiful globular cluster not far from Enif. It shows up as a small fuzzy spot in binoculars. You need a 'scope to resolve any of the stars, but it is an achievement to locate it.

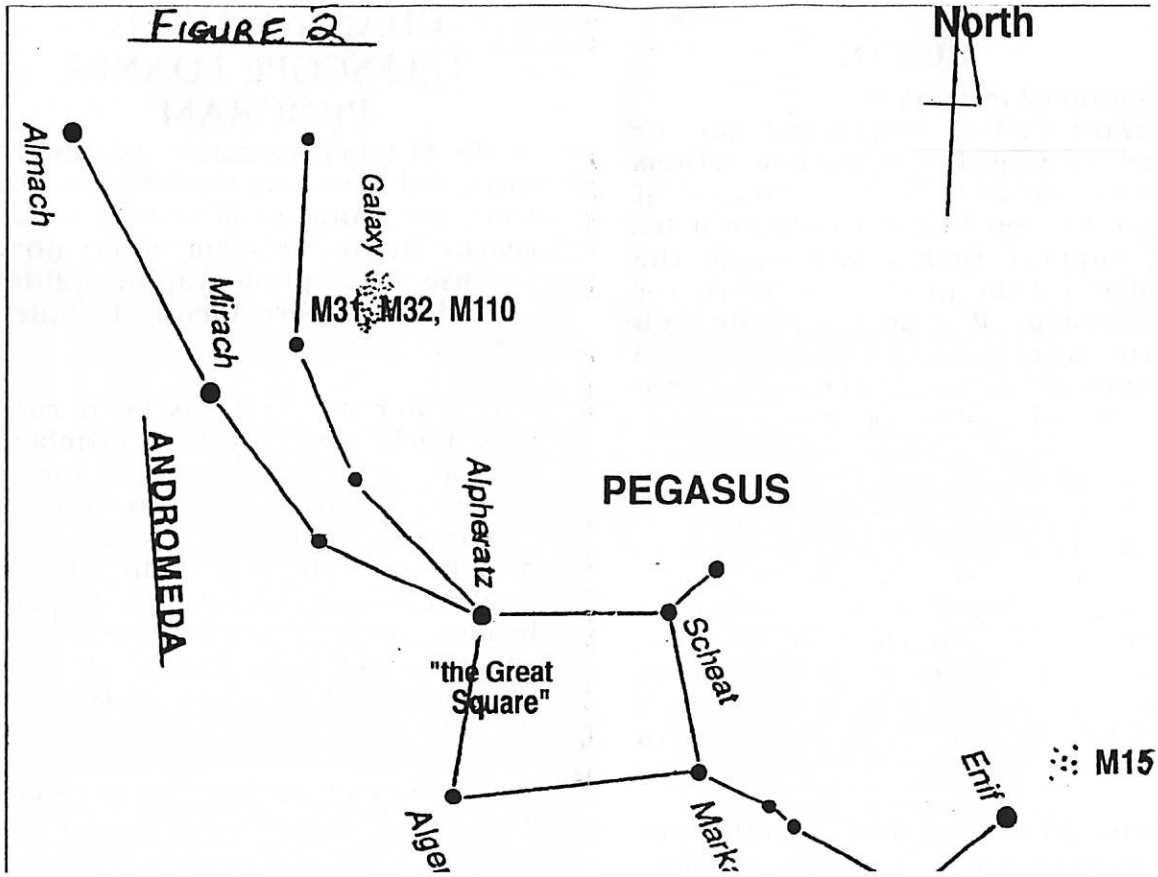
Binocular Objects: Turn your attention on M31 again. Binoculars will show you a huge, elongated fuzzy patch that takes up a good part of your field of view. If your binoculars are high power and you have a stable mount on which to set them, you might be able to pick up M32 and M110, two of M31's companion galaxies. They are 8th magnitude and, although they are considerably smaller than M31 (its apparent size is four degrees-- eight times that of the full moon!), they are close to the main galaxy and under really dark skies you should be able to see them. All three galaxies are part of our 'local group' to which our own Milky Way galaxy also belongs. It is mind-boggling to consider that the light you see from M31 on any night left that galaxy 2.2 million years ago. Awesome!

Small Telescope: Check out M31 again. This time you will be blown away! Make sure that you use a low power, wide angle eyepiece, as this thing is so large - even from 2 million light years away - that you won't get all into the field of view.

continued overleaf

FIGURE 1


NORTHERN HORIZON
EASTERN HORIZON
WESTERN HORIZON
SOUTHERN HORIZON
URSA MAJOR (BIG DIPPER)
(Pointers)
URSA MINOR (LITTLE DIPPER)
DRACO
Polaris
CEPHEUS
GEMINI
Pollux
Castor
WINTER SIX CONSTELLATIONS
AURIGA
Capella
PERSEUS
CASSIOPEIA
Deneb
SUMMER TRIANGLE
Vega
LYRA
Albireo
Algol
MILKY WAY
(Galaxy)
Betelgeuse
ORION
ORION'S BELT
Rigel
TAURUS
Aldebaran
Hyades
Pleiades
ANDROMEDA
ARIES
PEGASUS
CYGNUS
Enif
Altair
AQUILA
DELPHINUS
PISCES
CETUS
AQUARIUS
Fomalhaut
PISCIS AUSTRINUS
CAPRICORNUS
NOVEMBER
Map Time: 10:30 p.m. mid month; 11:30 p.m. at the beginning of the month; 9:30 p.m. at the end.
★ "Star" shapes locate brilliant stars; ● ● • progressively smaller dots locate fainter ones.



continue from page 6

You will easily see the bright nucleus of the galaxy, together with its dust lanes. Its companion galaxies will also be very easy to see, M32 being considerably closer to M31 than M110. If you feel artistic, sketch it. You will be amazed at the detail you begin to see, as your eye and brain concentrate.

Now, go back to M15. In a high power eyepiece it looses its fuzziness and becomes a compact little ball of stars, easily resolved. While not as large as M13 in Hercules, the best globular visible from Saskatoon, M15 has its own charm.

These are just a few of the objects in this part of the sky. Any good observing handbook will help you find variable stars, double stars, and dimmer deep sky objects. But the above should get you started in locating some spectacular Fall objects without being overwhelmed by the sheer richness of what is up there!

Sandy Ferguson

BINGO!

(continued from P. 4)

I want written responses, not for legal reasons, but to see how serious people are about running bingos. If I get between 10 and 15 written notes of support then I will bring the bingo matter to the executive for discussion. If I do not get enough written notes of support, I will assume that the membership is not interested in running bingos.

If we don't get into bingo, we'll have to count on a very substantial donation from somewhere to meet our future financial needs. And I will be looking into donations in the coming year (maybe some support from the University?). Without bingo or donations we simply will not have the money required to run a new site.

Please give some thought to the idea of running bingos and write me note if you are interesting in working at bingos.

Gord Sarty

****

CENTRE WEB PAGE NOW ON FREENET

Our Saskatoon Centre web page, at http://maya.usask.ca/~sarty/rasc/rasc.html is now accessible from Saskatoon Free-Net's Science, Environment and Technology area, sub-area Science. Thanks to Kim Mysyk for suggesting this link.

G. Sarty

CHANGES TO THE TELESCOPE LOANER PROGRAM

At the October executive meeting, it was voted to remove the C-5 telescope from the rental pool so that it can remain at the Rystrom observatory for use as a photographic guide-scope for the permanently installed C-8 telescope.

The loaner program has been running fairly smoothly with members passing telescopes among themselves. A particularly convenient way of exchanging the 'scopes was demonstrated by Kirt Headley at the October General Meeting. Simply bring your loaner telescope to the general meeting and either myself or another loaner can take the telescope away!

As of this writing the telescopes are borrowed by the following people:

- 3.1 inch Tasco Refractor:
Paul Ferguson, 653-9039,
borrowed Sept. 28/96

-4 inch Astroscan Reflector:
Les Dickson, 249-1091,
borrowed Oct. 21/96

- 6 inch Rich Field Telescope:
Ron Schnor, 343-1256,
borrowed Sept. 22/96

The current list of borrowers is also posted on our web page at: **http://maya.usask.ca/~sarty/rasc/rasc.html**

Gord Sarty

Junior Astronomers Group

The first meeting of the new Junior Astronomer's Group was held at the Space Club at Alvin Buckwold Elementary School on Friday October 11th. Five children ages 7-11 attended. There was a slide presentation indoor, but the observing session outdoors was clouded out. The play equipment in the school's lavish playground got good use , though!

The next kid's group meeting will be held in the same location (715 East Drive, in the Market Mall area) from 7:30 to 8:30 PM on Friday November 15th. All members' children and their friends are welcome. Please dress warmly and bring binoculars if you have them (they are not mandatory, however.).

If you know a child that may be interested , or have any questions regarding the classes, please call Sandy Ferguson at 931-3184.

Sandy

****

A man watches the astronomer line up her telescope with a distant star. Just as she has it in focus a falling star zooms by. The man nods at the astronomer and says, "Good shot!!"

****

NEW PUBLICATIONS UPDATE

The latest news from the publications committee is the following: the Oct/Dec combined issues of the Journal and the Bulletin will look the same as always. These will be the last issues of the Journal and the Bulletin in their current format; they are scheduled to be mailed on Dec 13 along with the Jan/Feb issue of SKY NEWS. This issue of SKY NEWS will have the first colour RASC ad as something to look forward to. The ad is complete and about to be printed.

The first issue of the new-format Journal (which will incorporate articles that would formerly have been published in the Bulletin) is scheduled for Feb 97.

Gord Sarty

****

How to find SMUT(S)

We have an exciting new possibility for a Site. It is an ex-schoolsite in the ghost town of Smuts, along that Hwy 41, then 1km East on the big grid Road. Make a left turn onto the road that runs past the old Red and White. The schoolhouse, which is in excellent shape and already partly renovated is the last building. Check this site out, especially at night. It could our new Observatory site and it's up to you to help make that decision!

STEP-BY-STEP:
The Way to a New Observatory

Our Centre President has asked for ideas and opinions from the membership, regarding his suggestions for locating the land and earning funds to build the new observatory. Rick's estimates have been in the area of $20,000 to $25,000. To be fair, he has used these figures as an absolute top estimate. Funds of this magnitude would be required to provide a complete facility, taking into account the need we may have for the really large expenses, such as power installation, security fencing, snow-plowing, additional buildings and the like. This is a lot of money for a small Centre to raise, even using the bingo nights suggested elsewhere in this issue, which promise a lot of money in a short time. The need for fundraising will continue even after a site is set up, in order to maintain that site.

Of course the need for dark sky (now and in the future) and a reasonable driving distance are paramount in our search, but I would like to suggest that we narrow down our other requirements, somewhat, in the search for the perfect site. Perhaps we should adopt a step-by-step attitude toward a complete facility, by initially considering only those parcels of land with the necessities already in place. These necessities are proximity to a good road that is plowed in winter and available power (either to an existing structure or power poles and lines adjacent to the land). These are must haves. We can always take care of the other, less urgent requirements at a later date.

To purchase land with buildings would be a plus, but is not absolutely necessary, as we do have our own clubhouse that could be moved to the new site. (This can be done with rented equipment and a lot of pushing and shoving!) Additional buildings for storage, etc. could be built at a later time, when extra money is available. We do not need a large piece of land--one or two acres would be acceptable. Security may or may not be a major problem, depending on the isolation of the land. Surely, we can devise a way of adequately protecting the observatory and its valuable equipment with available hardware and some ingenuity.

For the last 2 years our site-searching crew has viewed around 40 rural sites, with varying degrees of acceptability for our purposes. This has been a heroic effort on their part and they have found some good possibilities that should, perhaps, be given more attention. How much more running around must they do, at considerable time and expense, before everyone is satisfied with the choice of land? It's a sad fact of life that the permanent dark skies we are seeking will not be permanent--at least not at a reasonable distance from the city, which is important if the observatory is to be used by our members regularly. Maybe we have set our sights too high; maybe we should settle for 'second best' in our site search.

Sandy Ferguson

RASC CALENDARS AVAILABLE

For $11.00 you can buy the 1997 Society calendar, with some of the best astrophotos by RASC members and lots of useful information. Call Rick at 665-3392.

How Sudbury built its Observatory

In 1993, the Sudbury Astronomy Club faced problems very similar to ours. We had a 17 inch telescope and an 800 pound ex-NASA mount which we needed a home for. The cost projections were just as imposing $12-$15,000 for an organization half our size. There too, there had been years of talk and site-searching.

Suddenly things fell into place. An outlying township invited us to build at their 48 km distant Day Camp, in return for a few public sessions a year. Laurentian University offered us a sixteen foot ex-NASA dome, (rather than updating its power service) *if* we removed it within two weeks. Some of us got very busy, and the SAC experienced a major revival.

Members who hadn't been seen in years, friends, neighbours, and co-workers all pitched in. Instead of spending $8000 on a road through bush and granite, we cleared a path by hand and formed a human chain to haul building materials. Instead of a huge concrete platform, we used deck construction under the dome and saved the cement for the pier built. The dome parts and mount were transported and assembled , using volunteers and ingenuity

By the time I left for Saskatoon the following Summer, the finishing touches were being put on the Observatory and expenditures were finally creeping past $2,000!

Erich Keser

ANNOUNCEMENTS:

OBSERVING SESSIONS

The November Observing Session was clouded out on both Friday Nov. 8th and the next day.

Let's hope for better luck on Friday December 6th (or Sat Dec 7) at Rystrom Observatory at 8 PM. I will have a selection of interesting objects for you to try your luck on! Call me at 374-9278 for further info or in case of doubtful skies. Darrell Chatfield

Observer Group Coordinator

Binocular Program

The popular Binocular group has started again in the form of one-night "workshops" and observing sessions each season. The Fall group meeting will be held Friday, November 15th at the Rystrom Observatory, with the rain/snow/cloud (let's hope not all three)-being **November 16th**. We will meet at 7:30 P M and everyone interested in observing with binoculars and/or the naked eye will be welcome!

Kirt Headley(683-0251) and Brian Friesen (384-2963) will be conducting the sessions, so come out and learn how to scan the sky!

* *

Using the Observatory at other times? BE SURE TO CALL THE RYSTROMS before heading out!

ANNOUNCEMENTS (Cont'd)

DECEMBER GENERAL MEETING

The December meeting will be held Monday, December 16th at 8:00 p.m. The TENTATIVE meeting place will be at Environment Canada in the Atrium Building at Innovation Place. We will be visiting there with member Dan Kulak, who will be discussing weather fore- casting. More about this at the November meeting and December SASKATOON SKIES.

FUTURE GENERAL MEETINGS

Beginning with our January 1997 general meeting (Monday, January 20th at 8:00 p.m.) we are making arrangements to hold all future meetings at the Parktown Hotel, at the corner of 25th Street and Spadina Crescent. As these arrangements have not yet been finalized, confirm-ation will be announced at a future meeting. The program for that evening is to be announced.

WESTERN SPACE EDUCATION NETWORK NEEDS HELP!

The WSEN is looking for a person to join their planning staff to assist with developing present-ations. You must be will-ing to travel. The WSEN exists for the purpose of Science and Technology awareness, using space as the educational hook. Their mandate includes the whole Prairie region. If you can help them out, please contact BILL BROOKS at 374-1395 or Email: WSEN @ SKYFOX.USASK.CA

The Far Side

"First"

Secretary's Reports

MINUTES OF THE GENERAL MEETING -Oct.21,1996

1. Meeting called to order at 8:12 pm.

2. Membership dues are due - still $40 or 22.50. Pay Mike Williams or send into Centre mailbox.

3. New Slate of Officers for the Executive for 1996/97:

Honorary President- Ed Kennedy
President- Rick Huziak
Secretary- Al Hartridge
Treasurer- Mike Williams
Centre Rep.- Gord Sarty
Activities Coordinator- Brian Friesen
Newsletter Editor- the duo of Sandy Ferguson and Erich Keser
Membership Coordinator - Kim Mysyk
Observing Chairman- Darrell Chatfield
Fundraising - Gord Sarty
Librarian- Sandra Ferguson

Councillors: Bill Hydomako, Merlyn Melby, Jim Young, Gary Brett, and Kirt Headly.

4. Membership Fee Increase: the increase would be for the inclusion of Sky News in the annual membership. This would require an increase to $46.00. A vote was held which showed a 2:1 in favor of the fee increase.

5. Observing Session Report - Darrell Chatfield - see minutes of the executive.

6. Calendars: the club has a number on hand , profits to our centre.

7. The Telescope Companion to the Messier Objects: Rick described this appealing. observing aid to the general membership.

8. Programs:
Land search update- Erich gave a description of the Smuts site

Cypress Hills Star party- Kim Mysyk gave a short slide presentation on the July 1996 star party at the Cypress Hills Park.

Perseid Meteor Results, SS Cygni and other observations by Rick Huziak

Sept. 26, 1996 Total Lunar Eclipse - great slides and photos by Don MacKinnon , Bob Christie, Bill Hydomako and Al Hartridge.

9. New meeting site: see Executive Minutes. Bob Christie suggested another possible site at the National Hydrology building on campus.

10. Fund raising - Gord Sarty is looking at the possibility of holding a monthly BINGO. This could yield substantial bucks for the club, but would require at least 10 to 15 members to volunteer their time and risk their health. Gord is doing a Poll for volunteers.

11. Meeting adjourned at 10:00 pm.

FOR SALE

Lumicon Nebular Deep Sky filter. Fits 1-1/4"eyepieces. Great for the Veil and other nebulosity! Asking $65.00. Call Sandy 931-3184

THE ROYAL ASTRONOMICAL SOCIETY OF CANADA • LA SOCIÉTÉ ROYALE D'ASTRONOMIE DU CANADA

QVO DVCIT VRANIA

For Better or for Worse

Lynn Johnson, creator of the above, lived for some time in Lynn Lake, MB. Presumably she enjoyed far darker skies there than we seem to find anywhere near Saskatoon!