

Saskatoon **SKIES**

**Newsletter of the Saskatoon Centre of the
Royal Astronomical Society of Canada**
October 1997. Vol. 28, No. 10

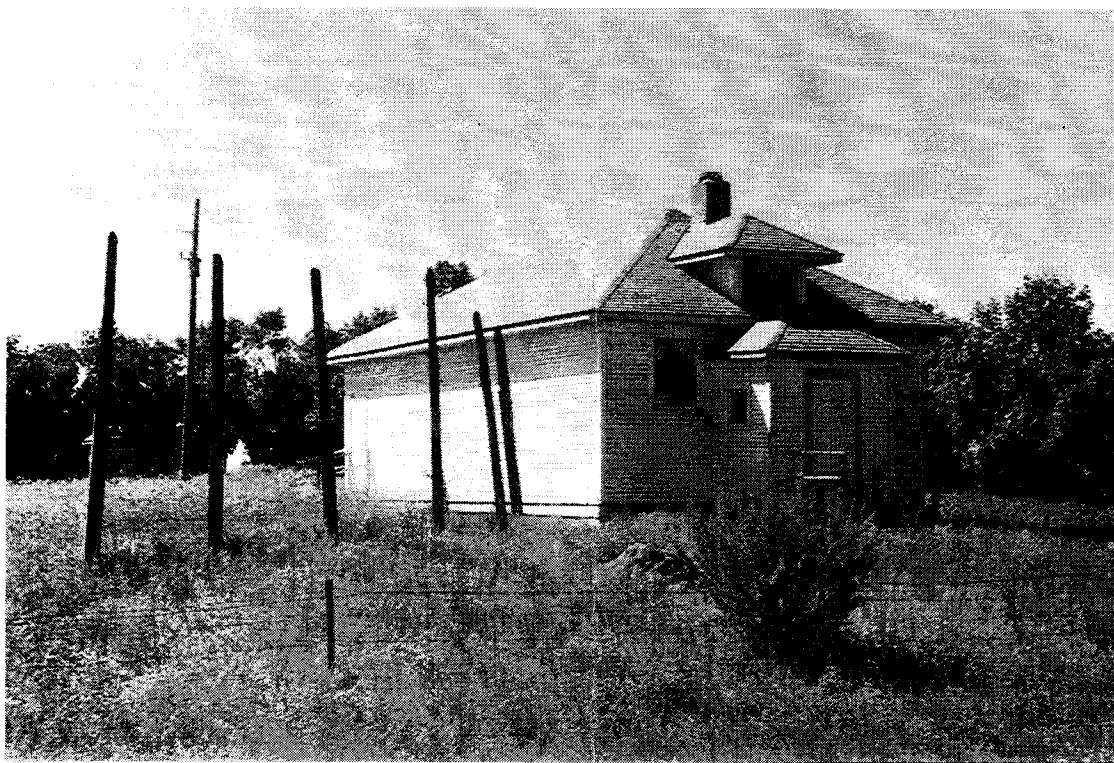


photo by Terry Beebe

**The Sleaford School (1912-1959) is landmark
for many people in the Colonsay area. Our Saturday, October
11th Open House should provide a timely opportunity to meet
our new neighbours and discuss our plans with them.**

Presidential Pronouncements

Renew your membership NOW to get your Handbook in time:
The new membership year begins on October 1! If you want to receive your Handbook in time, please renew NOW. Last year, members who renewed in late October and November received handbooks in January or later. We've been advised this year to get our membership list in by October 15th, then handbooks are almost guaranteed to arrive before the new year.

Annual Dues:	Regular \$40.00	Life \$720.00
	Youth (21 & under) \$22.50	(reduced at '97 G.A.)

Send dues to the Centre's mailbox. Make cheques payable to "RASC Saskatoon"
or Renew your membership at the Monday September 15th General meeting.

Next General Meeting is on Monday, Oct. 20th at the National Hydrology Research Institute Conference Room, Innovation Boulevard at 8 PM. (Exec will meet at 7 PM).
Everyone is welcome to attend the October General Meeting of the Saskatoon Centre of the RASC. This meeting is our annual election of officers for the executive, so all members are encouraged to attend. In addition, there will be presentations on astronomical topics, including:

- **Sleaford Observatory Update: We're Getting There!**
- **Huziak's Variable Star: Well - Not Quite - A Useful Project for All Members**

There is no admission - you do not have to be a member to attend!

November General Meeting

We are pleased to announce that **Dr. Mel Stauffer, Chair of the U. of S. Geology Dept.** and an Associate Member of the Meteorite Impact Advisory Council will give a talk on MIAC's Fireball Observing & Meteorite Recovery Program and show us meteorites from the U. of S. collection.

Kim Mysyk is Saskatoon's Meteorite Coordinator

Kim Mysyk, Geologist and amateur astronomer has volunteered to be Saskatoon's Meteorite Coordinator, in a cooperative effort with MIAC. Kim's job will be to research the facts on all those "I found a meteorite" stories that come to light in the media and other sources. The objective is to increase Canada's number of meteorites identified for scientific study. Gord Sarty and I are also associate members of MIAC, but we concentrate on gathering information from observers of visual fireballs. Such reports are often associated with reports of meteorites. Kim's participation will finally allow us to investigate these, too. If you know of a possible meteorite, give Kim a call!

The University of Saskatchewan Observatory Hours

From October through February, the U of S Observatory will be open on Saturday evenings from 7:30 PM to 9:30 PM. It is on campus just inside the Wiggins Ave. entrance, one block north of College Drive. On clear evenings, visitors may view the moons of Jupiter, the rings of Saturn and the Hercules globular star cluster through the telescope. Admission is free of charge. Group tours of the observatory can be booked for Friday evenings. A course introducing the public to star maps will be offered on December 3. For further information, phone the recorded Astronomy Information Line at 966-6429.

Rick Huziak, President.

Saskatoon Centre

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Honorary President: Prof. J. E. Kennedy

President: Richard Huziak	Vice-President: Erich Keser
Secretary: Dr. A. Hartridge	Observing: Darrell Chatfield
Treasurer: M. Williams	Public Events: Brian Friesen
National Rep. Dr. Gord Sarty	Membership: Kim Mysyk
Librarian: Sandy Ferguson	Editors: S. Ferguson & E. Keser

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Saskatoon Skies welcomes letters articles, images, cartoons, drawings and diagrams. Contact Sandy Ferguson (931-3184) or Erich Keser (374-4262) for details. Text may be e-mailed in *plain unformatted ASCII text with line returns at paragraph breaks only*, and images in UUEncoded form to keser@duke.usask.ca.
Saskatoon Skies is produced monthly, with summer double-issues. Print run is 135 copies.

Signed articles do not always represent the opinion of the Centre

Notice of Annual Elections

The October General Meeting is our annual elections meeting. All members of the Centre in good standing are eligible, and may nominate anyone else OR themselves for a position. People may hold more than one position (with a few exceptions). Voting is by a show of hands. If you cannot attend, nominations by proxy will be gladly accepted. Please send proxies to the Centre mailbox, or contact a member of the current Executive.

The following Exec positions exist and are open to nominations unless otherwise stated:

Honorary President	is currently Ed Kennedy - not vacant. Appointed position
Past President	will be Rick Huziak - not vacant. Assumed position
President	Vacant ending 2nd year of two year term, outgoing Richard Huziak
Vice-President	Open ending 2nd year of two year term, currently Erich Keser
Secretary	Open currently Al Hartridge
Treasurer	Open currently Mike Williams
Centre Rep.	Open currently Gordon Sarty
Newsletter Editor (s)	Open end of one year term of co-editors Erich Keser & Sandy Ferguson
Activities Coordinator	Open currently Brian Friesen
Membership Coordinator	Open currently Kim Mysyk
Observing Group Chair	Open currently Darrell Chatfield
Librarian	Open currently Sandy Ferguson
Councilors	Open Bill Hydomako, Jim Young, Kirt Headley, Garry Brett, Merlyn Melby.

Note: The number of Councilors is not fixed.. If you know you have something to contribute to your Centre, please participate by voting or becoming a member of the Executive.

Job Definitions:

President Chairman of Executive Council and General Meetings,
General Representative of RASC to the public.

Vice-President: Stand-in for President in the event of President's absence, Aide to President.

Secretary: Recorder and provider of meeting Minutes,
Compiles and submits Annual Report to National Office.

Treasurer Handles finances of Centre, Prepares annual financial statements,
Reports financial matters to National Office as required ,
Accepts new memberships, Maintains membership list.

Past President Advisor to new President

Honorary President Provides tie to external organizations, such as Physics Department.

Centre Representative Represents Centre at National Council meetings&General Assembly

Newsletter Editor Edits this newsletter, solicits articles, and organizes production and distribution.

Librarian Organizes Library, Maintains library book, journal and newsletter inventory.

Membership Coordinator Maintains and services temporary members.

Activities Coordinator - Organizes annual Public Starnights, Astronomy Day Display, etc.

Councilor Aids others as required., may be entry level position in executive.

Thank you, Richard Huzlak, President.

Saturday October 11th-

a BIG day for new Site!

Saturday October 11th should be a turning point for our new Sleaford Observatory. There will be a workday and BBQ for RASC supporters, followed by an Open House and a twilight 'Moon and Jupiter' night for the local community. Both parts of the event will address problems which have become *urgent*. We *must* establish a beachhead, *must* move from the Rystrom site and we *must* finally meet the Sleaford area community.

Firstly, we *need* our warmup shelter out there if we are going to further use this site. Fall has been beautiful, but our one *real* (3 month+) season is starting, and night temperatures are plummeting. The schoolsite is--but for its shelterbelt--a wind-swept hilltop: we *froze* observing there even on the warm night of April 29/30th. And, unlike Rystrom, it's 50 km to the nearest donut shop.

Secondly, if you've been to Rystrom recently you'll know that it's time to move! A huge granary has sprung up west of the dome and equipment is parked all around. The Rystroms are successful farmers who need the space for their expanding operation. They were kind enough to extend the free lease Ed had already provided for 18 years; it's time we repaid them by finally getting out of their way!

Finally, meeting our *new* neighbours has become a priority. We promised this community a lot when we met them in March, to ask for the site. In response, they sold us valued part of their heritage for very little. We must understand that this schoolsite is much more than just a plot of land for area residents. A surprising number of people feel attached to it; time and again, we have had people remark "Oh, that schoolsite- the Sleaford school? Why, my [father, mother etc.] went there!"

There have been signs of local unease about our plans. In February, when I drove up to take photos, four snowmobilers reacted with apprehension to news of our interest. A few weeks ago, when I stopped by on a Saturday afternoon to show the site to Kathleen and Ariel and say hello to Rick and Amy, an RCMP cruiser pulled up, lights flashing, to check my ID. Like the snowmobilers, the constable soon became friendlier, but warned us that while 'people' liked our purpose, they regret that the property was being sold and also wonder who we might be "bringing in".

The purchase has taken much too long despite good will on all sides, because of endless complications. The Sleaford Coop Community Centre incorporation had lapsed, shareholders were hard to reach or deceased, and there was a duplicate title. However, the transfer is almost complete, and SCCC has given us permission to start working on October 11th even if it is not.

Thus Saturday Oct. 11th will mark an important new beginning for the Saskatoon Centre. It will be our chance to start building a new home for our observing program, our chance to get together and have some fun, and most important of all, a chance to finally make friends with our new neighbours. If you don't think that's important, then just take a *good* look at the Yield sign down the road! ...e.k.

IF it Rains..and even if not..
The schoolhouse will still be usable, but most of the work may have to be done the following weekend. And even if we get a lot done on October 11th, YOUR help may still be needed on the 18th and/or 21st. Call Darrell 374-9278 or Rick 665-3392.

(continued from Page 2..and 4)

YET MORE Presidential ramblings... (by Rick Huziak)

Get Sky&Telescope Magazine through our Centre

Sky and Telescope offers a substantial discount to subscribers if they participate in a group subscription program (It's a bargain: LOWER than their 3-year sub rate! ed). To retain this discount, we must have at least 5 participants. Right now, we have only 5 participants and the Saskatoon Centre could lose discount privileges if someone drops off. If you currently subscribe to S&T, please renew through the Centre for your automatic discount by filling out your renewal card when it comes due (with MO or credit card number) and sending it to the Centre mailbox or Mike. (It is simpler for Mike if you pay by credit card). Through this program, you can also get a 10% discount on most items from Sky Publishing Corporation; but you must be a registered member of the subscription program. For new members who are not subscribing to **Sky&Telescope**, this magazine is highly recommended as an excellent source of articles and superior observing information.

An October 21st Starnight Could Raise Some Cash

Members are encouraged to participate in an October 21st School Starnight. **Brunskill School** has offered to pay a significant (three figure) honorarium to the Centre in exchange for a well-organized Starnight. We will need 5 to 8 telescopes to handle an anticipated crowd of 175 students, teachers and parents. The starnight will be at **Diefenbakér Park** (exact spot tba), and run from 7:30 PM until about 9:30 pm. This is one- shot: if it is cloudy, it will be cancelled. Please help generate funds for the new Observatory and call **Rick Huziak 665-3392** well in advance to see how you can help.

New Comet C/1997 T1 (Utsunomiya)

A new, fairly bright comet was discovered in Cepheus by the Japanese amateur astronomer Utsunomiya. The comet's discovery was announced on IAU Circular No. 6751. The following preliminary ephemeris has been published by the IAU and a complete copy is available from the web site listed at the bottom. Orbital elements are also available from the website for those of you with orbit prediction software. Dates and times are in UT. The comet should be visible in telescopes as small as 3-inch aperture, or in good binoculars.

Date	TT	R. A. (2000)	Decl.	Mag
1997 09 29	01 11.6	+71 38.2	10.5	
1997 10 04	23 16.2	+72 36.5	10.3	
1997 10 09	21 29.33	+68 58.2	10.1	
1997 10 14	20 22.90	+62 17.2	10.0	
1997 10 19	19 45.41	+54 37.2	10.0	
1997 10 24	19 23.43	+47 07.7	10.0	

Date	TT	R. A. (2000)	Decl.	Mag
1997 10 29	19 09.86	+40 20.0	10.1	
1997 11 03	19 01.16	+34 24.2	10.1	
1997 11 08	18 55.46	+29 19.3	10.2	
1997 11 13	18 51.68	+24 59.8	10.3	
1997 11 18	18 49.21	+21 18.8	10.4	

For discoveries, see <http://cfa-www.harvard.edu/>

For ephemerides, see <http://cfa-www.harvard.edu/iau/Ephemerides/Comets/>

Variable Stars Anyone?** CUT!!!!....(errr sorry Rick...if you want to fill *the whole* newsletter, you'll just have to become Editor!!! ...BOTH co-editors)**

Observing those Faint and Fuzzy Ones - Part I

by Rick Huziak

A desperate message appeared on day on the RASCLIST, the e-mail discussion forum of the Royal Astronomical Society of Canada:

I have three Messier objects left. Two are fainter galaxies that will have to wait until I can get away from city lights and then there is M33. This is the Triangulum Galaxy and it has a magnitude which should allow me to see it naked eye. Nevertheless, this object has proved to be the most frustrating on the list. I can not see it! Has it recently disappeared? Shouldn't it be an easy target in binoculars, if not naked-eye? Any observing hints, anyone?

Well, there are some observing hints that can help. You learn these through years of experience at the eyepiece. I'd like to share them.

Face on spirals like M74, M101 and M33 are often very difficult to see. M101 is my all-time unfavourite. However, I don't find M33 particularly hard, and here, in Saskatchewan, it's more often visible to the naked eye than not. However, I find that visibility decreases with aperture, due to the decreasing available field size, at least to some extent.

Eyes and binoculars are OK, as they both provide 'high contrast' fields with some black sky around such a huge object (1/2 degree - moon size - in diameter). Once you have a scope field of view (1/2 degree or less), you have no background dark sky for contrast, so the galaxy becomes very difficult to pick up. (The Helix Nebula suffers from this too!)

Here are some hints for finding M33 and all those large and extended, but very faint objects. The following techniques are often used by experienced deep sky observers:

(continued overleaf)

Faint, Fuzzy Objects Part II A Visit to Regina and Fr. Luke

by Richard Huziak

On Sunday, September 28th, Erich Keser and I headed speedily down the road to meet with the Regina Centre. The goal of our trip was to finally close out the 1997 Cypress Hills Saskatchewan Summer Star Party. Although the original plan had called for a meeting half-way at Davidson, the Regina guys instead called us back, and told us that they had scored some free Roughrider football tickets, and would we mind seeing the game? Hey, no problem at all, dude! So off to the windiest game in history we went. (It was Erich's first football game - you can tell he isn't a Saskatchewan farm boy!).

After the game, we sat down to supper at a smorg with President Steve Szuta, Past-president Ross Parker, and Secretary-Treasurer Darcy Kozoroz. We presented them with their portion of the profits from SSSP'97 and thanked them enormously for all of the effort and help that this group provided at the star party. We discussed plans for SSSP'98 and we're looking forward to another successful partnership between the two Centres.

On the way back, we had arranged to stop in to visit observer extraordinaire, Fr. Lucian Kemble, in Lumsden. Fr. Luke was the keynote speaker at SSSP'97, and is now becoming a much better friend of both Centres as a result. Fr. Luke, a Franciscan monk, has built a comfortable roll-off observatory at the Retreat. The roll-off houses a superb C-11 on a massive and sturdy Byers 812 mount!

Steve Szuta, Erich and I had a great time with Fr. Luke. The sky cleared off beautifully, and we spent the rest of the evening observing the

(continued overleaf)

Observing those Faint Fuzzies - Part I -

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- First don't try to find the 'entire' galaxy. Use a good atlas to precisely locate its nucleus
- for M33 - and alternate method is to find the relatively concentrated 11th mag. diffuse nebula NGC604 that's located in one of its arms, then follow the arm back to the nucleus
- use a black observing hood to cover ALL stray light - you can gain 2 to 3 magnitudes of contrast doing this - and YES - I DO use black gym shorts over my head! (you can't see a 10th mag galaxy if your tube is glaring at 5th mag into your eye!!!- last night I used an observing hood and was able to see 3 - 16th mag galaxies with a 12.5" in an only reasonable sky - contrast and no-glare are the reasons).
- if you don't have a painted flat-blacked out area for as far as you can see on your telescope tube with your eye at the eyepiece, then take the time to blacken it. Use flat black paint - if you're squeamish about painting on your scope, tape on flat black construction paper. Reducing glare is SO important and too often overlooked.
- use contrast-improving technique - ie. slightly defocus the stars in the field to reduce glare
- or try this contrast-improving technique - ie. vibrate the scope slightly by tapping the tube lightly with your finger - the vibration tends to smear the stars (similar to defocusing) and fuzzy objects tend to 'pop out'
- another contrast-improving technique is to sweep the suspected area back and forth, similar to comet hunting. Don't look for the object, but look for a 'change in contrast' in the field - i.e. - the sky goes from clear background to suddenly milky, then to clear again. In effect, with sweeping, you are simulating a wider-field binocular view. I've used this technique to precisely map the

California Nebula, entire Veil, the Eagle Nebula, the Helix, the North America Nebula, etcetera - works great!)

- Finally, *keep at it* - it may take your eye minutes or even 1/2 hour to gather enough photons to create a useable image. You need to look for more than a few seconds. The dimmer or more diffuse the object is, the more important this becomes. (It took more than 3/4 hours of staring for me to see the 16th mag galaxies last night!

Observing Faint Fuzzies

-Part II-

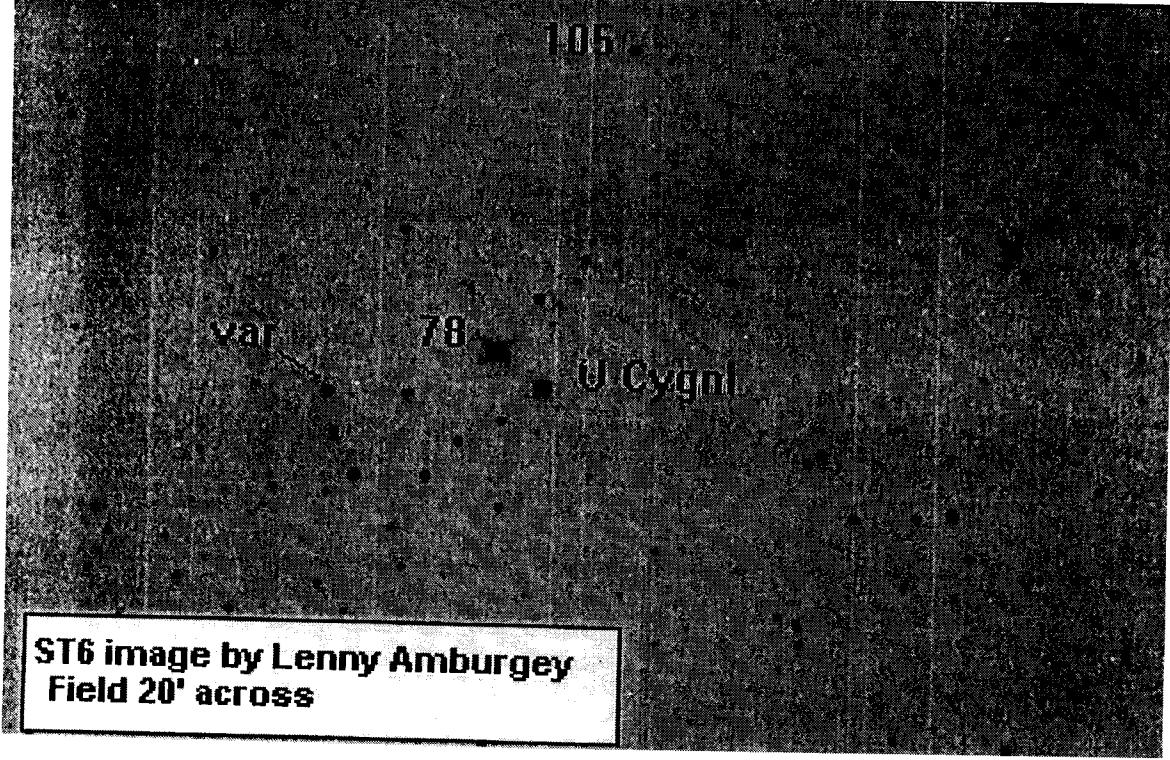
A Visit to Regina and Fr. Luke

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faintest of the faint fuzzies - so faint indeed that they don't even have NGC numbers! We had to dig into the MCG and UCG galaxy catalogs to find these suckers! At magnitude 14, 15 and 16, and sometimes only a few arcseconds in diameter, they could only be found using detailed plots from Megastar. Observing objects which are this dim is a real challenge and takes enormous concentration. Despite the faintness of these objects, we did not miss a single galaxy we set out to search for! In 2.5 hours, we picked out 10 of these beyond-belief faint fuzzies, and observed dozens of more 'mundane' objects, such as Comet Meunier-Dupouy, the Helix, the Saturn Nebula, etc.

Since it was a Sunday night, and I had to be at work the next morning, we decided to call it an early night. We packed up and left about 2:15 a.m., and arrived back in Saskatoon by 4:15 a.m. This was certainly one of the best observing nights I've ever had. I'll remember it for a long time! I dreamt of it the next morning at my desk at work.

Rick Huziak



ST6 image by Lenny Amburgey

Field 20' across

Huziak's Variable Star

Observing variable stars has its occasional pleasant surprises, such as the sudden appearance of Nova Cygni 1975, appearing brightly shining on summer evening, changing the appearance of the Northern Cross for several exciting days. But sometimes, surprises come in smaller packages, too. On Sept. 9, while doing a routine estimate of the star U Cygni, I noticed that a 10.0 magnitude standard comparison star wasn't 10.0 magnitude at all! It was 10.6 magnitude, when compared to other standard stars! This was, indeed, unusual. Several other estimates of the star throughout the night showed that it was indeed truly dim.

The next morning, I put out a message on the RASCLIST e-mail discussion group, asking for other follow-up observations. I also e-mailed AAVSO, to report this star, so that if they were interested, they might announce it to others around the world for monitoring. Several RASC members across Canada jumped on the bandwagon, and within a day I had confirmation from others that the star was indeed dim

(Yortkton farm boy Honoured!)

A few days later, AAVSO responded as well, and, surprisingly, Janet Mattei, AAVSO's director, stated that they already knew about this star and had been getting sporadic reports of possible variability from as early as 1980! Well, it really wasn't a new discovery, but it was obvious that the star was undergoing some noticeable activity!

AAVSO stated that the star is officially known as "2016+47C 100 COMP E". The first number states its "AAVSO" coordinates; the last part means "magnitude 10.0 component of U Cygni to the east". But by this time, the star had already become known as "Huziak's Variable Star" across the Internet. The name is flattering, but not official. Although I'd like to see the name stick, to avoid confusion, it's better to call it by the AAVSO designation! AAVSO also suggested that since the star was very poorly monitored that we might begin a program of continuous monitoring to discover the star's true character. I accepted! What could be a better program for inter-Centre co-operation in observing! Several others agreed.

(continued overleaf)

Barely visible Objects III: Astronomy in the Gutter! Micrometeorites Anyone?

Rick Huziak

Guess what I did a few weeks ago? I took a pair of very strong NiCo magnets and dragged my rain downspout areas for micrometeorites. The theory is that micrometeorites end up on your roof falling directly on it, or by being carried down by the drain. Well, if they do, then they'd eventually end up on the ground at the end of your downspout. I got some very interesting result. I picked up about 10 grams of magnetic material!! The breakdown of this material is very interesting:

- - flattened, stacked metallic bits
- - most likely the remains of many old, decay-ed tin eavestroughs (a major problem in my area as the houses are approx. 100 years old)
- - feldspars - quartz crystals (!)
- - 2 black stones, each a gram or two in size, both rounded, black and smooth (but probably just ironstone - worn concretions or the like) and a great many very small (<1 mm) black roundish stones, some smooth, some knobby
- - lots of nails and corroding bits.

But the most interesting piece was

- a 1/10 gram (~1 mm) piece of black glass, which appears melted and fractured. Could it possibly be a tektite? The problem is, how do you sort the crap from the real? How do you section and test the stones or the 'tektite'?

I also dragged my street at the curb to the nearest storm drain, and also dragged my paved alley. Both of these also found about 10 grams of magnetic material, but much less 'metal stacked plates', making my eroding eave-troughs theory a bit more feasible. I guess to continue, I should find more recent houses that have vinyl eavestroughs, but you miss 80 or more years of micrometeorite collection time. Seems like a Catch-22, compounded with an analysis problem!

This sounds like a fun project. If everyone in Saskatoon did such Gutter Science, would we eventually find a few small meteorites?

(Is it April already?? ed/ek)

Huziak's Variable Star

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Identifying the star on other charts immediately became an issue, and those without an AAVSO U Cygni chart were baffled about where the star really was! David Lane from Halifax and Scott Young from Winnipeg both tried to identify it using David's Earth Centred Universe (ECU) planetarium program which used the Hubble Guide Star Catalog to plot its stars, but their description of the star location differed radically from where I said it was! Scott soon posted a CCD photograph of the area so that I could point out the true star. I was astonished to see that Scott had chosen a star almost 1/4 degree away from where I described it. I down-loaded his image, and using a graphic editor, arrowed the correct star, and reposted the photo.

Then the identity problem was realized. This star is *missing* from the Guide Star Catalog! This is a mystery, as the star is not in a crowded area, and should not have been missed. Could the star have been too dim when the Hubble photographic plates were exposed?

At any rate, we all know where the star is now, and have settled into monitoring it. Several visual observers, Gord Sarty, Dan Taylor and others, continue to confirm its oscillations, between approximately magnitude 10.0 and 11.0. At our request, AAVSO has also agreed to post the U Cygni chart on their web site so that anyone who is interested can download the chart (FOC) and help in the monitoring.

Information and observing instructions on "Huziak's Variable Star" can be found on at www.net1plus.com/users/syoung/ncmaa/huziak.html a web page put up by Scott. The U Cygni, and other charts can be pulled off AAVSO's web site at www.aavso.org. I hope you will help out!

by Rick Huziak

By the Light of the Blue Moon

reprinted from RASCLIST

All of this talk about duck tape [on this LIST] reminds me of an incident that occurred last summer. This anecdote was recounted in an article in Stardust which I reproduce here. It not only describes the 1246th (1247th?) use of the ubiquitous adhesive, but uses the very pun which started this whole thread.

Throughout the early summer a pair of ducks was regularly seen in the vicinity of the Edmonton Space and Science Centre. I was therefore hardly surprised to see a whole family of six ducklings swimming with their mother in the reflecting pool as I put out the "Observatory Open" sign on the night of July 30th.

I quickly became absorbed in another pleasant night's work of sharing the universe with the usual assortment of passersby. At sunset the full moon rose - officially a "blue" moon which I marked by placing a blue Wratten filter in the eyepiece. You can get very interesting reactions from people with this stunt. But I digress...

Late in the evening a regular pair of visitors requested a new object. I swung the 18 cm Starfire refractor over to Messier 11, and at 333x was able to darken the sky background sufficiently to obtain a fine view. Popularly known as the Wild Duck Cluster, the sharply triangular group is at its best seen through a good refractor like the Starfire. A single bright (8th magnitude) star stands guard at one extremity, over a brood of what seems like hundreds of 11th mag pinpoints.

At this point an agitated young couple arrived in the Observatory to report that a duckling had fallen into the overflow drain at the reflection pond. Leaving the deck in the hands of my capable volunteer, the estimable Merv Gorrie, I walked over and found the mother duck standing guard over the drain. As we approached, she jumped into the pond followed by her remaining brood of only four ducklings. A second one had obviously followed its sibling through a large gap in the drain cover. As we looked into the drain by the light of my red flashlight, we could hear the desperate cheeping of at least one duckling and the occasional anxious quacks of its mother.

This was clearly a situation that shouldn't wait until morning. I hustled back to the Observatory and called the City's Trouble line, Drainage & Sewer division. I was relieved to have the phone answered by a real live human being, who promised prompt action. Indeed by the time I returned, about ten minutes later, a truck was already there. Two workers on their way home from the night shift had removed the drain cover and had already rescued one duckling. The second proved to be very difficult to catch. I watched several failed attempts, as the obviously frightened youngster disappeared down the horizontal connecting drain. The patient City workers tried Plan B, then C. While they did this, I covered the gap in the drain cover with the help of the ubiquitous "duck tape". By this time it was well after midnight, so I hustled back to the deck to rescue Merv and close up.

Five minutes later I was back. The City truck was gone, and the young couple had also disappeared. Had they succeeded? I walked around the pond until I came across the family of ducks swimming in a triangular formation, the relieved mother standing guard at one extremity over a brood of exactly six ducklings. I was struck by the similarity between this alignment and that of the aptly named Wild Duck Cluster.

I will never view M11 again without a pleasant memory of the reunion of a young family of wild ducks. It seems that once in a blue moon, a story really does have a happy ending.

by Bruce McCurdy, Edmonton Centre (bmccurdy@freenet.edmonton.ab.ca)

The Variable Backlog is FINALLY Done!

by Richard Huziak

At the beginning of this year, guilt got the best of me. I have been accumulating observations of various types in my 58 volumes of log books, but, like a not-so-good amateur, have not been reporting the volumes of variable star estimates I've been making for my own pleasure.

In February, I decided enough was enough. I contacted the American Association of Variable Star Observers (AAVSO) to see if they would accept the backlog. They were delighted to!

So...plunk, plunk, plunk....I began to type up all of those past estimates into several massive computer files. Now, in October, I've finally finished! They've all been submitted by e-mail, and along with current monthly observations, I've managed to submit 7078 estimates of approximately 200 different stars.

Those estimates included about 89 "inner sanctum" observations where the variable was dimmer than magnitude 13.6. The estimates cover the period of August 1970 to present. I hope AAVSO will find them useful! (They even had to rewrite a module of their data entry software to accommodate my older dates)!

Now, just because I'm caught up doesn't mean I'll slow down. Guilt is a wonderful thing, and now, as an 'offering' to AAVSO, I've set a new variable star goal - to submit at least 100 estimates per month, and to reach the magic number of 10,000 estimates as soon as I can.

Variable star estimating is a rewarding and exciting part of amateur astronomy. Hopping to the variables makes you learn about the sky and hones your observing experience. Occasionally there are wonderful surprises as well - see the article entitled "Huziak's Variable Star"!

Starnight at Camp Shekinah

by Dale Jeffrey (member for Laird)

On August 30th, my wife Whendi and I hosted a star night for the Camp Shekinah Retreat Centre. In attendance were approximately 25 adults and children from Mount Royal Mennonite Church in Saskatoon. The skies were moonless and very clear, and the participants were really enthusiastic. We observed Jupiter, Saturn, M31, M13, M22, M57, M17, M16, Alcor/Mizar, Arcturus, Vega, and M45. The questions asked were excellent!

Among the crowd was the retreat Centre director, who asked if this could be repeated for other groups. Also, two teachers - one from Saskatoon and the other from Hepburn, each asked if a similar session could be arranged for their classes. We told them about our wonderful experience with RASC, who through the Innovators Program "lent" Laird School experienced astronomers for the Laird Public Star Night and School Seminar. They were excited to learn that these were available.

Each observer was given an information package describing the objects seen (condensed from Burnham's Celestial Handbook), so that the next morning they could find out more about the night sky's cornucopia. They were also all told about the RASC, and about the Beaver Creek public star nights. We ran power to the C8 via an inverter from my van, which helped immensely. With proper polar alignment I was able to concentrate on the observers without worrying about maintaining the object in the eyepiece's field.

I hope that this information will inspire other RASC members to become involved in education projects. It's truly rewarding, and contributes to public understanding and enthusiasm for clear, and dark, night skies.

Upcoming Events

by Sandy Ferguson

Saturday, October 11, 1997 - Work Party and BBQ at New Observatory Site

A work party is planned for 10:00 AM to start construction. We plan to level ground, get post-holes dug, and install sonotube for the Warmup shelter in hope of pouring piles next Tuesday.

An RASC Family BBQ is planned for members at 4 PM on the site. Frankfurters will be supplied, but we ask that you bring a little something extra, such as a salad or squares, to give some variety. From 5:00-8:00 PM the residents of the Colonsay area are invited for coffee and a snack and possibly a bit of Moon and Jupiter viewing, so that we can get to know each other. Observing may also take place later on if everyone isn't "bagged" after a day of working .

If you can help with the work, please call Darrell Chatfield 374-9278 or Bob Christie 931-2115. If you are coming to the BBQ, please let Sandy Ferguson know at 931-3184. SEE YOU THERE!

***NOTE: This will be a "one shot!" The schoolhouse is quite usable in case of a light drizzle, but the event will be canceled in the event of really bad weather. ***

Friday, October 10th - Youth Group Monthly Meeting

The first meeting of our newly formed Youth Group for young people 11-14 years old will be held at Sandy Ferguson's place (11-238 Main Street) at 7:30 PM. We are really looking forward to a fun time at these meetings--so far we have almost 20 kids, so that should make for an interesting time! For information on the group, please call Sandy at 931-3184.

OBSERVING SESSION: Friday Oct. 24th. 8:30 PM (leaving town at 7:45 PM)

Sleaford Schoolsite (New Observatory Site): Try some really dark skies for a change! We may car pool, and often meet at the gas station opposite the Hwy. 5/Hwy.41 junction (beside the Sundown Drive- in) to drive out as a group, so please call Darrell Chatfield at 374-9278 to confirm arrangements and also to find out the best route for yourself (there are several), and get a final check on the weather (he has local connections) Cloud/ date is Saturday October 25th.

Sat. Nov 1st (raindate Sun. Nov 2nd)- Starnight for Space Club - Alvin Buckwold School

The Space Club generously hosted meetings of our Junior Astronomers throughout last year. Please help us return the favour! A few telescopes and operators are needed to make this a success for this great bunch of kids. Please call Sandy Ferguson at 931-3184 for details.

plan to

Friday, November 7th - Junior Astronomers' Monthly Meeting (Ages 7-10)

Will be held at Sandy Ferguson's at 238 Main Street, Apt. 11 at 7:30 PM.

(The first meeting of this season was held on October 3rd and was great! We managed to pack in a short slide presentation on naked eye astronomy, a demonstration on the earth's place in the solar system, including how day and night occur, a few stories on the Big Dipper, how to keep log books, and an observing session (Jupiter, Saturn, the Summer Triangle, some circumpolar constellations).

We also had punch and cookies! For information on the group, call Sandy at 931-3184

Friday, November 14th - Youth Group Monthly Meeting (Ages 11-14)

11-138 Main Street) 7:30 PM The meeting usually runs around 1-1/2 hrs. For further information, please call Sandy at 931-3184. (Yes, we realize it's FULL MOON, but we have plans anyway...)

**Minutes of the Sept. 15, 1997
Executive Meeting
Dr. A. Hartridge, Secretary**

1. Meeting called to order at 7:00 PM.

2. Saskatchewan Summer Star Party Report:

- Final numbers: Registered 197 Total income after expenses \$776
- A meeting with Regina is still required.
- Review of this year's success - many compliments have been received.
- The viewing was great,
- Meals and events were on time.

Plans for next year: Allan Dyer will be the main speaker. Don Hladiuk will also speak. The Hall has been booked Friday and Sunday. May use the Four Season's Resort for Saturday.

3. Summer Star Night concerns. At Beaver Creek the midnight limit is not satisfactory. We will try to get a key for the gate. There was also a suggestion to switch the July star night to August. May also have a spring star party.

4. Sleaford Observatory Site Update:

- the land measuring work was done on the 11th of July.
- the land purchase is almost complete. A few signatures are still needed.
- **Partnership Agreement** status: further work has been done on this; however, the agreement is essentially unchanged from the original. We should be able to use the U of S equipment after 10:00 PM. Maintenance will be 50/50.

Work to be done this year (and soon!)

- the Warm Up shed is to be moved from Rystrom's: leveling and installation of cement piles are required before this can be done, and trenching of power will be needed to make the Shed useful.
- current cash for observatory is \$455 in the bank.
- -telescope fund has \$2550.00

5. Fundraising for new site:

- saving cans and bottles, bingos, car washes, speaking engagements.
- RASC calendars sold will net the club \$3:00 each.

6. Sale of Patterson books has netted the club \$105.00

7. Prof Kennedy has written to National Office to protest the unprofessional and biased editing in the new Journal.

8. Lockable cabinet needed for coffee and library storage at general meetings. Darrell and Bob will look into this.

9. Eyepieces for loaner scopes - Erich says a Meade modified achromat is now available.

10. New business:

- Rick has written to National regarding the idea of a family membership.
- Ed suggests that we make more contributions to displays at GA meetings.
- There is enough business now that Erich suggests we may need a separate night for board meetings.

11. Meeting adjourned at 8:00 PM.

Minutes of the General Meeting - Sept. 15,1997.

Dr. A. Hartridge, Secretary

1. Rick advised everyone of the upcoming elections and membership renewals.

2 A. Summer Activities: Northern Prairie Starfest (Sarles, ND) Aug 1-3rd, Perseid Public Star-nights at Pike Lake, Aug 8th and Beaver Creek Aug 11&12th), Lake Namikus Star Party Aug 29-Sept 1. Camp Shekinah Starparty Aug 30, Fall Public Starnight Sept 5/6, Meewasin talk Sept 5/6th

2 B. Upcoming Presentations:

Regina Engineering Society - Light Pollution by Rick Huziak, October 9th.

3. Summer Observing Report. Darrell stated that no Observing Session occurred in July.
Four or 5 people turned out in August.

4. Youth Group Start Up Report: A meeting will be held at Sandy Ferguson's on Sept. 26th to organize the upcoming program for this year. If there is enough interest two groups will be formed.

5. New Observatory Update: Land almost acquired. The agreement should be complete in a few days. The Partnership Agreement should also be complete in a short time.

6. Cypress Hills Report - see minutes of Executive Meeting.

7. Fundraising - see minutes of Executive Meeting.

8. New Business:

- Stan showed his new Calendar for 1998.
- Rick mentioned that RASC calendars are also available.
- Kim Mysyk has volunteered to be the centre meteorite coordinator.

9. Programs:

1997 General Assembly - Ed Kennedy

Rick Huziak - Noctilucent clouds

Cypress Hills Presentation:

- **General Summary and plans for next year-** Erich Keser
- **Security and Observing -** Darrell Chatfield
- **Meteorite search and food preparation -** Kim Mysyk
- **Slides of Cypress and bonfire talk. -** Sandy Ferguson

10. Meeting adjourned at 10:30 PM.

NEWSFLASH: The 1998 RASC Calendars Have Arrived

They're here, they're here! 25 1998 Calendars have arrived; just in time for you next presenting session! As always, the Vancouver Centre has outdone themselves and have produced yet a better looking and more informative calendar! It's just great!

The calendars will be available for sale at the October general meeting for \$11.00 each. If you can't make it to the meeting, then call Rick at 665-3392 to reserve yours. They will go fast!


ROSET by REID

Sky News May/June 1997 says:

**"Today's Binoculars are better than ever.
Certainly much better than almost anything produced
one or two generations ago."**

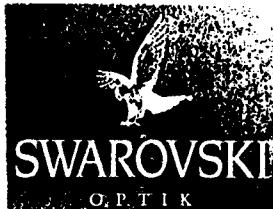
**Most optical experts would agree that ZEISS, LEITZ
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