

Saskatoon Skies

The Newsletter of the Saskatoon Centre of the Royal Astronomical Society of Canada

Vol. 38
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June
2007

WOW!

While the rest of us have been complaining about clouds, Al Hartridge has been able to get some very good pictures this winter. Here is M63.

Read more inside (on page 8) about how he has achieved this.

Photo by Al Hartridge



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PICTURE THIS ...

MEMBERSHIP? IT'S NEVER TOO LATE TO JOIN!

Regular: \$65.00 /year Youth: \$34.25 /year Lifetime: \$1100

The Saskatoon Centre operates on a one-year revolving membership. You will be a member for the next 12 months no matter when in the year you join. If you do not want to join at this time, ask to get onto our FREE 3-month Temporary Membership list. You will receive regular mailings of our Saskatoon Skies newsletter and will be invited to participate in Centre activities. Members are encouraged to renew early to avoid disruption in publications. Renew through the membership coordinator, Mike Clancy, or renew through the National Office and let Mike know that you did!

Benefits of Membership in the Saskatoon Centre

- knowledgeable & friendly amateur astronomers
- use of the Sleaford Observatory
- use of the U of S Observatory (after training)
- Saskatoon Skies Newsletter
- Observer's Handbook
- The Journal of the RASC (bimonthly)
- SkyNews Magazine (bimonthly)
- use of the Centre library
- rent the Centre's Telescopes
<http://www.usask.ca/psychology/sarty/rasc/telescopes.html>
- discounts to Sky & Telescope Magazine*
- free, no-cost, no-obligation, 3-month temporary membership if you don't want to join right now!

* New subscription or renewal of Sky & Telescope? Send new info or renewal notice, plus credit card # to Norma Jensen, 128 - 4th Street East, Saskatoon, SK S7H 1H8, or email her at njensen@scs.sk.ca.

U OF S OBSERVATORY

The U of S Observatory is open to the general public every Saturday of the year. Admission is free. The observatory is located on campus, one block north of the Wiggins Avenue and College Drive entrance. On clear nights, visitors may look through the vintage 6-inch and tour several displays. Current events are recorded on the Astronomy Information Line at 966-6429.

Observatory Hours:

January-February	7:30-9:30 pm
March	8:30-10:30 pm
April	9:30-11:30 pm
May-July	10:00-11:30 pm
August	9:30-11:30 pm
September	8:30-10:30 pm
October-December	7:30-9:30 pm

SASKATOON CENTRE'S MAIN OFFICERS:

President – Garry Stone, 857-4707

Secretary – Al Hartridge, 373-0034

Vice-President – Barb Wright, 249-1990

Treasurer – Norma Jensen, 244-7360



BOTTLE DRIVE & CANADIAN TIRE \$

by Darrell Chatfield

Thanks to \$4.40 from Sharon Hartridge we have collected \$193.15 in Canadian Tire Money! If you cannot make it to a meeting but would like to contribute, your Canadian Tire money please call me at 374-9278.

Newsletter Editors – Tenho Tuomi, Ken Maher **Copy & Collate**– Les & Ellen Dickson **Labels & Temps** – Mike Clancy **Web Posting** – Gord Sarty

Saskatoon Skies is published monthly by the Saskatoon Centre of the RASC. Distribution is approximately 100 copies per issue. Saskatoon Skies welcomes unsolicited articles, sketches, photographs, cartoons, and other astronomy or space science articles. Articles can be sent by mail in any format to the Centre's mailbox. Submitted materials can be returned upon request. Submissions may also be sent by e-mail – preferred as plain unformatted ASCII text files without line breaks. Images sent by e-mail should be attached .JPGs (.GIFs also accepted). Send e-mail submissions to the editor at <tuomi@sasktel.net>. Please send articles in "generic" formats with simple formatting – one tab at the beginning of paragraphs, one space after commas and periods. A separate by-mail subscription to Saskatoon Skies is available for \$15.00 per year. Saskatoon Skies is also posted on our Saskatoon Centre homepage as a .pdf file and can be downloaded free-of-charge. Members may choose to receive the newsletter by regular mail or via the Internet. Articles may be reprinted from Saskatoon Skies without expressed permission (unless otherwise stated), but source credit is requested. DEADLINE for submissions is the 26th of each month. Saskatoon Skies accepts commercial advertising. Please call the editor for rates. Members can advertise non-commercial items free of charge.

RASC CALENDAR OF EVENTS

May 22	Noctilucent Cloud watch season begins (until Aug 12)		
Jun 8	Observers Group - 10:00 p.m., Sleaford Observatory	Larry Scott	934-5801
Jun 11	RASC Executive Meeting – 6:30 p.m., 175 Physics, U of S.	Garry Stone	857-4707
Jun 11	RASC General Meeting – 7:30 p.m., 175 Physics, U of S.	Garry Stone	857-4707
Jun 28 – Jul 1	RASC General Assembly (Calgary)		http://calgary.rasc.ca/ar2007/index.htm
Jul 13	Observers Group - 9:30 p.m., Sleaford Observatory	Larry Scott	934-5801
Jul 13-15	Alberta Star BQ, Eccles Ranch Obs., Caroline, AB	Rick Huziak	665-3392
Aug 9-12	Saskatchewan Summer Star Party - Cypress Hills Interprovincial Park	Barb Wright	249-1990
Aug 17	Observers Group - 8:30 p.m., Sleaford Observatory	Larry Scott	934-5801
Aug. 28	Total Eclipse of the Moon (morning)		
Sep 6-9	Alberta Star Party, Eccles Ranch Obs., Caroline, AB	Rick Huziak	665-3392
Sep 11-16	Northern Prairie Starfest, Black Nugget Lake, Toffield, AB	Rick Huziak	665-3392

Minutes of the Executive Meeting May 14, 2007 by Al Hartridge

1. Meeting called to order at 6:36 p.m.
2. Minutes of the previous meeting approved.
Moved by Les Dickson, seconded by Jim Young and carried.
3. Report by Jim Gorkoff: the annual meeting has to be called before the first of July. The present year-end is December 3. There is a plan to try to get the year-end changed which would allow for things like moving the GA to a later date but this is not possible at present.
4. National Council Meeting: the next meeting will be in the form of a teleconference to discuss changes in publication and computerization. National plans to purchase a completely new turn key system. This has to be voted on and approved.

A pilot management board is also to be set up to help deal with time sensitive issues.

5. Motion: A motion was made by Jim Gorkoff and seconded by Jeff Swick. That \$300. 00 be made available to purchase a straight through finder and a barring kit for the 16" Telescope

6. Meeting adjourned at 7:25 p.m.

Minutes of the General Meeting May 14, 2007 by Al Hartridge

1. Meeting called to order at 7:30 p.m.
2. Approval of Minutes of previous meeting. Moved by Rick Huziak, seconded by Ellen Dickson and carried.
3. Astronomy Day: The display at the farmers market aside from cramped quarters was quite successful. All outdoor activities were canceled due to bad weather. An excellent turnout occurred for Gastronomy at Manos restaurant.
4. Events Committee: Ken Maher is asking for help to set up telescopes at the walk for Breast Cancer in Prince Albert. Please contact him if you wish to take part.
5. Fundraising: about \$1800.00 was raised by the quilt raffle.
6. Newsletter: deadline for news items is May 21st for this month's newsletter.
7. Steak Night: will be held on June 7th at Mulberry's restaurant. Cocktails at 6:00pm, Dinner at 7:00pm. Please plan to attend to support our centre.
8. Presentation:
- by Rick Huziak- A New View of The Solar System
9. Meeting Adjourned at 10:00pm.

MONDAY, JUNE 11 7:30 pm

ROOM 175, U OF S

Size Matters....distance and scale in the universe. - Multiwavelength astronomy
by Jeff Swick

A device for measuring the sun's altitude, based on the well at Syene that Eratosthenes used. by Garry Stone

Eclipse Expedition of 1979 by Tenho Tuomi

Note: There will be an executive meeting at 6:30 p.m. in room 175.



To Make a Charitable donation to RASC Saskatoon Centre

write a cheque out to RASC and place on the bottom that the donation is to the Saskatoon centre – a tax receipt will be issued in December of that year . Mail or give to the current treasurer.



BOOKS FOR SALE

by Bruce Brandell, Sales Coordinator

All items will be available at our next meeting or call 249-1119, or email bruce.brandell@yahoo.com

Title	Author	#Avail	Price	Title	Author	#Avail	Price
Books							
RASC 2007	RASC	4	\$14.00	Exploring the Sky by Day	T. Dickinson	5	\$9.50
Skywatcher's 07	S. Schadick	6	\$18.00	Exploring the Night Sky	T. Dickinson	1	\$9.50
Skywatcher's 06	S. Schadick	1	\$5.00	Night Watch	T. Dickinson	1	\$33.00
Miscellaneous				Summer Stargazing	T. Dickinson	5	\$18.00
RASC Centennial Mug		2	\$5.00	Night Sky Atlas	R. Scagell	3	\$27.00
RASC Stickers, blue or white		lots	\$1.00	Stargazing with a Telescope	R. Scagell	2	\$14.00
SSSP 2001 Pin (Summer Triangle)		29	\$2.00	The Moon Observer's Guide	P. Grego	5	\$14.00
SSSP 2002 Pin (Comet)		17	\$2.00	Stars	Zim, Baker & Chartrand	1	\$10.00
SSSP 2006 Pin (10)		17	\$5.00	Firefly Planisphere	Firefly	5	\$19.00
Books				Firefly Astronomy Dictionary	Firefly	3	\$14.00
The Backyard Astronomer's Guide	Dickinson & Dyer	2	\$45.00	Night Sky Star Wheel	Sky Publishing	2	\$15.00
The Beginner's Observer's Guide	L. Enright	2	\$19.00	Patterns in the Sky	K. Hewitt-White	5	\$19.50
Observer's Handbook 2006	RASC	5	10.00	Scientific American Book of the Cosmos	D.H. Levy	1	\$48.00
Observer's Handbook 2005	RASC	1	5.00	Deep-Sky Wonders	W. Houston	2	\$24.50
Isabelle Williamson Lunar Observing Program	RASC	7	\$10.00	Mars Observer's Guide	N. Bone	2	\$14.00
Skyways – Astronomy Handbook for Teachers	M.L. Whitehorne	2	\$20.00	Deep Sky Observer's Guide	N. Bone	2	\$14.00
Pocket Sky Atlas	R. Sinnott	5	\$24.50	Practical Astronomy	S. Dunlop	4	\$14.00
Binocular Highlights	G. Seronik	4	\$35.00	Field Map of the Moon	Sky & Telescope	6	\$12.50
				Moon Map (laminated)	Sky & Telescope	3	\$6.00
				Messier Card	Sky & Telescope	10	\$5.00
				Saskatoon's Stone	Mysyk & Kulyk	11	\$3.00
				The Messier Objects	S.J. O'Meara	1	\$39.00

SKY BUYS & MIRROR CELLS

The Saskatoon Centre's Swap and Sale Page!

FOR SALE: Antares 12"DOB asking \$850.00 or best offer. Please contact Beverly Davis at 306-285-3639 or fadavis@sasktel.net

FOR SALE: Celestron FirstScope 70 EQ Refractor Telescope, model 21076. Any reasonable offer accepted. E-mail: Audrey Bayduza bayduza@sasktel.net

FOR SALE: Pyrex mirrored JMC reflector dobsonian telescopes,
6 inch F/5.5 \$500.00 8 inch F/7.5 \$1000.00
10 inch F/6.3 \$1600.00

All units include 8x50 finderscopes, Star Atlas (Astronomy), 3 eyepieces and related publications. These are Canadian made telescopes, manufactured in Comox, B.C.
John C. McKee, (250)339-3090

Fred Donald Davis 1938 - 2007

by Martha Davis and Richard Huziak

It is with sadness that I write of the passing of one of our distant members. Fred Donald Davis was born in Lashburn, Saskatchewan on September 30, 1938 and died of a heart attack on Monday, March 4, 2007 at his farm, a half-hour south of the town. Despite not straying much from his firm roots near Lashburn, Fred was well versed in the politics and news of the world. In the few times I had the honour to meet him, there was no shortage to discussion about world and local events. Fred married a childhood friend and local schoolteacher, who remained with him throughout his life. Fred and Bev spent their time farming sheep, cattle and an old-fashioned farmyard menagerie.

Because Lashburn was about half way home from the Alberta Star Party, I dropped in a few times to buy a bit of the year's crop and always had a nice visit. Fred called me a few years ago about buying his first telescope and through that contact he became a member of our club and a friend. He attended the Saskatchewan Summer Star Party once, and impressed by the instruments he saw there, he bought a 12.5" Antares dobsonian this past fall. But due to poor winter weather, Fred never got the telescope out under the stars before his passing.

His daughter Martha remembers her years on the farm and her dad's early interest with the sky. She writes:

"Dad got into astronomy again about 4 or 5 years ago.

This past year I built a Dob. It still needs a fair bit of "tweaking" before I'll be happy with it, but here is a part that I am very happy with. It is a focuser made from plumbing supplies.

It allows for 3 inches of rough focus by moving the drain pipe in and out. When rough focus is achieved you simply tighten it in place. By moving the threaded coupler (counter sunk into the wood) you can get up to another $\frac{1}{4}$ inch of fine focus.

The whole thing can be easily manipulated even with Mitts on (a Saskatchewan must). And best of all it costs next to nothing to put one together!



As kids we grew up on the farm and it's on an escarpment and wow, the view was phenomenal. Dad would take us to this one hilltop away from everything and we'd lie on the ground and look at the stars. Even then dad knew quite a bit about the constellations. Dad really enjoyed the social aspect of the star parties and just loved learning in general. I can't remember a winter he wasn't 'reading up' on some topic or other.

When dad came across a Girl Guides badge and the astronomy requirements, dad made sure he gave that to me (I'm a Girl Guide Leader in Cut Knife) and really encouraged me to do this badge work with my girls. I haven't mostly because I'm not knowledgeable about astronomy but when we went caroling at Christmas I passed on some stuff he'd taught me to the girls and they expressed an interest. I guess I should do that with them. Dad would really be proud. He had a life long passion for learning and knowledge - not bad for a guy with a grade 11 education.

Dad was so excited to take his new telescope to the next star party. He was really looking forward to it. Who knows, maybe he's up there taking a close first-hand look! Dad had saved up his pension cheques until he could buy the telescope that he'd wanted. He really wanted a good one. Dad never was into half measures....."

Bev is in the process of scaling down the family farm



Homemade Focuser. Photo by Ken Maher

Report on the Raffle

by Darrell Chatfield

Our raffle raised \$1959.62. Thanks again, to all of the ticket sellers for your support and efforts. And a special thank you to Marianne, Myrna, and Barb for creating the fine looking quilt.

Astronomy at the T-Rex Centre

by Richard Huziak & Kathleen Houston

Dinosaurs and astronomy have an obvious cosmic connection, and so it was only a matter of time before the T-Rex Museum in Eastend, Saskatchewan gave us a call for a talk. The T-Rex director, Dr. Heather Gibson, who coincidentally is a geologist with a great interest in impact cratering, invited us to come down to do some astronomy awareness work in the community on April 14th. One of the purposes of the trip was to get some community support to repair and reopen the Wilkinson Memorial Observatory. The observatory had been used up until a few years ago, and then fell into disrepair.

The Wilkinson Memorial Observatory has a bit of a history with the Saskatoon Centre. The observatory was established many years ago when Wilkinson donated a homemade 8-inch Newtonian and old dome to the community. Used initially in town, the donated telescope was moved to a darker location southwest of town in the early 1980s and a new observatory was built for it. Involved in the telescope's move and the observatory design was Jim Young (from Saskatoon), and in more recent years, Wade Selvig (from Shaunavon) ran public tours in Eastend. In the early 1990s, the 8" German equatorial-mounted telescope was replaced with a C-11 in a fork-mount. Wilkinson's telescope was then moved to the Eastend museum where it can be seen today.

We decided that the best approach to revive the observatory was threefold. We had to do a site survey to determine the condition and amount of upgrades that would be necessary. We would give a public talk. Then we would follow this with a public star night on the observatory grounds. Because of his familiarity, we invited Wade to help us for the day.

The site survey was conducted in the early afternoon.



Wilkinson Memorial Observatory, Eastend, SK



Kathleen Houston, Wade Selvig, and Heather Gibson check out the site's solar panel.



Kathleen loses a few fingers to Scottie.

mechanism stick. The solar panel had deteriorated wiring. But the observatory is otherwise very well equipped, with a good telescope and lots of accessories. This facility is well worth restoring, and it wouldn't take more than a few weekends to get it running again!

In the early evening Rick gave an hour-long talk at the T-rex Centre auditorium. The presentation was named "A New View of the Solar System" which described our planetary system after the deletion of Pluto. The presentation was full of short animations that got a few awe's and ooh's out of the great turnout of 53 locals. (The same presentation was given at the Saskatoon Centre's May general meeting). In appreciation of the talk, Heather presented Rick with an impact shatter cone from the Sudbury crater.

con't

Following the talk, the public was invited to join us at a public star night at the Wilkinson Memorial Observatory. We brought our 10" dobs and set up to view Saturn, despite a hazy sky and inbound clouds. Wade did traffic control and tours of the observatory (since the disrepair did not allow opening of the dome). A very pleasant surprise was the appearance of Joan Hodgins, an interpreter at the Cypress Hills Inter-provincial Park, who brought the park's 20x80 binoculars and helped us with public viewing. We didn't know Joan lived in Eastend, but her help and knowledge was a very welcome addition to the star party. (Joan, like the other interpreters, Melody, Nicole and Mimi, is completely sold on the astronomy park programs, and has learned an amazing amount about astronomy and dark sky preserves over the last few years!) Attendance at the star party was at least as good, and maybe even better than the talk with somewhere between 50 and 70 people paying us a visit. This was a very encouraging show of support for the Eastend observatory project.

On Sunday morning we, Heather, Joan and Wade had breakfast at a local restaurant. To entertain us, Joan brought a mounted cross-section of the actual K-T boundary that was excavated from the area. The mounted section contained the quarter inch thick layer formed by the debris of the asteroid impact that may very well have killed the museum's T-Rex. A bonus was

that we then received the "Director's Tour" of the T-Rex Centre, and Heather graciously took us into areas of the museum that are generally not open to the public, such as the fossil preparation room, and the storage room that houses the actual bones of Scottie, the T-Rex. (Most of the fossils displayed are casts of the invaluable real bones).



Heather and Kathleen check out Scottie's real tail bones!

The weekend was a lot of fun. Just prior to the Eastend visit we did a short hiking tour of the Grasslands National Park at Val Marie (possibly the province's next Dark-Sky Preserve) and just for good measure, to complete the Sunday, we drove to CHIPP to meet with Brad Mason over SSSP matters and future DSP plans.

Astronomical Art Show

by Tenho Tuomi



Bob Johnson and his telescopes. Photo by Tenho Tuomi



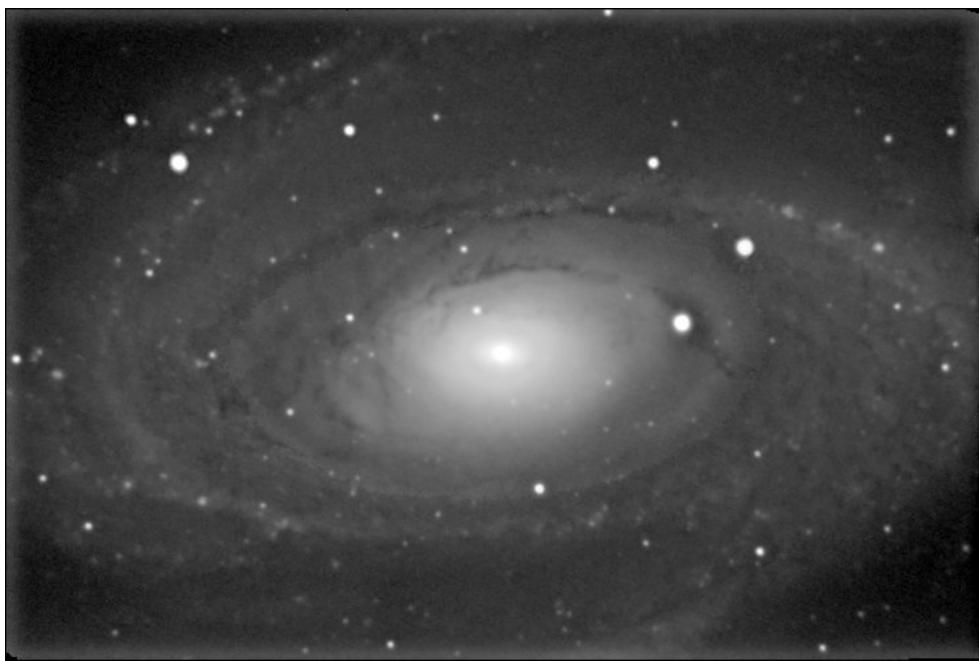
Jade Gallery. Photo by Bob Johnson

In February Bob Johnson had a display of his astronomy photographs at the Centre Mall's Jade Gallery. He wrote, "This Project of mine if nothing else will raise awareness of amateur astronomy. I will have my scope and laptop out as well on the Saturdays, where I will be set up with a table".

Afterwards Bob reported, "It went really good. I sold quite a few pics, mostly solar and lunar, and some globular clusters. One person from Africa was visiting someone in town and bought one of my solar pics, I now know someone in Africa that has one of my pics, cool".

(Photo) Shop Talk

by Al Hartridge



Al Hartridge reported that, "This photo (of M81) and the cover photo were taken with my C14 at 3910 mm focal length.

The CCD camera is an SBIG ST10E with an SBIG cfw10 color filter wheel. Luminence frame total

exposure time was approximately 75 minutes for both M63 and M81. Total exposure time for RGB frames was about 210 minutes.

Bias, dark and flat field files plus flat darks were used in the reduction of the light frames.

Further manipulation of files was carried out using a number of features in Maxim DL CCD to arrive at an RGB tiff file and Luminence tiff file.

These two files were then used in photoshop which also has a number of useful programs to produce the final results".

[Editor's note: Due to size constraints both of Al's pictures have been reduced in size (and therefore also quality). Please speak to Al to see these pictures as they deserve to be seen!]

Observer's Group Notes

by Larry Scott

Four of us made it out to Sleaford for the May 11th observer's night - Bill, Ron, Jim G. and Norma. Moderate east winds and a temperature of 9 degrees Celsius kept the new mosquitoes at bay. Bill worked and wandered around drumming up interest in looking through the 16" - the rest of us were glued to our scopes for most of the evening exploring something in the night sky. (Thanks Norma for the report)

Our next observer's group is June 8th and should include enough mosquitoes to make you anemic. The sky gets slightly dark for a short period around 01:00 a.m. at this time of year but at least it's warm. If we're clouded out on the 8th I'm prepared to go again on the 15th, or maybe both nights. If anyone has a request for a topic to cover at the observer's group please let me know and I'll see what I can slap together.

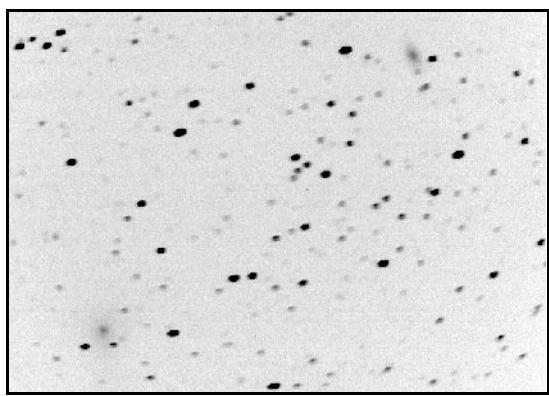


Photo by Tenho Tuomi

Whenever our solar system objects pass close enough to deep sky objects to be in the same picture, it always impresses me how close they look to each other, but are really so far apart. It is even more impressive when the objects look the same as in this picture taken May 17, of comet C2007 E2 Lovejoy in the lower left corner and galaxy ngc 6015 in the upper right corner. The comet was about 6 light minutes distance, the background stars are perhaps 1000 light years distance, while the galaxy is estimated to be 40 million light years distance.

The Planets This Month, June 2007

by Murray D. Paulson, Edmonton Centre

The month of June starts off with **MERCURY** at greatest eastern elongation on June 2nd. A pair of binoculars is required equipment to find it in the sun's glare half way between Venus and the sun. Early in the month it shines at magnitude 0.1, but it fades rapidly as it moves in closer to the Earth. By June 12th, Mercury shines at magnitude 1.3, and is large 9.7" crescent. It will sit at 21 degrees from the sun, but the extended twilight will make it very difficult to find, despite setting 1 ½ hours after the sun. It will speed up in its race back to the sun and makes its date on June 28th. Mercury will pass just over 4 degrees below the sun at this conjunction, but its absence of atmosphere will make it impossible to see since it shines at only magnitude 5.

VENUS is following Mercury in a more stately pace, and passes through greatest eastern elongation on June 8th. It will show you a 23.3" half disk at this time and shines a dazzling magnitude -4.2. Venus will accelerate in its growth and it will move back toward the sun more rapidly than its leisurely pace on its trip out. Over the next month it will grow in size and on July it will pass 38 minutes of arc from Saturn. Quite the sight in the eyepiece and a grand photo op. Saturn will show a 16.7" disk and Venus a 31.3" crescent. Venus will shine at magnitude -4.4 at this time compared to Saturn's magnitude 0.5. On August 18th, Venus passes 8 degrees below the sun, and this will make a great time for those of you that haven't seen it in such close proximity. The slim razor crescent is something to be seen. Try it at the summer star parties, or over the week after. As usual, take great precautions when observing near the sun so that the scope can not accidentally be bumped so that the sun could be directed down the tube. Find the sun first with a solar filter, and establish focus. Then tip the scope down the 8 degrees, then and only then take the solar filter off. Put your hand over the eyepiece to ensure that the sun is not shining through it, then look and see if you can see Venus.

MARS is lost in the twilight haze over the month of June, but passes through Pisces and shines at magnitude 0.7 and shows a 6" disk in the eyepiece. By the summer star parties, Mars will sit in Taurus between the Pleiades and the bull. It will have grown to 7.5 " and now shines at magnitude 0.4 and will outshine Aldebaran. Is it redder than Aldebaran?

June is a cracker month with lots of planetary activity.

JUPITER is at opposition on June 5th and shines at magnitude -2.6 and shows a disk of 45.7" if you can find a spot to see it from. It culminates at a height of 14 degrees above the horizon, and sits above Scorpius. It transits the meridian at 1:15 a.m. but will move into a better observing location and time as we move into July.

PLUTO is also at opposition this month on June 19th. Pluto sits 6.8 degrees above the ecliptic and has moved into Scorpius this year. Use a finder chart and hunt it down at the summer star parties. It will shine at magnitude 14 this year.

SATURN is sliding down the sky and is a good early evening object to set your scope on. It will move to close to the horizon over the month and becomes harder to observe. Saturn hangs about in the sickle of Leo for the duration of its stay and remains close to magnitude 0.5 for the summer.

Uranus and Neptune make great targets for late summer, and there are fine finder charts in the handbook.

URANUS shines at magnitude 5.7 and is easily swept up in binoculars. The challenge is to see it naked eye. It shows a lovely blue green 3.7" disk in the eyepiece and if the seeing is good, crank up the magnification so you can see it well. Uranus has a few moons worth chasing down, Titania, mag 13.9; Oberon, 14.1; Ariel -14.3; and Umbriel at 15. You need 12" to see them and a 20" to see them well. There is always someone with a 17 to 20 inch scope that needs a project at the star parties. Chase them down! Make up a chart from your favorite software and go for it.

NEPTUNE sits in Capricorn and shines at magnitude 7.8 and has a 2.4" disk. If you have some aperture, you can hunt for its moon Triton which shines at magnitude 13.4 and sits 11" to 15" from the planet. This is an easier hunt than Uranus's moons because the glare from the planet is not as severe. As before, make up a chart from your favorite software and see what you can do.

Enjoy the summer, and I may see you at one of the star parties.

Clear skies!

The Messier, H-400 & H-400-II, FNGC, Binoc & EtU Club

Join the Club! Observe all 110 Messier, 110 Finest NGC, 400 Herschel I or 40 Herschel II

Explore the Universe, or 35 Binocular Objects and earn great OBSERVING CERTIFICATES!

MESSIER CLUB

Certified at 110 Objects:

R.Huziak, G.Sarty, S.Alexander,
S.Ferguson, D.Jeffrey, D.Chatfield,
B.Christie, K.Noesgaard, M.Stephens,
B.Hydomako, T.Tuomi, L.Scott,
G.Charpentier, B. Johnson, M. Clancy,
L. Dickson

Brent Burlingham	109
Ken Maher	105
Ron Waldner	105
Brent Gratias	96
Mike Oosterlaken	93
Norma Jensen	Up! 92
Lorne Jensen	89
Kathleen Houston	84
Margo Miller	77
Wade Selvig	75
Garry Stone	57
Ellen Dickson	30
Jeff Swick	24
Barb Wright	23
Brian Friesen	15
Bruce Brandell	5

FINEST NGC CLUB

Certified at 110 Objects:

R.Huziak, D.Jeffrey, G.Sarty,
D.Chatfield, T.Tuomi

Larry Scott	110
Scott Alexander	97
Bill Hydomako	55
Sandy Ferguson	23
Mike Oosterlaken	20
George Charpentier	12
Ken Maher	8
Mike Clancy	7

EXPLORE the UNIVERSE

Certified for Certificate:

M.Clancy, T.Tuomi, K Maher, Brent
Gratias

HERSCHEL 400 CLUB

Certified at 400 Objects:

D.Jeffrey, R.Huziak, D.Chatfield

Gord Sarty	251
Tenho Tuomi	222
Scott Alexander	117
Mike Oosterlaken	68
Sandy Ferguson	18

HERSCHEL 400-II CLUB

Certified at 400 Objects:

Darrell Chatfield	Up! 297
Richard Huziak	211

The Messier & Finest NGC lists can be found in the Observer's Handbook. The Explore the Universe list is available on the National web site. The Herschel 400 list is available at the web site listed below. The Binocular List will be available at each general meeting or can be mailed out on request to distant members.



On-line Messier and Finest NGC lists, charts and logbooks - check out:

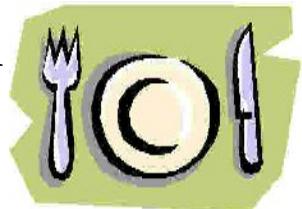
<http://www.rasc.ca/observe.htm>

On-line Herschel 400 List - check out the official site at:

<http://www.astroleague.org/al/obclubs/herschel/hers400.html>

FUND RAISING DINNER

Mulberry's (sturdy stone) - 124-3rd Ave North June 7th,



has been postponed until the fall, due to limited interest.

contact Barb (249-1990) wrightb@sasktel.net,
or Norma (244-7360) njensen@scs.sk.ca.



Colton Edwards is building an observatory in Delisle. He wrote earlier, "My boss gave me permission to build a observatory in the backyard as she wants the front room cleaned up. Here's what I've achieved so far. Concrete is starting to be poured, I have not finished filling the piling yet." Here is a picture of the framing of the platform.