BULLETIN
OF THE ROYAL ASTRONOMICAL SOCIETY OF CANADA

October 2010 - Volume 5, Number 10 Ian Levstein, Editor

We welcome your comments on the ***Bulletin***. Email them to the Editor at bulletin@rasc.ca.

A **PDF** version of the *Bulletin* is available at: http://www.rasc.ca/im/bulletin/1010.pdf
A **text-only** version of the *Bulletin* is available at: http://www.rasc.ca/im/bulletin/1010.txt

➢ Editor's Notebook by Ian Levstein

Correction... and New Features

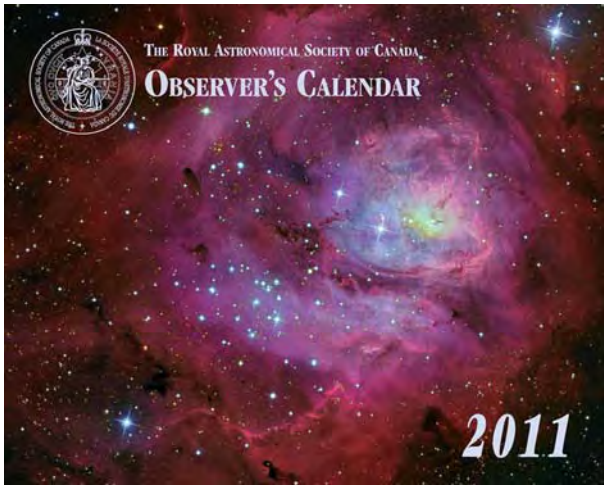
Owing to the Editor being asleep while reviewing articles for last month's *Bulletin*, it was erroneously reported that there was a Sudbury Centre of the RASC. There is no Sudbury Centre, and I apologize for my mistake.

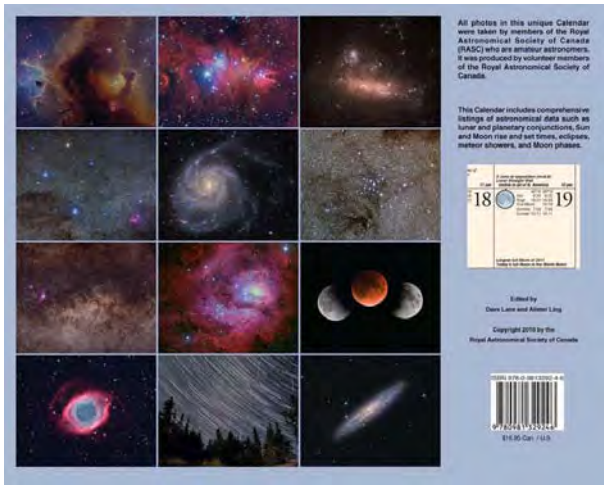
This month sees two new features in the *Bulletin*. First, a new section RASCals Highlights will showcase a memorable or interesting observing report, gleaned from posts on the national RASC list. Second, in reponse to member requests, the *Bulletin* will now be released in two additional formats - a PDF version and a text-only version. Links to both formats will be listed near the top of the *Bulletin*.

➢ News @ RASC.ca

Hot Off the Presses: 2011 Observer's Calendar!

by **Mary Lou Whitehorne**, RASC President





Our must-have award-winning RASC 2011 *Observer's Calendar* is now available! It features 12

spectacular astro-images taken by our members along with unequalled astronomical information including lunar phases and librations, sunrise and sunset times, astronomical events such as meteor showers, occultations, and much, much more! It's the perfect gift for friends, family, co-workers and everyone who wants more from a calendar than the date and phase of the Moon.

For information and to order, click here.

GLP Poster Online

by **James Edgar**, Regina Centre

The GLP Committee has created a one-page PDF called *Green Laser Pointers: SMART Use*. It is available here. Download and print some for distribution to your friends and observers at star parties or public outreach events.

➢ Across the RASC

Niagara Centre Turns 50

by **Philip Downey**, Niagara Centre Secretary

The Niagara Centre is celebrating its 50th year of RASC membership this month. The club was founded in 1958 by seven local astronomy enthusiasts. It grew quickly and joined the RASC on 1960 October 3. To mark the anniversary, the Centre is holding a banquet in Niagara Falls on October 23. The guest speaker will be **Roberto Abraham**, an astronomer at the University of Toronto.

The club's current membership stands at 71. Our numbers peaked in 2004, with 123 members. Our current group is composed of very active observers, astrophotographers and educators.

The club has two observatories at our dark-sky site in the Chippawa Creek Conservation Area, which is very good for dark-sky observing and imaging. We do public starnights for the campers in exchange for the use of their land. We also maintain and use a planetarium at A.N. Myer secondary school in Niagara Falls, which we use to instruct club members and local students on astronomy and the night sky. As well, our members participate in many public starnights and travel to local schools to provide astronomy education sessions during the school days and in the evenings. Our monthly meetings are held in Niagara Falls. A new executive will be elected this month to lead the club into its second 50 years of RASC membership.

Astro Tidbits

by **Jim Hesser**, RASC Honorary President

October 15-24, **National Science & Tech Week**: This national celebration of scientific activity in Canada offers an unparalleled opportunity for BIYA activities. Please register your events here. [NOTE:The sooner you register the better, because the national team has to get all event information translated for their bilingual Web site. They expect to have a major updating of the events listing posted soon, but that depends upon receiving notices from event organizers in a timely manner.]

October 16, **One World, One Sky**: Multicultural Astronomy Day in Toronto as proclaimed by Mayor **David Miller**. Read the inspiring text here. As described in the following from **John Percy**, "In Toronto, a major Multicultural Astronomy Festival is planned at the Ontario Science Centre. Invited speakers include **Julieta Fierro** (Mexico), one of the world's foremost astronomy communicators, and **Wilfred Buck** (Manitoba), a noted First-Nations educator. The Festival will include a wide assortment of

engaging activities, including storytelling, hands-on activities, a planetarium program, student presentations, and ask-an-astronomer sessions. The Festival is the start of several months of school and public activities, whose goal is to connect with diverse cultures through their astronomy, and to inspire their youth to develop an interest in science, and science careers." What a great way to kick off National S&T Week!

Stories of the Night Sky: On 10 September, the National Association of Friendship Centres issued a press release about this project to have Aboriginal youth work with elders talking about traditional stories of the sky. See here. There are also a variety of videos here that relate to the science, the storyteller, the science journalist, the artist and the inspiration for this Web site and its content. **Yvonne Mosely** (Maritime Television and Production Services) is working with her Aboriginal partners to propose a continuation of their project for the Aboriginal Peoples Television Network.

International Observe the Moon Night: Overall there were 502 registered events in 53 countries, representing a really encouraging start for a new international astronomy outreach event! I have received reports from some Canadian event organizers and would welcome more for accumulation of BIYA statistical information. Thank you to everyone who was able to help members of their community enjoy the Moon on the 18th. Please plan to host an event next year to help establish this as a truly accessible, fun astronomy outreach opportunity.

Identifying Impact Structures Update

by **Charles O'Dale**, Ottawa Centre

My series "Identifying Impact Structures" has been updated to include my explorations within the Manicouagan crater.

Australia Eclipse Expedition

by **B. Ralph Chou**, President, Toronto Centre

Details of the Toronto Centre's eclipse expedition to Australia for November 2012 are here. We have space for 40 participants at this point.

International Observe the Moon Night and Contest to Win a Free Telescope

by **Luca Vanzella**, Edmonton Centre

The Edmonton Centre hosted International Observe the Moon Night on September 18 by opening the Edmonton Centre Observatory to the public for viewing the Moon and other celestial delights. The event was to feature a contest for young astronomers (aged 10-17) to win a free telescope donated by the Centre. The sky conditions were variable but we did get decent views of the Moon at times, and later Jupiter and Uranus. We also got a few double stars but deep-sky objects were a write-off. We were extremely busy throughout the evening, with about 100 visitors over the 4 hours. The level of interest and appreciation of the public was particularly high.

Unfortunately, due to the rather poor skies, we were forced to postpone the telescope contest to September 25. This turned out to be a good decision, since September 25 was one of those beautiful, warm autumn days with great skies for a public astronomy event. The evening was basically shirt-sleeve conditions, which brought back an even larger crowd to the Observatory. Thirteen young astronomers entered a draw to win a free telescope by making five simple observations: point out two constellations, observe the Moon and draw what they saw, observe Jupiter and draw what they saw, observe a double star and describe what they saw, and observe a deep-sky object and describe what they saw. Several budding astronomers and potential future members of the RASC had a lot of fun operating small telescopes and learning about the night sky. On October 18, one of these contestants

will win a 90-mm refractor complete with tripod, mount, eyepieces and filters.

➢ RASCals Highlights

Jupiter in Small Refractors

by **Alan Whitman**, Okanagan Centre

Once each orbit, Jupiter has a favourable opposition and becomes ~50" in equatorial diameter, as it is now. In October 1963, Jupiter attained 50" and I owned a 60-mm Tasco achromatic refractor. At that favourable opposition my 60-mm (2.4-inch) achromatic refractor showed me things on Jupiter like shadow transits and the Great Red Spot that the guidebooks and RASC Observer's Handbook of that period said required at least a 3-inch refractor.

If there was any observer in greater Moncton, NB in those days with a better scope than my little 2.4-inch achromat, I was not privileged to meet them and use their scope. The experienced observers who wrote guidebooks would seldom, if ever, have actually tried observing planets with such a little scope as a 2.4-inch, since they owned 5-inch Unitron achromats or 8-inch Cave Astrola Newtonians. Dream scopes like that only existed in Sky&Telescope ads. Nor did it make sense to me that suddenly all would be revealed with a 3-inch refractor, but supposedly only the equatorial belts could be seen with less than a 3-inch. Nothing ventured, nothing gained. So I used my little 60-mm refractor every partly clear night on that memorable 1963 opposition of Jupiter and saw things like shadow transits that expert observers had said were beyond its capability.

Now that I have owned a 3.1-inch refractor (an 80-mm Skywatcher apo) for a few years, I have been curious to see what a 3-inch refractor really can show on Jupiter, but this is the first year since my purchase that Jupiter has been far enough North to offer a steady image. The Clear Sky Chart forecast 4/5 seeing for Penticton on the night of September 22-23. The 80-mm f/7.5 Chinese apo performed admirably on Jupiter's 49.85" disk at 120x and 171x, showing a lot more than I expected to see.

Jupiter transited at 0045 PDT, and I observed from 0015 to 0135 PDT. The North Polar Region (NPR), North North Temperate Belt (NNTB), North Temperate Belt (NTB), reddish-brown North Equatorial Belt (NEB), faint South Equatorial Belt (SEB), South Temperate Belt (STB), South South Temperate Belt (SSTB), and South Polar Region (SPR) were all visible, as was the Great Red Spot (GRS). The GRS was rotating off the disk at the beginning of the observing session and was soon gone. The NNTB was much more prominent on this face of Jupiter in my 3.1-inch than it was the previous night in my 16-inch (on a different part of Jupiter). Conversely, the SSTB was only visible at the beginning of this observing session, while the SSTB was very prominent the previous night. The STB was easy at first, but by 0130 only the preceeding third of the STB was dark and obvious.

At first the NEB was split lengthwise for a short distance. The white split was on the Central Meridian (CM) around 0030, flanked by darker parts of the belt on both sides of the split. An hour later, a diagonal white streak in the NEB was on the CM, and a dark barge had rotated a quarter way onto the disk. Just as I was thinking that the only belt details that the 80-mm scope had shown were all in the NEB, the seeing allowed a small dark spot on the NNTB to reveal itself. This feature on the NNTB was already just past the CM at 0130, but was not seen during the previous 75 minutes.

All of the Galilean moons appeared to have disks, but since I am a conservative observer, I am only convinced that Ganymede's disk was actually resolved. At 171x Ganymede's disk was considerably larger than the other three moons' disks. (Perhaps the smaller disks of the other three moons were just Airy disks.)

Uranus also had an obvious disk at 171x. At 25x the small refractor has a 2.6-degree FOV and the

greenish planet and Jupiter were only one-third of a field apart.

I was well-pleased with the little apo refractor's performance, but I will use bigger glass for the rest of Jupiter's show this autumn.

The Sky this Month

What's New in the Sky

Members are encouraged to check out the **Northern Skies** section of the RASC Web site. Thanks to **Gary Boyle** for keeping us all in the know.

Dates to Remember

- **2010 October 15-24** - National Science & Tech Week
- **2010 October 16** - Fall Astronomy Day
- **2010 October 16** - One World, One Sky
- **2010 October 23** - National Council Meeting, by teleconference @ 1100 ADT

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