Hamilton Centre RASC

Orbit

November 2003 Volume 36 Issue 8

Lunar Eclipse – November 8 2003

The RASC Hamilton Centre will be hosting a public showing of the lunar Eclipse on November 8, 2003 at Bay Front Park in the city of Hamilton starting at 6:30 pm

Although a lunar eclipse may not be as exciting as a solar eclipse, it is nonetheless a spectacular event that one should definitely not miss. The upcoming eclipse occurring during the night of November 8th will be visible over all of North America.

An eclipse of the Moon can only occur at full Moon and only when the Earth is exactly between the Sun and the Moon. Usually occurring twice a year, the Moon becomes engulfed in the Earth's shadow for up to 1 1/2 hours. Unlike a total solar eclipse, a lunar eclipse is seen from the night side of Earth, providing millions of front-row seats for interested observers.

The Moon never becomes completely blacked out during a lunar eclipse. Sunlight diffusing through the Earth's atmosphere bathes the Moon in a dull glow that reduces it to about 1/10,000th of the normal brightness of a full Moon.

The darkness of the shadow can vary due to the amount of cloud, dust and pollution that is suspended in the Earth's atmosphere at the time of eclipse. Occasionally the obstructions are sufficiently dense enough to make the Moon disappear while at other times the shadow only imparts a pale rusty hue to the Moon.

Start your eclipse watch about 20 minutes before the Moon is scheduled to enter the shadow of the Earth. The eastern edge of the Moon will become slightly dusky, indicating that the shadow of the Earth is nearby. Once the Moon actually contacts the shadow, the darkening effect is easily noticeable. The Moon will take about an hour to fully slip into the shadow whereupon the process is then reversed as the Moon makes its way out of the Earth's shadow. Totality lasts only a short 24 minutes for this eclipse. Because of the angle at which the Moon will be entering the Earth's shadow, the southern portion of the Moon should stay much brighter than the northern portion, similar to the photo at the left.

Event	EST
	Moonrise
Penumbra 1st contact	17:15
Umbra 1st contact	18:32
Umbra 2nd contact	20:06
Greatest eclipse	20:19
Umbra 3rd contact	20:31
Umbra 4th contact	22:05
Penumbra 4th contact	00:22

Beginners Observing Group

If you are interest in the Beginners Observing Group contact Ken Lemke by e-mail at cfs@worldchat.com (day time) or klemke@attcanada.ca (night time or week-ends). His phone number is 905-634-5168 (day time) or 905-639-5127 (night time and week-ends) or Gary Colwell at glcolwell@sympatico.ca

November General Meeting

Please remember that Thursday November 6 is our General Meeting and the program for the evening is "A is for Astronomy" a presentation by Alexi Manis and Dave Mott.

Are you a newcomer to astronomy but finding it a bit intimidating? Unable to distinguish NCG 869 from M31? Can't afford the newest Dob or Schmidt Cass? Well join the crowd! New to both the NYAA and astronomy, Alexi and Dave will be giving an interactive presentation describing many ways in which the novice astronomer can participate in this fascinating hobby. From making solar filters to choosing your first telescope, you'll learn some good tips to get started in the field. Whether you're young or young at heart, come on out and belong! No experience required

International Astronomy Day 2003 is Saturday May 10th.

On that day, professional and amateur astronomers all over the world bring the Universe to the public, through public observing sessions, displays, and information booths in malls, science centres and planetarium. The RASC joins groups from nearly 30 countries in celebrating International Astronomy Day.

New Book by the RASC

Looking Up A History of the Royal Astronomical Society of Canada, by R. Peter Broughton, is a masterpiece of research covering the entire nationwide organization, since it's founding nearly 131 years ago. General readers will be surprised to find out what amateurs can learn from the sky. Leaders of volunteer organizations and educators looking for ways to promote greater appreciation of science will find many useful ideas in the book. Historians will also find interesting facts about the origins and contributions the RASC centres have made in their local communities.

If you would like to order this new book contact the RASC www.rasc.ca click on publications or call toll free 1- 888 924-7272

Work Day at the observatory By Grant Maguire

On Sunday October 26, 2003, Les Nagy, Gary Colwell, Mark Kaye, Roger Hill, John Williamson, Steve Barnes and Grant Maguire gathered at the observatory in the pouring rain to build a box. Really a box. I didn't understand the concept at first. I guess I just could not picture it. What was built was an insert in the ceiling so the observatory could accommodate a ceiling mounted digital projector. It was exciting to watch these guys who have so much talent give to RASC Hamilton Centre. Les – Carpentry and electronics, Gary – Carpentry, Mark – electricity, Roger - Computers, John – handy man, Steve – reaching to high places, Grant - Some one has to wear the white hat. By the end of the day it was looking pretty good. However when we were about to install the projector we encounter a malfunction in the unit. All is not lost Les is looking into repairing the projector. (The projector was an old unit that was donated by Roger Hills Company). We are hoping for the best. Even if this unit isn't repairable we will be purchasing a digital projector with the Trillium grant funds.

As this is article is written Les Nagy has repaired the projector, made adjustments to it and is preparing it for installation for this Sunday November 2, 2003. Many thanks to Les and rest of the gang for installing the digital projector.

Hamilton Centre Logo Clothing

Ken Lemke has generously offered to coordinate the sale of various clothing items with a very distinct Hamilton Centre Logo on them. The logo is shown as the header on page one of Orbit. Here is a list of the clothing items and our introductory special prices. If you are interested in ordering items please contact Ken Lemke by e-mail at cfs@worldchat.com (day time) or klemke@attcanada.ca (night time or week-ends). His phone number is 905-634-5168 (day time) or 905-639-5127 (night time and week-ends) To make the ordering process as easy as possible we are requesting that you pay for your garments upon ordering with a cheque payable to "RASC Hamilton Centre"

Item	Style Number	Price
Ladies North End Fleece Vest	ASH70086	$39.00
Denim Shirt Long Sleeve	WD7120	$36.00
Sweat Top "Heavy Cotton"	WD18430-D	$30.00
Men's Micro Plus Lined Wind shirt	ASH88001	$53.00
High Point Golf Shirt	WD5600-01	$34.00
Men's Extreme Cotton Long Sleeve Pique Golf Shirt	ASH85017	$33.00
Ladies Extreme Fashion Cut Pique Golf Shirt	ASH75008	$27.00
Men's North End Fleece Vest	ASH88005	$49.00
Elements Polyester Fleece Toque	ASH441006	$16.00
Elements Polyester Fleece Headband	ASH441007	$16.00
Gildan Long Sleeve T-Shirt	WD2400	$23.00

November 2003 Hamilton Centre Calendar

Toronto, Ontario

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1 Sun Rise: 6:52am Sun Set: 5:10pm Moon Rise: 2:25pm Moon Set: 12:00pm
2 Sun Rise: 6:53am Sun Set: 5:09pm Moon Rise: 2:53pm Moon Set: none	3 Sun Rise: 6:55am Sun Set: 5:08pm Moon Rise: 3:17pm Moon Set: 1:10am	4 Sun Rise: 6:56am Sun Set: 5:06pm Moon Rise: 3:37pm Moon Set: 2:17am	5 Sun Rise: 6:57am Sun Set: 5:05pm Moon Rise: 3:56pm Moon Set: 3:22am	6 **General Meeting – "A Is for Astronomy"** Sun Rise: 6:58am Sun Set: 5:04pm Moon Rise: 4:15pm Moon Set: 4:26am	7 Sun Rise: 7:00am Sun Set: 5:03pm Moon Rise: 4:34pm Moon Set: 5:28am	8 Sun Rise: 7:01am Sun Set: 5:01pm Moon Rise: 4:55pm Moon Set: 6:32am Full Moon: 8:14pm
9 Sun Rise: 7:02am Sun Set: 5:00pm Moon Rise: 5:20pm Moon Set: 7:35am	10 Sun Rise: 7:04am Sun Set: 4:59pm Moon Rise: 5:50pm Moon Set: 8:39am	11 Sun Rise: 7:05am Sun Set: 4:58pm Moon Rise: 6:25pm Moon Set: 9:41am	12 Sun Rise: 7:06am Sun Set: 4:57pm Moon Rise: 7:09pm Moon Set: 10:40am	13 **Board Meeting - Observatory** Sun Rise: 7:08am Sun Set: 4:56pm Moon Rise: 8:01pm Moon Set: 11:34am	14 **Public Observing contact gcolwell@rogers.com** Sun Rise: 7:09am Sun Set: 4:55pm Moon Rise: 9:01pm Moon Set: 12:20pm	15 Sun Rise: 7:10am Sun Set: 4:54pm Moon Rise: 10:06pm Moon Set: 12:58pm
16 Sun Rise: 7:11am Sun Set: 4:53pm Moon Rise: 11:15pm Moon Set: 1:30pm Last Qtr: 11:15pm	17 Sun Rise: 7:13am Sun Set: 4:52pm Moon Rise: none Moon Set: 1:57pm	18 Sun Rise: 7:14am Sun Set: 4:51pm Moon Rise: 12:26am Moon Set: 2:21pm	19 Sun Rise: 7:15am Sun Set: 4:50pm Moon Rise: 1:38am Moon Set: 2:44pm	20 Sun Rise: 7:16am Sun Set: 4:49pm Moon Rise: 2:53am Moon Set: 3:06pm	21 Sun Rise: 7:18am Sun Set: 4:49pm Moon Rise: 4:10am Moon Set: 3:31pm	22 Sun Rise: 7:19am Sun Set: 4:48pm Moon Rise: 5:30am Moon Set: 3:59pm

23 Sun Rise: 7:20am Sun Set: 4:47pm Moon Rise: 6:54am Moon Set: 4:33pm New Moon: 6:00pm	24 Sun Rise: 7:21am Sun Set: 4:46pm Moon Rise: 8:18am Moon Set: 5:16pm	25 Sun Rise: 7:23am Sun Set: 4:46pm Moon Rise: 9:38am Moon Set: 6:11pm	26 Sun Rise: 7:24am Sun Set: 4:45pm Moon Rise: 10:47am Moon Set: 7:16pm	27 Sun Rise: 7:25am Sun Set: 4:45pm Moon Rise: 11:42am Moon Set: 8:30pm	28 **Public Observing contact gcolwell@rogers.com** Sun Rise: 7:26am Sun Set: 4:44pm Moon Rise: 12:24pm Moon Set: 9:45pm	29 Sun Rise: 7:27am Sun Set: 4:44pm Moon Rise: 12:56pm Moon Set: 10:59pm
30 Sun Rise: 7:29am Sun Set: 4:43pm Moon Rise: 1:22pm Moon Set: none First Qtr: 12:17pm						

Standard Time for entire month.
Courtesy of www.sunrisesunset.com

Board of Directors

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