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## January Meetings

The January general meeting has been changed to Wednesday January 7, 2004.

The January Board meeting is on it's regular night of Thursday January 8, 2004.

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## Spring Banquet

The Hamilton Centre has a tentative date of May 8, 2004 for our Annual Spring Banquet. Steve Barnes has secured Ivan Semeniuk as our guest speaker for that night.

### Ivan Semeniuk - Astronomy columnist

Ivan Semeniuk is the host of Discovery Connection, and "Skylights", the weekly astronomy column on [@discovery.ca](mailto:@discovery.ca)

Ivan has been a columnist on the show since its inception, and began working as a full time producer in the fall of 1999. Before becoming a science journalist Ivan spent 13 years developing science exhibits, programs and planetarium shows at the world-renowned Ontario Science Centre in Toronto.

During his career chasing the stars and telling people about the night sky, Ivan has been on hand for two Mars landings, witnessed three total eclipses of the sun and transported one moon rock across an international border.

Ivan is a contributing editor to SkyNew magazine and his articles have appeared in Astronomy, Mercury, and NewScientist among other publications.

Ivan completed his undergraduate studies in physics and astronomy at the University of Toronto "back when MIR was shiny and new." He has since earned a Master's degree in Science Journalism from Boston University.

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## Galaxy Posters

Galaxy Posters are still available. Mike Spicer has copies available for \$10.00 with all proceeds going to the Hamilton Centre.

Astronomy Day 2004 is set for Saturday April 24, 2004. The Hamilton Centre will be planning events for that Day.

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## Beginners Observing Group

If you are interest in the Beginners Observing Group contact Ken Lemke by e-mail at [cfs@worldchat.com](mailto:cfs@worldchat.com) (day time) or [klemke@worldchat.com](mailto:klemke@worldchat.com) (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@rogers.com](mailto:glcolwell@rogers.com)

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## 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](mailto:cfs@worldchat.com) (day time) or [klemke@worldchat.com](mailto:klemke@worldchat.com) (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 No.	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

## Astronomy Day



This shot of Saturn was taken by Glenn Kukkola. Taken December 27 at 1:30 am. It is 60 stacked images taken with a Fuji Finepix 40i digital camera, a homemade adapter, through his equatorial mounted 8 inch f/5 Newtonian. Stacking and processing was done with Registax.



Gary Colwell produced this Photo.

We finally had a nice clear day. I set up my TV102 and my Solarmax 40 to check out the sun. Spaceweather.com said there was a good possibility of class M solar flares near sunspot 528. At 2:00 EST I set the scope up, there were lots of prominences. I went inside to let scope cool down, and at 2:30 WOW!!!!!! A massive flare appeared and lasted for about 20 minutes then disappeared! It should spark some nice auroras in the next few days depending on its strength. I thought you might like to see it. The picture is reduced in clarity for the web but the original is saved as a TIF file.

The picture was taken with 24mm Televue zoom 1/8 sec exposure with Nikon Coolpix 995 f 4.3 and processed in Registax and Photoshop 6.



Grant Maguire took this photograph at the RASC Observatory. When taking the picture the sky appeared mostly black, with small patches of red. However the film and the time exposure did a great job to show the effect the massive solar activity taking place.

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## January is the month for viewing Saturn

Don't forget to get your telescope out this month for viewing Saturn. Saturn is the second largest planet in the Solar System and the sixth planet away from the Sun. Saturn is characterized by the Saturn ring, which is composed of icy and rocky particles.

Saturn revolves around the Sun with a period of about 29.5 years. Opposition of Saturn will occur about once every 378 days. The last Saturn opposition occurred on 18 December 2002 and the next occurrence will be on 1 January 2004.

As Saturn has just passed the perihelion of its orbit in July 2003, it is still relatively close to the Sun. During the opposition on January 1, 2004, Saturn will be relatively bright, reaching a visual magnitude of about -0.3 to -0.5\*. This will be a good time to observe Saturn and its ring structure. A telescope with 30 times or above magnification is preferred in observing Saturn.

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## NASA's Mars Exploration Rover Mission web site

If you are interested in keeping up to date on the Mars Exploration Rover mission, go to this website <http://marsrovers.jpl.nasa.gov/home/index.html>. January 4, 2004 saw the historic and successful landing of the first Mars lander "Spirit", and the subsequent lander "Opportunity". This website provide stunning photographs, press releases, and mission information.

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# January 2004 Toronto, Ontario

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 Twilight: 6:07am Sun Rise: 7:50am Sun Set: 4:51pm Twilight: 6:34pm Moon Rise: 1:05pm Moon Set: 2:15am	2 Twilight: 6:07am Sun Rise: 7:51am Sun Set: 4:51pm Twilight: 6:35pm Moon Rise: 1:27pm Moon Set: 3:18am	3 Twilight: 6:07am Sun Rise: 7:51am Sun Set: 4:52pm Twilight: 6:36pm Moon Rise: 1:54pm Moon Set: 4:21am
4 Twilight: 6:08am Sun Rise: 7:51am Sun Set: 4:53pm Twilight: 6:36pm Moon Rise: 2:25pm Moon Set: 5:24am	5 Twilight: 6:08am Sun Rise: 7:51am Sun Set: 4:54pm Twilight: 6:37pm Moon Rise: 3:04pm Moon Set: 6:26am	6 Twilight: 6:08am Sun Rise: 7:51am Sun Set: 4:55pm Twilight: 6:38pm Moon Rise: 3:52pm Moon Set: 7:24am	7 Twilight: 6:08am Sun Rise: 7:50am Sun Set: 4:56pm Twilight: 6:39pm Moon Rise: 4:48pm Moon Set: 8:15am Full Moon: 10:41am	8 Twilight: 6:08am Sun Rise: 7:50am Sun Set: 4:57pm Twilight: 6:40pm Moon Rise: 5:50pm Moon Set: 8:59am	9 Twilight: 6:08am Sun Rise: 7:50am Sun Set: 4:58pm Twilight: 6:41pm Moon Rise: 6:57pm Moon Set: 9:35am	10 Twilight: 6:07am Sun Rise: 7:50am Sun Set: 4:59pm Twilight: 6:42pm Moon Rise: 8:06pm Moon Set: 10:04am
11 Twilight: 6:07am Sun Rise: 7:50am Sun Set: 5:00pm Twilight: 6:43pm Moon Rise: 9:15pm Moon Set: 10:29am	12 Twilight: 6:07am Sun Rise: 7:49am Sun Set: 5:02pm Twilight: 6:44pm Moon Rise: 10:25pm Moon Set: 10:52am	13 Twilight: 6:07am Sun Rise: 7:49am Sun Set: 5:03pm Twilight: 6:45pm Moon Rise: 11:35pm Moon Set: 11:13am	14 Twilight: 6:07am Sun Rise: 7:48am Sun Set: 5:04pm Twilight: 6:46pm Moon Rise: none Moon Set: 11:34am Last Qtr: 11:46pm	15 Twilight: 6:06am Sun Rise: 7:48am Sun Set: 5:05pm Twilight: 6:47pm Moon Rise: 12:48am Moon Set: 11:57am	16 Twilight: 6:06am Sun Rise: 7:48am Sun Set: 5:06pm Twilight: 6:48pm Moon Rise: 2:03am Moon Set: 12:23pm	17 Twilight: 6:06am Sun Rise: 7:47am Sun Set: 5:07pm Twilight: 6:49pm Moon Rise: 3:22am Moon Set: 12:56pm
18 Twilight: 6:05am Sun Rise: 7:46am Sun Set: 5:09pm Twilight: 6:50pm Moon Rise: 4:42am Moon Set: 1:38pm	19 Twilight: 6:05am Sun Rise: 7:46am Sun Set: 5:10pm Twilight: 6:51pm Moon Rise: 5:59am Moon Set: 2:31pm	20 Twilight: 6:05am Sun Rise: 7:45am Sun Set: 5:11pm Twilight: 6:52pm Moon Rise: 7:07am Moon Set: 3:37pm	21 Twilight: 6:04am Sun Rise: 7:45am Sun Set: 5:12pm Twilight: 6:53pm Moon Rise: 8:03am Moon Set: 4:53pm New Moon: 4:06pm	22 Twilight: 6:04am Sun Rise: 7:44am Sun Set: 5:14pm Twilight: 6:54pm Moon Rise: 8:46am Moon Set: 6:11pm	23 Twilight: 6:03am Sun Rise: 7:43am Sun Set: 5:15pm Twilight: 6:55pm Moon Rise: 9:19am Moon Set: 7:28pm	24 Twilight: 6:02am Sun Rise: 7:42am Sun Set: 5:16pm Twilight: 6:56pm Moon Rise: 9:46am Moon Set: 8:42pm
25 Twilight: 6:02am Sun Rise: 7:42am Sun Set: 5:18pm Twilight: 6:57pm Moon Rise: 10:08am Moon Set: 9:51pm	26 Twilight: 6:01am Sun Rise: 7:41am Sun Set: 5:19pm Twilight: 6:59pm Moon Rise: 10:28am Moon Set: 10:58pm	27 Twilight: 6:00am Sun Rise: 7:40am Sun Set: 5:20pm Twilight: 7:00pm Moon Rise: 10:48am Moon Set: none	28 Twilight: 6:00am Sun Rise: 7:39am Sun Set: 5:22pm Twilight: 7:01pm Moon Rise: 11:08am Moon Set: 12:02am	29 Twilight: 5:59am Sun Rise: 7:38am Sun Set: 5:23pm Twilight: 7:02pm Moon Rise: 11:29am Moon Set: 1:06am First Qtr: 1:04am	30 Twilight: 5:58am Sun Rise: 7:37am Sun Set: 5:24pm Twilight: 7:03pm Moon Rise: 11:54am Moon Set: 2:10am	31 Twilight: 5:57am Sun Rise: 7:36am Sun Set: 5:26pm Twilight: 7:04pm Moon Rise: 12:24pm Moon Set: 3:13am

## Board of Directors

Name	Position	Phone	
Les Nagy	Public Ed	905-388-1011	
Steve Barnes	President	905-631-9944 wk 905-336-2211 hm	
Gary Colwell	Observing Director	905-277-4297	
Mark Kaye	Past President	416-885-6134	
Roger Hill	Recorder	(905)878-5185	
Tina Coppolino		905 544 1747	
Ken Lemke	Membership	905-639-5127 hm 905-634-5168 wk	
John Williamson	Treasurer		
Grant Maguire	Orbit Editor	905 639 8926	
Colin Haig	Secretary	905 878 4334	
Scott Barrie	Web Master	905-854-1515	
Rob Bodner	Librarian	905-847-1688	