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H O R I Z O N

LA SOCIÉTÉ ROYALE D'ASTRONOMIE DU CANADA
New Brunswick Centre du Nouveau-Brunswick
THE ROYAL ASTRONOMICAL SOCIETY OF CANADA



NGC 6888 The Crescent Nebula Francois Thériault

NGC 6888 is an emission nebula in Cygnus and it is #98 on the RASC observing list of the Finest NGC Objects. A hydrogen beta or other nebula filter will help with your observation.

Francois used a Williams Optics Zenithstar II 80 mm Apo doublet f/6.8 refractor and a ZWO ASI 1600MC-Pro camera on a CGEM mount to capture this image through H α , OIII, and SII Baader filters.

Guiding was done with an Orion Mini 50 mm guide scope and an Altair Astro GPCAM2 AR0130 Mono Guide camera. Processing was performed with Stark Labs Nebulosity 4.0, Adobe Photoshop CS5, and PixInsight 1.8

EVENT HORIZON
Astronomy in New Brunswick

SRAC/RASC Centre du NB Centre

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Curt Nason secretary@nb.rasc.ca

Treasurer/Trésorier
Emma MacPhee treasurer@nb.rasc.ca

National Council Representative
TBD (Peter Jensen temp)

Councillors / Conseillers
Gerry Allain Joe Cartwright
Mary King Chris Weadick

LP Abatement: Curt Nason
Star Party-Events: Paul Owen
Education-Outreach: Curt Nason
Website: Laura Sponagle/Emile Cormier
Social Media: Gerry Allain
Equipment: Chris Weadick
Library: Ted Dunphy
Fundy Upgrade: Emma MacPhee
Newsletter Editor: Curt Nason

NB Astronomy Clubs
Réunion / Meetings

SRAC/RASC Centre du NB Centre
Jan 19, 2019 Saint John
<http://www.nb.rasc.ca/>

William Brydone Jack Astronomy Club
(Fredericton)

When: Second Tuesday of the month
Where: Fredericton, UNB Campus
2 Bailey Drive, Room 203
www.frederictonastronomy.ca

Saint John Astronomy Club

When: First Saturday of the month
Where: Rockwood Park Interpretation
Centre.
www.sjastronomy.ca

Astronomy - Astronomie Moncton

When: First Quarter Moon weekend
observing
Where: Moncton HS Observatory
www.astronomymoncton.org

Find us on ...

FACEBOOK

<https://www.facebook.com/RASC.NB>

TWITTER

<https://twitter.com/rascnb>

Star Parties / Events 2019

Astronomy Week May 6 - 12

Kouchibouguac Star Party
June 7 - 8

Mount Carleton Star Party
August 2 - 3

Fundy Star Party
August 30 - 31

National Star Party
September 7 (tentative)

Fall Astronomy Day and
International Observe the Moon
Night: October 5

Book Review of *Night Sky: A Field Guide to the Constellations*

by Mary King

Night Sky: A Field Guide to the Constellations, by Jonathan Poppele
Revised and Expanded, 2018
ISBN 978-1-59193-229-1
Adventure Publications, Cambridge, MN

As a newcomer to astronomy and, more particularly, as someone who is basically "going it alone" as I study the night sky, I was drawn to this book while browsing in a bookstore in Halifax. Now it is my new best friend. For my situation, I am finding it a wonderful resource.

It's pocket-size (15 cm x 11 cm x 1.5 cm), with brightly coloured plasticized pages; great for viewing in heavy dew. The sturdy binding allows it to take a beating while stargazing or travelling to and from sites in a messed up kitbag. It's easy to read and presents information in an easy to follow formula.

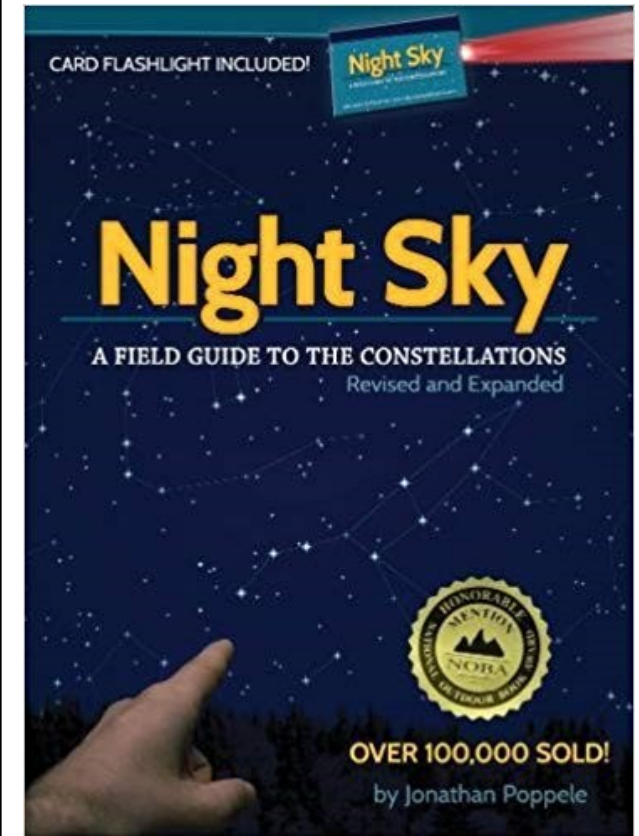
More importantly is what is inside the covers. The introduction gives background information on how to use the book. There is information on light pollution, star magnitudes, and historical explanations for the

names of the stars such as the strong Arabic influence. At the back of the book are charts for the 100 brightest stars, a list of deep sky objects visible to the naked eye, a glossary, and Venus as a morning and evening star through to 2030. Every time I look I seem to find something new and useful.

The bulk of the resource — almost 300 of its 384 pages — deals with the constellations. Each of the four sections shows the main constellations for that season; and goes on to show each constellation, where to find it in relation to the Big Dipper and the North Star, and where to find it on the horizon. The major stars of that constellation are outlined and a page explains the mythology associated with the constellation, useful in remembering the names. For example: Enif, in the constellation Pegasus, magnitude 2.4, 672 light years away, is Arabic for "nose." And sure enough, it is the nose portion of this constellation.

Yes, I know star chart apps are available for cell phones. It's not just my advanced years and lack of technology skills that makes this resource so attractive. I never have to worry about reception or if my battery is running down. I can open it and learn. Likewise, I can pass it to other people and not worry they are going to break

it. And, it is useful for those of us who still love to view the night sky with binoculars. When it is not a good night for viewing, I often pick up the book to review the constellations for the season, and familiarize myself with their shapes and locations in relation to each other. When the stars come out, I want to be ready for them.



Astrophotos by Richard Haché



The three images above were taken at the Kouchibouguac Fall Festival September 13 and 14 of this year using an Explore Scientific 80 mm CF triplet refractor and a ZWO 1600MC camera cooled at -15C, mounted on a NEQ6 Pro. PHD 2 Guiding with Orion Starshoot.

Top Left: M81 (Bode's Galaxy), M82 (Cigar Galaxy) and NGC3077

Top Centre: NGC 869 and 884 (Perseus Double Cluster)

Top Right: M45 (Pleiades)

Richard took twenty 300 second images plus 12 Dark and 12 Bias frames, stacked in DeepSkyStacker and processed in Pixinsight.

Left: The Moon on International Observe the Moon Night, October 20.

Globe at Night
by Curt Nason
Light Pollution
Abatement Committee

From the Globe at Night website:
<https://www.globeatnight.org>

“The Globe at Night program is an international citizen-science campaign to raise public awareness of the impact of light pollution by inviting citizen-scientists to measure their night sky brightness and submit their observations from a computer or smart phone. Light pollution threatens not only our “right to starlight,” but can affect energy consumption, wildlife and health. More than 100,000 measurements have been contributed from people in 115 countries during the campaigns each winter/spring over the last 9 years, making Globe at Night the most successful light pollution awareness campaign to date!”

The concept of Globe at Night is simple: Compare the star field you see within a particular constellation with eight star charts available from the website, each of which represents a limiting visual magnitude of from 0 to 7 (see next page). Then, submit your result, location, date and time of the observation, and cloud conditions.

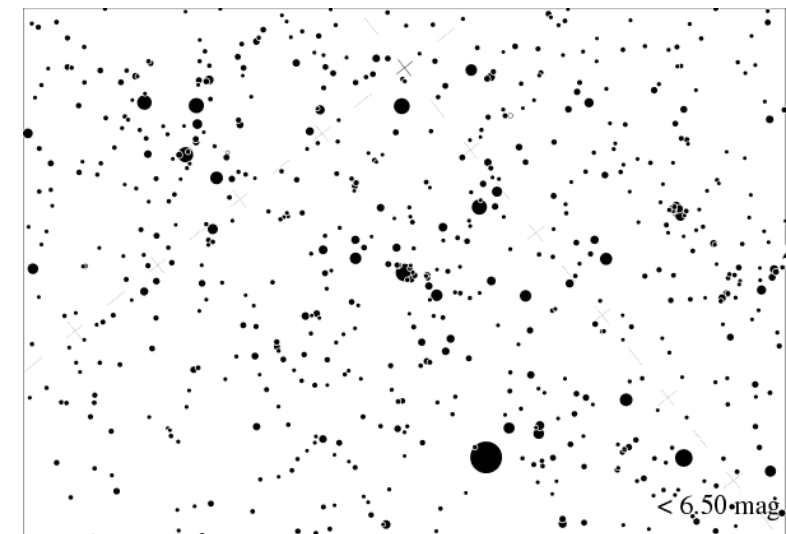
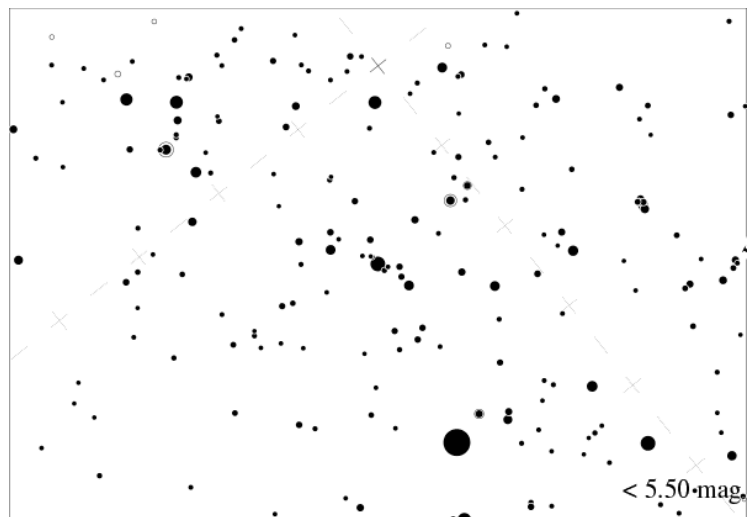
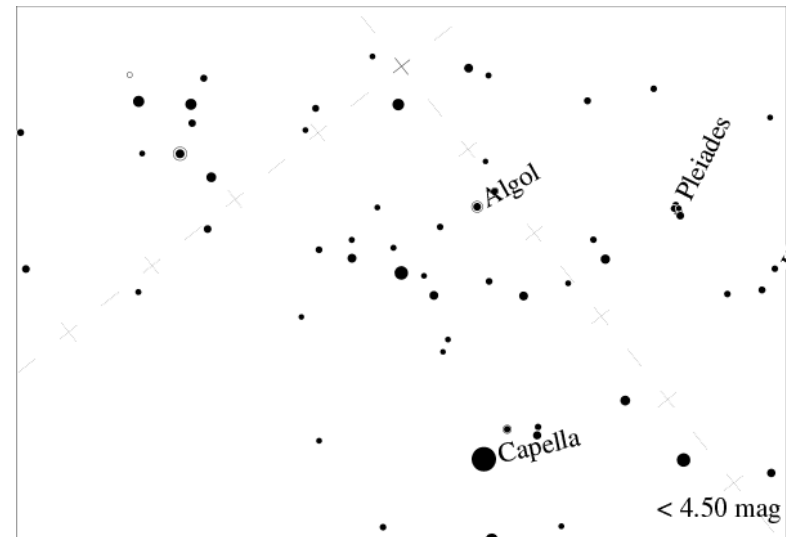
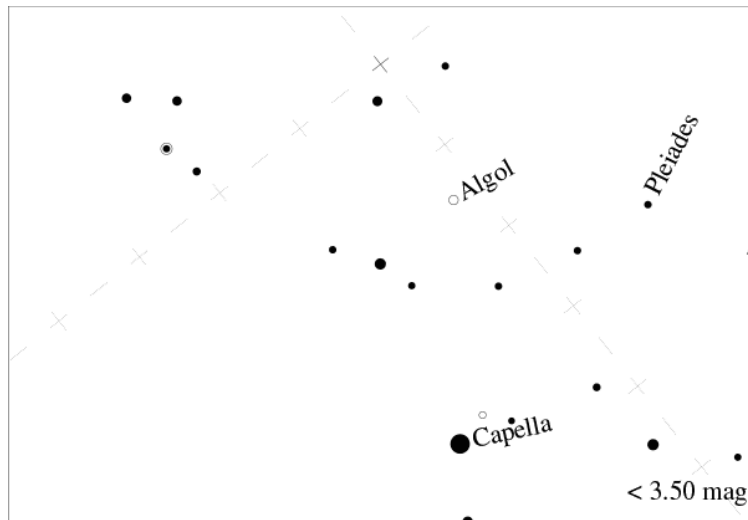
You will want to perform your observation under the best conditions possible, so pick a clear night with no moonlight when the constellation is near its highest. The website lists optimal campaign periods based on the Moon, and selects constellations that will be near the observer’s zenith. There are constellations for the southern and northern hemispheres, and in some cases for northern locations above and below 40° latitude. For example, the current campaign (November 29 to December 8) calls for Grus in the south and Perseus in the north. The December 29 to January 7 campaign calls for Canis Minor in the south, Orion for those below 40° north latitude and Taurus for those of us above 40°.

For best results you should also wait for astronomical twilight to end before doing your observation. The website recommends more than an hour after sunset and between 8 and 10 pm. In Canada, summer readings after 10 pm are necessary. Times of astronomical twilight can be estimated from a table in the RASC Observer’s Handbook or taken from the website www.timeanddate.com. In addition, allow at least ten minutes for your eyes to become dark adapted. If you are consulting the magnitude charts on a device, use the red background night mode. Use a red light to consult printed maps. Of course, if you are observing downtown in a city you might not even need a map.

Reporting your observation result is simple. Select REPORT from the menu at the top of the Home page and a form appears. The current date and time are displayed in their respective boxes and can be changed. You can enter your location or select it from the convenient Google map, and add Location Comments below for conditions such as nearby lighting, trees or structures that could have affected your results.

The report form also includes the eight magnitude charts that can be selected to view for comparison and ultimately selected as the one most representative of your view. There is a Nighttime version button under the Observation Time box to engage the red light background if you are doing this in the field. Below the magnitude charts you can record comments on sky conditions such as cloud cover and type. An additional section allows entry of a Sky Quality Meter (SQM) reading if one was made at the same time. Our NB Centre has access to a few SQMs so, if you want to use one to supplement your observation, please contact our Equipment Manager, Chris Weadick, via the Resources tab on our Centre website.

If you are planning to observe anyway, why not take a few minutes to participate in this important citizen science project. Global results can be viewed on the Globe at Night website.



Above are four of the eight Globe at Night magnitude charts for the constellation Perseus relating to magnitudes 3, 4, 5 and 6. A magnitude 4 star is one with a brightness between 3.50 and 4.49.

More Astrophotos by Francois Thériault



On 29 September 2018 Francois imaged IC 1795, the Fish Head Nebula in Cassiopeia, through a Meade 127ED/APO with the same mount, filters, camera and guiding set-up used for the Crescent Nebula on Page 1. He took 49 five-minute frames (bin 1x1): 19 in H α , 20 in OIII and 10 in SII. Processing was performed using Adobe Photoshop CS5, PhotoNinja 1.2.6, and PixInsight 1.8.



Francois captured Sharpless SH2-188 in Cassiopeia, through an AstroTech AT72ED with the same mount, filters, camera and guiding set-up used for the Crescent Nebula on Page 1. Processing was performed using Adobe Photoshop CS5, PictureCode PhotoNinja 1.2.6, and PixInsight 1.8.

RASC NB Outreach Events and Handouts

Year	# of Events	People (Live Feed *)	Star Finders English	Star Finders French	Moon Guides English	Moon Guides French	Getting Started In Astronomy	Volunteer Hours
2012	75	4658	2188	229	1852	137		
2013	102	4119	1602	8	1513	120		
2014	104	4843	1716	241	1378	199		
2015	114	7262	2106	244	2568	156	819	
2016	219	9498	1984	115	2290	87	514	988
2017	248	18,453 (7533)	2276	162	2262	131	340	1944
2018	176	42,311 (35,225)	1764	170	1611	79	163	1311

* Number of people viewing Chris Curwin's telescope live feeds on Facebook (included in totals).

Types of Outreach Events

Year	Presentation	Night Observing	Day Observing	Youth Group	School Talks	Exhibition	Observ./ Planet'm
2012	12	24	2	12	17	8	0
2013	24	24	3	12	32	7	0
2014	23	21	20	17	12	8	3
2015	22	33	23	7	15	13	1
2016	31	55	39	19	54	11	10
2017	61	89	22	19	50	6	1
2018	45	78	13	18	17	5	0



Yvon Hachey at the Tech Trek exhibition in Dieppe on October 20. Note his collection of Collinder 399 images at the back.

CAN YOU SOLVE THIS PUZZLE CREATED BY TED DUNPHY?

Answer to the previous puzzle:
Stout Serpent:
Hardy Hydra

AstroAndgram

The answer is one astronomical word formed by rearranging the letters of the other word.

Clue: Steamy Artist



hint? think constellation