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OF CANADA
KW Centre

What's Up?

March 11-April 8, 2023



By: Michael Wright



What's Up – Solar System

DATE	SOLAR SYSTEM SKY EVENTS
Mar. 12	Daylight Savings Time Begins - Spring Ahead! (UTC-4 for EDT)
Mar. 13	Antares 2° S of Moon in late night sky
Mar. 15	Last Quarter
Mar. 15	Zodiacal light - Visible starting this evening and over the next two weeks
Mar. 20	Spring Equinox at 5:24pm EDT
Mar. 21	Ceres at opposition. New Moon. Messier Marathon Night!
Mar. 24	Uranus 1.5°S of Moon in evening sky
Mar. 25	Moon 1.9°S of Pleiades (M45) in evening sky! (Nice Sight #1)
Mar. 28	Mars near Moon in evening sky. First Quarter
Mar. 29	Mars 1.2°N of M35 all evening until it sets! (Nice Sight #2)
Mar. 30	Venus near Uranus in evening sky
Apr. 06	Full Moon

Morning Sky

Pluto - SGR
Saturn - AQR
Mercury – PSC
Neptune - AQR

Most of the Night

Ceres - COM
Mars - TAU/GEM

Evening Sky

Uranus – ARI
Venus - ARI
Pallas - CMa
Jupiter – AQR
Vesta - CET
Juno - CET



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What's Up – Lunar Librations



Western Libration - March 13 - 12am



Northern Libration - March 18 - 5am



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What's Up – Lunar Librations



Eastern Libration - March 27 - 7pm



Southern Libration - March 31 - 10pm



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What's Up – Lunar Librations



Western Libration - April 8 - 12am



See the light! Zodiacal, that is...

Several club members observed this challenging sight in 2021, 2022 and 2023

Best dates: March 20 to April 3 2022
When moon will not interfere

Best time: Astronomical dusk (~8:30 PM)

Best place: Far from city lights. The closer to Lake Huron, the better



Image: T. Chandler 2021
Location: Crewe, Ont.



See the light!

Zodiacal, that is...

A FEW OF PLACES...

Monkton:

- Road is seasonal
- May be blocked by snow
- 1 hour from KW

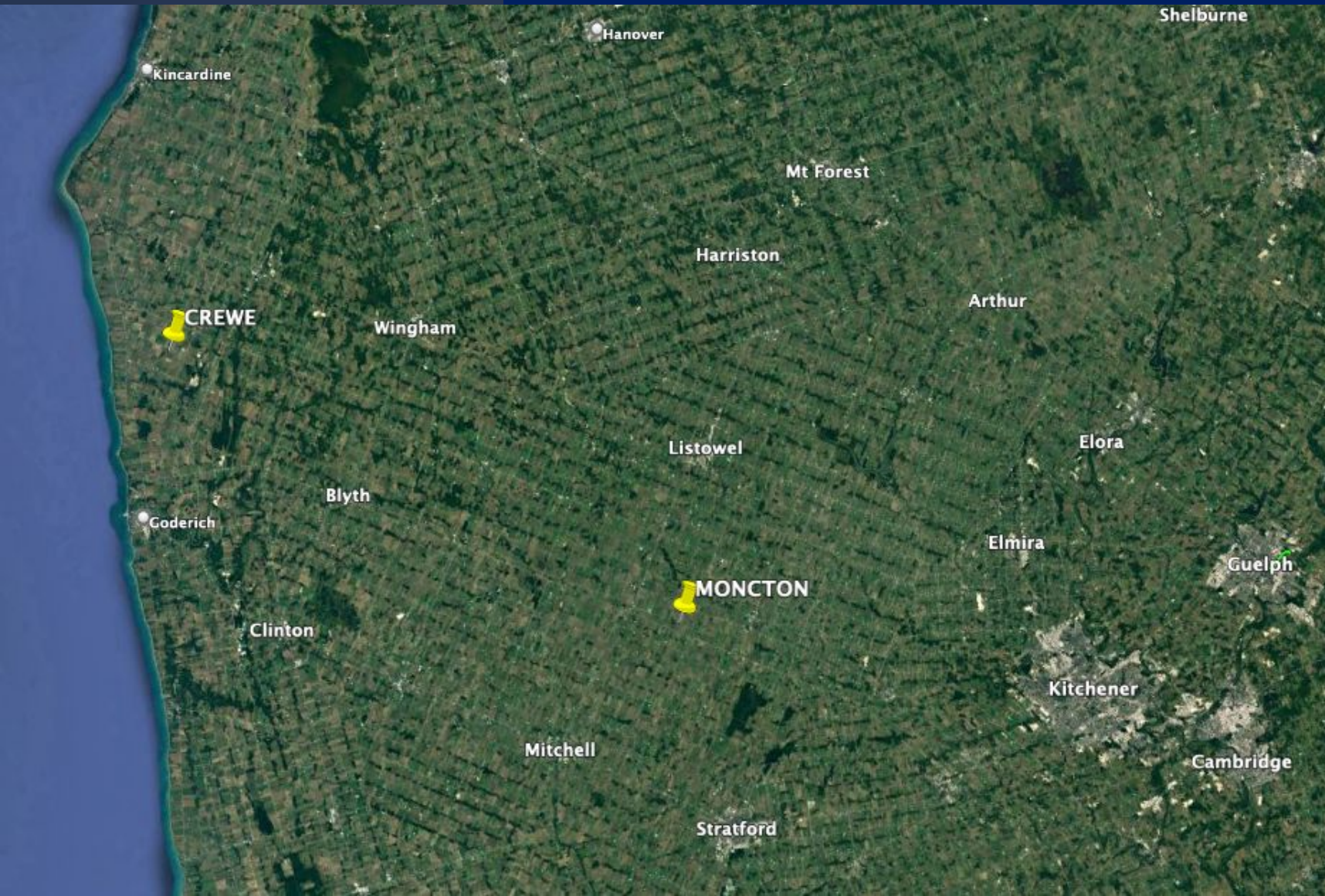
Crewe:

- Road is ploughed
- Beware of snow squalls
- Many wind turbines (w lights)
- 2 hrs from KW

Ball's Bridge:

- Just off a main road
- Beware of snow squalls
- Park at top of hill, walk down
- 2 hrs from KW

If skies are clear and moonless, stay tuned for an excursion.



Messier Marathon 2023

What: View all 110 Messier objects

When: 3-4 Nights around the New Moon

Where: A nice dark sky site of your choice!

Recommended Equipment and Resources:

- minimum 100mm/4 inch telescope, larger makes it easier
- *The Observing Guide to the Messier Marathon: A Handbook and Atlas* by Don Machholz
- Star Charts or Planetarium App of your choice

Nice Sight No. 1

**Best in
Binoculars**

Sat. Mar. 25

9:00 PM

View to W



Graphic created with Stellarium

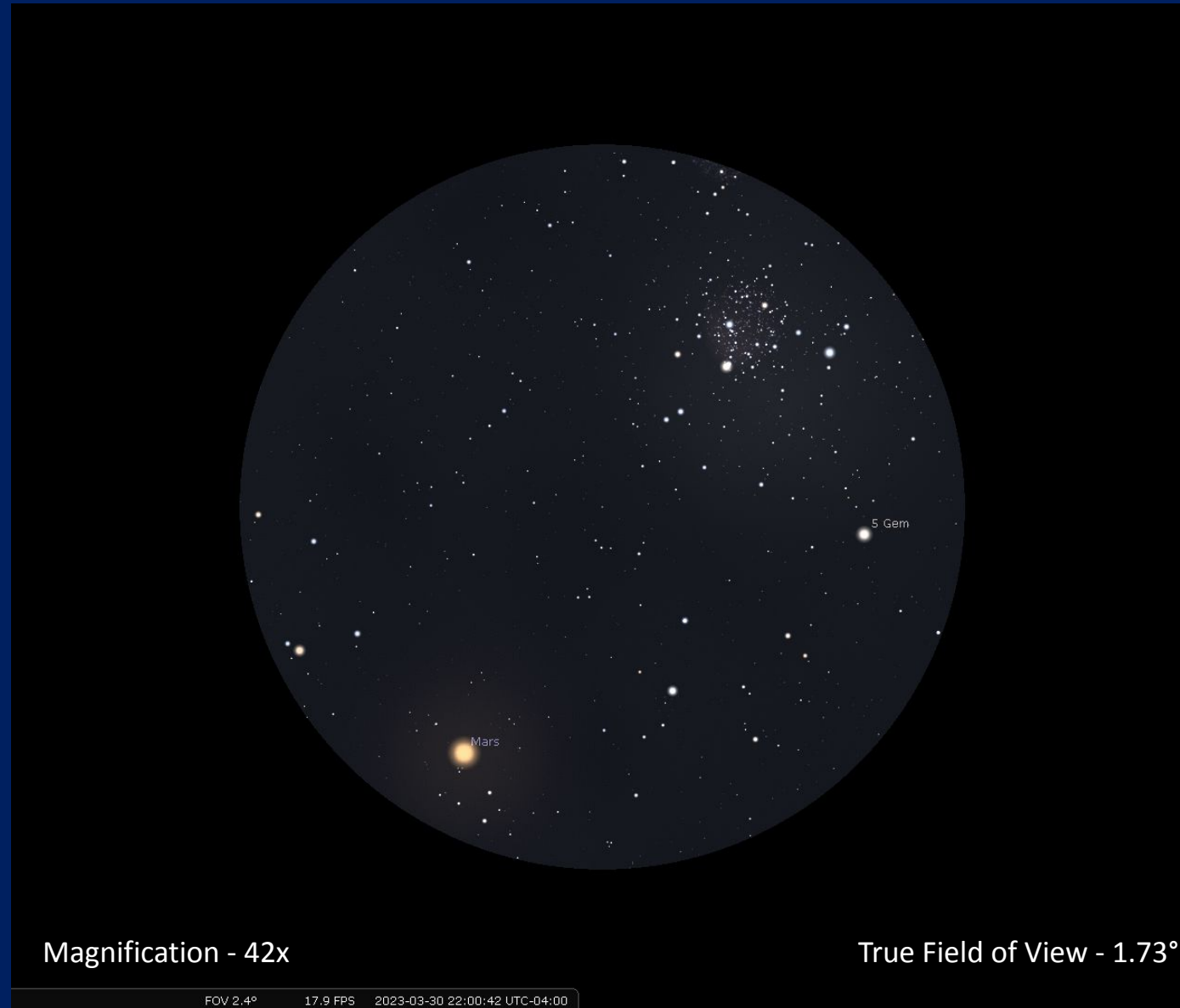
Nice Sight No. 2

Best in
Widfield
Telescope or
Binoculars

Wed. Mar. 29

10:00 PM

View to W



Graphic created with Stellarium

March Evening Sky Highlights 1



9pm EDT March 20 2023 Facing South

The Boat & The Big Dog

* = On RASC Finest NGC List

Catalogue #	Type	Cons	Details	Difficulty
NGC2298	gcl	Pup	Small bright southern globular, would be brilliant if it wasn't so low to horizon	difficult
Collinder 135	ocl	Pup	Sparse cluster of stars, dominated by 4 brightest members including Pi Pup	moderate
NGC2451	ocl	Pup	The Stinging Scorpion - pretty scattering of stars around a red giant	moderate
C71/NGC2477	ocl	Pup	Electric Guitar Cluster - superb, bright, rich, 20' but low in sky	moderate
NGC2546	ocl	Pup	Heart and Dagger Cluster - Looks like a heart pierced by a dagger, low power	moderate
NGC2439	ocl	Pup	Bold Arrow Cluster - horseshoe shape, red R Puppis the brightest member	moderate
NGC2467	en+ocl	Pup	Skull & Crossbones Nebula - soft round bubble with streamers, use UHC	difficult
M93	ocl	Pup	Butterfly Cluster - rich wedge of stars, wings, spectacular! Visible in binocs.	easy
NGC2440*	pn	Pup	Albino Butterfly Nebula - stellar at low magnification, with high mag irregular	difficult
M46	ocl	Pup	Rich cluster, dimmer than nearby M47, NGC2438 within cluster	easy
NGC2438	pn	Pup	Round, dim planetary nebula on northern side of M46	difficult
M47	ocl	Pup	Bright, sparse cluster - excellent at low power or in binoculars	moderate
NGC2539*	ocl	Pup	The Dish Cluster - 50 stars rich, some see a 'satellite dish' shape	easy
Mink 3-1	pn	CMa	14" bipolar, central star mag15.1. Use OIII blink to identify, no filter for detail	moderate
C64/NGC2362	ocl	CMa	Tau Canis Majoris Cluster - gorgeous! Fairly large, rich, triangular.	moderate
NGC2367	ocl	CMa	Charlie Brown's Christmas Tree - looks like it's namesake	easy
M41	ocl	CMa	Little Beehive Cluster - bright but coarse, use binoculars or low power	moderate
NGC2207	g(Sc)	CMa	Interacting with IC2163. 3'x1.5' overall, companion needs large aperture	difficult
C58/NGC2360	ocl	CMa	Caroline's Cluster - large, very rich, 14' in diameter	moderate
NGC2359	en	CMa	Thor's Helmet - faint in small apertures, use UHC filter	difficult
IC2165	pn	CMa	Very small 4" planetary nebula, use OIII filter blink technique to identify	difficult

The Unicorn & The Little Dog

* = On RASC Finest NGC List

Catalogue #	Type	Cons	Details	Difficulty
NGC2343	ocl	Mon	Doublemint Cluster - equilateral triangle crossed by jagged line of stars	moderate
IC2177	en	Mon	Seagull Nebula - very faint, 2.5x0.5° N-S stream, head easier, use UHC	difficult
NGC2353	ocl	Mon	Avery's Island - About a dozen prominent stars, many fainter, divided in two	moderate
C54/NGC2506	ocl	Mon	Unimpressive in binocs, but nice at med power in telescope - spiralling waves	moderate
M50	ocl	Mon	Heart-Shaped Cluster - use low power, visible in binoculars	easy
NGC2170	rn	Mon	Angel Nebula - 3' faint milky elliptical chevelure surrounding mag 9.5 star	moderate
NGC2232	ocl	Mon	Double Wedge Cluster - half-moon shape with wires, use 10 Mon as guide	moderate
NGC2301	ocl	Mon	Great Bird Cluster - wonderful, use lowest magnification, like bird in flight	easy
NGC2269	ocl	Mon	Head Hunter Cluster - somewhat asymmetric, diameter 3'	moderate
C50/NGC	en+ocl	Mon	Rosette Nebula - open cluster surrounded by nebulosity, use UHC or OIII	easy-mod
C46/NGC	rn/en	Mon	Hubble's Variable Nebula - pretty fan shaped nebula; changes appearance	moderate
NGC2264	ocl	Mon	Christmas Tree Cluster - bright triangle of stars with a 'trunk' and 'garlands'	easy
NGC2264	dn	Mon	Cone Nebula - HII emission surrounding dark cone of nebulosity; use filter	difficult
Sh2-273	en/rn	Mon	Fox Fur Nebula - emission/reflection nebulosity within Christmas Tree Cluster	difficult
M48	ocl	Hya	Former 'missing' Messier object; large and sparse open cluster	easy
Procyon	ds	CMi	Very tight double, need v. large aperture, pristine seeing to split mag 10.6 B	v. difficult
Σ1103	ds	CMi	Components yellowish and bluish white, separation 4.4"	moderate
Σ1149	ds	CMi	Components light yellow and blue, separation 21.7"	easy
NGC2485	g(Sa)	CMi	Dim galaxy, need 10+ inch aperture, stellar at low magnification	difficult
Luyten's Star	star	CMi	One of nearest stars to Earth, 12ly, a magnitude 9.8 M-class red dwarf	moderate

March Evening Sky Highlights 2



9pm EDT March 20 2023 Facing Overhead

Earth, Kitchener, 336 m

FOV 60°

27.3 FPS

23-03-20 21:00:02 UTC-04:00

Graphic created with Stellarium

The Twins & The Wildcat

* = On RASC Finest NGC List

Catalogue #	Type	Cons	Details	Difficulty
Abell 21	pn	Gem	Medusa Nebula - C shaped arc. Use OIII filter, central star mag15.8.	difficult
NGC2355	ocl	Gem	Jedi Knight - 7', 35-40 stars, misty haze & some resolved stars in small scope	moderate
NGC2304	ocl	Gem	Compact haze, stars hard to resolve without larger aperture	moderate
NGC2392*	pn	Gem	Clownface Nebula - bright, use very high power, compare filter vs no filter	easy
NGC2341&42	g(S)	Gem	Pair of spiral galaxies interacting - 1' and 20" in diameter, use 8+ inches	difficult
NGC2420	ocl	Gem	Twinkling Comet Cluster - rich, well detached from surrounding starfield	moderate
J900	pn	Gem	12" planetary, central star mag16.8. Use very high power and OIII to confirm.	moderate
IC443	en	Gem	Faint arc of nebulosity, use low to medium power, OIII and 8+ inches aperture	difficult
M35	ocl	Gem	Shoebuckle Cluster - loose widefield cluster, rich compact NGC2158 nearby	easy
NGC2266	ocl	Gem	Beautiful compact cluster, takes magnification well.	easy
NGC2371&2*	pn	Gem	Double Bubble Nebula - bipolar, faint lobes, use OIII and 8+ inches aperture	difficult
UGC3995	g(S)	Gem	Interacting pair of galaxies, two cores visible in contact, use 8+inch aperture	difficult
NGC2291 Group	gg	Gem	Group of 2 galaxies in 8 inches, with another four visible with 12 inches	v. difficult
NGC2415	g(bcd)	Lyn	Compact, high surface brightness galaxy. Difficult in small scopes.	difficult
C25/NGC2419	gcl	Lyn	Intergalactic Wanderer. Outlying globular, just a haze in all but largest scopes.	moderate
NGC2683*	g(SAb)	Lyn	UFO Galaxy - edge on, richly textured and structured galaxy.	moderate
Arp315/AGC779	gg	Lyn	Galaxy group dominated by triplet Arp 315. Use 8+ inches and high power.	difficult
Arp 283	g(S)	Lyn	Interacting pair NGC2798&9, edge on + face on, use 8 inches aperture.	difficult
NGC2776	g(SB)	Lyn	Face on barred spiral w/ active nucleus. Use high mag, structure in 12+ inch	difficult
NGC2537	g(lrr)	Lyn	Bear Paw Galaxy - Compact dwarf with bright lobes. Use very high power.	difficult
JnEr 1	pn	Lyn	Headphones Nebula - large, low surface brightness, use 8+ inch and OIII filter	v. difficult



What's Up? Resources

RASC Observer's Handbook - The Sky By Month

NASA SVS Moon Viewer: <https://svs.gsfc.nasa.gov/4955>

Stellarium: <https://www.stellarium.org>

The Sky Live: <https://theskylive.com/>

Time and Date: <https://www.timeanddate.com/>

Thank you!