

What's Up?

November 12-December 9, 2022



By: Michael Wright

What's Up – Solar System

DATE	SOLAR SYSTEM SKY EVENTS
Nov. 12	Northern Taurid Meteor Shower Peaks - fireball activity but unfavourable Moon, 15/hr
Nov. 16	Moon at Last Quarter
Nov. 17	Leonid Meteor Shower Peaks Overnight - best views from 11pm-2am, 20 meteors/hr
Nov. 21	Alpha Monocerotid Meteor Shower Peaks - best views ESE late evening, ~5 meteors/hr
Nov. 23	New Moon in Scorpius
Nov. 30	Moon at First Quarter
Nov. 30	Juno Occulted by Moon starting at 4:46pm right at sunset, emerges at 6:04:52pm
Dec. 01	Mars at closest approach to Earth (but not yet opposition!), 17.2" disc at mag -1.8
Dec. 01	Jupiter 3°N of Moon in evening sky (nice binocular sight!)
Dec. 08	Mars Occulted by Moon, starts at 10:27pm and begins to emerge at 11:14pm
Dec. 08	Full Moon and Mars at Opposition

Morning Sky

Ceres - LEO
Pallas - CMa

Most of the Night

Mars – TAU
Jupiter – PSC
Uranus - ARI
Neptune - AQR

Evening Sky

Saturn - CAP
Pluto - SGR
Vesta - AQR
Juno - AQR
Venus
LIB/SCO/OPH
Mercury
LIB/SCO/OPH

Planet
anner

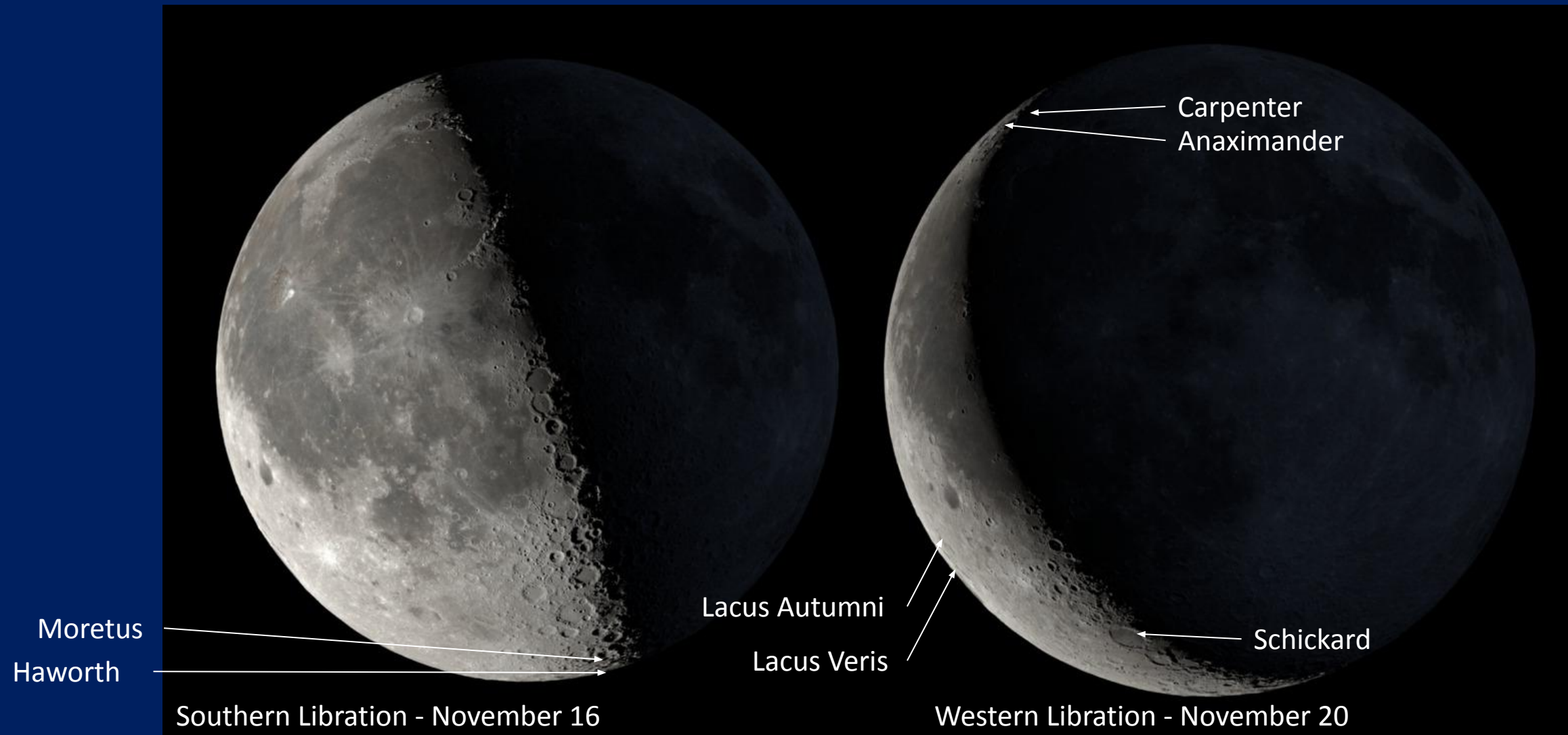
Grey = Close to Sun



ROYAL
ASTRONOMICAL
SOCIETY
OF CANADA
KW Centre



What's Up – Lunar Librations



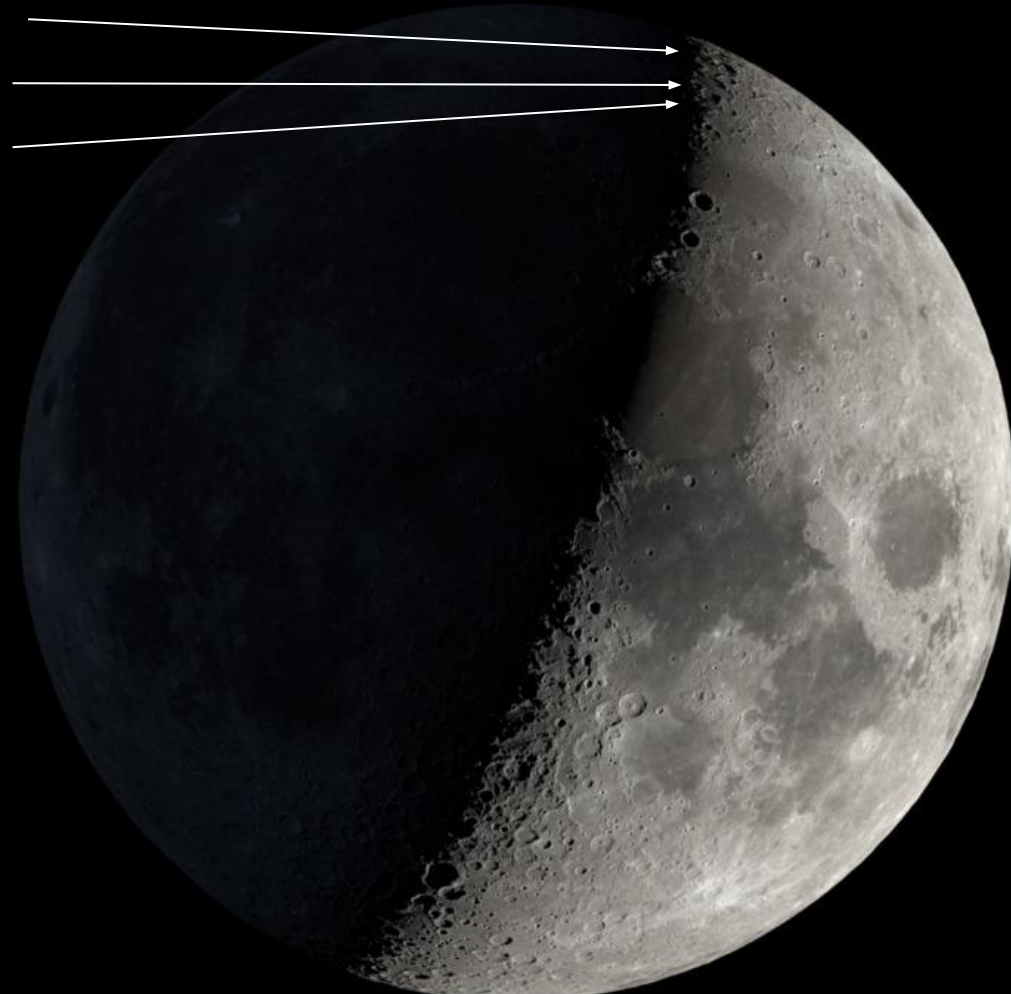


ROYAL
ASTRONOMICAL
SOCIETY
OF CANADA
KW Centre



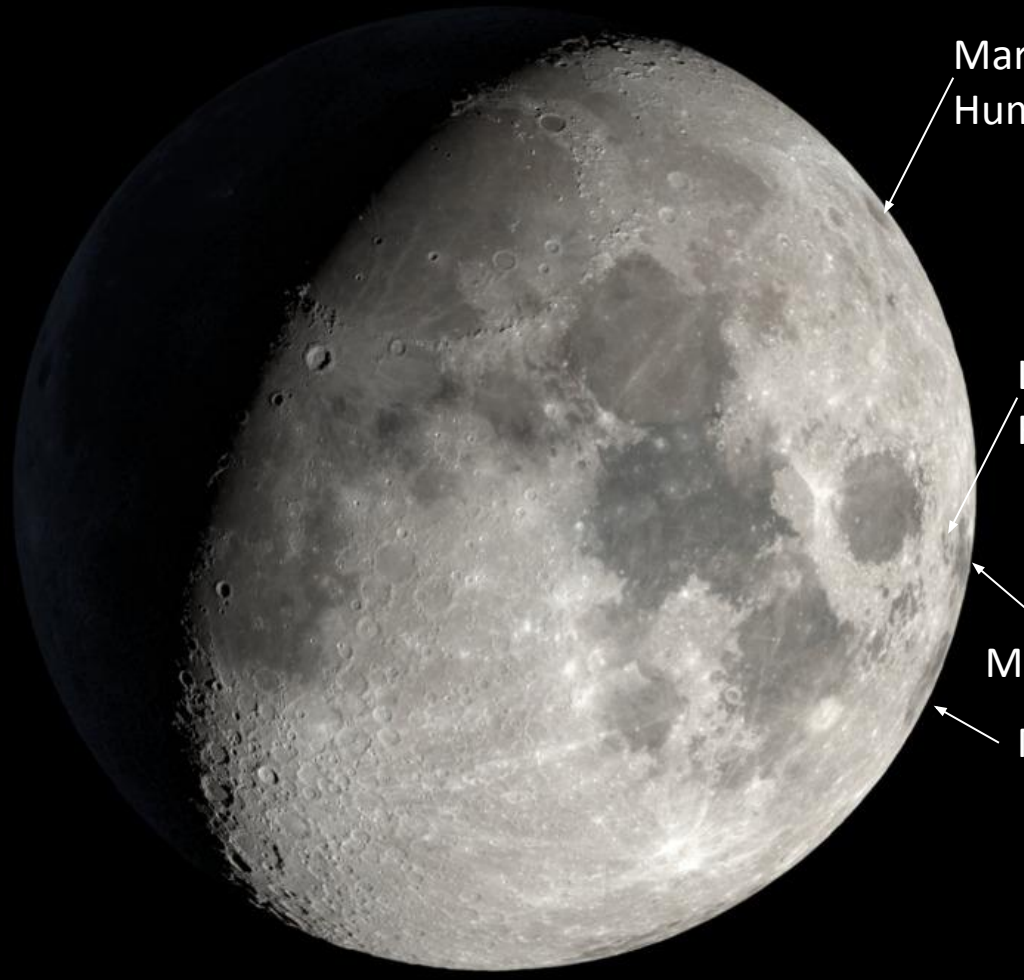
What's Up – Lunar Librations

Peary
Scoresby
Meton



Northern Libration - November 29

Mare
Humboldtianum



Lacus Risor
Felis
Mare Marginus
Mare Smythii

Eastern Libration - December 3



Nice Sight No. 1

Leonid Meteor Shower

**Peak:
Thu. November 17
ZHR: 20/hr**

11:00 PM-2:00AM

View to E



Graphic created with Stellarium

**Potential Outburst November 18 Overnight!
Passing through a cloud from 1733 visit of comet
Tempel-Tuttle, ZHR could approach 200/hr**

Nice Sight No. 2

Moon & Juno Occultation in Telescope

Wed. November 30

4:46 PM
to 6:04 PM

View to S



Graphic created with Stellarium

Nice Sight No. 3

Moon and Jupiter in Binoculars

Thurs. December 1

11:00 PM

View to SE



Graphic created with Stellarium

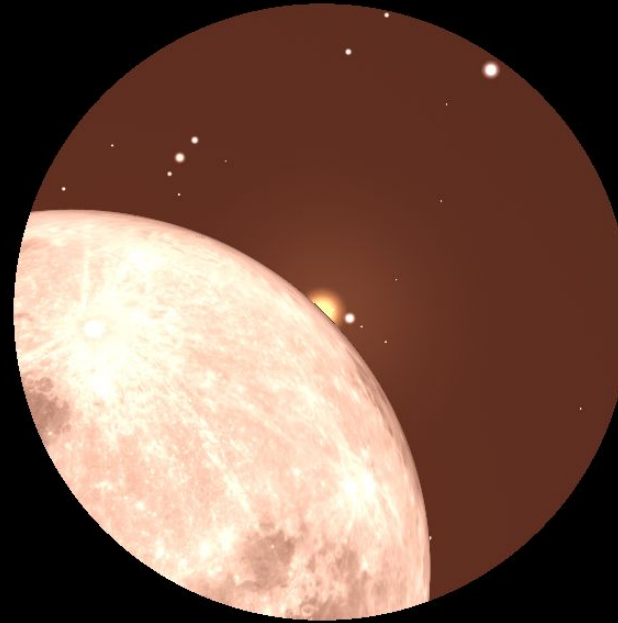
Nice Sight No. 4

Moon & Mars Occultation

Thur. December 8

10:27 PM to
11:14 PM

View to E



Magnification - 120x

True Field of View - 0.8°

FOV 0.833° 17.9 FPS 2022-12-07 23:17:00 UTC-05:00

Graphic created with Stellarium

Evening Sky Highlights



10:00pm EST November 25, 2022

Facing South

Evening Sky Highlights



10:00pm EST November 25, 2022

Facing South/Overhead

November Deep Sky Highlights 1

Fall Galaxies Galore!

* = RASC Finest NGC

Catalogue #	Type	Cons	Details	Difficulty
C56/NGC246	pn	Cet	Skull Nebula - large, wispy planetary with 'eyes' and 'mouth'	moderate
C51/IC1643	g(lrrBm)	Cet	The Scarecrow - low surface brightness, dark transparent skies only	difficult
NGC584	g(S0)	Cet	Little Spindle Galaxy - small spindle with bright nucleus	moderate
NGC578	g(Sc)	Cet	Sparkly cigar shape, centre a little brighter	difficult
NGC908	g(Sc)	Cet	Elongated haze with tack-sharp nucleus surrounded by fuzzy core	moderate
NGC936*	g(SB0(rs))	Cet	Darth Vader's Fighter - Intense nucleus in soft circular light with collar	moderate
M77	g((R)SA(rs)b)	Cet	Nucleus bright like 10th mag star surrounded by halo of light	easy
NGC1042	g(SAB(rs)cd)	Cet	Fat oval elongated E-W, no central brightening	difficult
NGC1052	g(E4)	Cet	Small, circular, very sharply brighter to centre	moderate
NGC1084	g(SA(s)c)	Eri	Conspicuous egg of uniform light	moderate
NGC1232*	g(SABc)	Eri	Eye of God - round cometary glow, hints of spiral with aperture	moderate
NGC1300	g(SB(s)bc)	Eri	Bar obvious, moderate aperture or greater reveals spiral structure	moderate
NGC1407	g(E0)	Eri	Eridanus A - simple ellipse of light, star like core, see NGC1400 nearby	moderate
C67/NGC1097	g(SBbc)	For	Faint, clumpy ellipse with star-like core, faint companion in large scopes	moderate
NGC1201	g(S0)	For	Stellar nucleus with very fine halo surrounding it	moderate
NGC1360	pn	For	Robin's Egg Nebula - Simple yet spectacular. Delicate mottling.	moderate
NGC1398	g(SBab)	For	Ellipse gradually brighter to middle then suddenly to bright stellar nucleus	moderate
NGC1344	g(S0)	For	Oval with 3 layers of brightness with obvious core and stellar centre	difficult
NGC1350	g(SA(r))	For	Halo with weak concentration, circular core, nonstellar nucleus, very south	difficult



November Deep Sky Highlights 2

Galactic Glories!

* = RASC Finest NGC

Catalogue #	Type	Cons	Details	Difficulty
NGC936*	g(SB0(rs))	Cet	Darth Vader's Fighter - Intense nucleus in soft circular light with ansae	moderate
M77	g((R)SA(rs)b)	Cet	Nucleus bright like 10th mag star surrounded by halo of light	easy
NGC1055	g(SBb)	Cet	Spindle 4' long and 1' wide, looks like glare from pair of field stars	moderate
NGC1087	g(SAB(rs)c)	Cet	Slightly elongated 2' by 1', gradually brightening to centre	difficult
NGC1073	g(SB(rs)c)	Cet	3.5' diameter circle, 1.5' core, next to a triangle of field stars	difficult
NGC488	g(SA(r)b)	Psc	Whirligig Galaxy - stellar nucleus in soft glow and softer halo	moderate
NGC524	g(S0)	Psc	Fuzzy 2' ball with obvious nucleus	difficult
M74	g(SA(s)c)	Psc	The Phantom - toughest Messier; small scopes need transparent skies	moderate
NGC772	g(Sb)	Ari	Fiddlehead Galaxy - misty teardrop with extended arm, brighter core	moderate
M33	g(Sc)	Tri	Triangulum Pinwheel - challenging for beginners with small scopes	moderate
NGC925	g(SBc)	Tri	Large, oblong, 9.4'x4' centreless glow oriented NW-SE	difficult
C28/NGC752	ocl	And	Very large, coarsely scattered cluster, needs widefield low power	easy
C23/NGC891	g(Sb)	And	Outer Limits Galaxy - ghostly sliver of light, dust lane requires aperture	moderate
NGC404	g(S0)	And	Mirach's Ghost - milky smooth, looks like ghostly reflection of Mirach	difficult
M31	g(Sb)	And	Andromeda Galaxy - glorious and bright, one of skies finest sights	easy
M32	g(dE)	And	Le Gentil - dwarf companion to M31, looks like fuzzy star at low power	easy
M110	g(dE pec)	And	Dwarf with bright central region, some people report seeing patchiness	easy
C17/NGC147	g(E5 pec)	Cas	Distant companion of M31, low surface brightness ellipse	difficult
C18/NGC185	g(E3 pec)	Cas	Distant companion of M31, low surface brightness round glow	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/>

Deep Sky Observer's Companion: <http://www.docdb.net/index.php>

Thank you!