

Meeting Date

August 13, 2023

Night Begins10:30 PM. EDT *Note: Astronomical Twilight Ends***Solar Noon / Midnight**1:39 EDT *Note: on Meeting Date***Moon Quarters**

Full 08/01, Last 08/08, New 08/16, First 08/24, Blue Full 08/30

Darkest Evenings08/06 – 08/22 *Note: 2 days before Last Quarter thru 2 days before First Quarter***Viewing Resources**

Evening Sky Maps

<http://skymaps.com/>

Astronomy Forecast

<https://www.cleardarksky.com/>

RASC Finest NGC Objects

<https://www.rasc.ca/finest-ngc-objects>

A. Clarke's Discovering Astronomy

<https://discovering-astronomy.eu/index.html>**RASC Finest NGC****Focus: 19 Hours RA Thru 20 Hours RA***Note: West to East***Featured Objects**

Primary ID	RASC Number	Alternate ID	Con	Type	RA 2000	Decl 2000	Mag	Size
NGC 6939	107	Collinder 423	Cep	OC	20h31m30.0s	+60°39'42"	10.1	10.0'
		80 stars; very rich; NGC 6946 in same field						
NGC 6946	108	Fireworks Galaxy	Cyg	Gal	20h34m52.7s	+60°09'14"	9.8	10.5'x 10.0'
		Faint, diffuse face-on spiral near NGC 6939						
NGC 6826	97	Blinking Planetary	Cyg	PN	19h44m48.2s	+50°31'30"	8.8	27"
		!! Blinking Planetary; 10.6 magnitude central star						
NGC 7000	100	North American	Cyg	EN	20h58m30.0s	+44°22'28"	4	120.0'
		!! North America Nebula; use filter & low power						
NGC 6819	96	Collinder 403	Cyg	OC	19h41m18.0s	+40°11'12"	9.5	5.0'
		150 stars; faint but rich cluster in Milky Way						
NGC 6888	98	Crescent Nebula	Cyg	EN	20h12m12.0s	+38°19'00"	10	17.0'x 9.0'
		Crescent Nebula; faint; use nebular filter						
NGC 6992	99b	Veil Nebula (East)	Cyg	SNR	20h56m24.0s	+31°43'00"	7	60.0'x 7.0'
		!! Veil Nebula: east half; use filter !						
NGC 6960	99a	Veil Nebula (West)	Cyg	SNR	20h45m42.0s	+30°43'00"	7	63.0'x 6.0'
		!! Veil Nebula: west half; use filter !						
NGC 6940	106	Collinder 424	Vul	OC	20h34m26.0s	+28°17'00"	7.2	25.0'
		60 stars; fairly rich cluster in Milky Way						
NGC 6802	105	Collinder 400	Vul	OC	19h30m35.0s	+20°15'42"	11.7	5.0'
		200 faint stars; at east end of Brocchi's cluster Cr 399						
NGC 6781	95	PN G041.8-02.9	Aql	PN	19h18m28.1s	+06°32'19"	11.8	1.9'
		Pale version of the Owl Nebula M97						
NGC 6818	104	Little Gem	Sgr	PN	19h43m57.8s	-14°09'12"	10	22"
		"Little Gem"; annular; near galaxy NGC 6822						

Urban & Small Scope Bonus**Focus: 19 Hours RA Thru 20 Hours RA***Note: West to East*A selection of double stars from Agnes Clarke's excellent book, *Discovering Double Stars (for Northern light-polluted skies)***Featured Double Stars**

Primary ID	Magnitude	Separation	PA	Description
STF 2470, page 196	6.6 8.6	13.4"	271	An easily split white-blue pairing.
STF 2449, page 204	7.2 7.9	8.0"	291	A close and well balanced yellow-blue pair.
Delta Cyg, page 222	2.9 6.3	2.77"	215	Brilliant blueish primary and bright white secondary.
Beta Cyg, page 223	3.1 5.1	26.1"	68	Deep yellow primary with a delicate blue companion.
Gamma Del, page 230	4.5 5.5	9.6"	268	Bright yellow primary close to a bright blue secondary.
Zeta Sge, page 233	5.5 8.7	8.6"	311	Bright yellow primary with a much fainter blue secondary.