

<b>Meeting Date</b>	July 13, 2025	
<b>Night Begins</b>	11:19 PM. EDT	Note: Astronomical Twilight Ends
<b>Solar Noon / Midnight</b>	1:38 EDT	Note: on Meeting Date
<b>Moon Quarters</b>	First 07/02, Full 07/10, Last 07/17, New 07/24	
<b>Darkest Evenings</b>	07/15 – 07/30	Note: 2 days before Last thru 2 days before First
<b>Viewing Resources</b>	Evening Sky Maps	<a href="http://skymaps.com/">http://skymaps.com/</a>
	Astronomy Forecasts	<a href="https://clearoutside.com/forecast/42.82/-83.14">https://clearoutside.com/forecast/42.82/-83.14</a>
		<a href="http://oaklandastronomy.net/ambient_RH.html">http://oaklandastronomy.net/ambient_RH.html</a>
	Peter Birren's Deep-Sky Fieldbooks	<a href="http://www.birrendesign.com/astro.html">http://www.birrendesign.com/astro.html</a>

**Featured Constellation: Sagittarius**

A selection from Peter Birren's excellent deep-sky fieldbook, *"Objects in the Heavens"*, pages 110-113

CONSTELLATION	COMMON NAME	SEASON,	ON MERIDIAN	ABBREVIATION
ITEM IDENTIFIER	TYPE	DETAILS	☆☆ SEPARATION / SIZE	RA DEC MAG
<b>Sagittarius</b>	<i>the Archer; the Teapot</i>	Summer	Aug 20	<b>SGR</b>
<i>"The stars here have a beautiful effect above the south horizon near the place where the Galaxy passes from sight in our latitude; but they are apt to be obscured by haze. We see only the northern edge of a splendid part of the Galaxy."</i>				
☆☆ <i>Polis</i>	μ	7☆☆ group with NGC 6568	17-50"	18:14.9 -21°03' 4-11
☆☆ <i>Al Baldah</i>	π	☆☆☆; very tight	0.1"/0.3"	19:10.9 -21°00' 4/4/6
☆☆ 54		Yellow/blue	46"	19:41.8 -16°15' 5.5/9
☆ AQ®		Carbon ☆; variable 200 days		19:35.4 -16°20' 6.6-7.7
☆ SS®		Carbon ☆; irregular variable		18:31.6 -16°53' 9-10
☆ V1942®		Carbon ☆; irregular variable		19:20.3 -15°53' 6.7-7.1
○○M8 <sup>6523</sup>	EN !!	Lagoon Nebula; very fine 90'x40'	18:05.0 -24°23'	<b>5.8</b>
2nd brightest neb in northern skies; 5kLY; NGC 6530 inside				
○ M16 (Ser)	EN !!	Eagle Nebula; 60☆☆ mag8+	35' 18:19.9 -13°46'	<b>6.4</b>
Extensive nebulosity; see SER/SCT for nearby objects				
○○M17 <sup>6618</sup>	C/N !	Horseshoe/Swan/Omega Neb.	40" 18:21.9 -16°10'	<b>6.3</b>
○○M18 <sup>6613</sup>	OC	30☆☆; bright; busy background	5' 18:21.1 -17°05'	<b>6.9</b>
○○M20 <sup>6514</sup>	ER	Trifid Nebula; O-III filter helps	28' 18:03.8 -23°02'	<b>6.3</b>
40LY wide; dark nebula streaks inside: Barnard 85				
○○M21 <sup>6531</sup>	OC	50☆☆; rich; 5kLY; 8MYO	13' 18:05.4 -22°29'	<b>6.0</b>
○○M22 <sup>6656</sup>	GC !!	500K☆☆; finest naked eye GC	28' 18:37.6 -23°53'	<b>5.3</b>
○○M23 <sup>6494</sup>	OC	~100☆☆; dense; bright, round	29' 17:58.2 -18°59'	<b>5.6</b>
○○M24 <sup>IC4715</sup>	OC	Del Caustiche; use binocs	90' 18:19.6 -18°23'	<b>4.6</b>
Small Sagittarius Star Cloud; very rich/compressed				
○○M25 <sup>IC4725</sup>	OC	50☆☆ mag6-10; use binocs	29' 18:32.9 -19°06'	<b>4.9</b>
○○M28 <sup>6626</sup>	GC !	Bright; tight; highly resolved	12' 18:25.8 -24°51'	<b>7.0</b>
○○M54 <sup>6715</sup>	GC	Mottled; very bright; 82kLY	7.5' 18:56.3 -30°27'	<b>7.9</b>

# Core of SGR Dwarf Galaxy cannibalized by Milky Way

OO <b>M55</b> <small>6809</small>	<b>GC</b> Highly resolved; 100K☆; 20kLY	17'	19:41.2	-30°55'	<b>6.3</b>
○ <b>M69</b> <small>6637</small>	GC 40☆; well resolved; bright	8.3'	18:32.7	-32°20'	7.6
○ <b>M70</b> <small>6681</small>	GC Curved arc of ☆ to NW	7.9'	18:44.5	-32°16'	7.9
OO <b>M75</b> <small>6864</small>	GC Open; unresolved; bright core	6'	20:07.2	-21°52'	8.5
○ <b>NGC6440</b>	GC Unresolved; bright middle	6.3'	17:50.0	-20°22'	9.2
○ <b>NGC6469</b>	OC Round; irregular	7'	17:54.4	-22°16'	8.2

CONSTELLATION	COMMON NAME	SEASON, ON MERIDIAN	ABBREVIATION
ITEM IDENTIFIER	TYPE DETAILS	☆☆ SEPARATION / SIZE RA	DEC MAG

## Sagittarius CONTINUED

Summer Aug 20 **SGR**

○ <b>NGC6507</b>	OC Pretty small; rich; compressed	13'	18:01.0	-17°27'	9.6
OO <b>NGC6520</b>	OC 30☆; compact dark nebulaosity	3'	18:04.6	-27°53'	7.8
○ <b>NGC6522</b>	GC Bright; round; well resolved	16'	18:04.8	-30°02'	8.3
○ <b>NGC6528</b>	GC Pretty faint; small; resolved	16'	18:06.1	-30°03'	9.6
OO <b>NGC6530</b>	<b>OC</b> 30☆ mag 7+; rich; bright;	14'	18:05.7	-24°21'	<b>4.6</b>
○ <b>NGC6540</b>	GC Long thought an OC; also Dj3	9.5'	18:07.4	-27°46'	9.3
○ <b>NGC6544</b>	GC Faint; mottled; SE of M8	2'	18:08.6	-25°00'	7.8
○ <b>NGC6546</b>	OC Large; long; very rich	14'	18:08.6	-23°17'	8.0
○ <b>NGC6553</b>	GC Mottled; faint; elongated	8.2'	18:10.5	-25°54'	8.1
○ <b>NGC6558</b>	GC 16☆; well resolved; round	10.4'	18:11.6	-31°45'	9.0
○ <b>NGC6568</b>	OC 30☆; long; undefined cloud	12'	18:13.9	-21°36'	8.6
○ <b>NGC6569</b>	GC Well resolved; rich; round	7'	18:14.9	-31°49'	8.5
○ <b>NGC6583</b>	OC Near M24, with dark neb B92	5'	18:18.2	-22°08'	10.0
○ <b>NGC6590</b>	<b>C/N</b> ☆☆ centered in faint nebulaosity	7'	18:18.2	-19°52'	<b>7.0</b>
○ <b>NGC6595</b>	<b>C/N</b> Large; elongated; faint	4'	18:18.2	-19°50'	<b>7.0</b>
○ <b>NGC6624</b>	GC Bright; round; well resolved	20'	18:24.9	-30°21'	7.9
○ <b>NGC6638</b>	GC Mottled; somewhat resolved	6.5'	18:32.2	-25°29'	9.0
○ <b>NGC6642</b>	GC Bright; rich; mag15+☆	10'	18:33.1	-23°28'	8.8
	1° WNW of M22; well resolved				
○ <b>NGC6645</b>	OC 75☆; very rich; compressed	14'	18:33.8	-16°52'	8.5
○ <b>NGC6647</b>	OC Herschel saw it, others didn't	___	18:34.0	-17°12'	8.5
○ <b>NGC6652</b>	GC Oval; bright; well resolved	4.5'	18:37.1	-32°58'	8.6
OO <b>NGC6716</b>	OC Mag9-13☆; rich; 2 triangles	10'	18:55.7	-19°52'	7.5
○ <b>NGC6717</b>	GC Faint; somewhat resolved	9.9'	18:56.3	-22°40'	8.9
OO <b>NGC6723</b>	<b>GC</b> ! Highly resolved; large	10.5'	19:00.9	-36°36'	<b>7.0</b>
	In superb field with nebulaosity, variables and doubles				
OO <b>NGC6774</b>	OC 20☆; oldest n'by OC; 1kLY; 3BYO	30'	19:17.4	-16°13'	7.5
○ <b>NGC6818</b>	PN <i>Little Gem</i> ; annular; greenish	22"	19:45.1	-14°06'	9.4
OO <b>NGC6822</b>	IG Irr; <i>Barnard's Galaxy</i> ; dim	11.8'	19:46.1	-14°45'	9.3
	0.75° S of NGC6818; 1.7MLY away; 8kLY across; L				

○ Sh2-16	EN	Diffuse; few dark lanes	12'	17:47.9	-29°18'	8.8
○ Cr 347	OC	Within bright nebula Sh2-16	10'	17:47.5	-29°20'	8.8
○ Cr 351	OC	Dim; poor; scattered	8'	17:50.2	-28°44'	9.3
○ Tr 31	OC	Bright 'bow tie'; in rich field	6'	18:01.1	-28°10'	9.8
○ Djorg 2	GC	Grainy; at center of box of ☆	10.5'	18:03.1	-27°49'	9.9
○ Boc 14	OC	Very close to M8; 10☆	2'	18:03.2	-23°41'	9.3
○ IC 4685	EN	East of M8; includes Cr367	20'	18:10.5	-23°59'	10.0
○○ <b>Cr 367</b>	<b>C/N</b>	30☆; in rich area; 1200LY	40'	18:11.1	-23°49'	<b>6.4</b>
○ Cr 469	OC	Double loop; pretty compressed	3'	18:17.7	-18°18'	9.1
○ IC 1284	E/RN	also: Gum78; use UHC	17'x15'	18:18.9	-19°39'	7.7
○ Tr 33	OC	~30☆; 'soft cross' shape;	5.5'	18:25.9	-19°42'	7.8
○ <b>Cr 394</b>	<b>OC</b>	40☆; 2250LY	22'	18:53.4	-20°10'	<b>6.3</b>