

Meeting Date

June 8, 2025

Night Begins

11:23 PM. EDT

Note: Astronomical Twilight Ends

Solar Noon / Midnight

1:31 EDT

Note: on Meeting Date

Moon Quarters

First 06/02, Full 06/11, Last 06/18, New 06/25

Darkest Evenings

06/18 – 06/29

Note: 2 days before Last thru 2 days before First

Viewing Resources

Evening Sky Maps

<http://skymaps.com/>

Astronomy Forecasts

<https://clearoutside.com/forecast/42.82/-83.14>http://oaklandastronomy.net/ambient_RH.html

Peter Birren's Deep-Sky Fieldbooks

<http://www.birrendesign.com/astro.html>**Featured Constellation: Scorpius**A selection from Peter Birren's excellent deep-sky fieldbook, *"Objects in the Heavens"*, pages 114-117

CONSTELLATION	COMMON NAME	SEASON, ON MERIDIAN	ABBREVIATION
ITEM IDENTIFIER	TYPE DETAILS	☆☆ SEPARATION / SIZE RA DEC	MAG
Scorpius	<i>the Scorpion</i>	Summer Jul 20	SCO
<i>"Looking out for it; it will repay an hour or two of extra watching."</i>			
☆☆ Antares® α	Red SG/green; 15th brightest; 2.2" 500LY; 800x Sun's diam: 700M miles wide; Rival of Mars	16:30.6 -26°28'	1/5.4
☆☆ Graffias β	Yellow/green; great contrast! 13.6"	16:06.6 -19°51'	2.6/5
☆☆ Shaula/Lesath λ/ν !	The Scorpion's tail stars 30"	17:33.7 -37°12'	1.6/3
☆☆ Jabbah ν	! 4☆☆; must see 1"/2"/41"	16:12.7 -19°29'	4/6.4
☆☆ Xi/Σ1998 ξ	White/gray; multiple 7.6"	16:05.6 -11°26'	5/7.3
☆☆ Σ1999	Pale yel/orange; south of Xi 11.6"	16:05.6 -11°30'	7.4/8
○○ M4 6121 GC	Closest GC to earth, 6500LY Highly resolved; loose; dark center lane; NGC6144 nearby	32' 16:24.8 -26°34'	5.8
○○ M6 6405 OC	Butterfly Cluster; 132☆☆ to mag10	26' 17:41.6 -32°16'	4.8
○○ M7 6475 OC	! Ptolemy's Cluster; 130☆☆	60' 17:55.1 -34°47'	3.5
○○ M80 6093 GC	Bright; variable; great field	13' 16:18.2 -23°01'	7.4
○○ NGC6124 OC	100☆☆ mag9-12; 2 clusters Good for all instruments; 18,600LY	39' 16:26.7 -40°42'	5.8
○ NGC6139 GC	Bright; unresolved; round	8.5' 16:29.0 -38°53'	9.0
○ NGC6144 GC	Rich; behind Antares; 33kLY	33.2' 16:28.4 -26°04'	9.0
○○ NGC6169 OC	Mu-Norma Cluster; in Norma	12' 16:35.5 -44°04'	6.6
○ NGC6192 OC	40☆☆; rich; irregular	9' 16:41.8 -43°24'	8.5
○ NGC6216 OC	25☆☆; very distant cluster	4' 16:50.8 -44°45'	10.0
○○ NGC6231 C/N	! Bright; scattered + nebula The Table / Jewel Box; one of the finest clusters; 100+☆☆ "False Comet" w/Tr24; discovered in 1654 by Fr. Hodierna	15' 16:55.6 -41°51'	2.6
○ NGC6242 OC	45☆☆; rich; bright	9' 16:56.9 -39°29'	6.4
○ NGC6249 OC	30☆☆; one red ☆; compact	5' 16:59.1 -44°50'	8.2
○ NGC6259 OC	100's of dim ☆; very rich	14' 17:02.2 -44°41'	8.0

○ NGC6268	OC	30☆; bright; pretty rich	6'	17:03.5	-39°45'	9.5
○ NGC6281	OC	25☆; triangular; dense w/neb	8'	17:06.0	-38°01'	5.4
○ NGC6302	PN	Bug Nebula; long, dark lane	45"	17:15.1	-37°07'	9.7
○○ NGC6322	OC	25☆; rich; little comp; faint	5'	17:19.8	-42°57'	6.0
○ NGC6334	C/EN	Cat's Paw; near Boc13	35'x20'	17:22.1	-36°07'	9.9
○ NGC6357	EN	Lobster Neb; around Pismis 24	50'x40'	17:26.1	-34°11'	10.0
○ NGC6374	OC	One bright ☆; small; sparse	2'	17:36.0	-32°34'	9.0
○ NGC6383	OC	12☆ around 6th mag ☆☆	20'	17:36.1	-32°35'	5.5
○ NGC6388	GC	Bright middle; round	8.7'	17:37.7	-44°45'	6.7
○ NGC6396	OC	Pretty large; little rich/comp.	3'	17:38.9	-35°02'	8.5
○ NGC6400	OC	25☆; pretty rich; irregular	12'	17:41.6	-36°57'	8.8
○ NGC6416	OC	25☆; scattered; rich; near M6	14'	17:45.6	-32°21'	5.7
○ NGC6425	OC	15☆; pretty rich	10'	17:48.3	-31°31'	7.2
○ NGC6441	GC	Bright; round; well resolved	7.8'	17:51.6	-37°03'	7.2

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

Scorpius CONTINUED Summer Jul 20 SCO

○ NGC6451	OC	Tom Thumb Cluster; 80☆; rich	9'	17:51.9	-30°12'	8.19
○ NGC6453	GC	In field of M7; resolvable	21.5'	17:52.2	-34°36'	10.0
○○ NGC6496	GC	10☆ at 165x; pretty faint/compr	5'	18:00.5	-44°16'	8.6
○ Sh 2-1	EN	Bright nebula; 456.6LY	1.5°x0.2°	16:00.1	-26°12'	10.0
○○ IC 4592	EN	Blue Horsehead; bright; 424LY	2.5°x1°	16:13.1	-19°31'	3.9
○ IC 4601	EN	Bright nebula; 521.9LY	20'x10'	16:21.1	-20°05'	10.0
○ Sh 2-9	E/RN	N of M4;	1°x0.8°	16:22.3	-25°38'	10.0
○○ Cr 302	OC	Wide; incl. M4, M80, NGC6144	8.5°	16:27.2	-26°18'	1.0
○ IC 4605	RN	Small neb NE of Antares	30"	16:31.4	-25°08'	4.7
○○ Cr 316	OC	Loose; between NGC6231/Tr 24	105'	16:56.9	-40°52'	3.4
○ IC 4628	EN	Prawn Neb; 2 parts; 6kLY, in Tr 24	60'	16:57.8	-40°21'	10.0
○ Tr 24	OC	200☆; rich field; see NGC6231	60'	16:58.4	-40°42'	8.6
○ Boc 13	OC	Semicircle with 2 brighter ☆	15'	17:18.7	-35°34'	7.2
○ Pismis 24	OC	10☆; poor; curve of 4☆; 8kLY	2'	17:26.0	-34°13'	9.6
○ Ant 2	OC	Small; dim ☆s in average region	3'	17:31.0	-32°30'	8.8
○ Cr 332	OC	Involves nebula NGC6334	2'	17:32.1	-37°06'	8.9
○ Cr 333	OC	Involves nebula NGC6357	7'	17:32.8	-34°02'	9.8
○ Tr 27	OC	Tight group of 12☆	7'	17:37.6	-33°32'	6.7
○ Tr 28	OC	Scattered cluster	6'	17:38.3	-32°30'	7.7
○ Ru 127	OC	Arrowhead shape, poor	5'	17:39.2	-36°19'	8.8
○○ Cr 338	OC	Coarse; contrast to NGC6400	20'	17:39.7	-37°44'	8.0
○ Tr 29	OC	20☆; 3 brighter ☆	12'	17:42.9	-40°09'	7.5
○ Tr 30	OC	In field of M7, irregular	7'	17:58.1	-35°16'	8.8