

Meeting Date

January 12, 2025

Night Begins

7:02 PM. EST

Note: Astronomical Twilight Ends

Solar Noon / Midnight

12:40 EST

Note: on Meeting Date

Moon Quarters

First 01/06, Full 01/13, Last 01/21, New 01/29

Darkest Evenings

12/20/24 – 01/04 01/19 – 02/03

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: Orion

A selection from Peter Birren's excellent deep-sky fieldbook, "Objects in the Heavens", pages 102-103

CONSTELLATION	COMMON NAME	SEASON, ON MERIDIAN	ABBREVIATION
ITEM IDENTIFIER	TYPE	DETAILS	☆☆ SEPARATION / SIZE RA DEC MAG
Orion	<i>the Hunter</i>	Winter Jan 25	ORI

"The finest constellation in the heavens, equally remarkable for telescopic interest and obvious brilliancy. Sweeping in many parts most beautiful."

☆ Betelgeuse [®] α	Largest Red SG known; 430LY	05:56.2 07°25'	.4-1.3
☆☆ Rigel β	Blue-white SG/blue; 815LY	9.5" 05:15.5 -08°11'	.3/6.8
☆ Bellatrix γ	Amazon Star; faint neb; Blue SG	05:26.2 06°22'	1.6/12
☆☆ Mintaka δ	☆☆☆; main pair white/lilac	53" 05:33.0 -00°17'	2.5/7
☆☆ Alnilam ε	Arrangement of Pearls; 4☆	3' 05:37.2 -01°11'	1.7/10
☆☆ Alnitak ζ	☆☆☆; Blue SG/yellow/blue	2.5"/58" 05:41.8 -01°56'	2-10
☆☆ Trapezium θ	Group in M42; look for e, f	47" 05:36.2 -05°23'	5-8
☆☆ Nair al Saif ι	☆☆☆; brightest in NGC1980	11"/49" 05:36.4 -05°54'	3/7/10
☆☆ 48/Sigma σ	White/bluish/red; 4☆;	12.9"/42" 05:39.7 -02°35'	3.8-9
☆☆ Σ747	White; near Iota; easy split	36" 05:36.1 -06°00'	4.7/5.5
☆ W [®]	Carbon ☆; ruddy; var. 210 days	05:06.4 01°12'	6-10
☆ BL [®]	Carbon ☆; 20x brighter than α	06:26.6 14°43'	6.3-7
○○ M42 ¹⁹⁷⁶	C/N !! Orion Nebula ; 1,344LY; 110'x90'	05:36.4 -05°26'	2.8
○○ M43 ¹⁹⁸²	E/RN deMairan's Nebula	20'x15' 05:36.6 -05°15'	8.5
○○ M78 ²⁰⁶⁸	RN Diffuse ; small; NGC2017 nearby	8'x6' 05:47.7 00°03'	8.5
○○ NGC1662	OC Graceful pattern ☆	20' 04:49.5 10°58'	6.4
○ NGC1788	RN Cosmic Bat ; 2☆ in nebulosity	8'x5' 05:07.9 -03°20'	9.5
○○ NGC1973/5/7	C/N ! Running Man ; N of M43	40'x25' 05:36.4 -04°50'	5.0
○○ NGC1980	C/N ! Bottom of sword	14' 05:36.4 -05°53'	2.5
○○ NGC1981	OC ! 10☆ ; bright; scattered; rich	25' 05:36.1 -04°24'	4.2
○ NGC1999	EN Bright neb ; hazy; difficult	16'x12' 05:37.5 -06°41'	10.0
○ NGC2023	EN Bright ; east of Horsehead	10'x8' 05:42.6 -02°14'	10.0
○ NGC2024	EN ! Flame Nebula ; use O-III;	30' 05:41.7 -02°26'	10.0

○	NGC2071	RN	☆☆ with faint, large nebula	4'x3'	05:48.2	00°18'	8.0
○	NGC2112	OC	Pretty comp; few small ☆	14'	05:54.7	00°24'	9.1
○	NGC2141	OC	100☆; large; rich; faint	10'	06:04.0	10°26'	9.4
○○	NGC2169	OC	"37" Cluster; 20☆; bright	6'	06:09.5	13°57'	5.9
○	NGC2174	EN	Monkey Head Neb; 6350LY	35'	06:11.1	20°29'	6.8
○	NGC2175	EN	8☆ cluster in nebula; dusty	35'	06:11.1	20°29'	6.8
○	NGC2175S	OC	Small cluster NE of NGC2175	25'	06:10.8	20°36'	6.8
○	NGC2180	OC	Candy cane loop around mag7.9☆	10'	06:10.8	04°48'	9.0
○	NGC2186	OC	Large; compressed; round	5'	06:13.2	05°27'	8.7
○	NGC2194	OC	80 faint ☆; rich; NGC2169 nearby	10'	06:14.9	12°48'	8.5
○○	Cr 69	C/N	λORI cluster; ☆☆☆; ~1,500LY	65'	05:36.2	09°57'	2.8
○○	Cr 70	OC	Orion's Belt; 100☆; 1,400LY	150'	05:36.5	-01°05'	0.5
○	IC431/32	EN	2 sm. nebs N of Alnitak	8'x4'	05:41.9	-01°28'	10.0
○	Sh 2-276	EN	Barnard's Loop; faint neb.	10°x30'	05:48.0	01°00'	10.0
○	vdB 62/63	DN	Leaping Dolphins	2'x1'	05:55.5	01°46'	10.0
○	Basel 11B	OC	Number '2' pattern	7'	05:59.4	21°58'	8.9

NGC number	Con	Type	RA_2000	Dec	Mag	Size	Comments
7009	AQR	PN	21 04.2	-11 22		8.3 28"x23"	Saturn, small green oval
7293	AQR	PN	22 29.6	-20 48		6.3 960"x720"	Helix, large, diffuse
5128	CEN	SOp	13 25.5	-43 01		8 18x15	equatorial dust lane
5139	CEN	GC	13 26.8	-47 29		3.7	36 Omega Centauri!
246	CET	PN	00 47.1	-11 53		8.5 240"x210"	low surface brightness
936	CET	SBa	02 27.7	-01 09		11 5.6x4.5	near M77
2359	CMA	EN	07 17.8	-13 13	—		8 Duck Neb, UHC helps
4361	CRV	PN	12 24.5	-18 48		10.3 80"	small, bright
1232	ERI	Sc	03 09.7	-20 34		10.5 8x7	face-on spiral
1535	ERI	PN	04 14.2	-12 44		10.4 20"x17"	bright bluish disk
3242	HYA	PN	10 24.8	-18 38		8.6 40"x35"	Ghost of Jupiter
3521	LEO	Sc	11 05.8	-00 02		10.1 13.5x7.0	large, bright
6369	OPH	PN	17 29.3	-23 46		11 30"x29"	near NGC 6309
1788	ORI	EN	05 06.9	-03 20	—	8x5	comet shaped
1973	ORI	EN	05 35.1	-04 44	—	5x5	near M42
2024	ORI	EN	05 42.0	-01 50	—	30x30	put Zeta out of field
2438	PUP	PN	07 41.8	-14 44		11 65"	on N edge of M46
2440	PUP	PN	07 41.9	-18 13		11.5 54"x20"	almost stellar
2539	PUP	OC	08 10.7	-12 50		6.5	22 rich, near M46 + M47
253	SCL	Scp	00 47.5	-25 18		7.1 25x7	large
6712	SCT	GC	18 53.1	-08 42		8.2	7.2 PN IC 1295 in field
3115	SEX	E6	10 05.2	-07 43		10.1 8.3x3.2	Spindle, lens-shaped
6445	SGR	PN	17 49.2	-20 01		13 35"x30"	annular, near M23
6520	SGR	OC	18 03.4	-27 54		7.6	6 60*, compact, near B86
6818	SGR	PN	19 44.0	-14 09		10 22"x15"	annular, near NGC 6822
4699	VIR	Sa	12 49.1	-08 40		10.5 3.5x2.7	small & bright