

<u>Meeting Date</u>	July 10, 2022		
<u>Night Begins</u>	11:24 PM EDT	<i>Note: Astronomical Twilight Ends</i>	
<u>Solar Noon / Midnight</u>	1:39 EDT	<i>Note: on Meeting Date</i>	
<u>Moon Quarters</u>	New 06/29, First 07/07, Full 07/13, Last 07/20, New 07/28		
<u>Darkest Evenings</u>	06/18 - 07/04	07/18 - 08/03	<i>Note: 2 days before Last Quarter thru 2 days before First Quarter</i>

Viewing Resources	Evening Sky Maps	http://skymaps.com/
	Astronomy Forecast	https://www.cleardarksky.com/
	Satellite Tracking	https://www.heavens-above.com/
	Melotte Catalogue	https://en.wikipedia.org/wiki/Melotte_catalogue

Deep Sky *Note: West to East*

Featured Targets *Note: Quality 1 = very easy, 5 = very hard, A = spectacular, D = detectable but featureless*

	M / NGC / IC	Constellation	Type	vMag	Quality	Common Name
Asterism	Markov 1	Her	Ast	9	1B	Hercules' Teapot
	Teapot shape of 9 stars. Northwest of the yellow star Xi (92) Herculis.					
Double Star	Mu (21)	Dra	DS	4.9	3A	Alraakis, 17 05 +54 28
	Mag 5.6, 5.7 Sep 1.9" True doubles, nearly identical F5V (Yellow-White) stars.					
Open Cluster	NGC 6633	Oph	OC	4.6	1A	Tweedledum Mel 201
	Nearly as large as the full moon, 38 known stars, paired with IC 4756					
Globular Cluster	NGC 6356	Oph	GC	8.2	2B	Mel 171
	Metal rich with dust in the core, near M 9, add M14, M10, M12, & M5 for a GC tour.					
Galaxy	NGC 6503	Dra	GAL	10.2	3B	Lost in Space
	Dwarf spiral Galaxy, evenly bright core, no nucleus, fainter extensions ends.					
Planetary Nebula	NGC 6543	Dra	PN	8.5	3A	Cat's Eye, C 6
	Tiny Planetary easy to see in small scopes. Close to NGC 6543					
Emission Nebula	M 17	Sgr	C/N	6	2B	NGC 6618, Omega, Swan
	Binocular Object, Bright Emission Nebula between M 16 & M 18					

Constellations *Note: Sorted by Average RA, Rank by Size 1 - 88*

Name	Common Name	Rank	Alpha Star
Hercules	the Hercules	5	Ras Algethi (64)
Ophiuchus	the Serpent Bearer	11	Ras Alhague (55)
Serpens Cauda	the Serpent	23	Unukalhal (24)
Scutum	the Shield	84	Alpha
Lyra	the Lyre	52	Vega (3)

Messier Objects *Note: Sorted by RA*

Name	Constellation	Type	vMag	Quality	NGC	Common Name
M 62	Oph	GCL	6.5	2C	6266	Flickering
M 19	Oph	GCL	6.8	3C	6273	Mel 160
M 92	Her	GCL	6.4	1A	6341	Mel 168
M 9	Oph	GCL	7.7	3C	6333	Mel 167
M 14	Oph	GCL	7.6	2B	6402	Mel 175
M 6	Sco	OCL	4	2B	6405	Butterfly
M 7	Sco	OCL	3	2B	6475	Ptolemy's
M 23	Sgr	OCL	5.5	2B	6494	Mel 184
M 20	Sgr	C/N	6.3	4C	6514	Trifid
M 8	Sgr	C/N	5	2B	6523	Lagoon
M 21	Sgr	OCL	5.9	3C	6531	Webb's Cross
M 24	Sgr	OTH	3.1	3B	6603	Star Cloud
M 16	Ser	C/N	6	2B	6611	Eagle

M 18	Sgr	OCL	6.9	3C	6613	Black Swan
M 17	Sgr	NEB	6	2B	6618	Omega
M 28	Sgr	GCL	6.8	2B	6626	Mel 200
M 69	Sgr	GCL	7.6	3C	6637	Mel 202
M 25	Sgr	OCL	4.6	2B	~	Mel 204
M 22	Sgr	GCL	5.1	1A	6656	Mel 208
M 70	Sgr	GCL	7.9	3B	6681	Mel 211
M 26	Sct	OCL	8	3C	6694	Mel 212
M 11	Sct	OCL	5.8	1A	6705	Wild Duck
M 57	Lyr	PLN	8.8	1A	6720	Ring
M 54	Sgr	GCL	7.6	3B	6715	Mel 216