

Intermediate List

Again this year we have a large number of objects on the list to try, including many Caldwell items. Objects for this year are intended to be interesting, but for the most part not repeat items in recent prior lists (with the exception of the ice giant planets). There is a wide variety of objects to choose from, including double and multiple stars, a carbon star, and a possible nova! There's also a wide assortment of open and globular clusters, nebulae and galaxies. Some are fairly challenging, others somewhat easier to find but hopefully just as interesting and rewarding to see.

Though you are encouraged to try them all, to receive the OSP Intermediate list observer pin you must observe and record at least 20 of the listed objects while you are here at OSP. A short description of each object is required and object sketches are strongly encouraged. Sketch double stars noting West (drift direction) or North. (Recommended for all sketches). Visual observations are encouraged but goto and image enhancers (photography) are permitted at OSP for the Intermediate List award. Each objects page number in the popular Sky and Telescope Pocket Sky Atlas (PSA) is listed as well (or where it would be, if not actually included).

When finished, bring your record of observations to the Observing Program table next to the Information Tent to receive your pin. *Please check the information tent for updates on when the Observing Program table will be staffed, and where it is going to be for the next session. Typically it will be manned later in the afternoon.*

4/30/2025 v1.1

2025 Oregon Star Party Intermediate Observing List

#	Type	Object	Con	RA	Dec	Mag	Size/ Split	PSA	Alternate Name/Comments
	GX	Leo Triplet	Leo					34	Each counts as an object.
1	Triplet	M 65		11h 18' 55.9"	13° 05' 34.0"	10.1	7.6'		If you have sufficient field of view (about 1 degree), try
2		M 66		11h 20' 15.0"	12° 59' 29.0"	9.7	10"		viewing as a trio to see distinctions between the three
3		NGC 3628		11h 20' 17.0"	13° 35' 21.0"	10	11"		The last (only?) prior OSP item in Leo was the 2017 eclipse...
	GX	Markarian's Chain	Vir					45	Each pair counts as an object (groups listed in "chain" order)
4	Chain	M 84		12h 25' 03.7"	12° 53' 13.0"	10.0	7.4"		
	(pairs)	M 86		12h 26' 11.8"	12° 56' 44.0"	9.7	12"		
5		NGC 4435		12h 27' 40.5"	13° 04' 43.0"	11.5	3"		These two also known as "The Eyes"
		NGC 4438		12h 27' 45.5"	13° 00' 32.0"	11.0	9.2"		
6		NGC 4458		12h 28' 57.6"	13° 14' 30.0"	12.9	1.6'		Extra Challenge
		NGC 4461		12h 29' 03.0"	13° 11' 01.0"	11.9	3.6'		
7		NGC 4473		12h 29' 48.9"	13° 25' 45.0"	11.0	4.3"		
		NGC 4477		12h 30' 02.2"	13° 38' 10.0"	11.3	3.7"		
8	GX	M 87	Vir			9.7	7.1'	45	Most massive galaxy in Virgo Cluster (Supergiant Elliptical)
9	P	Neptune	Psc	23h 59' 38.6"	-01° 27' 38.0"	7.8	2.3"	74	1" from Saturn this year. Also see if you can spot moon Triton.
10	P	Mercury	Cnc	08h 10' 25.5"	21° 14' 28.0"	0.2	7.1"	24	Coord. 6/26/2025 9:30PM 2.5° from Moon, during twilight
11	MS	Nu Scorpii	Sco	16h 11' 59.7"	-19° 27' 37.0"	4.2/6.6	40.8"	56	Southerly Dbl-Dbl, AB-CD pair
						4.4/5.3	1.3"	AB Pair	
						6.6/7.2	2.4"	CD Pair	
12	DS	Delta Cygni	Cyg	19h 45' 44.2"	45° 11' 22.0"	2.9, 6.3	2.5"	62	Al Fawaris
13	MS	Epsilon/1 Equulei	Equ	20h 59' 04.3"	04° 17' 34.0"	5.3, 7.1	10.5"	75	AB-C main pair
						6, 6.3	0.7"	AB pair (very tight) - challenge	
								Welcome to Equuleus! (First appearance on an OSP list.)	
	S/							"Blaze Star" - Dim star expected to nova this year - if this	
								occurs it will go from telescope-only to easy naked eye	
								brightness - for about a week. Would be obvious "new star"	
								near CrB. Will it happen during OSP? (It hasn't erupted as of	
14	Nova?	T Coronae Borealis	CrB	15h 59' 30.0"	25° 55' 19.0"	10-2		53	the publishing of this list 4/2025.)
15	CS	T Lyrae	Lyr	18h 32' 20.0"	36° 59' 55.0"	7.6		63	Carbon (and variable) star - very red
16	OC	NGC 7063	Cyg	21h 24' 21.0"	36° 29' 00.0"	7.3	9'	62	
17	OC	NGC 7235	Cep	22h 12' 25.0"	57° 16' 00.0"	8.6	5'	71	
18	OC	Tr 2	Per	02h 36' 53.0"	55° 54' 00.0"	6.5	17"	13	Trumpler 2
19	OC	Tr 3	Cas	03h 11' 48.0"	63° 15' 00.0"	7.0	12"	11	Trumpler 3
20	EN	NGC 7000	Cyg	20h 58' 48.0"	44° 20' 00.0"	4.0	2°	62	North America Nebula, Caldwell 20, very large
21	PN	NGC 6826	Cyg	19h 44' 48.5"	50° 31' 37.0"	8.9	2.1"	62	Blinking Planetary, Caldwell 15
22	PN	NGC 7009	Aqr	21h 04' 10.7"	-11° 21' 50.0"	7.8	30"	77	Saturn Nebula, Caldwell 55
23	RN	NGC 7023	Cep	21h 01' 35.0"	68° 10' 00.0"	7.1	5'	61	Caldwell 4, Iris Nebula
24	GC	NGC 6144	Sco	16h 27' 13.8"	-26° 01' 24.0"	10.0	7.4"	56	Low density/small - not M 4 (but in vicinity)
25	GC	NGC 6522	Sgr	18h 03' 34.0"	-30° 02' 02.0"	9.5	9.4'	67	GC pair 16' apart, in "Baade's Window", where we are
		NGC 6528		18h 04' 49.6"	-30° 03' 02.0"	11.1	5'		viewing through a line-of-sight relatively clear of galactic dust
26	GC	NGC 6440	Sgr	17h 48' 52.7"	-20° 21' 36.0"	11.2	4.4'	67	Small/dim
27	GC	NGC 6553	Sgr	18h 09' 17.6"	-25° 54' 31.0"	9.8	9.2'	67	
28	GC	NGC 6934	Del	20h 34' 11.3"	07° 24' 16.0"	9.6	7.1'	64	Caldwell 47
29	GX	NGC 4631	CVn	12h 42' 07.9"	32° 32' 31.0"	9.5	14"	43	Caldwell 32
30	GX	NGC 5005	CVn	13h 10' 56.3"	37° 03' 33.0"	10.5	4.8'	43	Caldwell 29
31	GX	NGC 3077	UMa	10h 03' 18.9"	68° 44' 03.0"	10.6	5.2'	31	Part of M 81 GX group
32	GX	M 108	UMa	11h 11' 30.9"	55° 40' 27.0"	10.7	4'	43	NGC 3556
33	GX	M 109	UMa	11h 57' 36.0"	53° 22' 27.0"	10.5	8.1'	43	NGC 3992

Key:

P	Planet	DP	Dwarf Planet
GX	Galaxy	SC	Star Cloud
GC	Globular Cluster	S	Star
DS	Open Cluster	DS	Double Star
PN	Planetary Nebula	MS	Multiple Star
EN	Emission Nebula	CS	Carbon Star
SN	Supernova Remnant	VS	Variable Star
DN	Dark Nebula	A	Asteroid
C	Comet	Ast	Asterism

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Locations J2000.0 + mag & size
from Starry Night 8.1.0.2050
6/27/2025 1:00:00 AM
(except as noted)