

Binocular List

Although a telescope provides brighter and higher magnification views of deep-sky objects, binoculars offer several advantages. They provide a much wider field of view, which enhances the views of many objects and makes locating them easier. They are also much more portable and require little or no setup. Many objects in the list below are easily visible in binoculars of all sizes. You may notice many of these are also on other lists – this is intentional. You'll find a whole different feel looking at something with a much wider field of view and use of both eyes. There is a sense of context – seeing where these objects sit relative to nearby objects. To receive the Binocular Observer pin you must observe and record at least 18 of the listed objects while you are here at OSP. As an added reference, each object's page number in the popular Sky and Telescope Pocket Sky Atlas (PSA) is listed as well.

Since there are observers of many levels at OSP, this list contains simple to find/see objects, along with some more challenging ones, but with many more items than are needed for an award. This allows beginners to work at the list and earn an award, but provides additional binocular-oriented targets for more advanced observers looking for more of a challenge.

Go-to mounts are not permitted for the Binocular List award. You may get assistance in locating objects on star charts or in the sky, but you must locate them yourself with your binoculars. Looking through mounted binoculars, in which someone else has sighted the object for you, is not acceptable. Object sketches are highly recommended but they are not necessary if you provide a good description of each object and what you saw.

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.*

6/10/2021 v1.0

2021 Oregon Star Party Binocular Observing List

#	Type	Object	Con	RA	Dec	Mag	Size/ Split	PSA	Alternate Name/Comments
1	Ast/ OC	Kemble's Cascade & IC1502	Cam Cam	03h 59' 03.0" 04h 07' 50.0"	62° 54' 00.0" 62° 19' 00.0"	na 7.5	2.5° 8'	11	Long cascade of stars with an open cluser at one end.
2	Ast	Teapot	Sgr	18h 38' 20.7"	29° 09' 50.0"	na	na	67	Very rich area of the sky. Take some time to explore in large field binoculars. What can you see within and around the area? Many nebulae and clusters are present, several are easily visible.
3	CS/VS	Mu Cephei	Cep	21h 43' 30.4"	58° 46' 48.0"	3.4-5.1	na	73	Very cool, 3,551K/red supergiant star "Herschel's Garnet Star/Erakis". Compare color to other similiary bright stars.
4	EN	IC1805	Cas	02h 33' 24.0"	61° 26' 00.0"	6.5	1°	1	Heart Nebula &
5	EN	IC1848	Cas	02h 51' 18.0"	60° 25' 00.0"	6.5	1°	1	Soul Nebula. Challenging, low surface brightness, try filters.
8	EN	M16 & M17	Sgr	18h 18' 48.0" 18h 20' 48.0"	-13° 46' 59.0" -16° 11' 00.0"	6.4 6	35' 46'	67	Eagle Nebula & Swan/Omega Nebula
7	EN	NGC1499	Per	04h 00' 42.0"	36° 37' 00.0"	5	2.4°	13	California Nebula
6	EN	M8 & M20	Sgr	18h 03' 48.0" 18h 02' 36.0"	-24° 23' 00.0" -23° 02' 00.0"	6 6.3	1.5° 29'	67	Lagoon Nebula & Triffid Nebula
9	EN	NGC7000	Cyg	20h 58' 48.0"	44° 20' 00.0"	4	2°	62	North America Nebula. For a serious challenge... can you see nearby Pelican Nebula IC5070? (In "Atlantic Ocean") Very dim, try filters. UHC, HB.
10	GC	M4	Sco	16h 23' 35.2"	-26° 31' 32.0"	6.7	36'	56	Has lowest HB value of 13.4, means it's easiest GC to see individual stars in a telescope. Can you do it in binos?
11	GC	M22	Sgr	18h 36' 23.9"	-23° 54' 17.0"	6.1	x32'	67	NGC 6656; #3 brightest globular in the sky... but low in sky for us, so a couple of others appear brighter here. #1 and #2 are much deeper in southern skies (Omega Cen, 47 Tuc)
12	GX	M31/32/101	And	00h 42' 44.3"	41° 16' 08.0"	4.3	3°	3	Andromeda Galaxy and satellites. M32 and M110 in same field. Impressive even in basic binoculars.
13	GX	M33	Tri	01h 33' 50.9"	30° 39' 35.0"	6.4	1°	2	Triangulum Galaxy. Low surface brightness adds challenge.
14	GX	M51	Cvn	13h 29' 52.7"	47° 11' 43.0"	8.6	14'	43	Whirlpool Galaxy, smaller in size, face-on colliding spiral.
15	GX	M101	Uma	14h 03' 12.6"	54° 20' 55.0"	8.4	24'	53	Pinwheel Galaxy. Face-on spiral, smaller in size, lower surface brightness adds challenge.
16	OC	NGC869 & NGC884	Per Per	02h 19' 00.0" 02h 22' 23.0"	57° 07' 00.0" 57° 07' 00.0"	5.7 6.6	18' 18'	2	Double Cluster. A showpiece in low-power telecope views. Very nice in binoculars.
17	OC	Mellotte 20	Per	03h 24' 19.0"	49° 51' 00.0"	2.3	5°	13	Alpha Persei Cluster, Collinder 39, large open cluster
18	OC RN	M45	Tau	03h 47' 00.0"	24° 07' 00.0"	1.5	2°	15	Pleiades. Seven Sisters, Subaru Cluster (yes, it's part of the car logo). Challenge... can you see nebulosity around brightest stars?
19	OC	Hyades	Tau	04h 26' 54.0"	15° 51' 59.0"	0.9	5.5°	15	Very large open cluser.
20	OC	Mellotte 111	Com	12h 25' 06.0"	26° 05' 59.0"	2.3	2°	45	Coma Star Cluster
21	OC	M6	Sgr	17h 40' 20.0"	-32° 15' 00.0"	4.5	20'	67	Butterfly Cluster
22	OC	M7	Sgr	17h 53' 51.0"	-34° 47' 00.0"	3.5	1.3°	67	Ptolemy Cluster
23	OC	Cr 399	Vul	19h 25' 24.0"	20° 11' 00.0"	3.9	1.5°	64	Brocci's Cluser, "Coat Hanger"
25	P	Saturn	Cap	20h 48' 59.1"	-18° 36' 21.0"	0.2	19"	77	Look for rings and a few of the brighter moons.
24	P	Jupiter	Aqr	22h 04' 59.8"	-13° 00' 29.0"	-2.8	49"	77	Four largest moons visible in binoculars unless occulted.
26	PN	NGC7293	Vul	22h 29' 38.5"	-20° 50' 11.0"	7.6	15'	64	Helix Nebula
27	PN	M57	Lyr	18h 53' 35.7"	33° 01' 48.0"	8.8	1.4'	63	Ring Nebula. Challenge... small size in binos.
28	RN	IC4604	Oph	16h 25' 36.0"	-23° 26' 00.0"	5.1	1°	56	Rho Ophiuchi Nebula
29	SN	NGC6960	Cyg	20h 45' 42.0"	30° 43' 00.0"	5	1.2°	62	Bridal (Western) Veil Nebula & Witches Broom (Eastern) Veil Nebula
30		NGC6995		20h 56' 24.0"	31° 43' 00.0"	5	1°		Low surface brighness, try filters UHC, OIII
31	DS	Mizar &	Uma	13h 23' 55.8"	54° 55' 30.0"	2.2	12'	43	Bright visual double; ancient "eye test".
32		Alcor		13h 25' 13.8"	54° 59' 16.0"	4			Each is a telescopic binary star as well.
33	SC	M24	Sgr	18h 18' 48.0"	-18° 32' 59.0"	4.6	1.5°	67	Sagittarius Star Cloud - "Window into Milky Way" Challenge... try to locate B92 (dark nebula) within.

Key:			
P	Planet	DP	Dwarf Planet
GX	Galaxy	SC	Star Cloud
GC	Globular Cluster	S	Star
OC	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	Ast	Asterism

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Locations J2000.0
From Starry Night 8
August 5, 2021, 11 PM
(except as noted)