

# *The Eldorado Star Party*

## *2014 Binocular and Telescope Observing Clubs*

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*Houston Astronomical Society*

*(in collaboration with Blackie Bolduc and Brad Walter)*

### **Purpose and Rules**

Welcome to the Annual ESP Binocular and Telescope Clubs! The main purpose of these clubs is to give you an opportunity to observe some of the showpiece objects of the fall season under the pristine skies of Southwest Texas. In addition, we have included a few objects in the observing lists that may challenge you to observe some fainter and more obscure objects that present themselves at their very best under the dark skies of ESP.

The rules are simple; just observe the required number of objects listed for each program while you are at the Eldorado Star Party to receive a club badge.

#### **Binocular Club**

The binocular club program, “**Mining the Milky Way,**” consists of 24 objects. All of the objects in the list for this program are located in the band of the Milky Way and should be observable from the Eldorado Star Party with a good pair of binoculars. You need to observe only **20 out of the 24** objects to qualify for the Binocular Observing Club badge. Cheat sheets for finding these objects are available on the ESP website.

#### **Telescope Club**

The telescope program, “**Edge Wise,**” is a list of 26 edge-on galaxies. This program will give you an opportunity to observe some of the best edge-on galaxies of the fall under the clear dark skies of the Eldorado Star Party. Some of these galaxies may be tough to observe and, while you are encouraged to observe all 26 galaxies, you only need to observe **18 of the 26** with a telescope to qualify for the Telescope Observing Club badge.

#### **Previous ESP Observing Clubs**

Please note that ALL the previous observing programs offered at ESP from 2004 onward are still available. Club badges from these earlier programs are also available and will be awarded to anyone completing them at ESP. Check in the registration/warming tent on the observing field to select one (or more!) of these lists.

#### **Club Badges**

Any size telescope or binocular can be used to complete the observing programs. Again, all observations must be made at the Eldorado Star Party in order to qualify for an ESP observing badge. To receive your badge, please turn in your observations to Bill Flanagan any time during ESP. I will try to be available on the observing field as well as in the Lodge prior to the meals and talks. If you finish the list on the last night of ESP, or I am not available to give you your badge, just mail your observations to me at 815 Azalea, Houston, TX 77018, and I will see that you get your badge.

Good Luck and Good Observing!

# *Mining the Milky Way*

Primary ID	Alternate ID	Type	Con	RA 2000	Dec 2000	Mag	Size	Date	Time
Swan Nebula	M 17	Neb	Sgr	18h20m48s	-16°11'00"	6.0	11.0'		
M 25	IC 4725	Open	Sgr	18h31m47s	-19°07'00"	6.2	29.0'		
M 22	NGC 6656	Glob	Sgr	18h36m24s	-23°54'12"	5.2	32.0'		
IC 4756	Collinder 386	Open	Ser	18h39m00s	+05°27'00"	5.4	39.0'		
M 26	NGC 6694	Open	Sct	18h45m18s	-09°23'00"	9.0	7.0'		
B 111		Dark	Sct	18h50m00s	-05°00'00"		120.0'		
Wild Duck Cluster	M 11	Open	Sct	18h51m05s	-06°16'12"	6.1	32.0'		
B 119a		Dark	Sct	18h54m39s	-05°10'00"		30.0'		
Collinder 399	OCL 113	Open	Vul	19h25m24s	+20°11'00"	4.8	89.0'		
Albireo	$\beta$ Cyg	DStar	Cyg	19h30m43s	+27°57'35"	3.1			
Barnard's E	B 143	Dark	Aql	19h40m42s	+10°57'00"		30.0'		
M 71	NGC 6838	Glob	Sge	19h53m46s	+18°46'42"	8.4	4.0'		
M 29	NGC 6913	Open	Cyg	20h23m57s	+38°30'30"	7.5	10.0'		
Veil Nebula (East)	NGC 6992	Neb	Cyg	20h56m24s	+31°43'00"	7.0	60.0'		
North American Neb.	NGC 7000	Neb	Cyg	20h58m30s	+44°22'28"	4.0	120.0'		
M 39	NGC 7092	Open	Cyg	21h31m48s	+48°26'00"	5.3	29.0'		
NGC 7243	Collinder 448	Open	Lac	22h15m08s	+49°53'54"	6.7	29.0'		
M 52	NGC 7654	Open	Cas	23h24m48s	+61°35'36"	8.2	15.0'		
NGC 7686	Collinder 456	Open	And	23h30m07s	+49°08'00"	5.6	14.0'		
NGC 7789	OCL 269	Open	Cas	23h57m24s	+56°42'30"	7.5	25.0'		
NGC 103	Collinder 1	Open	Cas	00h25m16s	+61°19'24"	5.8	4.0'		
M 103	NGC 581	Open	Cas	01h33m23s	+60°39'00"	6.9	5.0'		
NGC 663	Collinder 20	Open	Cas	01h46m09s	+61°14'06"	6.4	14.0'		
Double Cluster	Caldwell 14	Open	Per	02h20m00s	+57°08'00"	4.3	60.0'		

## *Edge Wise*

Primary ID	Alternate ID	Type	Con	RA 2000	Dec 2000	Mag	Size	Date	Time
Splinter Galaxy	NGC 5907	Gal	Dra	15h15m54s	+56°19'44"	10.7	11.0'x 1.4'		
NGC 5965	UGC 9914	Gal	Dra	15h34m02s	+56°41'13"	12.6	4.8'x 0.7'		
NGC 6504	UGC 11053	Gal	Her	17h56m06s	+33°12'30"	12.6	2.0'x 0.4'		
NGC 7184	MCG -4-52-9	Gal	Aqr	22h02m40s	-20°48'47"	11.4	6.2'x 1.4'		
NGC 7332	UGC 12115	Gal	Peg	22h37m25s	+23°47'53"	11.2	3.2'x 0.7'		
NGC 7339	UGC 12122	Gal	Peg	22h37m47s	+23°47'11"	12.5	2.8'x 0.7'		
NGC 7640	UGC 12554	Gal	And	23h22m07s	+40°50'44"	10.9	8.7'x 1.7'		
Little Sombrero	NGC 7814	Gal	Peg	00h03m15s	+16°08'42"	11.0	4.9'x 2.1'		
NGC 7817	UGC 19	Gal	Peg	00h03m59s	+20°45'06"	12.0	3.3'x 0.8'		
NGC 55	MCG -7-1-13	Gal	Scl	00h15m08s	-39°13'13"	8.3	30.2'x 3.4'		
Sculptor Galaxy	NGC 253	Gal	Scl	00h47m33s	-25°17'20"	7.8	28.2'x 5.5'		
NGC 403	UGC 715	Gal	Psc	01h09m14s	+32°45'07"	12.7	2.1'x 0.7'		
NGC 489	UGC 908	Gal	Psc	01h21m54s	+09°12'24"	12.6	1.5'x 0.3'		
NGC 678	UGC 1280	Gal	Ari	01h49m25s	+21°59'50"	12.5	3.5'x 0.7'		
NGC 784	UGC 1501	Gal	Tri	02h01m17s	+28°50'14"	11.4	5.0'x 1.3'		
NGC 891	UGC 1831	Gal	And	02h22m34s	+42°20'46"	10.6	11.7'x 2.3'		
NGC 1032	UGC 2147	Gal	Cet	02h39m24s	+01°05'38"	12.1	3.5'x 0.9'		
NGC 1184	UGC 2583	Gal	Cep	03h16m46s	+80°47'31"	12.6	3.4'x 0.8'		
NGC 1421	MCG -2-10-8	Gal	Eri	03h42m30s	-13°29'17"	11.6	2.9'x 0.7'		
NGC 1618	MCG -1-12-34	Gal	Eri	04h36m07s	-03°08'55"	12.7	2.3'x 0.8'		
NGC 1622	MCG -1-12-36	Gal	Eri	04h36m37s	-03°11'20"	13.1	3.0'x 0.5'		
NGC 1625	MCG -1-12-38	Gal	Eri	04h37m06s	-03°18'12"	12.6	2.5'x 0.6'		
Integral Sign	UGC 3697	Gal	Cam	07h11m19s	+71°50'13"	13.5	2.6'x 0.5'		
IC 2233	UGC 4278	Gal	Lyn	08h13m59s	+45°44'32"	12.4	3.7'x 0.5'		
NGC 2654	UGC 4605	Gal	UMa	08h49m12s	+60°13'14"	12.0	4.2'x 0.8'		
NGC 2820	UGC 4961	Gal	UMa	09h21m45s	+64°15'28"	12.7	3.5'x 0.4'		