

The Eldorado Star Party

2013 Binocular and Telescope Observing Clubs

by Bill Flanagan

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 is a list consisting of 24 objects called “**Great Balls of Fire**”. All of the objects in this list are globular clusters and should be observable from the Eldorado Star Party with a good pair of binoculars. You need to observe only **15 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 is a list consisting of 26 objects, all located in the constellations of Cepheus and Cassiopeia. The title of this program is “**Ransack the Palace,**” and of course the goal of this program is to bag the most precious and beautiful jewels from the palace of King Cepheus and Queen Cassiopeia. You need to observe only **22 of the 26** objects 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!

Great Balls of Fire (in my Binoculars)

Primary ID	Alternate ID	Type	Con	RA 2000	Dec 2000	Mag	Size	Date	Time
M 13	Keystone Cluster	Glob	Her	16h41m41s	+36°27'36"	5.8	20.0'		
NGC 6229		Glob	Her	16h46m59s	+47°31'42"	9.4	4.5'		
M 12	NGC 6218	Glob	Oph	16h47m14s	-01°56'48"	6.1	16.0'		
M 10	NGC 6254	Glob	Oph	16h57m09s	-04°06'00"	6.6	20.0'		
M 92	NGC 6341	Glob	Her	17h17m07s	+43°08'12"	6.5	14.0'		
M 14	NGC 6402	Glob	Oph	17h37m36s	-03°14'48"	7.6	11.0'		
NGC 6535		Glob	Ser	18h03m51s	-00°17'48"	9.3	3.4'		
NGC 6544		Glob	Sgr	18h07m20s	-24°59'54"	7.5	9.2'		
M 28	NGC 6626	Glob	Sgr	18h24m33s	-24°52'12"	6.9	13.8'		
M 22	NGC 6656	Glob	Sgr	18h36m24s	-23°54'12"	5.2	32.0'		
NGC 6712		Glob	Sct	18h53m04s	-08°42'18"	8.1	9.8'		
NGC 6717	Palomar 9	Glob	Sgr	18h55m06s	-22°42'06"	8.4	5.4'		
M 54	NGC 6715	Glob	Sgr	18h55m03s	-30°28'42"	7.7	12.0'		
M 56	NGC 6779	Glob	Lyr	19h16m36s	+30°11'06"	8.4	8.8'		
M 55	NGC 6809	Glob	Sgr	19h40m00s	-30°57'42"	6.3	19.0'		
M 71	NGC 6838	Glob	Sge	19h53m46s	+18°46'42"	8.4	7.2'		
M 75	NGC 6864	Glob	Sgr	20h06m05s	-21°55'18"	8.6	6.8'		
NGC 6934		Glob	Del	20h34m11s	+07°24'18"	8.9	7.1'		
M 72	NGC 6981	Glob	Aqr	20h53m28s	-12°32'12"	9.2	6.6'		
M 15	NGC 7078	Glob	Peg	21h29m58s	+12°10'00"	6.3	18.0'		
M 2	NGC 7089	Glob	Aqr	21h33m27s	-00°49'24"	6.6	16.0'		
M 30	NGC 7099	Glob	Cap	21h40m22s	-23°10'42"	6.9	12.0'		
M 79	NGC 1904	Glob	Lep	05h24m11s	-24°31'30"	7.7	9.6'		
NGC 2419	Intergalactic Wanderer	Glob	Lyn	07h38m08s	+38°52'54"	10.3	4.6'		

Ransack the Palace!

Primary ID	Alternate ID	Type	Con	RA 2000	Dec 2000	Mag	Size	Date	Time
NGC 6939	Collinder 423	Open	Cep	20h31m30s	+60°39'42"	7.8	10.0'		
NGC 6946	Fireworks Galaxy	Gal	Cep*	20h34m53s	+60°09'14"	9.8	10.5'x		
NGC 6951	MCG 11-25-2	Gal	Cep	20h37m14s	+66°06'20"	12.0	3.2'x 2.3'		
NGC 7129	LBN 497	Neb	Cep	21h43m00s	+66°07'00"	11.5	2.7'		
Garnet Star	μ Cep	Var/MSS	Cep	21h43m30s	+58°46'48"	4.3			
NGC 7160	Collinder 443	Open	Cep	21h53m40s	+62°36'12"	6.4	5.0'		
NGC 7235	Collinder 447	Open	Cep	22h12m25s	+57°16'12"	7.7	5.0'		
δ Cep	27 Cep	Var/MSS	Cep	22h29m10s	+58°24'55"	3.9			
NGC 7354	PN G107.8+02.3	PNeb	Cep	22h40m20s	+61°17'08"	12.2	22"		
NGC 7510	Collinder 454	Open	Cep	23h11m03s	+60°34'12"	7.9	6.0'		
M 52	NGC 7654	Open	Cas	23h24m48s	+61°35'36"	6.9	16.0'		
NGC 7789	OCL 269	Open	Cas	23h57m24s	+56°42'30"	6.7	25.0'		
NGC 40	PN G120.0+09.8	PNeb	Cep	00h13m01s	+72°31'19"	12.3	1.0'		
PN G118.0-08.6	PK 118-8.1	PNeb	Cas	00h18m42s	+53°52'20"	12.5	5.0"		
NGC 185	MCG 8-2-10	Gal	Cas	00h38m58s	+48°20'15"	9.3	10.7'x 8.9'		
NGC 225	Sailboat Cluster	Open	Cas	00h43m39s	+61°46'30"	7.0	12.0'		
NGC 188	Collinder 6	Open	Cep	00h47m28s	+85°15'18"	8.1	17.0'		
NGC 278	MCG 8-2-16	Gal	Cas	00h52m04s	+47°33'02"	10.9	2.3'x 2.3'		
NGC 281	PacMan Nebula	Neb	Cas	00h53m00s	+56°37'00"	7.4	30.0'		
NGC 457	ET Cluster	Open	Cas	01h19m35s	+58°17'12"	6.4	20.0'		
M 103	NGC 581	Open	Cas	01h33m23s	+60°39'00"	7.4	5.0'		
IC 1747	PN G130.2+01.3	PNeb	Cas	01h57m36s	+63°19'19"	12.0	13"		
Maffei I	PGC 9892	Gal	Cas	02h36m36s	+59°39'16"	11.7	57" x 53"		
NGC 1184	MCG 13-3-2	Gal	Cep	03h16m46s	+80°47'31"	12.6	3.4'x 0.8'		
NGC 2276	Arp 25	Gal	Cep	07h27m12s	+85°45'19"	11.8	2.6'x 2.1'		
NGC 2300	Arp 114	Gal	Cep	07h32m20s	+85°42'32"	11.1	2.9'x 2.3'		