

Bennett Catalog

About the catalog from the Astronomical Society of Southern Africa:
About John Bennett

http://assa.saa0.ac.za/sections/deep-sky/jack-bennett-catalogue/
https://en.wikipedia.org/wiki/John_Caister_Bennett

The Astronomical League's Master Observer Sequence requires the Messier Observing Program. This program can not be completed by southern observers due to the many targets in the north sky beyond their reach. The Bennett Catalog offers an alternative target list for southern observers.

To make the Program parallel to the Messier program use only star hopping to find, identify, and describe the 110 most southerly targets in the Bennett Catalog. The 110 most southerly target are shown in black below (NOT RED).

Star hop

Not Star hop

Bennett #	NGC	Other names		Con	RA (h)	RA (m)	RA (s)	Dec (deg)	Dec (min)	Image link	Date	Time	Location	Telescope	Seeing	Transp.	Description
Ben 001	NGC 55	C 72	Barred spiral galaxy	Scl	0	14	54	−39	11	1	9/30/2011	23:53	Okie-Tex SP	16" f/4.5 Newtonian	OK	OK	100x – A long slender cigar shaped, uniformly lit glow that extends clear across FOV. Position angle 90 degrees.
Ben 002	NGC 104	47 Tuc, C 106	Globular Cluster	Tuc	0	24	6	−72	5	2	4/2/2016	20:12	OzSky	18" f/4.5 Newtonian	Very Good	Very Good	187x – Nice. Fills FOV. Tight, bright core and rest of stars not so tight. Stars radiate out from core and circular in shape. Has become my favorite globular. 20 degrees high.
Ben 003	NGC 247	C 62	Spiral galaxy	Cet	0	47	6	−20	46	3	10/27/2008	22:00	DAS Site	12.5" f/8 Newtonian	Good	Good	134x – A long, slender, faint, uniformly lit glow that goes up and down in the FOV and approx 1 FOV long. Field star seen on halo glow.
Ben 004	NGC 253	Sculptor Galaxy, Silver Coin Gal., C 65	Spiral galaxy	Scl	0	47	36	−25	17	4	10/18/2009	0:36	Keota, CO	12.5" f/8 Newtonian	OK	OK	134x – Nice. See dust lanes in center part of galaxy. Overwhelms 19mm FOV. Goes from 11 – 5 o'clock.
Ben 005	NGC 288		Globular Cluster	Scl	0	52	48	−26	35	5	10/27/2008	22:11	DAS Site	12.5" f/8 Newtonian	Great	Good	134x – Nice. Large globular. Circular. Lots of member stars seen on glow of globular.
Ben 006	NGC 300	C 70	Spiral galaxy	Scl	0	54	54	−37	41	6	10/27/2008	22:44	DAS Site	12.5" f/8 Newtonian	Good	Good	134x – Very dim, uniformly lit oval bounded by 4 dim field stars on each side. No central brightening. Just a glow. Very low in south.
Ben 007	NGC 362	C 104	Globular Cluster	Tuc	1	3	12	−70	51	7	4/6/2016	19:45	OzSky	18" f/4.5 Newtonian	Very Good	Very Good	187x – A medium size, round, bright glow. Larger, bright core dims slowly to edge. Tons of member stars seen.
Ben 008	NGC 613		Barred spiral galaxy	Scl	1	34	18	−29	25	8	10/27/2008	22:21	DAS Site	12.5" f/8 Newtonian	Great	Good	134x – Nice tilted oval with larger, brighter core with faint tapered arms that dims quickly at ends of core area. Goes from 1 to 7 o'clock. Nice. Easy to see.
Ben 009	NGC 1068	M 77, Cetus A	Barred spiral galaxy	Cet	2	42	42	−00	1	9	12/21/1987	20:55	TAS Site	12.5" f/8 Newtonian	Fair	Fair	127x - Bright nucleus, small halo. Could be elliptical in shape. Doesn't look circular.
Ben 010	NGC 1097	C 67	Barred spiral galaxy	For	2	46	18	−30	17	10	12/28/2008	20:26	DAS Site	12.5" f/8 Newtonian	Good	Good	134x – Nice, large tilted oval that goes from 2-8 o'clock. Large, bright core and dim extended halo seen.
Ben 010a	NGC 1232		Spiral galaxy	Eri	3	9	48	−20	35	10a	12/28/2008	19:57	DAS Site	12.5" f/8 Newtonian	OK	OK	134x – Larger round glow with large, bit brighter nucleus area. Pretty dim overall yet easy to spot in FOV.
Ben 011	NGC 1261	C 87	Globular Cluster	Hor	3	12	18	−55	13	11	4/2/2016	21:06	OzSky	18" f/4.5 Newtonian	Very Good	Very Good	187x – A medium sized, round, dim globular. Center large and uniformly lit and dims quickly at edge. Member stars easily seen. 30 degrees high.
Ben 012	NGC 1291		Ring galaxy	Eri	3	17	18	−41	8	12	1/17/2015	20:54	CSAC	20" f/5 Newtonian	Good	Good	149x – A larger tilted oval, brighter. Has larger, round bright core. Has field star on lower part of glow. Goes 12 – 6 oc.
Ben 013	NGC 1313		Barred spiral galaxy	Ret	3	18	18	−66	30	13	4/8/2016	19:23	OzSky	18" f/4.5 Newtonian	Good	Good	187x – A long, fat, dim oval. Has very large, bright core down center. See mottling/texture on central core glow. Has thick, short, very dim glow above right hand side of oval and similar very dim thick short glow below left hand side. Nice.
Ben 014	NGC 1316		Lenticular galaxy	For	3	22	42	−37	12	14	12/28/2008	20:16	DAS Site	12.5" f/8 Newtonian	Good	Good	134x – Nice tilted oval. Fairly bright core and bit of halo around it. Goes from 10-4 o'clock in FOV.
Ben 014a	NGC 1350	Fornax A	Spiral galaxy	For	3	31	6	−33	38	14a	1/16/2009	19:11	DAS Site	12.5" f/8 Newtonian	OK	OK	134x – Nice, tilted oval with larger, brighter core surrounded by dim, yet easy to see halo glow. Tilt is 10 - 4 o'clock. Easy to see in FOV.
Ben 015	NGC 1360	Robin's Egg	Planetary Nebula	For	3	33	18	−25	51	15	2/25/2006	19:19	Crow Valley	12.5" f/8 Newtonian	Good	Good	134x - Low in SW with some sky glow there. See larger, faint oval glow with central star easily seen. With OIII, see oval glow better.
Ben 016	NGC 1365		Barred spiral galaxy	For	3	33	36	−36	8	16	1/15/2015	20:31	CSAC	20" f/5 Newtonian	OK	OK	149x – A large, dim, barred spiral with large, bright core and very dim arms on right hand side of bar tapers up and on left hand side of bar tapers down.
Ben 017	NGC 1380		Lenticular galaxy	For	3	36	30	−34	59	17	10/18/2009	1:43	Keota, CO	12.5" f/8 Newtonian	OK	OK	134x – Nice. Longer, brighter, elongated slender oval. Fairly bright. But very low in south. Brighter, large core seen with bit of dim halo around it. Center part of core pretty bright. Didn't see any other galaxies around it.
Ben 018	NGC 1387		Lenticular galaxy	For	3	37	0	−35	31	18	1/16/2009	19:11	DAS Site	12.5" f/8 Newtonian	OK	OK	134x – Is a bit of an oval. Dim. Uniformly lit.
Ben 019	NGC 1399		Elliptical galaxy	For	3	38	30	−35	27	19	1/25/2017	20:34	CSAC	20" f/5 Newtonian	Very Good	Very Good	195x - A small, round, uniformly lit dim glow.

Ben 019a	NGC 1398		Barred spiral galaxy	For	3	38	54	−26	20	19a	1/16/2009	18:55	DAS Site	12.5" f/8 Newtonian	OK	OK	134x – Small, round bright galaxy with bit brighter, large core area. Very easy to see. Maybe an extended halo surrounds this bright galaxy. Looking again, see it's a tilted oval from 11 – 5 o'clock in FOV. What was described above is brighter central part and can see faint halo arms above and below central glow as it tapers off.
Ben 020	NGC 1404		Elliptical galaxy	Eri	3	38	54	−35	35	20	1/9/2010	18:53	DAS Site	12.5" f/8 Newtonian	Good	Good	134x – Revisited Fornax Galaxy Cluster to pickup members I missed when viewing this last time I was out. Just below a field star, a small oval with a brighter core.
Ben 021	NGC 1433		Barred spiral galaxy	Hor	3	42	0	−47	13	21	4/7/2016	19:10	OzSky	18" f/4.5 Newtonian	OK	Good	187x – A small, long tilted oval. Very dim halo. Large, brighter oval core with even brighter center.
Ben 021a	NGC 1512		Barred spiral galaxy	Hor	4	3	54	−43	21	21a	4/6/2016	20:28	OzSky	18" f/4.5 Newtonian	Good	Good	187x – A large, tilted oval. Large, brighter core surrounded by dim halo.
Ben 022	NGC 1535		Planetary Nebula	Eri	4	14	12	−12	44	22	10/5/2002	0:35	Okie-Tex SP	12.5" f/8 Newtonian	Good	Good	134x - Small. Round. Uniformly lit. w/ and w/o O3 yields same view. W/AV no diff seen. No central star seen.
Ben 023	NGC 1549		Elliptical galaxy	Dor	4	15	42	−55	36	23	4/1/2016	21:15	OzSky	16" f/4 Newtonian	Good	Good	125x – A small, long cigar glow with larger, brighter core.
Ben 024	NGC 1553		Lenticular galaxy	Dor	4	16	12	−55	47	24	4/6/2016	20:41	OzSky	18" f/4.5 Newtonian	Good	Good	187x - A medium size tilted oval. Has bright linear core. Nice one.
Ben 025	NGC 1566	Spanish Dancer	Spiral galaxy	Dor	4	20	0	−54	56	25	4/3/2016	19:50	OzSky	18" f/4.5 Newtonian	Fair	Fair	187x – A fat, dim oval. Medium sized. Has larger, bright core and dim halo.
Ben 025a	NGC 1617		Barred spiral galaxy	Dor	4	31	42	−54	36	25a	4/6/2016	21:10	OzSky	18" f/4.5 Newtonian	Good	Good	187x – A medium size, dim, tilted oval with larger, brighter oval core.
Ben 026	NGC 1672		Barred spiral galaxy	Dor	4	45	42	−59	15	26	4/6/2016	19:35	OzSky	18" f/4.5 Newtonian	Very Good	Very Good	187x – A large, dim tilted oval with large, bright core and tapered ends.
Ben 027	NGC 1763		Emission nebula with OC	Dor	4	56	48	−66	24	27	4/5/2016	19:15	OzSky	18" f/4.5 Newtonian	Very Good	Very Good	187x - A very small, dim, knot of stars. Stars seen.
Ben 028	NGC 1783		Globular Cluster	Dor	4	58	54	−66	0	28	4/4/2016	20:11	OzSky	18" f/4.5 Newtonian	Very Good	Very Good	187x – A medium sized, dim, round, uniformly lit glow. See speckling on glow.
Ben 029	NGC 1792		Spiral galaxy	Col	5	5	12	−37	59	29	12/28/2008	21:39	DAS Site	12.5" f/8 Newtonian	OK	OK	134x - Faint, uniformly lit oval glow. Goes from 1-7 o'clock in FOV. It's a long, slender sliver of light.
Ben 030	NGC 1818		Globular Cluster	Dor	5	4	12	−66	24	30	4/8/2016	19:15	OzSky	18" f/4.5 Newtonian	Very Good	Very Good	134x – A nice bright oval. Has tons of stars in center and then dims slowly. Tons of stars seen. Looks like a globular.
Ben 031	NGC 1808		Barred spiral galaxy	Col	5	7	42	−37	31	31	12/28/2008	21:34	DAS Site	12.5" f/8 Newtonian	Good	Good	134x - Nice. Tilted oval. Goes from 1-7 o'clock. Larger, brighter core in center and tapered halo arms.
Ben 032	NGC 1851	C 73	Globular Cluster	Col	5	14	6	−40	3	32	2/24/2009	18:59	DAS Site	12.5" f/8 Newtonian	Good	Good	134x – Nice. Bright, small compact core dims quickly to a large circular halo of member stars. Very low along horizon yet member stars almost pop out.
Ben 033	NGC 1866		Globular Cluster	Dor	5	13	30	−65	28	33	4/5/2016	19:26	OzSky	18" f/4.5 Newtonian	Very Good	Very Good	187x – A medium sized oval. Bright. Brighter in center and dims slowly to edge. See tiny stars speckled on OC.
Ben 034	NGC 1904	M 79	Globular Cluster	Lep	5	24	30	−24	33	34	2/13/1988	20:05	TAS Site	12.5" f/8 Newtonian	Good	Good	64x - Small and bright. Neat object. Can see pin pricks of individual stars. 79x - Makes it bigger. 127x - Gives best view. Fairly bright. Fills 1/8 FOV. See many member stars. With averted vision, see hundreds of stars that starts in bright nucleus ball and fade out into fairly symmetrical halo. Very neat object for as small as it is.
Ben 035	NGC 2070	Tarantula Nebula, 30 Dor, C 103	DN? and OC	Dor	5	38	36	−69	5	35	4/1/2016	20:37	OzSky	16" f/4 Newtonian	Good	Good	125x - A nice, twisted glow. Bright. Some of glow in loops. Quite Extended. Has star cluster in center. With UHC and O3 shows different views of it. Fills FOV nicely. 40 degrees high.
Ben 036	NGC 2214		Open Cluster	Dor	6	12	48	−68	16	36	4/6/2016	19:34	OzSky	18" f/4.5 Newtonian	Very Good	Very Good	187x – A small, round, dim glow. Brighter core. See speckling of very faint stars on glow.
Ben 036a	NGC 2243		Open Cluster	CMa	6	29	48	−31	17	36a	3/3/2024	20:02	CSAC	20" f/5 Newtonian	Good	Good	195x – A small, round glow. With AV, see 4-5 extremely faint stars and rest are unseen.
Ben 037	NGC 2298		Globular Cluster	Pup	6	49	0	−36	0	37	4/6/2016	20:16	OzSky	18" f/4.5 Newtonian	Good	Good	187x – A small, somewhat compact, dim, uniformly lit glow. Tons of member stars easily seen.
Ben 037a	NGC 2467	Skull & Crossobnes Nebula	DN? And OC	Pup	7	52	36	−26	23	37a	2/3/2005	23:01	John Martin	12.5" f/8 Newtonian	Good	Good	134x - A dim, yet easy to see glow. Quite large in 19 mm. Has bright star in bottom 1/3 of glow. Most of glow above (N) of star, which also is the brighter part of this nebula.
Ben 038	NGC 2489		Open Cluster	Pup	7	56	12	−30	4	38	4/26/2003	21:21	Sterling SP	12.5" f/8 Newtonian	Good	Good	134x - Very low, in hazy clouds of SW. Found 2 stars close to cluster, which was very faint. There was a glow where cluster should be with 5 stars seen in this glow with AV.
Ben 039	NGC 2506	C 54	Open Cluster	Mon	8	12	0	−10	47	39	10/5/2002	4:44	Okie-Tex SP	12.5" f/8 Newtonian	Good	Good	134x - Easy to spot in 19mm. Tight, compact glow. 2 brighter stars and about 8 dimmer stars seen. The rest of OC is just a nice glow.
Ben 040	NGC 2627		Open Cluster	Pyx	8	37	18	−29	57	40	3/12/2010	19:39	DAS Site	20x80 Binoculars	Good	Good	To lower right of a bright field star and inside a triangle of 3 stars is this faint, round glow of this open cluster.
Ben 040a	NGC 2671		Open Cluster	Vel	8	46	12	−41	53	40a	3/5/2024	22:48	CSAC	20" f/5 Newtonian	Good	Good	195x – 7-8 brighter and 10-15 dimmer stars and a nice glow underneath these dimmer stars. Roundish in shape. Fills center of FOV.

Ben 041	NGC 2808		Globular Cluster	Car	9	12	0	−64	52	41	4/1/2016	22:42	OzSky	18" f/4.5 Newtonian	Good	Good	125x – A nice, large globular. Bright core that dims slowly to edge. Tons of stars seen. Fills FOV nicely. 75 degrees high.
Ben 041a	NGC 2972		Open Cluster	Vel	9	40	18	−50	20	41a	4/22/2025	22:03	Big Bend National Park	12.5" f/8 Newtonian	OK	OK	195x - A small group of stars that are easy to spot in the eyepiece. There are 10 or so stars that are very faint, yet easy to see that are part of this cluster.
Ben 041b	NGC 2997		Spiral galaxy	Ant	9	45	36	−31	11	41b	4/21/2009	21:07	DAS Site	12.5" f/8 Newtonian	Good	Good	134x - Nice. Round, large circular face on galaxy. Very dim with bit brighter, larger core seen in center. Dim halo glow not uniformly lit but a bit mottled in appearance. Pretty dim overall. Mottling may be a hint of spiral arms.
Ben 042	NGC 3115	Spindle Galaxy, C 53	Lenticular galaxy	Sex	10	5	12	−07	43	42	4/4/2016	22:38	OzSky	18" f/4.5 Newtonian	Good	Good	187x – A thin, long tilted oval. Has bright core and has central dimmer core down center. Dim halo. See a bright stellar point in center of core. Very faint halo extends a bit beyond bottom right of galaxy a bit. Nice.
Ben 043	NGC 3132	8-Burst, S. Ring Nebula, C 74	Planetary Nebula	Vel	10	7	0	−40	26	43	4/5/2016	0:28	OzSky	18" f/4.5 Newtonian	Good	Good	187x – Without O3, a nice, bright circular shape with a bit more nebula above it than below. See thick ring. Central star very bright. With O3, see ring easier. Best view without filter.
Ben 044	NGC 3201	C 79	Globular Cluster	Vel	10	17	36	−46	25	44	4/4/2016	22:50	OzSky	18" f/4.5 Newtonian	Good	Good	187x – A roundish, uniformly lit globular. Central part of it is lopsided and concentrated on left hand side. Lots of member stars seen. Loose.
Ben 045	NGC 3242	Ghost of Jupiter, C 59	Planetary Nebula	Hya	10	24	48	−18	38	45	3/18/2007	1:59	Crow Valley	12.5" f/8 Newtonian	Great	Great	134x - Nice, large, opaque round grayish glow. Bright. No central star seen. O3 filter doesn't show it any better or worse.
Ben 046	NGC 3621		Spiral galaxy	Hya	11	18	18	−32	49	46	5/10/2010	22:58	TSP	12.5" f/8 Newtonian	Good	Good	134x – Larger, dim, uniformly lit, cigar shaped glow.
Ben 047	Melotte 105	Mel 105	Open Cluster	Car	11	19	39	−63	30	47	4/5/2016	21:40	OzSky	18" f/4.5 Newtonian	Very Good	Very Good	187x – 40-50 blue white stars of 2-3 magnitudes in a tight, circular shape.
Ben 048	NGC 3960		Open Cluster	Cen	11	50	52	−55	41	48	4/3/2016	19:47	OzSky	18" f/4.5 Newtonian	Fair	Fair	187x – Awesome.
Ben 049	NGC 3923		Elliptical galaxy	Hya	11	51	0	−28	48	49	5/10/2010	23:03	TSP	12.5" f/8 Newtonian	Good	Good	134x - Oval shaped, bright, pretty uniformly lit with maybe a hint of a halo around it.
Ben 050	NGC 4372	C 108	Globular Cluster	Mus	12	25	48	−72	40	50	4/3/2016	23:28	OzSky	18" f/4.5 Newtonian	Very Good	Very Good	187x – To upper left of bright field star and touching is this large, dim globular. Central part uniformly lit and has lots of member stars. Very diffused. Almost fills whole FOV with this. Center has glow of many stars under it. Very loose.
Ben 051	NGC 4590	M 68	Globular Cluster	Hya	12	39	30	−26	45	51	5/13/1988	1:30	TSP	12.5" f/8 Newtonian	Great	Great	127x - Fills half of the FOV. Fairly round. W/AV can see member stars. The more you look, the more stars you see. Nicely fills center of FOV. Pretty uniformly lit. Nice globular.
Ben 052	NGC 4594	M 104, Sombrero Gal.	Spiral galaxy	Vir	12	40	0	−11	37	52	6/27/1987	22:00	TAS Site	12.5" f/8 Newtonian	Fair	Fair	127x - Nice edge on galaxy. With AV, could see dust lane. Medium surface brightness.
Ben 053	NGC 4697	C 52	Eliptical galaxy	Vir	12	48	36	−05	48	53	3/21/2004	2:27	Keota, CO	12.5" f/8 Newtonian	Good	Good	134x - Nice and bright. Easy to see. Quite large nucleus that is uniformly lit edge on oval (cigar shaped). Halo much dimmer than nucleus seen on each end.
Ben 054	NGC 4699		Spiral galaxy	Vir	12	49	0	−08	40	54	5/12/2010	1:39	TSP	12.5" f/8 Newtonian	Good	Good	134x – A bright oval glow with larger core that dims slowly to edge.
Ben 055	NGC 4753		Lenticular galaxy	Vir	12	52	24	−01	12	55	6/22/2009	21:53	DAS Site	12.5" f/8 Newtonian	Fair	Fair	134x - Nice. Brighter tilted oval with brighter, tiny core. Bit larger than most galaxies I've seen lately.
Ben 056	NGC 4833	C 105	Globular Cluster	Mus	12	59	36	−70	53	56	4/4/2016	22:27	OzSky	18" f/4.5 Newtonian	Good	Good	187x – A larger globular. Has small, uniformly lit central core and lots of stars in extended halo. Lots of member stars. Bright field star below globular and on outer halo stars.
Ben 057	NGC 4945	C 83	Barred spiral galaxy	Cen	13	5	24	−49	28	57	4/4/2016	21:07	OzSky	18" f/4.5 Newtonian	Very Good	Very Good	187x – A nice, long, brighter galaxy.
Ben 058	NGC 4976		Eliptical galaxy	Cen	13	8	36	−49	30	58	4/7/2016	2:52	OzSky	18" f/4.5 Newtonian	Good	Good	187x – A small, thin tilted oval. Has brighter, thin oval core. Has very faint field star to upper left of halo and near.
Ben 059	NGC 5061		Spiral galaxy	Hya	13	18	6	−26	50	59	5/11/2010	0:00	TSP	12.5" f/8 Newtonian	Good	Good	134x – Round glow with larger bright core and bit of dim halo around it.
Ben 059a	NGC 5068		Barred spiral galaxy	Vir	13	18	54	−21	2	59a	4/1/2005	22:00	Keota, CO	12.5" f/8 Newtonian	OK	OK	134x - Large, very dim round uniformly lit glow.
Ben 060	NGC 5128	Centaurus A, C 77, Hamburger Galaxy	Lenticular galaxy	Cen	13	25	30	−43	1	60	5/11/2010	0:51	TSP	12.5" f/8 Newtonian	Good	Good	134x – Nice. Large, round dim glow with dust lane bisecting it. Dim overall.
Ben 061	NGC 5139	Omega Centaur, C 80	Globular Cluster	Cen	13	26	48	−47	29	61	4/1/2016	21:03	OzSky	16" f/4 Newtonian	Good	Good	125x – Nice. Omega Centauri - Incredible. Fills FOV. Tons of stars. Best I've ever seen it.
Ben 062	NGC 5189	Spiral Nebula	Planetary Nebula	Mus	13	33	30	−65	59	62	4/4/2016	21:02	OzSky	18" f/4.5 Newtonian	Very Good	Very Good	187x – An irregular glow with darker glow ¾ ring near top of glow. Nice. In a star rich field.
Ben 063	NGC 5236	M 83, S.Pinwheel	Barred spiral galaxy	Hya	13	37	0	−29	52	63	5/13/1988	2:15	TSP	12.5" f/8 Newtonian	Great	Great	127x - Face-on galaxy. Not bright but easy to see. Fills half of the FOV. Has bright nucleus and large, uniformly lit halo. W/AV, could see a hing of CCW arms.
Ben 063a	NGC 5253		Irregular galaxy	Cen	13	39	54	−31	39	63a	5/11/2010	0:53	TSP	12.5" f/8 Newtonian	Good	Good	134x – Nice long oval with larger, longer bright core that appears mottled. Dim bit of halo that on each end, goes from 11:30 – 5:30 o'clock in FOV.
Ben 064	NGC 5286	C 84	Globular Cluster	Cen	13	46	24	−51	22	64	4/4/2016	0:16	OzSky	18" f/4.5 Newtonian	Good	Good	187x – To left of bright field star is this large, dim, compact globular. Bright core dims slowly to edge. Lots of member stars seen.
Ben 065	NGC 5617		Open Cluster	Cen	14	29	48	−60	43	65	4/4/2016	0:40	OzSky	18" f/4.5 Newtonian	Good	Good	187x – A larger, ½ FOV long and narrow bullet shaped OC. 50+ dim blue white stars of 3-4 magnitudes. Stars fill in and outline the bullet.

Ben 066	NGC 5634		Globular Cluster	Vir	14	29	36	−05	59	<u>66</u>	5/6/2005	23:18	TSP	12.5" f/8 Newtonian	Good	Good	134x - Small, round dim glow. Uniformly lit with maybe a hare brighter nucleus. Class 8. Mottling seen and maybe speckling of member stars. GC is situated between 2 brighter field stars.
Ben 067	NGC 5824		Globular Cluster	Lup	15	4	0	−33	4	<u>67</u>	4/7/2016	3:57	OzSky	18" f/4.5 Newtonian	Good	Good	187x – Globular. A small, round. Has bright compact core that dims quickly to dim halo. Speckling of member stars seen.
Ben 068	NGC 5897		Globular Cluster	Lib	15	17	24	−21	1	<u>68</u>	6/12/1988	1:32	TAS Site	12.5" f/8 Newtonian	Good	Good	127x - Dim surface brightness. Waiting and w/AV its possible to see some of the member stars of globular. Only the brighter ones though.
Ben 069	NGC 5927		Globular Cluster	Lup	15	28	0	6	40	<u>69</u>	4/4/2016	1:06	OzSky	18" f/4.5 Newtonian	Good	Good	187x – A larger, dim glow. Brighter core that dims slowly to edge. More globular to 4 o'clock direction from core than on left. Many member stars easily seen.
Ben 070	NGC 5986		Globular Cluster	Lup	15	46	6	−37	47	<u>70</u>	4/7/2016	4:00	OzSky	18" f/4.5 Newtonian	Good	Good	187x – Globular. A medium size, round, uniformly lit. Brighter member stars easily seen. Fainter ones speckled on glow.
Ben 071	NGC 5999		Open Cluster	Nor	15	52	12	−56	28	<u>71</u>	4/23/2025	3:27	Big Bend National Park	12.5" f/8 Newtonian	OK	OK	195x - A tiny group of very faint stars, grouped together, that is barely there but easily seen.
Ben 072	NGC 6005		Open Cluster	Nor	15	55	48	−57	26	<u>72</u>	4/23/2025	3:34	Big Bend National Park	12.5" f/8 Newtonian	OK	OK	195x - A tight, linear shaped group of stars that is easy to spot by the combined glow of all the stars that make it up. There are several individual very faint stars seen on this glow.
Ben 072a	Trumpler 23	Tr 23	Open Cluster	Nor	16	1	30	−53	32	72a	4/23/2025	3:47	Big Bend National Park	12.5" f/8 Newtonian	OK	OK	195x - A very small, circular shaped group of stars that are very faint. You can see a few of these very faint stars of this cluster with the rest too faint to see, but give a combined glow revealing they are there.
Ben 073	NGC 6093	M 80	Globular Cluster	Sco	16	17	0	−22	59	<u>73</u>	6/27/1987	23:30	TAS Site	12.5" f/8 Newtonian	Good	Good	127x - Very compact globular. Bright nucleus and diffused halo. Could see members of globular w/AV.
Ben 074	NGC 6101	C 107	Globular Cluster	Aps	16	25	48	−72	12	74	4/3/2016	1:22	OzSky	18" f/4.5 Newtonian	Good	Good	187x – Seeing is poor here. A larger, very dim glow. Has approx. 10 stars on glow I don't think are part of globular. Very hard to see any members.
Ben 075	NGC 6121	M 4	Globular Cluster	Sco	16	23	36	−26	32	<u>75</u>	5/6/2005	2:33	TSP	12.5" f/8 Newtonian	OK	OK	134x - Large and bright. Diffused. Small tight bright core with rest of what is seen a large and extended halo.
Ben 076	NGC 6134		Open Cluster	Nor	16	27	42	−49	9	<u>76</u>	8/20/2009	21:55	DAS Site	12.5" f/8 Newtonian	Good	Good	134x - A very dim, round uniformly lit glow seen w/AV. Almost not there but I can see it.
Ben 077	NGC 6144		Globular Cluster	Sco	16	27	18	−26	2	77	5/5/2000	0:52	TSP	12.5" f/8 Newtonian	Good	Good	79x - Very faint smudge but now I can see some member stars w/AV. There is a brighter field star to the left of the cluster. 19mm- its still very dim but can see member stars. The field star in the FOV is very obvious now. Roughly circular in shape (a meteor just shot across the EP-very fast).
Ben 078	NGC 6139		Globular Cluster	Sco	16	27	42	−38	51	78	4/7/2016	4:02	OzSky	18" f/4.5 Newtonian	Good	Good	187x – Globular. A small, dim, round. Hare brighter core that dims slowly to edge. Speckling of stars on glow.
Ben 079	NGC 6171	M 107	Globular Cluster	Oph	16	32	30	−13	3	79	9/19/1987	21:54	TAS Site	12.5" f/8 Newtonian	Good	Good	127x - Very faint. Hint of a glow. Has bright nucleus somewhat. Couldn't see any stars.
Ben 079a	NGC 6167		Open Cluster	Nor	16	34	24	−49	36	79a	5/12/2010	3:14	TSP	20x80 Binoculars	Good	Good	Small, very dim glow.
Ben 079b	NGC 6192		Open Cluster	Sco	16	40	18	−43	22	79b	7/8/2024	21:49	DAS Site	8" f/6 Newtonian	Good	Good	122x – Very low in south. A roundish open cluster. Fills center of FOV. 10-15 very faint stars, but it is easy to see these stars. 47x – Small, roundish glow speckled with stars.
Ben 080	NGC 6218	M 12	Globular Cluster	Oph	16	47	12	−01	57	80	9/19/1987	22:04	TAS Site	12.5" f/8 Newtonian	Good	Good	64x - Little smaller than M10. Good surface brightness. See many stars of cluster. More diffused than others. Lacks bright nucleus.
Ben 081	NGC 6216		Open Cluster	Sco	16	49	24	−44	44	81	7/8/2024	22:00	DAS Site	8" f/6 Newtonian	Good	Good	203x – Very loose open cluster. 4 brighter and 3 very faint stars form a pentagon shape. 3 stars, 2 part of the open cluster form a line on the right hand side of open cluster. Very faint. Very low above horizon.
Ben 082	NGC 6235		Globular Cluster	Oph	16	53	24	−22	11	82	5/4/2000	5:14	TSP	12.5" f/8 Newtonian	Good	Good	134x - While looking in the finder scope, I saw a faint meteor shoot across the FOV and left a nice smoke trail. There is a field star near it. 19mm-Fairly faint globular. 10.4 mag. It has a relatively brighter nucleus and a dim halo. It is very small. Can't see any member stars in it. It matches the object on the finder card and is about the right magnitude, awful faint and very small.
Ben 083	NGC 6254	M 10	Globular Cluster	Oph	16	57	6	−04	6	<u>83</u>	9/19/1987	22:01	TAS Site	12.5" f/8 Newtonian	Good	Good	127x - Dominated FOV. Nucleus fairly bright. See many stars of cluster.
Ben 084	NGC 6253		Open Cluster	Ara	16	59	6	−52	43	84	4/23/2025	4:29	Big Bend National Park	12.5" f/8 Newtonian	OK	OK	195x - A small, roundish cluster that is easy to see. 2 bit brighter stars and a few dimmer than the 2 make up this cluster.
Ben 085	NGC 6266	M 62	Globular Cluster	Oph	17	1	12	−30	7	85	9/19/1987	22:14	TAS Site	12.5" f/8 Newtonian	Good	Good	64x - Very faint. Little glow. Has relatively bright nucleus.
Ben 086	NGC 6273	M 19	Globular Cluster	Oph	17	2	36	−26	16	86	9/19/1987	22:07	TAS Site	12.5" f/8 Newtonian	Good	Good	127x - Can make out bright nucleus and halo. But very faint.

Ben 087	NGC 6284		Globular Cluster	Oph	17	4	30	-24	46	87	8/11/2004	23:13	WUTS	12.5" f/8 Newtonian	Good	Good	134x - Small, bright nucleus surrounded by a dim halo. Mottling of member stars seen. Class 6. Rather dim overall.
Ben 088	NGC 6287		Globular Cluster	Oph	17	5	12	-22	42	88	5/5/2000	5:21	TSP	12.5" f/8 Newtonian	Good	Good	134x - Little brighter than 6235. Circular in nature. Telrad is pointing to the correct orientation of Theta Ophiuchus and the star above it. It is of uniform brightness, fairly dim across the circular part. w/a.v. can see the speckling of the member stars.
Ben 089	NGC 6293		Globular Cluster	Oph	17	10	12	-26	35	89	8/11/2004	23:17	WUTS	12.5" f/8 Newtonian	Good	Good	134x - Small, bright nucleus surrounded by a bit larger halo. Class 4.
Ben 090	NGC 6304		Globular Cluster	Oph	17	14	30	-29	28	90	8/12/2004	21:33	WUTS	12.5" f/8 Newtonian	Good	Good	134x - Small, dim, uniformly lit glow. No brighter nucleus seen nor any member stars. Class 2.
Ben 091	NGC 6316		Globular Cluster	Oph	17	16	36	-28	8	91	8/9/2002	21:31	WUTS	12.5" f/8 Newtonian	Good	Good	134x - Oval-member stars seen. Faint. Nesclcd btw 2 brighter field stars. Center is brighter and has angular resolution (not starlike). Halo is extended.
Ben 091a	NGC 6318		Open Cluster	Sco	17	17	48	-39	27	91a	7/8/2024	22:08	DAS Site	8" f/6 Newtonian	Good	Good	203x – 6 stars, very faint, form a vertical line in FOV. Very small. To left is a single star not part of the open cluster. Easy to see.
Ben 092	NGC 6333	M 9	Globular Cluster	Oph	17	19	12	-18	31	92	9/19/1987	22:19	TAS Site	12.5" f/8 Newtonian	Good	Good	127x - Brighter than M19 and M62, but not by much. Can see bright nucleus and dim halo glow. No stars though.
Ben 093	NGC 6356		Globular Cluster	Oph	17	23	36	-17	49	93	8/9/2002	21:46	WUTS	12.5" f/8 Newtonian	Good	Good	134x - w/AV, its fairly large. Brighter nucleus with diffused halo. See mottling of stars on nucleus.
Ben 094	NGC 6352	C 81	Globular Cluster	Ara	17	25	30	-48	25	94	4/4/2016	1:47	OzSky	18" f/4.5 Newtonian	Good	Good	187x – A medium sized, dim, circular globular. Has hare brighter core that dims quickly. Member stars seen with many bright field stars to upper left and on glow of globular.
Ben 095	NGC 6362		Globular Cluster	Ara	17	31	54	-67	3	95	4/3/2016	1:32	OzSky	18" f/4.5 Newtonian	Good	Good	187x – A larger, dim globular, pretty uniformly lit. See tons of member stars. A vertical chain of brighter member stars on center of globular. Nice.
Ben 096	NGC 6388		Globular Cluster	Sco	17	36	18	-44	44	96	4/4/2016	1:52	OzSky	18" f/4.5 Newtonian	Good	Good	187x – A medium sized, bright globular. Bright core dims slowly to edge. Glow speckled but no member stars seen.
Ben 097	NGC 6402	M 14	Globular Cluster	Oph	17	37	36	-03	15	97	9/19/1987	22:24	TAS Site	12.5" f/8 Newtonian	Good	Good	64x - Fairly large but uniformly dim globular. No bright nucleus. Could see some stars but they were dim.
Ben 098	NGC 6397	C 86	Globular Cluster	Ara	17	40	42	-53	40	98	4/5/2016	3:20	OzSky	18" f/4.5 Newtonian	OK	OK	187x – A nice, large globular. Has small, compact core with lots of stars in halo. Fills FOV. Lots of member stars seen.
Ben 098a	NGC 6440		Globular Cluster	Sgr	17	48	54	-20	22	98a	8/16/2001	21:45	WUTS	12.5" f/8 Newtonian	Good	Good	134x - Very faint globular. Faint. Easyto see. w/AV, has a bright star like nucleus the fades out into an extended dim halo. In between two faint stars. 1/3 of distance closer to the star on the left. It is still small in FOV.
Ben 098b	NGC 6445	Crescent Nebula	Planetary Nebula	Sgr	17	49	12	-20	1	98b	6/29/2008	23:55	Raymer, CO	12.5" f/8 Newtonian	Good	Good	134x – Large, circular, uniformly lit glow. No central star seen. OIII gives a great view. It appears textured with OIII. UHC not as good of a response. 9mm doesn't add anything. Very faint field star just outside halo glow and at 8 o'clock.
Ben 099	NGC 6441		Globular Cluster	Sco	17	50	12	-37	3	99	4/7/2016	4:10	OzSky	18" f/4.5 Newtonian	Good	Good	187x – A small, brighter globular. Small, dense core dims quickly to dim halo. Speckling. It is to left of bright field star.
Ben 100	NGC 6496		Globular Cluster	CrA	17	59	0	-44	16	100	4/4/2016	1:54	OzSky	18" f/4.5 Newtonian	Good	Good	187x – 8 bright field stars on a medium sized, uniformly lit glow. No member stars seen.
Ben 101	NGC 6522		Globular Cluster	Sgr	18	3	36	-30	2	101	8/16/2001	22:45	WUTS	12.5" f/8 Newtonian	Good	Good	134x - Very easy to see. Very faint field star next to it that might be a member star. Very bright, almost star-like nucleus that dims out evenly into the halo. Hard to see any member stars though.
Ben 102	NGC 6528		Globular Cluster	Sgr	18	4	48	-30	3	102	8/16/2001	22:50	WUTS	12.5" f/8 Newtonian	Good	Good	134x - Barely moved the scope. Both are in the same FOV of 19mm. Much dimmer than 6522. Uniform brightness.
Ben 103	NGC 6544		Globular Cluster	Sgr	18	7	18	-25	0	103	8/16/2001	23:09	WUTS	12.5" f/8 Newtonian	Good	Good	134x Cool globular. In star rich field. 19mm-wAV, can see member stars. Dim, circular yet mottled with member stars.
Ben 104	NGC 6541	C 78	Globular Cluster	CrA	18	8	0	-43	42	104	5/12/2010	3:55	TSP	12.5" f/8 Newtonian	Good	Good	134x – Nice. Small. Bright. Tucked behind 2-3 brighter field stars. Bright core that dims quickly into halo. Lots of member stars seen.
Ben 105	NGC 6553		Globular Cluster	Sgr	18	9	18	-25	54	105	8/16/2001	23:20	WUTS	12.5" f/8 Newtonian	Good	Good	134x - Faint, uniformly lit. Circular. cannot see any member stars. Can see field star to the left that is easy to see. No nucleus seen.
Ben 106	NGC 6569		Globular Cluster	Sgr	18	13	36	-31	50	106	8/16/2001	23:26	WUTS	12.5" f/8 Newtonian	Good	Good	134x - Dim glow. May be a hair brighter in the center than the halo. Circular. Small. w/AV something (little stars) keeps popping inside the halo disk but am not sure.
Ben 107	NGC 6584		Globular Cluster	Tel	18	18	36	-52	13	107	4/4/2016	2:02	OzSky	18" f/4.5 Newtonian	Good	Good	187x – A small, very dim circular glow. Uniformly lit. Speckling on glow of member stars.
Ben 107a	NGC 6603	in M 24	Open Cluster	Sgr	18	18	24	-18	25	107a	8/1/2008	22:41	WUTS	12.5" f/8 Newtonian	Good	Good	134x - Inside M24 is this tight, circular grouping of many faint stars that are easily seen.
Ben 108	NGC 6618	M 17, Omega Nebula	Bright Nebula	Sgr	18	20	48	-16	11	108	9/19/1987	22:56	TAS Site	12.5" f/8 Newtonian	Good	Good	64x - Bright bar of gas extends half way across FOV. Has nebulosity streaming off to one side.

Ben 109	NGC 6624		Globular Cluster	Sgr	18	23	42	−30	22	109	8/16/2001	23:35	WUTS	12.5" f/8 Newtonian	Good	Good	134x - Very bright. Nucleus is a lot brighter than an extended halo. Circular in shape. Cannot see member stars w/ AV.
Ben 110	NGC 6626	M 28	Globular Cluster	Sgr	18	24	30	−24	52	110	9/19/1987	23:12	TAS Site	12.5" f/8 Newtonian	Good	Good	64x - Small, fairly bright nucleus but overall dim.
Ben 111	NGC 6638		Globular Cluster	Sgr	18	30	54	−25	30	111	8/8/2002	23:11	WUTS	12.5" f/8 Newtonian	Great	Great	134x - Circular-Uniformly lit. w/AV see mottling but no member stars. Telrad is in the right part of the top of the teapot. With a 2nd, longer look, can see some mebers stars in the halo at the edge of the cluster.
Ben 112	NGC 6637	M 69	Globular Cluster	Sgr	18	31	24	−32	21	112	9/19/1987	23:22	TAS Site	12.5" f/8 Newtonian	Good	Good	64x - Very low in southwest. Very dim patch of light. Hard to tell this is a globular.
Ben 112a	NGC 6642		Globular Cluster	Sgr	18	31	54	−23	29	112a	8/8/2002	22:40	WUTS	12.5" f/8 Newtonian	Great	Great	134x - A small, circular, uniformly lit object. Can see member stars w/AV.
Ben 113	NGC 6652		Globular Cluster	Sgr	18	35	48	−32	59	113	9/2/2005	20:38	Keota, CO	12.5" f/8 Newtonian	Good	Good	134x - Small, dim circular globular w/hare brighter center. Mottling of stars seen. Low in south so harder to see details but easy to see this. Class 3.
Ben 114	NGC 6656	M 22	Globular Cluster	Sgr	18	36	24	−23	54	114	9/19/1987	23:06	TAS Site	12.5" f/8 Newtonian	Good	Good	127x - Fairly large globular with uniform surface brightness. Can see a lot of the stars. It fills the FOV.
Ben 115	NGC 6681	M 70	Globular Cluster	Sgr	18	43	12	−32	18	115	9/19/1987	23:23	TAS Site	12.5" f/8 Newtonian	Good	Good	64x - Little brighter than M69. But dim overall and very small.
Ben 116	NGC 6705	M 11, Wild Duck Cluster	Open Cluster	Sct	18	51	6	−06	16	116	9/19/1987	23:30	TAS Site	12.5" f/8 Newtonian	Good	Good	64x - Very faint, compact cluster. 3 bright field stars in from of approx. 200 uniformly dim stars of the cluster. Very fine.
Ben 117	NGC 6712		Globular Cluster	Sct	18	53	6	−08	42	117	8/17/2001	0:15	WUTS	12.5" f/8 Newtonian	Good	Good	134x - Easy to see. Large in the 19mm. w/AV can see member stars popping out all over the place. In a star rich field.
Ben 118	NGC 6715	M 54	Globular Cluster	Sgr	18	55	6	−30	29	118	9/19/1987	23:24	TAS Site	12.5" f/8 Newtonian	Good	Good	64x - A small globular with bright little nucleus. No stars seen.
Ben 119	NGC 6723		Globular Cluster	Sgr	18	59	36	−36	38	119	4/4/2016	2:03	OzSky	18" f/4.5 Newtonian	Good	Good	187x – A medium sized circular globular. Has large, brighter, uniformly lit core and tiny bit of dim halo around it. Lots of member stars seen.
Ben 120	NGC 6744	C 101	Spiral galaxy	Pav	19	9	48	−63	51	120	4/6/2016	0:06	OzSky	18" f/4.5 Newtonian	Very Good	Very Good	187x – A small, dim globular. Has member stars seen.
Ben 121	NGC 6752	Pavo Cluster, C 93	Globular Cluster	Pav	19	10	54	−59	59	121	4/7/2016	4:14	OzSky	18" f/4.5 Newtonian	Good	Good	187x - A large, bright, dense core with lines of stars radially from core. Lots of member stars seen.
Ben 122	NGC 6809	M 55	Globular Cluster	Sgr	19	40	0	−30	58	122	9/19/1987	23:34	TAS Site	12.5" f/8 Newtonian	Good	Good	127x - Very large, dim globular. Can see many of the stars. Uniform brightness. Fills half the FOV. Fairly round. See many of the stars but no bright nucleus.
Ben 123	NGC 6818	Little Gem Nebula	Planetary Nebula	Sgr	19	44	0	−14	9	123	7/22/2001	2:05	DAS Site	12.5" f/8 Newtonian	Good	Good	79x - Very faint PL. I found it because it was a out of focus star that I couldn't focus on. 32mm, and OIII it stands right out. It is small, oval in shape with uniform brightness. 19mm makes it bigger and easier to see. It is sitting inside a triangle of 3 very faint stars. Definately oval in shape with a hit of a blue-green color. Studying this object, there is a hint of a ring structure present. The sky get steady and the ring structure appear, but most of the time it is uniformly lit.
Ben 124	NGC 6864	M 75	Globular Cluster	Sgr	20	6	6	−21	55	124	9/19/1987	23:53	TAS Site	12.5" f/8 Newtonian	Good	Good	127x - Very small, bright globular. See bright nucleus with dim halo. No stars.
Ben 125	NGC 6981	M 72	Globular Cluster	Aqr	20	53	30	−12	32	125	11/21/1987	19:20	TAS Site	12.5" f/8 Newtonian	Good	Good	127x - Small, faint, uniform brightness halo globular. No stars seen.
Ben 126	NGC 7009	Saturn Nebula, C 55	Planetary Nebula	Aqr	21	4	12	−11	22	126	8/23/2006	22:46	DAS Site	12.5" f/8 Newtonian	Good	Good	134x – Nice. Bright. Small. Greenish in color. Flattened oval shape. Nice with and without OIII and UHC filters. Central star maybe seen sometimes. 9mm no better view, in fact, with wind and bouncing scope, its really hard to see at this power.
Ben 127	NGC 7089	M 2	Globular Cluster	Aqr	21	33	30	−00	49	127	9/20/1987	0:29	TAS Site	12.5" f/8 Newtonian	Good	Good	64x - Fairly bright nucleus and diffused halo. Could see many stars of the cluster.
Ben 128	NGC 7099	M 30	Globular Cluster	Cap	21	40	24	−23	11	128	11/21/1987	19:05	TAS Site	12.5" f/8 Newtonian	Good	Good	79x - Faint glow that is small and tight, with a relatively bright nucleus. Halo of stars seen. Appears to have field stars in it.
Ben 129	NGC 7293	Helix Nebula, C 63	Planetary Nebula	Aqr	22	29	36	−20	48	129	8/24/2006	0:41	DAS Site	12.5" f/8 Newtonian	OK	OK	134x – Large, dim, circular glow that's a bit splotchy (not uniformly lit). Several field stars sit on glow. 3-5 with one almost in the middle. Can see w/o OIII but OIII gives a very nice view of unevenness of glow. UHC gives a nice view also.
Ben 129a	NGC 7410		Spiral galaxy	Gru	22	55	0	−39	40	129a	9/26/2024	23:47	Okie-Tex SP	8" f/6 Newtonian	OK	OK	72x – A larger, thin, 6:1, dim. Seems uniformly lit. But maybe a larger, bit brighter core seen.
Ben 129b	IC 1459		Elliptical galaxy	Gru	22	57	0	−36	28	129b	9/26/2016	23:08	Okie-Tex SP	12.5" f/8 Newtonian	OK	OK	195x – A medium sized fat oval. Uniformly lit. Dim.
Ben 130	NGC 7793		Spiral galaxy	Gru	23	57	48	−32	35	130	10/27/2008	22:37	DAS Site	12.5" f/8 Newtonian	Great	Great	134x – Large, fat oval or circular shaped uniformly lit glow. Dim, yet easy to see. Maybe a few <u>very faint</u> field stars on glow. It hints they are there.

Observing Locations	
Location	Description
DAS Site	Near Deer Trail, CO

TAS Site	Near Atoka, OK
OzSky	Near Coonabarabran, NSW, AUS
LTO	Little Thompson Observatory, Berthoud, CO
Okie-Tex SP	Okie-Tex Star Party, Kenton, OK
CSAC	Comanche Springs Astronomy Campus, 3RF, Crowell, TX
Crow Valley	Crow Valley Campground, Briggsdale, CO
WUTS	Weekend Under The Stars, Fox Park, WY
John Martin	John Martin Reservoir State Park, Lamar, CO
Kim's Place	Irrigation ditch access road east of Longmont, CO
Sterling SP	North Sterling Reservoir State Park, Sterling, CO
TSP	Texas Star Party, Prude Ranch, TX
SSO	Siding Spring Observatory, NSW, Australia
MDO	McDonald Observatory, Ft. Davis, TX

Abbreviation	Description
AV	Averted Vision
FOV	Field Of View
rhs	Right Hand Side
lhs	Left Hand Side