

Object	C#	Date	Time	Seeing	Trans.	Location	Equipment	Description
NGC 188	1	9/30/2002	22:51	OK	OK	Okie-Tex Star Party. Moderately dark sky.	12.5 " f/8 Newtonian	19mm - Circular. Faint. 2 brighter field stars at bottom of FOV. Approx 10 relatively brighter stars with a glow behind these of fainter stars in a star poor ares so this faint patch stands out easily.
NGC 40	2	8/18/1990	0:34	Good	Good	North of Aubrey, TX. Moderately dark sky.	12.5 " f/8 Newtonian	32mm - Looked like tiny out of focus star while field stars near it were pin points. 20mm - Very bright central star centered in faint nebulosity. 13mm - Bright central star in nebulosity. Was very round. It was just dim enough so that you couldn't tell if there was a ring present.
NGC 4236	3	9/23/2003	20:54	Fair	Fair	Okie-Tex Star Party. Moderately dark sky.	12.5" f/8 Newtonian	19mm - Small, dim linear sliver of light. Up and down in FOV. Center really bright and extended with respect to halo, which is dim. There is a star like point on the galaxy which could be a very faint field star.
NGC 7023	4	9/30/2002	22:45	OK	OK	Okie-Tex Star Party. Moderately dark sky.	12.5 " f/8 Newtonian	19mm - Bright star with very faint companion at 5 o'clock embedded in extended glow. Fills center of FOV nicely.
IC 342	5	1/17/2004	21:02	Good	Good	Pawnee Grasslands. Moderately dark sky.	12.5" f/8 Newtonian	19mm - Small, dim smudge of light. Bright stellar nucleus in center of glow. 2 field stars on glow, left and right of center. Row of stars bounds the bottom.
NGC 6543	6	8/10/2002	1:40	Good	Good	WUTS. Fox Park, WY. Good dark site.	12.5 " f/8 Newtonian	Cats Eye-Blue green oval. Central star stands right out. Was hard to find but once found, outstanding. O3 didn't improve what I could see without it.
NGC 2403	7	9/25/2003	3:23	OK	OK	Okie-Tex Star Party. Moderately dark sky.	12.5" f/8 Newtonian	Binoculars - Oval glow. Easy to see. Relatively bright. Has 2 stars at each end of the glow. 32mm - Shows an oval in shape. Brighter. See 2 stars w/AV and a 3rd fainter one just below center of glow. 19mm - Best view. Can see all 3 field stars. Top star is brighter. Glow is a bit brighter from center to top than center to bottom.
NGC 559	8	8/18/1990	1:25	Good	Good	North of Aubrey, TX. Moderately dark sky.	12.5 " f/8 Newtonian	40mm - Faint, nebulosity glow. 20mm - Loose association of stars. Fills 1/4 FOV. 5-6 stars approx same brightness and rest of varying magnitudes. 13mm - Fills approx 1/2 FOV. Stars arranged in a dog-leg. Has definate boundary on one edge. Can see many more of the fainter stars. Bright field star to the bottom of cluster which is the border of stars in this direction (to the south).
Sh2-155	9	8/10/2010	23:25	Great	Great	Keota, CO. Moderately dark sky.	12.5" f/8 Newtonian	32mm - A subtle lightening of the background sky and the brighter stars are lighting something up around them for they have a small halo circular glow about them. Can move FOV to see darker sky below this area.
NGC 663	10	8/18/1990	2:28	Good	Good	North of Aubrey, TX. Moderately dark sky.	12.5 " f/8 Newtonian	20mm - Very loose, scattered association of blue-white stars. Several pairs of stars, each pair approx same magnitude with each other. Fills FOV nicely. Stars of all magnitudes present.

NGC 7635	11	9/22/2003	22:50	OK	OK	Okie-Tex Star Party. Moderately dark sky.	12.5 " f/8 Newtonian	32mm - Very small, circular glow with 2 faint stars on top of the glow. Three brighter stars are below it and gives the impression of a glow sitting on top of these three stars. M52 just to the left of this object.
NGC 6946	12	8/14/1988	1:40	OK	OK	Atoka, OK - Moderately dark site.	12.5 " f/8 Newtonian	40mm - Very faint hit of nebulosity. Easy to see in FOV. Uniformly lit. No nucleus seen. 20mm - Almost disappears. Very dim. Very low surface brightness. Hard to tell features. Could be round.
NGC 457	13	8/18/1990	2:06	Good	Good	North of Aubrey, TX. Moderately dark sky.	12.5 " f/8 Newtonian	20mm - Has a really bright field star at one edge of it. Has dimmer star right next to it forming a pair. Very loose assoc of stars. No definite pattern. Stars of varying magnitudes. 13mm - Gives best view. Fills FOV. Has red star in cluster and several blue-white stars and many faint stars. 10-15 stars of approx same magnitude.
NGC 869/884	14	10/8/1999	21:46	Good	Good	Okie-Tex Star Party. Moderately dark sky.	12.5 " f/8 Newtonian	Double Cluster - 860 more easterly. 32mm - 2 bright stars, like eyes, at one edge of the cluster. These 2 stars are brighter than the other in this cluster. Several stars in an open, but circular pattern. 884 is more open. All stars similar in brightness. 869 was a tighter grouping of stars than this cluster.
NGC 6826	15	7/22/2001	3:11	OK	OK	Red Feathers Lake. Dark sky.	12.5 " f/8 Newtonian	Called the Blinking Nebula. This thing is really cool. 32mm - It has a star like nucleus. Looking directly at it, the PN almost disappears. Its as if it is embedded in a nebula. But if you look off it with AV, you can see a very circular glow, but the central star just sticks right out.
NGC 7243	16	8/9/2002	23:46	Good	Good	WUTS. Fox Park, WY. Good dark site.	12.5 " f/8 Newtonian	Very bright loose assoc of stars. More linear across FOV. Several magnitudes of stars. Most bright in a faint star area. This OC stands right out.
NGC 147	17	9/30/2002	22:35	OK	OK	Okie-Tex Star Party. Moderately dark sky.	12.5" f/8 Newtonian	19mm - Very faint smudge. Seems to be oval in shape. Couple very faint field stars seen in the glow.
NGC 185	18	8/18/1990	0:47	Good	Good	North of Aubrey, TX. Moderately dark sky.	12.5 " f/8 Newtonian	40mm - Barely discernable. Just a tiny smudge in FOV. 20mm - Filled 1/8 field of view. Seemed circular. Very dim, uniformly lit. 13mm - very hard to see.
IC 5146	19	10/22/2003	20:20	OK	OK	Berthoud, CO. Moderately light polluted sky.	12.5" f/8 Newtonian	19mm - Nebulosity around the 3 triangular stars very prominent. W/ UHC filter, see a faint glow around all of the stars with a hint of an arc on the left side of the cluster.
NGC 7000	20	10/4/1999	22:05	Good	Good	Okie-Tex Star Party. Moderately dark sky.	12.5 " f/8 Newtonian	40mm - w/UHC - North American Nebula - Pushed scope around to see all of shape - Matches the shape on the chart very well w/Mexico up. Can see some field stars. Nebula appears to be blotchy (not uniform brightness). w/UHC over 8x50 finder, shape is easily seen again. Mexico is up and nebula is fatter at bottom.
NGC 4449	21	4/22/2009	1:59	Good	Good	Deer Trail, CO. Moderately dark sky.	12.5" f/8 Newtonian	19mm - This is a funny shaped galaxy. Appears to be a tilted oval with top part flat. Uniformly lit. Larger in size. Goes from 9:30 - 3:30 in FOV.

NGC 7662	22	10/8/1999	21:37	Good	Good	Okie-Tex Star Party. Moderately dark sky.	12.5 " f/8 Newtonian	32mm - Planetary nebula in Andromeda. Very small, uniform brightness. Blue-green in color. 13mm - Uniform brightness. No ring structure seen. Can tell it has extended halo. 40mm - It shows a tiny, fuzzy dot.
NGC 891	23	10/8/1999	23:54	Good	Good	Okie-Tex Star Party. Moderately dark sky.	12.5 " f/8 Newtonian	32mm - Edge-on galaxy. Extends 1/4 across FOV. Slight central buldge. Bludge area is a little bit brighter than the ends of the arms. Still a very dim object with the noticable brightening.
NGC 1275	24	9/26/2003	1:31	OK	OK	Okie-Tex Star Party. Moderately dark sky.	12.5" f/8 Newtonian	19mm - Very small, dim, circular smudge of light. Relatively bright nucleus that quickly dims into shell of a halo.
NGC 2419	25	2/21/2004	23:34	Good	Good	Berthoud, CO. Moderately light polluted sky.	12.5 " f/8 Newtonian	It is a faint smudge here. Bounded by 4 stars that form a trapezium.
NGC 4244	26	7/12/2004	21:58	Good	Good	Pawnee Grasslands. Moderately dark sky.	12.5" f/8 Newtonian	19mm - Long, slender sliver of light. Easy to see with AV. Approx 1/3 to 1/2 FOV in length. It is uniformly lit and dim. A satellite went right across the middle of it while I was looking at it.
NGC 6888	27	9/25/2003	23:00	Fair	Fair	Okie-Tex Star Party. Moderately dark sky.	12.5" f/8 Newtonian	19mm - A faint, wide, long sliver of light. Barely seen. Fatter and brighter on left side and gets fainter to right as it fans out into nothing. Seen with O3.
NGC 752	28	8/10/2002	2:47	Good	Good	WUTS. Fox Park, WY. Good dark site.	12.5 " f/8 Newtonian	Large OC. Overwhelms FOV, 30+ stars in a very loose association. Most stars approx same magnitude. Rest are a bit dimmer.
NGC 5005	29	6/23/2009	00:14	OK	Good	Deer Trail, CO. Moderately dark sky.	12.5" f/8 Newtonian	19mm - A nice, bright longer tilted oval that has extended halo glow going from 1 - 7 o'clock in FOV. Has larger, much brighter central core. Tapered arms disappear slowly from core.
NGC 7331	30	8/11/2002	0:07	Good	Good	WUTS. Fox Park, WY. Good dark site.	12.5 " f/8 Newtonian	Bright sliver of light. Can see extended halo away from nucleus in both directions. Nucleus gradually dims into halo.
IC 405	31	9/25/2003	3:01	OK	OK	Okie-Tex Star Party. Moderately dark sky.	12.5" f/8 Newtonian	19mm - A very bright star surrounded by
NGC 4631	32	6/22/2009	23:59	OK	Good	Deer Trail, CO. Moderately dark sky.	12.5" f/8 Newtonian	19mm - A nice, uniformly lit edge-on. 1/2 FOV long and pretty fat in the middle. Easy to see. Field star to left of center part of galaxy. Nice. Its vertical in FOV.
NGC 6992-95	33	10/4/1999	21:04	Good	Good	Okie-Tex Star Party. Moderately dark sky.	12.5 " f/8 Newtonian	Veil Nebula - West part - lots of filaments and knots with UHC filter. Rather dim but easily seen. Move scope to follow arc so see the whole structure. At the bottom of the arc, away from the main filament, saw another knot (NGC 6979). The twisting of the filaments and knots is awesome. East is very bright corkscrew shape.
NGC 6960	34	10/8/1999	20:04	Good	Good	Okie-Tex Star Party. Moderately dark sky.	12.5 " f/8 Newtonian	32mm - UHC filter. Little south of 52 Cygni to the left. Fills 3/4 of FOV. Leaves the star fainter, get brighter in the middle of the S and then get dim again at the top of the S. Appears to twist. 25mm - Shows it dimmer and bigger but no additional details.
NGC 4889	35	6/22/2009	23:29	OK	Good	Deer Trail, CO. Moderately dark sky.	12.5" f/8 Newtonian	19mm - Oval glow. Fairly dim yet has brighter central area.
NGC 4559	36	6/11/2004	23:54	Good	Good	Pawnee Grasslands. Moderately dark sky.	12.5" f/8 Newtonian	19mm - Bright patch of light that looked irregular because of 3 field stars at one end, giving it a non-symmetrical look. Was oval in shape otherwise.

NGC 6885	37	7/22/2001	3:53	OK	OK	Red Feathers Lake. Dark sky.	12.5 " f/8 Newtonian	A bright OC. 32mm - Centered around a bright star that is on the northern side of the cluster. Fairly circular in shape. About 12-15 stars of same, blue-white color and magnitude. The star on the north side is about 3x brighter than the member stars of the cluster.
NGC 4565	38	6/11/2004	23:49	Good	Good	Pawnee Grasslands. Moderately dark sky.	12.5" f/8 Newtonian	19mm - AWESOME!!! Long slender edge on with nice central nucleus bulge. Nucleus brighter but arms easy to see. Can see the dust lane on nucleus part of galaxy, just below the center line of symmetry.
NGC 2393	39	3/12/1988	20:25	OK	OK	Atoka, OK - Moderately dark site.	12.5 " f/8 Newtonian	40mm - Looked like an out of focus star. 20mm - Gives best view. Corcular, uniformly lit (like M1). No ring shape seen. W/AV, can easily see central star. Spectacular.
NGC 3626	40	4/25/2003	23:54	Good	Good	Sterling State Park. Moderately dark sky.	12.5 " f/8 Newtonian	19mm - Very dim, circular glow with a star like nucleus whiclc is centered in a dim, yet easy to see halo.
Hyades Cluster	41	2/15/2010	21:25	OK	OK	My Backyard. Broomfield, CO.	8x50 Binoculars	Nicely fills FOV. Bright, red Aldeberan is at the upper left corner, with the brighter stars of this cluster forming a V shape. 8 stars of a lesser magnitude, and 18 more of a bit dimmer magnitude form the V with many more fainter stars, of 3 or so magnitude, filling in the area.
NGC 7006	42	7/22/2001	3:53	OK	OK	Red Feathers Lake. Dark sky.	12.5 " f/8 Newtonian	A very dim globular cluster that is easy to spot. 19mm - with AV, can see that the nucleus is a bit brighter than the halo. But if you look directly at it, it appears to be uniformly lit. Could not see any member stars.
NGC 7814	43	8/11/2002	0:56	Good	Good	WUTS. Fox Park, WY. Good dark site.	12.5 " f/8 Newtonian	Elongated oval. Large, uniformly lit nucleus dims quickly into halo.
NGC 7479	44	10/8/1999	21:14	Good	Good	Okie-Tex Star Party. Moderately dark sky.	12.5 " f/8 Newtonian	32mm - See faint, sliver of light (barred spilra). w/AV can see this sliver that is brighter than an extended halo and goes right thru the middle. Identified position with respect to trapezium below alpha pegasus and this is 1.2 way between these objects. 20mm - Little biffer. Easier to see bar in the hear of the extended nebulosity (halo). Vaguely see the hook on the right top part of galaxy. Hooks up in FOV.
NGC 5248	45	8/8/2002	21:37	Good	Good	WUTS. Fox Park, WY. Good dark site.	12.5 " f/8 Newtonian	Faint circular glow. w/AV, see star like enucleus and circular halo.
NGC 2261	46	10/4/2002	4:07	OK	OK	Okie-Tex Star Party. Moderately dark sky.	12.5 " f/8 Newtonian	19mm - Fan shaped cone with a star easily seen at apex. Both 19mm and 32mm easily showed this object.
NGC 6934	47	10/4/1999	23:45	Good	Good	Okie-Tex Star Party. Moderately dark sky.	12.5 " f/8 Newtonian	32mm - Very small. See granularity on circle shaped objert. No member stars stand out. Its obvious in FOV, yet small. 13mm - Its brighter and bigger. Brighter nucleus with diffused halo. w/AV can see granularity of stars.
NGC 2775	48	5/2/2000	23:20	Good	Good	Texas Star Party - Very dark site.	12.5 " f/8 Newtonian	32mm - Small, round fuzzy with just a little bit brighter center. 19mm - circular. Fairly faint. The nucleus is just a bit (noticably so) brighter.

NGC 2239-37	49	10/4/2002	3:50	OK	OK	Okie-Tex Star Party. Moderately dark sky.	12.5 " f/8 Newtonian	19mm - This was COOL> 32mm - Showed 2 stars surrounded by a circular, mottled nebula. 19mm - Showed upper star >2x brighter than lower star in center of nebula. Near stars, the nebula was uniformly lit and bright. Then it faded into a mottled lit texture before fading out into nothing.
NGC 2244	50	2/14/1990	20:21	OK	OK	North of Lavon, TX. Moderately polluted sky.	12.5 " f/8 Newtonian	40mm - Loose cluster. Has 6 brighter members that for a 6 pattern on a dice. It appears to be in a star rich field. Supposed to be in Rosette Nebula, but could not see any nebulosity. Nicely fills field of view.
IC 1613	51	9/25/2003	2:06	OK	OK	Okie-Tex Star Party. Moderately dark sky.	12.5" f/8 Newtonian	19mm - Very faint, oval, uniformly lit. Matches stars on finder chart 12-5.
NGC 4697	52	3/21/2004	2:27	Good	Good	Pawnee Grasslands. Moderately dark sky.	12.5" f/8 Newtonian	19mm - 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.
NGC 3115	53	4/26/2003	22:14	Good	Good	Sterling State Park. Moderately dark sky.	12.5 " f/8 Newtonian	19mm - Nice edge on. Long sliver of light. Nucleus is bright and oval. Halo extends out each side of nucleus quite a bit. 1/3 to 1/2 way across FOV.
NGC 2506	54	10/4/2002	4:44	OK	OK	Okie-Tex Star Party. Moderately dark sky.	12.5 " f/8 Newtonian	19mm - 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.
NGC 7009	55	10/4/1999	20:45	Good	Good	Okie-Tex Star Party. Moderately dark sky.	12.5 " f/8 Newtonian	Saturn Nebula - 40mm - Greenish, fuzzy star. 13mm - Blue-green in color and is elongated. w/AV, saw faint wings. Last night in 24" telescope, wings easily seen.
NGC 246	56	10/4/1999	22:50	Good	Good	Okie-Tex Star Party. Moderately dark sky.	12.5 " f/8 Newtonian	40mm - Right triangle with star at 90 degrees seems to be right in the middle of a diffused nebula. O3 filter makes in oval. w/AV can see oval shape. 32mm - Not very bright. Fills 1/2 FOV. Using O3 see oval shape and w/AV, can see faint ring shape. UHC filter shows oval shape, central star and ring structure.
NGC 6822	57	10/3/2002	20:11	OK	OK	Okie-Tex Star Party. Moderately dark sky.	12.5 " f/8 Newtonian	19mm - Very faint. See linear and wide faint glow. Has 3 field stars on left side. Galaxy is horizontal in FOV.
NGC 2360	58	4/30/2003	20:17	OK	OK	Longmont, CO. Moderate polluted sky.	12.5 " f/8 Newtonian	19mm - Circular in shape. Lots of stars easily seen. 30+ members. Fills FOV nicely. Most stars approx same magnitude.
NGC 3242	59	5/5/2000	0:41	Good	Good	Texas Star Party - Very dark site.	12.5 " f/8 Newtonian	Ghost of Jupiter - 32mm - It's a noticable, fuzzy, blue-green oval. 19mm - Its fairly circular in shape. Definitely has a blue-green color. And I see it uniformly lit. No central star, no ring structure seen.
NGC 4038	60	5/3/2000	2:20	Good	Good	Texas Star Party - Very dark site.	12.5 " f/8 Newtonian	Antenna Galaxy - 19mm - Fairly dim. Can tell there is a particular shape. W/AV, can see a dust lane that cuts into the middle of it. The entire structure has a comma shape. The back of the comma towards the bottom of FOV. Can see the dark band cutting down from the top, 1/2 way into structure.
NGC 4039	61	5/3/2000	2:20	Good	Good	Texas Star Party - Very dark site.	12.5 " f/8 Newtonian	Antenna Galaxy - 19mm - Fairly dim. Can tell there is a particular shape. W/AV, can see a dust lane that cuts into the middle of it. The entire structure has a comma shape. The back of the comma towards the bottom of FOV. Can see the dark band cutting down from the top, 1/2 way into structure.

NGC 247	62	9/30/2002	23:15	OK	OK	Okie-Tex Star Party. Moderately dark sky.	12.5 " f/8 Newtonian	19mm - Long sliver with brighter star on top edge. Fat at center. Up and down in eyepiece. Uniformly lit.
NGC 7293	63	9/30/2002	21:28	OK	OK	Okie-Tex Star Party. Moderately dark sky.	12.5 " f/8 Newtonian	32mm - Uniform glow with 3-5 stars in the glow. O3 shows elongated oval structure w/left side a fat ring with slightly dimmer center. Deep sky filter shows stars better and still see the faint ring. 19mm - Almost fills FOV. Easier to see. Deep sky filter shows uniformly lit. SLight ring structure. O3 not as good a view at this power.
NGC 2362	64	4/30/2003	20:09	OK	OK	Longmont, CO. Moderate polluted sky.	12.5 " f/8 Newtonian	32mm - Approx 25 stars in a triangle shape. One really bright field star in dead center of cluster. The rest, compared to this field star are much dimmer, composing of about 2 different magnitudes.
NGC 253	65	10/9/1999	0:41	Good	Good	Okie-Tex Star Party. Moderately dark sky.	12.5 " f/8 Newtonian	A tilted oval spiral. Easy to see arms and dust lanes. Mottled arms extend CCW.
NGC 5694	66	6/12/1988	1:22	OK	OK	Atoka, OK - Moderately dark site.	12.5 " f/8 Newtonian	40mm - Looked like an out of focus star. 20mm - Small, faint with very little brighter nucleus. Looked like M13 in 8x50 finder. Almost uniform brightness though. Could tell it has a little halo.
NGC 1097	67	10/4/2002	1:07	OK	OK	Okie-Tex Star Party. Moderately dark sky.	12.5 " f/8 Newtonian	32mm - Small. Bright nucleus. Edge on. Nucleus blends into slender halo. 19mm - Relatively brighter circular nucleus blends into long,slender arms.
NGC 6729	68	5/12/2010	4:19	OK	OK	Texas Star Party - Very dark site.	12.5" f/8 Newtonian	19mm - Sky bad low in south. See glow of nebula in a fan shape.
NGC 6302	69	5/16/2004	2:41	OK	OK	Pawnee Grasslands. Moderately dark sky.	12.5" f/8 Newtonian	19mm - Bug Nebula - Small bright oval shaped glow. W/AV, can see it is elongated and thin. Looks like an out of focus star when you first see it.
NGC 300	70	9/25/2003	0:33	Fair	Fair	Okie-Tex Star Party. Moderately dark sky.	12.5" f/8 Newtonian	19mm - VERY dim, circular glow situated between 2 field stars to the left and right of it. Uniformly lit. Extremely hard to see. Just sitting about a mesa in the SE.
NGC 2477	71	2/13/2004	20:44	Great	Great	Meade, CO. Moderately light polluted sky.	12.5" f/8 Newtonian	19mm - Small, compact but covers about 1/2 the FOV. Bright field star to the north. 10-20 very faint stars seen, with many more speckles of a much fainter magnitude of stars seen all over the place.
NGC 55	72	9/25/2003	0:15	Fair	Fair	Okie-Tex Star Party. Moderately dark sky.	12.5" f/8 Newtonian	19mm - Large sliver of light. Extends clear across the FOV. Very wide and much brighter on the lhs and dims into nothing on the rhs. Goes from 8 to 2 o'clock in eyepiece. Even though it is low surface brightness, VERY easy to see.
NGC 1851	73	2/13/2004	19:56	Great	Great	Meade, CO. Moderately light polluted sky.	12.5" f/8 Newtonian	19mm - Very low on the horizon. Less than 10 degrees above it. It was small, circular with a very bright nucleus and a bright, easy to see halo. No member stars seen. Just the overall glow of this object was seen. But it was neat.
NGC 3132	74	5/11/2010	22:15	Good	Good	Texas Star Party - Very dark site.	12.5" f/8 Newtonian	19mm - Nice. Round mottled glow with large bright central star in middle of glow. Doesn't respond well to O3. 13mm - gives nice view.

NGC 6124	75	5/6/2005	2:50	Good	Good	Texas Star Party - Very dark site.	12.5" f/8 Newtonian	32mm. Fills FOV nicely. Approx 50 stars of 3 magnitudes. Very bright blue-white stars very easy to see in 8x50 binocs. Basically round in shape.
NGC 6231	76	6/27/1987	22:40	Fair	Fair	TAS, near Atoka, OK - Sark Skies	12.5" f/8 Newtonian	40mm - Large open cluster. Many bright, young stars. Swing scope thru it to see it all.
NGC 5128	77	5/12/1988	1:28	OK	OK	Texas Star Party - Very dark site.	12.5 " f/8 Newtonian	Saw dust lane. Fills 1/2 field of view. Top south lobe brighter than north. Faint field star centered in south lobe. <u>Very</u> faint star in west edge of dust lane.
NGC 6541	78	5/12/2010	3:55	OK	OK	Texas Star Party - Very dark site.	20x80 Binoculars & 12.5" f/8 Newtonian	20x80 – Looks like a globular. Round with center brighter than edges. 19mm – Nice. Small. Bright. Tucked behind 2-3 brighter field stars. Bright core that dims quickly into halo. Lots of member stars seen.
NGC 3201	79	5/11/2010	22:07	Good	Good	Texas Star Party - Very dark site.	20x80 Binoculars & 12.5" f/8 Newtonian	20x80 – Nice round uniformly lit glow. 19mm – A larger, uniformly lit globular with lots of member stars seen.
NGC 5139	80	5/12/1988	1:28	OK	OK	Texas Star Party - Very dark site.	12.5 " f/8 Newtonian	Many stars. Overfills FOV. Fairly round, uniformly lit. Looks like powder.
NGC 6352	81	5/12/2010	3:48	Good	Good	Texas Star Party - Very dark site.	20x80 Binoculars & 12.5" f/8 Newtonian	20x80 – Ghostly very faint circular glow. 19mm – Very dim, small, circular glow with mottling of member stars seen on glow.
NGC 6193	82	5/11/2010	2:19	Good	Good	Texas Star Party - Very dark site.	12.5" f/8 Newtonian	19mm – 12 blue-white stars of a relatively bright magnitude and approx 5 more of a dimmer magnitude makeup this open cluster. Very bright field star to left side of cluster. Very loose. Small in FOV.
NGC 4945	83	4/1/2016	23:50	Very Good	Very Good	Near Coonabarabran, NSW, AUS - Dark Skies.	18" f/4.5 Newtonian	187x - A long, thin, dim glow. Center is fatter and has blotchiness on glow. Goes 11:30 – 4:30 o'clock. 2/3 FOV long and ends tapered to a point. 80 degrees high.
NGC 5286	84	5/5/2005	1:15	Good	Good	Texas Star Party - Very dark site.	12.5" f/8 Newtonian	19mm - Small, yet bright. Its to the lower left of a brighter field star. Small, bright tight core and dim halo around it. Member stars seen. More of a mottling texture though.
IC 2391	85	4/1/2016	22:09	Good	Good	Near Coonabarabran, NSW, AUS - Dark Skies.	16" f/4 Newtonian	125x - 4 bright blue white stars for an arc from one edge of FOV at 2 o'clock and 8 o'clock on other end. 80 degrees high.
NGC 6397	86	4/2/2016	1:34	OK	OK	Near Coonabarabran, NSW, AUS - Dark Skies.	18" f/4.5 Newtonian	187x - A large, fills FOV nicely. Has small brighter core that stops at diffused halo of member stars. Lots of members seen.
NGC 1261	87	4/1/2016	21:06	Very Good	Very Good	Near Coonabarabran, NSW, AUS - Dark Skies.	18" f/4.5 Newtonian	187x – A medium sized, round, dim globular. Center large and uniformly lit and dims quickly at edge. Member stars easily seen. 30 degrees high.
NGC 5823	88	4/2/2016	00:41	Good	Good	Near Coonabarabran, NSW, AUS - Dark Skies.	18" f/4.5 Newtonian	187x - A nice, tight, 50+ star OC with dimmer stars of 4 magnitudes with 4th very faint. Fills center of FOV.
NGC 6087	89	4/2/2016	1:18	Good	Good	Near Coonabarabran, NSW, AUS - Dark Skies.	18" f/4.5 Newtonian	187x - 20+ stars form a thick block V with a much brighter stars on left hand side of V. Maybe 10 more stars to left of similar magnitude are part of this also. 30 degrees high.

NGC 2867	90	4/1/2016	22:56	Good	Good	Near Coonabarabran, NSW, AUS - Dark Skies.	18" f/4.5 Newtonian	187x - A very small, round, bluish, uniformly lit glow. No central star seen. O3 shows it the same. 80 degrees high.
NGC 3532	91	4/1/2016	23:15	Very Good	Very Good	Near Coonabarabran, NSW, AUS - Dark Skies.	18" f/4.5 Newtonian	85x - A ton of blue white stars of approx. the same magnitude. Oval in shape with brighter stars to right. Goes 10 - 4 o'clock and fills FOV almost side to side.
NGC 3372	92	4/1/2016	20:42	Good	Good	Near Coonabarabran, NSW, AUS - Dark Skies.	16" f/4 Newtonian	65x - A large glow in 3 parts. Has dark lane down center and lots of stars in area. Fills FOV. Has orange star on right part of glow that has a tiny halo glow to the right of it what makes it look odd. 45 degrees high.
NGC 6752	93	4/2/2016	1:40	OK	OK	Near Coonabarabran, NSW, AUS - Dark Skies.	18" f/4.5 Newtonian	187x - A large globular with small, bright core on larger, dimmer halo. Faint members seen. 8-10 brighter members form curvy chains of stars that radiate from core.
NGC 4755	94	4/1/2016	21:27	Good	Good	Near Coonabarabran, NSW, AUS - Dark Skies.	16" f/4 Newtonian	125x - 3 brighter stars form outside of an A and 3 dimmer blue white stars form cross of A. Under the A are many dim, blue white stars of approx. the same magnitude in a larger, circular area. One of the stars of A bar is orange. Most of cluster to left side of A and A upside down. Fills center of FOV nicely. 50+ stars in compact OC. 45 degrees high.
NGC 6025	95	4/2/2016	1:11	Good	Good	Near Coonabarabran, NSW, AUS - Dark Skies.	18" f/4.5 Newtonian	187x - A 1/2 FOV tall and 1/4 FOV wide shaped fire hydrant. 20-30 bright blue white stars of 3 magnitudes. Vertical in FOV. 40 degrees high.
NGC 2516	96	4/1/2016	22:01	Good	Good	Near Coonabarabran, NSW, AUS - Dark Skies.	16" f/4 Newtonian	125x - A large circular group of 15-20 blue white stars of 3 magnitudes above a bright field star. 60 degrees high.
NGC 3766	97	4/1/2016	23:19	Very Good	Very Good	Near Coonabarabran, NSW, AUS - Dark Skies.	18" f/4.5 Newtonian	137x - Cool. Tons of blue white stars of 5 magnitudes. Fills center of FOV nicely with a roughly circular shape. Tight grouping. Has 2 pale white bright stars in upper left and lower right of cluster.
NGC 4609	98	4/1/2016	23:34	Very Good	Very Good	Near Coonabarabran, NSW, AUS - Dark Skies.	18" f/4.5 Newtonian	187x - A boxy cluster with 20-30 stars of 3-4 magnitudes. A bright field star is to right and shows nebulosity around it. Not obvious under cluster. The DSF shows a faint nebula glow from brighter field star to OC and under it nicely.
Coalsack	99	4/1/2016	23:40	Very Good	Very Good	Near Coonabarabran, NSW, AUS - Dark Skies.	18" f/4.5 Newtonian	85x - A dark void 1 FOV wide and about 3 FOVs long. Has a few stars on it, in a star rich field. Right hand side has twin tail shape.
IC 2944	100	4/1/2016	23:19	Very Good	Very Good	Near Coonabarabran, NSW, AUS - Dark Skies.	18" f/4.5 Newtonian	137x - A ladder shaped OC with 50+ stars of 4 magnitudes in 2 lines. Top line straight and bottom line double lines of stars. Has 8 bright blue white stars and rest dimmer. Has 3 ladder rungs between lines. 70 degrees high.
NGC 6744	101	4/2/2016	1:45	OK	OK	Near Coonabarabran, NSW, AUS - Dark Skies.	18" f/4.5 Newtonian	187x - A large (1/2 FOV long) tilted oval. Halo faint with larger, brighter core. Dim, but nice.
IC 2602	102	4/1/2016	22:49	Very Good	Very Good	Near Coonabarabran, NSW, AUS - Dark Skies.	18" f/4.5 Newtonian	85x - 20-25 bright blue white stars. Over 2 FOVs in size. Very scattered. 70 degrees high.

NGC 2070	103	4/1/2016	20:26	Very Good	Very Good	Near Coonabarabran, NSW, AUS - Dark Skies.	18" f/4.5 Newtonian	187x - Nice. Clumps of nebula and star cluster in center of 10-15 faint stars in tight knot. Fills FOV nicely. DSF shows more nebula but still blotchy. O3 show less mottling. The loops of this nebula looks like the bio hazard symbol. 20 degrees high.
NGC 362	104	4/1/2016	20:45	Very Good	Very Good	Near Coonabarabran, NSW, AUS - Dark Skies.	18" f/4.5 Newtonian	187x - A medium round globular with small, bright core and dims slowly to halo. Tons of member stars seen. 20 degrees high.
NGC 4833	105	4/1/2016	23:44	Very Good	Very Good	Near Coonabarabran, NSW, AUS - Dark Skies.	18" f/4.5 Newtonian	187x - A nice, large, loose globular. Has larger core that dims slowly to edge. Has bright field star on edge at 7 o'clock on outer side of it.
NGC 104	106	4/1/2016	21:12	Very Good	Very Good	Near Coonabarabran, NSW, AUS - Dark Skies.	18" f/4.5 Newtonian	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.
NGC 6101	107	4/2/2016	1:22	Poor	Poor	Near Coonabarabran, NSW, AUS - Dark Skies.	18" f/4.5 Newtonian	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.
NGC 4372	108	4/1/2016	23:28	Very Good	Very Good	Near Coonabarabran, NSW, AUS - Dark Skies.	18" f/4.5 Newtonian	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.
NGC 3195	109	4/1/2016	21:54	Very Good	Very Good	Near Coonabarabran, NSW, AUS - Dark Skies.	18" f/4.5 Newtonian	187x - A small, dim, round uniformly lit glow. O3 shows it nicely. No central star seen. 30 degrees high.

Total Caldwell Objects Observed 109 of 109

Caldwell Silver Certificate #68 Received on July 9, 2004

See: http://http://mikehotka.com/CertLogs/CaldwellClub/CS_Log.pdf

FOV - Field of view

AV - Adverted Vision

40mm - 63.5x

25mm - 110x

20mm - 127x

13mm - 200x