

Name	Type	RA	Dec	Size	VMag	Con
IC 0059	E+R	00 56.7	+61 04	10x5		Cas
				faint reflection nebula 20' N of Gamma Cassiopeia with IC 63 20' SE.		
Ellis-Grayson-Bond 1	PN	01 07.2	+73 33	300"x180"		Cas
				challenging planetary involved with a group of faint stars. Use an OIII filter.		
Simeis 22	PN	01 30.7	+58 23	10x3		Cas
				large, low surface brightness glow in a rich milky way field. Confirm with an OIII filter.		
Heckathorn-Fesel-Gull 1	PN	03 03.8	+64 54	523"	12	Cas
				extremely low surface brightness, huge ancient planetary.		
Q0957+561	QSR	10 01.3	+55 54		16.5	UMa
				gravitationally lensed twin quasars (components 16.5-16.7 magnitude separated by 6") just 15' NNW from NGC 3079.		
UGC 5459	GX-SBc	10 08.2	+53 05	4.8x0.7	12.6	UMa
				this extremely narrow edge-on has a very striking appearance as it hangs from a mag 8.5 star.		
HCG 56	GX-Chain	11 32.6	+52 57	1.1x0.3		UMa
				challenging interconnected galaxy chain located 7' south of NGC 3718.		
NGC 3172	GX-SA0	11 47.3	+89 06	0.7x0.7	13.6	UMi
				this is the closest NGC galaxy to North Celestial Pole and is known as "Polarissima Borealis"		
UGC 7321	GX-Sd	12 17.6	+22 32	5.5x0.4	13.4	Com
				this is one of the thinnest known galaxies (major/minor axis ratio)		
Mrk 205	GX-Sy	12 21.7	+75 19	Stellar	14.5	Dra
				this Seyfert galaxy appears as a mag 14.5-15 "star" less than 1' south of N4319. Redshift controversy due to possible bridge and discordant redshift.		
IC 972	PN	14 04.4	-17 14	43"x40"	13.6	Vir
				relatively easy but little-known planetary in Virgo		
UGC 9242	GX-Sd	14 25.3	+39 32	5.0x0.3	13.5	Boo
				super-thin ghostly streak may require high power.		
Palomar 5	GC	15 16.1	-00 07	6.9	11.8	Ser
				extremely low surface brightness globular located 30' south of mag 5.6 4 Serpentis.		
Corona Borealis GX Cluster	GXCL	15 22.7	+27 43	30	15.6	CrB
				distant and challenging Corona Borealis galaxy cluster; 6 brightest members nearly 16th magnitude.		
IC 1116	GXCL	15 21.9	+08 25	1.6x1.6	12.8	Ser
				brightest member of rich cluster Abell 2063 although it is 15' SW of the main clump of galaxies. Up to two dozen small, faint galaxies are visible in the region.		
IC 4553	GX-S	15 35.0	+23 30	1.5x1.2	13.2	Ser
				considered the prototype of a megamaser with 98% of its emission in the infrared. This is an interacting double system with an extremely faint "knot" at the south end		
Longmore 13	PN	16 09.8	-30 55	71"	15.5	Sco
				large, very low surface brightness glow		
MCG +14-08-017	GX-	16 52.8	+81 38		14.9	UMi
				brightest in the UGC 10638 chain (Shakhbazian 166) located 30' SE of mag 4.2 Epsilon UMi.		
M 2-9	PPN	17 05.6	-10 09	39"x15"	14.6	Oph
				Minkowski's Butterfly nebula is a bi-polar proto-planetary, best viewed at high power. Look for two thin "jets" N-S.		
Djorgovski 2	GC	18 01.8	-27 50	3.5	9.9	Sgr
				recently discovered globular just 21' WNW of open cluster NGC 6520 and dark nebula B86!		
Barnard 87	DN	18 04.3	-32 30	12		Sgr
				the "Parrot Head" dark nebula contains a single mag 9.5 star. Look for a short thin extension (beak of the Parrot).		
Simeis 3-132	EN	18 17.9	-11 44	6		Ser
				obscure but relatively easy HII nebula located 30' north of NGC 6604 and Sh 2-54 (large, faint HII region encasing the cluster).		
Sh 2-68	PN	18 25.0	+00 52	475"x330"	11.2	Ser
				huge low surface brightness glow, perhaps 5'-6' in diameter with an OIII filter.		
Palomar 8	GC	18 41.5	-19 50	4.7	11.2	Sgr
				one of the easier Palomar globulars, roughly 2' in diameter. A large scope may partially resolve.		

NGC 6717	GC	18 55.1	-22 42	3.9	9.2	Sgr
						very unusual small, faint glow just 2' south of mag 5 Nu 2 Sagitarii!
Terzan 7	GC	19 17.7	-34 40	2.6	12	Sgr
						low surface brightness glow with little, if any, central concentration (this globular may have captured from the Sagittarius dwarf Spheroidal galaxy)
Arp 2	GC	19 28.7	-30 21	2.5	12.3	Sgr
						extremely low surface brightness 2' glow with a very small brighter core. Situated in a rich star field and difficult to pick out.
NGC 6822	GX-IBm	19 45.0	-14 48	15.5x13.5	8.8	Sgr
						use an OIII filter on Barnard's galaxy and search for small HII regions on the north side of the galaxy.
Palomar 11	GC	19 45.2	-08 00	8	9.8	Aql
						this Palomar globular appears as a diffuse, irregular glow 4' SSE of a mag 9 star. Try to resolve at high power.
Abell 65	PN	19 46.6	-23 09	134"x34"	13.8	Sgr
						this relatively bright Abell planetary is noticeably elongated NW-SE and appears similar to a low surface brightness galaxy.
Sh 2-84	EN	19 49.0	+18 23	15x3		Sge
						the "Little California Nebula" appears a faint, 4' shallow arc of nebulosity bracketed by two mag 8.5 stars. Located 25' ESE of mag 3.7 Delta Sagittae.
ESO 461-007	GX-S0	19 52.1	-30 49	1.2x0.7	13.3	Sgr
						brightest of four galaxies in HCG 86.
Abell 70	PN	20 31.6	-07 05	45"x40"	14.7	Aql
						once you've tracked down this planetary, look for a slight brightening on the north side -- that's an uncatalogued galaxy shining through the disc!
ESO 597-036	GX-S0 pec	20 48.2	-19 51	1.6x0.3	14.3	Cap
						brightest of 3 or more galaxies in HCG 87 (Hickson compact group).
CRL 2688	PPN	21 02.3	+36 42	24"x6"		Cyg
						the bi-polar Egg Nebula appears as a small, faint double object at high power.
vdB 142	RN/DN	21 36.7	+57 30	15		Cep
						the "Elephant's Trunk" is an unusual cometary globule (associated with star formation) on the west side of the huge but faint HII complex, IC 1396. Look for a 15'x5' lane using a UHC filter.
NGC 7320	GX-Sd	22 36.1	+33 57	2.2x1.1	12.6	Peg
						brightest in Stephan's Quintet. If the Quintet is easy, look for NGC 7320A 12' SE, NGC 7320B 20' E and NGC 7320C just 4' E of NGC 7319!
Sh 2-155	EN	22 56.8	+62 37	50x30		Cep
						Sh 2-155 is the "Cave Nebula" included by Patrick Moore in his "Caldwell Catalogue". Look for just a large, diffuse glow mostly surrounding a mag 8.5 star and a small knot 3' ENE.
NGC 7492	GC	23 08.4	-15 37	4.2	11.5	Aqr
						low surface brightness NGC globular.
Sh 2-157	EN	23 16.0	+60 28	60x50		Cas
						this huge HII region appears as a faint, curving graceful arc, ~35'x8', very elongated N-S and bowed out on the following side with an OIII filter. Extends north and south of open cluster Markarian 50 off the west side.
Abell 84	PN	23 47.8	+51 24	147"x114"	13	Cas
						look for a 2' disc with an OIII filter with a star embedded on the east side.