

Object	CONSTELLATION	RA	DEC	TYPE	Mag	Sep	DISTANCE (L.Y.)	NOTES
94 AQR	Aquarius	23 19	-13 28	Double Star	5.3, 7.0	12.0		Pale rose or reddish & light emerald-green double. Lovely but overlooked/neglected object. CPM pair like many here.
M2	Aquarius			Globular Cluster			37000	Globular cluster Messier 2 (M2, NGC 7089) was discovered by Maraldi on September 11, 1746. Charles Messier independently rediscovered and cataloged it exactly 14 years later, on September 11, 1760, as a "nebula without stars." William Herschel was the first to resolve it into stars.
M72	Aquarius			Globular Cluster			56400	Messier 72 (M72, NGC 6981) is one of the apparently smaller and fainter globular clusters in Messier's catalog. It is situated in the very western part of constellation Aquarius, close to the the group of four stars, M73.
M73	Aquarius			asterism			2500	The object Messier 73 (M73, NGC 6994)) is a little conspicuous assortment of four stars of 10th to 12th magnitude, situated in the very western part of constellation Aquarius; its nature as a physical group is doubtful. It lies only about 1.5 deg east of globular cluster M72.
NGC 7009	Aquarius			Planetary Nebula	8.0			
NGC 7606	Aquarius			Galaxy	10.9			
NGC 7723	Aquarius			Galaxy	11.2			
NGC 7727	Aquarius			Galaxy	10.8			
ζ AQR	Aquarius	22 29	-00 01	Double Star	4.3, 4.5	2.0		Matched bright, off-white close duo set in a naked-eye starry triangle. Neat sight! Famous 590-yr. binary. 76LY
NGC 772	Aries			Galaxy	10.4			
γ ARI	Aries	01 54	19 18	Double Star	4.5, 4.6	8		Mesarthim. Stunning, bright, perfectly matched bluish-silver-white pair. Superb even in smallest glass! 160LY
λ ARI	Aries	01 58	23 36	Double Star	4.9, 7.7	37		Wide color- & magnitude-contrast double. Tints yellowish & pale greenish or bluish.
M30	Capricornus			Globular Cluster			26700	Globular cluster Messier 30 (M30, NGC 7099), at about 26,000 light years distance and about 90 light years across, and appears to us under an angular diameter of about 12.0 arc minutes. It is fairly dense (as its concentration class V indicates), and a fine object in even small telescopes.

Object	CONSTELLATION	RA	DEC	TYPE	Mag	Sep	DISTANCE (L.Y.)	NOTES
α CAP	Capricornus	20 18	-12 33	Double Star	4.2, 3.7	381		Algiedi. Naked-eye/binocular saffron-orange pair with 9.6- & 10.6-mag. companions at 4600 & 700 forming a telescopic double-double. Surprisingly – unrelated: 110LY & 700LY!
M77	Cetus			Spiral Galaxy			47 million	Messier 77 (M77, NGC 1068) is a conspicuous spiral galaxy situated in constellation Cetus. With its bright Active Galactic Nucleus (AGN), it is the prototype of an active galaxy, and a famous group of these objects called "Seyfert Galaxies," after their discoverer.
NGC 1022	Cetus			Galaxy	12.8			
NGC 1052	Cetus			Galaxy	10.6			
NGC 1055	Cetus			Galaxy	10.9			
NGC 157	Cetus			Galaxy	10.4			
NGC 246	Cetus			Planetary Nebula	10.9			
NGC 247	Cetus			Galaxy	9.2			
NGC 584	Cetus			Galaxy	10.3			
NGC 596	Cetus			Galaxy	10.8			
NGC 615	Cetus			Galaxy	11.7			
NGC 720	Cetus			Galaxy	10.3			
NGC 779	Cetus			Galaxy	11.3			
NGC 908	Cetus			Galaxy	10.5			
NGC 936	Cetus			Galaxy	10.0			
γ CET	Cetus	02 43	-03 14	Double Star	3.6, 6.2	3		Snug slow binary with unusual tints – yellow & olive. 63LY
h5014	Corona Australis	18 07	-43 25	Double Star	5.7, 5.7	1.7		Neatly spaced & perfectly matched 450-yr. binary – both suns bluish-white. The globular cluster NGC 6541 lies in the same field of view, greatly adding to this pair's appeal.
IC 1297	Corona Australis			Planetary Nebula				IC 1297 is a planetary nebula of apparent magnitude 10.7, which appears as a green-hued roundish object in higher-powered amateur instruments.
NGC 6541	Corona Australis			Globular Cluster	6.3			
NGC 6726	Corona Australis			Bright Nebula				
NGC 6727	Corona Australis			Bright Nebula				

Object	CONSTELLATION	RA	DEC	TYPE	Mag	Sep	DISTANCE (L.Y.)	NOTES
NGC 6729	Corona Australis			Bright Nebula				
NGC 6768	Corona Australis			Galaxy	12.2			
γ CRA	Corona Australis			Double Star				
NGC 6451	Corona Australis			Globular Cluster	6.3			
Abell 2162	Corona Borealis	16 12	29 31	Galaxy Cluster				The two brightest galaxies are very easy to detect NGC 6086 and NGC 6085 are a bright round patches. I didn't look for any detail as I forgot to go back to them.
NGC 5958	Corona Borealis			Galaxy	12.7			
NGC 6086	Corona Borealis			Galaxy	13.1			
NGC 6109	Corona Borealis			Galaxy	13.0			
ζ CRB	Corona Borealis	15 39	36 38	Double Star	5.0, 5.9	6		Pretty bluish-white & greenish-white suns. Slow binary.
σ CRB	Corona Borealis	16 15	33 52	Double Star	5.6, 6.5	7		Like ζ CRB but the stars are yellowish. 890-yr. binary.
NGC 6891	Delphinus			Planetary Nebula	10.5			
NGC 6905	Delphinus			Planetary Nebula	11.1			
NGC 6934	Delphinus			Globular Cluster	8.9			
NGC 7006	Delphinus			Globular Cluster	10.6			
γ DEL	Delphinus	20 47	16 07	Double Star	4.5, 5.0	9		Superb golden-yellow & greenish-blue combo – splendid contrast! 100LY The “Ghost Double” S 2725 (7.5, 8.2, 600) lies unsuspected in the same field – do you see it?
NGC 7015	Equellus			Galaxy	12.4			
NGC 7213	Grus			Galaxy	10.8			
NGC 7424	Grus			Galaxy	10.4			
8 LAC	Lacerta	22 36	39 38	Double Star	5.7, 6.3/ 10.5, 9.1	22/49, 82		Nice blue-white pair. The two fainter companions form a very delicate quadruple system with bright pair. 1,900LY
NGC 7209	Lacerta			Open Cluster	7.7			
NGC 7243	Lacerta			Open Cluster	6.4			
NGC 7296	Lacerta			Open Cluster	9.7			

Object	CONSTELLATION	RA	DEC	TYPE	Mag	Sep	DISTANCE (L.Y.)	NOTES
NGC 6925	Microscopium			Galaxy	11.5			
NGC 6958	Microscopium			Galaxy	11.3			
Hickson 90	Piscis Austrinus							This is one the brightest Hickson groups and one of the few that can be explored with an 8" scope. NGC 7172 (Hickson 90A) is the brightest member and furthest north in the quartet. In a 13" it appeared as a fairly large, moderately bright oval extended E-W. Located 6' due south is NGC 7173 (Hickson 90C) which appeared as a small, round glow at 166x. Close southeast is a contact pair [26" separation between centers] - NGC 7174 (Hickson 90D) and NGC 7176 (Hickson 90B). In an 8" the combined glow was unresolved at 100x, but in my 13" the individual components were clearly resolved. The RNGC confuses the identifications of NGC 7173 and NGC 7174, making N7173/N7176 the contact pair.
Hickson 91	Piscis Austrinus							Difficult group on the low western sky. Only two galaxies (NGC 7214 and PGC 68160) are certainly visible. The stellar object on the north side of NGC 7214 might be a 15 mag galaxy PGC 16155.
NGC 7314	Piscis Austrinus			Galaxy	11.0			
M71	Sagitta			Globular Cluster			13000	Messier 71 (M71, NGC 6838) is a loose but beautiful globular cluster in the small but nice constellation Sagitta.
NGC 6879	Sagitta			Planetary Nebula	12.5			
NGC 6886	Sagitta			Planetary Nebula	11.4			
M17	Sagittarius			Emission Nebula			4890	The Omega Nebula Messier 17 (M17, NGC 6618), also called the Swan Nebula, the Horseshoe Nebula, or (especially on the southern hemisphere) the Lobster Nebula, is a region of star formation and shines by excited emission, caused by the higher energy radiation of young stars.
M18	Sagittarius			Open Cluster			4000	Open cluster Messier 18 (M18, NGC 6613) is best observed in small telescopes, which show over a dozen of fairly bright stars (the Sky Catalog 2000 lists it with 20 members). It is about 0.2 degrees in diameter, thus appears loose and poor, its Trumpler type is given as II,3,p,n by all sources (where the "n" assigns to it some nebulosity).

Object	CONSTELLATION	RA	DEC	TYPE	Mag	Sep	DISTANCE (L.Y.)	NOTES
M20	Sagittarius			Nebula			5000	The Trifid Nebula Messier 20 (M20, NGC 6514) in Sagittarius is a remarkable and beautiful object as it consists of both a conspicuous emission nebula and a remarkable reflection nebula component.
M21	Sagittarius			Open Cluster			4100	Messier 21 (M21, NGC 6531) is an open cluster which shows quite a strong concentration toward its center. Therefore, it is classified by Woldemar Götz as of Trumpler class I 3 r (strong concentration to the center, large range in brightness, i.e. bright and faint stars, and richly populated), while Trumpler, according to Kenneth Glyn Jones, classified it I 3 p (i.e., poor, or under 50 stars).
M22	Sagittarius			Globular Cluster			10100	Messier 22 (M22, NGC 6656) is one of the brightest and remarkable clusters in the sky, and in particular of those observable from mid-northern latitudes. It was the first of these objects to be discovered.
M23	Sagittarius			Open Cluster			2100	Open cluster Messier 23 (M23, NGC 6494) is another glorious sight for small telescopes and binoculars in the summer Milky Way. It is one of Charles Messier's authentic discoveries; he discovered this cluster on June 20, 1764.
M24	Sagittarius			Open Cluster			9400	Messier 24 (M24) is one of the few particular objects, or curiosities, in Messier's catalog: Under entry No. 24 in his catalog, Charles Messier list a large object of 1 1/2 deg in extension, which he included on June 20, 1764, and describes it as "a large nebulosity in which there are many stars of different magnitudes."
M25	Sagittarius			Open Cluster			2300	Messier 25 (M25, IC 4725) is one of the more remarkable open clusters in constellation Sagittarius.
M26	Sagittarius			Open Cluster			5000	Open cluster Messier 26 (M26, NGC 6694) is not so impressive as its apparent neighbor, M11. Its discoverer Charles Messier, who cataloged it on June 20, 1764, even noted that it was "not distinguished in a 3.5 foot (FL) telescope and needed a better instrument."
M28	Sagittarius			Globular Cluster			20000	Globular cluster Messier 28 (M28, NGC 6626) is another conspicuous globular cluster in the rich constellation Sagittarius.

Observing list for Parnonas Mountain – Summer 2012

© 2012, Albireo Observatory www.albireo.gr

Object	CONSTELLATION	RA	DEC	TYPE	Mag	Sep	DISTANCE (L.Y.)	NOTES
M54	Sagittarius			Globular Cluster			70000	Messier 54 (M54, NGC 6715) is a quite conspicuous globular cluster, although Charles Messier, who discovered it on July 24, 1778, describes it as "very faint" from his location in Paris (Kenneth Glyn Jones erroneously mis-translated Messier's description as "very bright nebula," and this error found its way to Kepple and Sanner's Night Sky Ovserver's Guide).
M55	Sagittarius			Globular Cluster			17000	Messier 55 (M55, NGC 6809) is a quite large globular cluster (about 19', roughly 2/3 of the Moon's apparent diameter) but has such a loose appearance, that the present author had a star cluster impression even in 7x50 binoculars, where most globulars look like round nebulae: This one appeared very grainy.
M69	Sagittarius			Globular Cluster			33600	Globular cluster Messier 69 (M69, NGC 6637), similar to its neighbor M70, is one of the smaller and fainter globular clusters in Messier's catalog. It can just be seen in a dark night with a 7x50 or 10x50 pair of binoculars, if the observing location is not too much north.
M70	Sagittarius			Globular Cluster			35200	Messier 70 (M70, NGC 6681) is one of the less bright and conspicuous globular clusters in Messier's catalog.
M75	Sagittarius			Globular Cluster			59300	Globular cluster Messier 75 (M75, NGC 6864) is one of the apparently fainter globular clusters in Messier's catalog, due to its large distance. It is situated in the western part of Sagittarius.
M8	Sagittarius			Diffuse Nebula			5200	The Lagoon Nebula Messier 8 (M8, NGC 6523) is one of the finest and brightest star-forming regions in the sky. It is a giant cloud of interstellar matter which is currently undergoing vivid star formation, and has already formed a considerable cluster of young stars.
NGC 6440	Sagittarius			Globular Cluster	9.3			
NGC 6445	Sagittarius			Planetary Nebula	11.2			
NGC 6514	Sagittarius			Open Cluster				
NGC 6520	Sagittarius			Open Cluster	7.6			
NGC 6522	Sagittarius			Globular Cluster	9.9			
NGC 6528	Sagittarius			Globular Cluster	9.6			
NGC 6540	Sagittarius			Globular Cluster	14.6			
NGC 6544	Sagittarius			Globular Cluster	7.5			
NGC 6553	Sagittarius			Globular Cluster	8.3			

Object	CONSTELLATION	RA	DEC	TYPE	Mag	Sep	DISTANCE (L.Y.)	NOTES
NGC 6563	Sagittarius			Planetary Nebula	11.0			
NGC 6568	Sagittarius			Open Cluster	8.6			
NGC 6569	Sagittarius			Globular Cluster	8.4			
NGC 6583	Sagittarius			Open Cluster	10.0			
NGC 6589	Sagittarius			Bright Nebula				
NGC 6590	Sagittarius			Open Cluster	7.0			
NGC 6624	Sagittarius			Globular Cluster	7.6			
NGC 6629	Sagittarius			Planetary Nebula	11.3			
NGC 6638	Sagittarius			Globular Cluster	9.2			
NGC 6642	Sagittarius			Globular Cluster	8.9			
NGC 6645	Sagittarius			Open Cluster	8.5			
NGC 6717	Sagittarius			Globular Cluster	8.4			
NGC 6818	Sagittarius			Planetary Nebula	9.3			
NGC 6822	Sagittarius			Galaxy	9.9			
NGC 6144	Scorpius			Globular Cluster	9.0			
M4	Scorpius			Globular Cluster			6800	Messier 4 (M4, NGC 6121) is one of the nearest globular clusters in the sky at an estimated distance of about 7,200 light years. Situated prominently about 1.3 degrees west of Antares, in constellation Scorpius, and being as bright as mag 5.6 visually, it can be detected by the naked eye under very dark skies, and is prominent with the slightest optical aid.
M6	Scorpius			Open Cluster			1585	Open cluster Messier 6 (M6, NGC 6405) also named Butterfly Cluster is described by Burnham as a "charming group whose arrangement suggests the outline of a butterfly with open wings."
M7	Scorpius			Open Cluster			780	Messier 7 Ptolemy Cluster (M7, NGC 6475) is a large and brilliant group, easily detected with the naked eye. As Burnham describes it, "the cluster is seen projected on a background of numerous faint and distant Milky Way stars."
M80	Scorpius			Globular Cluster			27000	Messier 80 (M80, NGC 6093) is a fine 8th mag globular. Its 10' angular diameter corresponds to roughly 95 light years linear dimension at its distance of 32,600 light years. Its appearance resembles very much that of a faint comet without tail.

Object	CONSTELLATION	RA	DEC	TYPE	Mag	Sep	DISTANCE (L.Y.)	NOTES
NGC 6144	Scorpius			Globular Cluster	9.0			
α SCO	Scorpius	16 29	-26 26	Double Star	1.0, 5.4	2.5		Antares. Beautiful fiery-red supergiant sun with elusive emerald-green companion for steady nights. A fantastic sight in large amateur telescopes! 1,200-yr. binary. 520LY
β SCO	Scorpius	16 05	-19 48	Double Star	2.6, 4.5	14		Graffias. Bright blue-white combo resembling famed Mizar (z UMA). A beautiful sight! May be optical!? 600LY
ν SCO	Scorpius	16 12	-19 28	Double Star	4.4, 5.3/ 6.6, 7.2	1.3/2. 4		Colorful but tight double-double! Pairs 4100apart ($\frac{1}{4}$ H V 6) Very subtle but definite tints. Fascinating spectacle! 440LY
ξ SCO	Scorpius	16 04	-11 22	Double Star	4.9, 7.3	8		Yellow pair with S 1999 (7.5, 8.1, 1200, G8, K5) at 28000 distance forming wide double-double. The primary is an ultra-close 46-yr. binary. May all be one system! 80LY
6 TRI	Triangulum	02 12	-30 18	Double Star	5.3, 6.7	4		Pretty but tight golden-yellow & bluish-green pair. (Often found designated i TRI in many older works.) 200LY
M33	Triangulum			Spiral Galaxy			2.3 million	The Triangulum Galaxy Messier 33 (M33, NGC 598) is another prominent member of the Local Group of galaxies. This galaxy is small compared to its big apparent neighbor, the Andromeda galaxy M31, and to our Milky Way galaxy, but by this more of average size for spiral galaxies in the universe.