

All objects viewed from the Berkeley Hills, CA (red zone) at an altitude of 1,400 feet unless noted otherwise.

Object	Observed	Instruments Used
1. Messier 57	8-2-2012 10:15 PM Appeared as a ghostly donut with averted vision. Grey-Green in color.	Z-10 30 mm EP
2. Messier 101	8-4-2012 10:30 PM Could make out nucleus and hints of spiral arms	Z-10 30 mm EP
3. Messier 103	8-16-2012 10:15 PM A splash of stars with fuzziness in the background	10x50 binocs
4. Messier 31	8-16-2012 10:20 PM 9-7-2012 11:30 PM Observing from a dark sky location resembled a large lozenge-shaped object extending over 2.0 degrees or more. Beautiful and stunning.	10x50 binocs Z-10
5. Messier 110	Second session: M31 appeared as a bright disk with dust lanes visible with averted vision. M32 easy object off to the side of M31. M110 superimposed on the face of the disk with averted vision. Red zone location.	
6. Messier 32	8-16-2012 10:22 PM 9-7-2012 11:30 PM Appeared as a small elliptical shape below the central mass of M31. Likened to a fuzzy star. See above report.	10x50 binocs Z-10
7. Messier 29	8-16-2012 10:31 PM 9-3-2012 10:50 PM Appeared as a small fuzzy patch with some stars resolved. Beautiful. Near Gamma Cygni. With Z10 a fine collection of stars but not terribly impressive.	10x50 binocs; Z-10 30 MM EP
8. Messier 56	9-3-2012 11:00 PM Appeared as a faint blur in Z10 with central swelling and a more diffuse limb. With averted vision hints of individual stars could be made out and appeared granular. Rich star field.	Z-10 30 MM EP
9. Messier 27	9-11-2012 11:45 PM Appeared as an oblong object. Bright nebulosity easily visible without averted vision. With averted vision the top and the bottom of the dumbbell could be ascertained as well as filamentary structure on the right side of the nebula in the eyepiece.	Z-10 30 MM EP
10. Messier 71	9-16-2012 1:00 AM Under good sky conditions the globular cluster in Sagitta was well seen as a fairly faint elliptical structure with a scattering of resolved stars across its face. A beautiful sight. Found by jumping south of M27 and locking the arrow of Sagitta in the finderscope.	Z-10 30 MM EP
11. Messier 13	9-16-2012 12:30 AM 9-20-2012 11:15 PM M-13 was visible within the	10x50 Binoculars Z-10 30 MM EP

	keystone of the constellation Hercules as a smudge of light near mu (n) Herculi. In scope a nearly circular glowing object with stars resolved across the face. Impressive.	
12. Messier 45	9-16-2012 12:00 AM The Pleiades Cluster was observed first in the finder scope then in the Z-10. Appeared as rich field of stars underneath the bright asterism of the naked eye stars of the cluster. No hints of nebulosity were seen. Still a breathtaking sight that extended beyond the field of view of the eyepiece. Observed the entire cluster by gently moving the scope.	Z-10 30 MM EP
13. Messier 52	9-16-2012 12:15 AM Observed as a faint fuzzy patch of stars in a direct line from alpha through beta Cassiopeiae.	10x50 Binoculars
14. Messier 34	9-16-2012 Appeared as a faint glowing patch to the South of the Double Cluster. Near the border with Andromeda. Also observed NGC 752 which is a slightly larger cluster. Somehow Messier missed it.	10x50 Binoculars
15. Messier 92	9-20-2012 11:45 Appeared as an oblong globular with many stars resolved across the face. Brighter center than M-13. The vertical axis is narrower than the horizontal axis. A Beautiful sight. Found by jumping from delta and zeta Lyrae through Vega and following a relatively straight line to the object. M92 is not very close to any bright stars.	Z-10 30 MM EP
16. Messier 36	10-14-2012 12:00 Appeared as a smallish cluster with stars mostly fully resolved. Individual stars of 9th magnitude and below.	Z-10 30 MM EP
17. Messier 37	10-14-2012 12:30 Appeared as an anvil-shaped collection of individual stars in a glittering cloud of dust. Estimate 120-150 stars in the cluster. One of the finest open clusters I've yet seen through the 10 inch.	Z-10 30 MM EP
18. Messier 38	10-14-2012 1:00 Appeared as a bright gathering of stars with a brighter orangish star in the center. Estimate the stars from 8th-9th magnitude down to 11-12th magnitude.	Z-10 30 MM EP
19. Messier 33	10-15-2012 10:15 Appeared as a slight oval object, fuzzy and diffuse. Has a silvery color in the binoculars. Found by scanning the area south of beta andromedae and northwest of alpha triangulum. Appears to be at the limit of the binocs from my location.	10x50 binoculars
	10-17-2012 11:45 Appeared in the scope as a faint cloud with a brighter region on the right side of the galaxy. A very difficult object that was barely visible because of the low surface brightness and the fact that it is seen directly face-on. Tried to make out hints of spiral arms, mainly on the right side of the galaxy, but I am not sure I succeeded. Viewing it directly without averted vision it was almost invisible. Found by aiming scope to the north and west of alpha trianguli. Could not be seen in binoculars on this night.	Z-10 30 MM EP
20. Messier 35	10-18-2012 12:30	Z-10 30 MM EP

- Located first in binoculars rising above the trees as it appeared as a faint unresolved blotch but was easy to see in the 10x50's. Managed to fix the object in the finder somewhat below Taurus. Was immediately visible in the eyepiece as a fully resolved cluster with light and darker patches and chains of stars across its face. It was truly a beautiful sight.
21. Messier 42 11-12-2012 11:30 10x50 binos
 Appeared as a glistening patch in Orion's sword. Central stars visible embedded within the nebulosity. A beautiful sight.
- 11-22-2012 11:00 Z-10 30 MM EP
 Appeared as a grayish green fully defined nebula in the Z-10. The trapezium was fully resolved. Hints of dust lanes criss-crossed the face of M42. A beautiful sight! Upon revisiting on 1-1-2013 both the nebula and the dust lanes were more prominent and the delicate wings of nebulosity arcing out from the center were well seen.
22. Messier 43 11-12-2012 11:30 10X50 binos
 I located it just to the Northeast of M42. Appeared as a faint patch through the binoculars. Another beauty.
- 11-22-2012 11:00 Z-10 30 MM EP
 Appeared as a fuzzy patch off to the side of M42. The nebula appeared to be centered on a star in the center. Also greyish-green but fainter than M42.
23. Messier 1 12-9-2012 11:00 Z-10 30 MM EP
 Appeared as a faint glowing object just to the northeast of zeta Tauri. With averted vision hints of structure were observed during moments of good seeing. (There was a light wind at the time). Elongated with a vertical axis that was wider than the horizontal axis. No color seen, appeared as a grey patch in the sky. Located within a relatively rich star field.
24. Messier 78 1-1-2013 10:00 Z10 30 MM EP
 Appeared as a Faint Cloud Associated with two stars above the belt of Orion. Easily Picked out the Nebulosity and the glow of this reflection nebula through the ten inch. Appeared mostly circular at the eyepiece and is listed at magnitude 8.3. Was not visible through binoculars. Located by star hopping above Alnitak or zeta Orionis. Had a very good view of the object.
25. Messier 44 1-1-2013 10:30 Z10 30 MM EP
 Observed the Praesepe or Beehive Cluster in Cancer. Appeared as a fuzzy patch of light in the finder scope with some stars resolved. At the eyepiece appeared as if about 100 stars were visible in the cluster. The stars were multi-color with many orange and red hued stars visible along with blue and white. A tremendous view through the scope, shining at approximately 4th magnitude with the brightest individual stars estimated at 6th magnitude as well as many fainter down to the limit of the scope.
26. Messier 41 1-2-2013 10:45 10x50 binoculars
 Observed this open cluster through the binoculars and through assorted tree branches just to the south of Sirius. Appeared as a fuzzy patch through the 10x50s with some elongation.
27. Messier 50 1-3-2013 10:45 10x50 binoculars
 Observed this open cluster in binoculars. Well-defined and bright. Found in the constellation Monoceros. Shines at roughly the six magnitude. Appears anvil shaped through the binocs. Few individual stars resolved. Observed in the Z10 on the night of 1-14-2013 and was a magnificent view.
28. Messier 46 1-3-2013 11:00 10x50 binoculars
 Observed easily in the constellation Puppis to the Northeast of the bright star Sirius. Appeared as a faint cloud. Takes up roughly one-half degree in the sky. No individual stars resolved. Appears as part of a flat right-angled triangle with M47 and NGC 2360 as the other components. A beautiful view.
29. Messier 47 1-3-2013 11:05 10x50 binoculars
 Seen just to the west of the cluster M46. Appeared brighter with approximately five stars resolved across its face. Shows itself as wedge-shaped. I would guess that it has fewer stars and is more distended than M46.

30. Messier 93 1-3-2013 11:15 10x50 binoculars
 Appeared as a triangle shaped fuzzy ball with just a few stars resolved. Found by sweeping to the South of M46 and M47. This is a sixth magnitude patch of light in the sky. Makes a triangle with M46/M47 and the bright star Sirius.
31. Messier 109 1-17-2013 11:00 Z10 30MM EP
 Appeared as a very fuzzy and faint ball to the Southeast of Phecda. Only visible with averted vision and it seemed to blink in and out of visibility. When I stared directly at it it disappeared. Would like to view from a dark sky location. Very faint and it seemed to be at the telescope's limit on this night. Now its on to M97 and M108, which I could not locate on this night. Observed M109 again on 2-15-2013 to see if I could get a better view. Placing Phecda outside of the field of view I managed to spot a faint glowing haziness. At magnitude 10.8 the galaxy appears even fainter than this and difficult to pull out of the sky glow.
32. Messier 81 2-5-2013 11:30 Z10 30MM EP
 Appeared as a flattened ball of light. With averted vision some hints of the spiral arms became apparent rather than just the bright core. Delightful view! Off to the right was the next target.
33. Messier 82 2-5-2013 11:30 Z10 30MM EP
 Appeared as a vertical streak. Resembled a silvery knife blade in the sky, with hints of a mottled structure on the right boundary of the galaxy. About 10 arc minutes in length. A dazzling site and one of the sky's outstanding radio sources as a strange, irregular galaxy!
34. Messier 40 2-8-2013 10:00 Z10 30MM EP
 Appeared as two stars just to the southwest of Megrez (Delta Ursa Majoris) Interesting double pair but only an optical double. The real question is why Messier included M40 (also known as Winnecke 4) in his catalog. It obviously has no nebulosity nor is it a star cluster!
35. Messier 97 2-9-2013 11:00 Z10 30 MM EP
 After slewing down from Merak in a southeasterly direction the nebula was seen as a very faint patch of light with perhaps a greyish-green tint. With averted vision its oval shape was apparent. No hints of the 'eyes' were noted however.
36. Messier 108 2-11-2013 11:00 Z10 30 MM EP
 First I found M97, saw that it was associated with three bright stars forming a flattened square. On the right hand side of the square there is a chain of stars extending to Merak. Examining this chain of stars closely I noticed a very faint smudge in the eyepiece. Upon switching to averted vision I saw that the galaxy has a pea pod shape. Color was silvery grey barely on the edge of visibility. Overall, I was quite happy to find it as the magnitude is 10.2 with a surface brightness of 13.3 (equivalent magnitude) As such it is just barely brighter than the sky background from my observing location.
37. Messier 51 2-12-2013 11:00 Z10 30MM EP
 After centering Alkaid in the finder I moved the scope about 3 and a half degrees to the East Northeast and quickly found M51. The dual-eye structure of the galaxy was readily apparent, with the brighter part on the left hand side and its extended arm on the right hand side. Both sections of the galaxy showed central condensation of the light in bright well-defined cores. Using averted vision on the Whirlpool resulted in seeing the full extent of its outer halo and glimpses of dusky lanes forming semicircles against its lightly glowing surface. It was a remarkable sight.
38. Messier 106 2-12-2013 11:15 Z10 30MM EP
 This galaxy was located by drawing an imaginary line from Dubhe through Phecda and extending it down in a Southeasterly direction. Following along this line I found M106, a spiral galaxy that reminded me of Andromeda. The central core was quite bright and with averted vision the large outer halo was visible, measuring a full 18.6 by 7.2 arc minutes. M106 is positioned between 22 and 25 million light years from earth.
39. Messier 105 2-12-2013 11:30 Z10 30MM EP
 I centered the star Regulus in my finder and proceeded to scan to the West on a line from Regulus to Denebola. After a few minutes searching I noticed a medium-sized fuzzy object in the eyepiece which resembled, at first, a globular cluster. Checking my chart I quickly identified it as M 105. It turns out that it is one of the more prominent elliptical

galaxies on Messier's list. Although listed as magnitude 10.2, its surface brightness was quite high and therefore it was easily visible.

40. Messier 95 2-12-2013 11:45 Z10 30MM EP
My excitement only increased when I noticed another diffuse object in the right lower quadrant of the eyepiece only it was not just one object, there was another fuzzy to the right of it. These are the galaxies M95 and M96. M95 is a barred spiral galaxy of 11.4 magnitude, though no spiral structure was visible at the eyepiece. A supernova known as SN 2012aw was discovered in M95 on March 16, 2012.
41. Messier 96 2-12-2013 12:00 Z10 30 MM EP
M96 is a spiral galaxy of magnitude 10.1. Through the scope, it appears as an oblong brightness with a more prominent central core of about 3x5 arc minutes in size. It was discovered by Pierre Mechain on March 20, 1781.
42. Messier 65 2-13-2013 11:00 Z10 30 MM EP
M65 is a spiral galaxy of magnitude 10.3. Viewed as part of the Leo Triplet. Found by slewing scope from Regulus to Denebola and stopping when the galaxies were both in the field of view. Not quite as close together as the M95 and M96 group. Appeared as a faint slash of light and clearly of spiral form.
43. Messier 66 2-13-2013 11:00 Z10 30 MM EP
M66 is a spiral galaxy in Leo of magnitude 9.7. Viewed in the same eyepiece field as M65. Appeared slightly wider than M65, also detectable as a spiral galaxy.
44. Messier 94 2-13-2013 10:45 Z10 30 MM EP
M94 is a spiral galaxy that is face-on - meaning we are looking right into its structure in a similar way as M51. Listed as magnitude 9, it appeared bright and with a central condensation of light from its core. Found by slewing East Northeast of Alkaid until it was in the field of view of the eyepiece.
45. Messier 87 2-13-2013 11:30 Z10 30 MM EP
Appeared as a glowing bright ball at the eyepiece, fixed by slewing from Denebola in Leo in a Westerly direction. The galaxy is elliptical with a magnitude of 9.59. Found in the constellation Virgo. In this part of the heavens, the frequency of galaxies is astronomical.
46. Messier 61 2-13-2013 11:45 Z10 30 MM EP
Appeared as a faintish face-on spiral galaxy with vague hints of structure, almost appearing as a slightly smaller version of M51. Found by slewing Southwest of Denebola and into the constellation Virgo. The magnitude of this galaxy is 10.18. Discovered by Barnabus Oriani on May 5, 1779.
47. Messier 3 2-14-2013 11:00 Z10 30 MM EP
This was a spectacular object of magnitude 6.2 that rivals M13 as one of the best globulars. I found it by following an imaginary line from beta Canes Venatici through alpha (Cor Caroli or the heart of Charles) and then aiming the scope along this line. Bright at 45x with stars resolved at the edges.
48. Messier 98 2-14-2013 11:30 Z10 30 MM EP
Starting from Denebola in Leo I proceeded to move West into Coma Berenices. Soon M98 popped into view. It is a spiral galaxy of magnitude 11 with an angular size of 9.8 by 2.8 arc minutes. Appeared as a faintish cigar-shaped glow without much detail being seen.
49. Messier 99 2-14-2013 11:30 Z10 30 MM EP
This galaxy is evident in the same field of view as M98. It has a magnitude of 10.4 and a size of 5.4 by 4.7 arc minutes. In contrast to M98 it is seen almost directly face on so it has a whirlpool type structure. It was discovered by Pierre Mechain on March 17, 1781.
50. Messier 100 2-14-2013 12:00 Z10 30 MM EP
M 100 was located by slewing to the North and the West of the M98/M99 pair and almost was in the same field of view. It shines at a magnitude of 10.1 and appeared as a faint globe of light with hints of spiral structure. Known as a 'grand design' galaxy this one measures 160,000 light years across. It was recorded by Pierre Mechain on March 5, 1781 and subsequently listed by Charles Messier.
51. Messier 85 2-14-2013 12:30 Z10 30 MM EP
This one was located by moving the scope to the North from M100. Suddenly it appeared in the field of view. A relatively bright lenticular or elliptical galaxy it looked almost like a faint globular. It shines at magnitude 10.0. It is known as the Northernmost outlier of the Virgo Cluster. Also saw NGC 4394, a nearby companion.
52. Messier 49 2-15-2013 1:00 Z10 30 MM EP
Observed M49 which is located due south of the main body of the Virgo Cluster. Found by slewing horizontally from the position of the main body of the Cluster, which was obscured by high filamentary clouds. There was a brief hole in the clouds so I was able to pick this one out. At magnitude 9.4 it is the brightest galaxy in the Cluster and appears as a bright oval glow, with the core brighter than the outer edges. It is fairly sizable with a dimension of 10 x 8 arc minutes.
53. Messier 58 2-17-2013 12:00 Z10 30 MM EP

54. Messier 59	2-17-2013 12:10	Z10 30 MM EP
This elliptical galaxy was seen as a fuzzy ball of light. It measures 5.4 x 3.7 arc minutes and is of magnitude 10.6.		
55. Messier 60	2-17-2013 12:20	Z10 30 MM EP
M60 is an elliptical and was seen as a brighter object than M59 with a magnitude of 9.8. It measures 7.4 x 6 arc minutes.		
56. Messier 84	2-17-2013 12:30	Z10 30 MM EP
Observed as a lenticular galaxy with a roundish shape. It is known as a galaxy which is ejecting two jets of matter out into space. It measures 6.5 x 5.6 arc minutes and is of magnitude 10.1.		
57. Messier 86	2-17-2013 12:40	Z10 30 MM EP
Seen in the same field of view as M84 as a more oblong lenticular and appears larger than M84 at the eyepiece. It measures 8.9 x 5.8 arc minutes and is of magnitude 9.8.		
58. Messier 88	2-17-2013 1:00	Z10 30 MM EP
A spiral galaxy that is seen at about 30 degrees from edge-on and is noticeably longer than it is wide. It measures 6.9 x 3.7 arc minutes and is of magnitude 10.4.		
59. Messier 89	2-17-2013 1:20	Z10 30 MM EP
An elliptical, this galaxy appears roundish at the eyepiece and measures 5.4 x 4.7 arc minutes while it is a bit fainter than the other Virgo ellipticals at magnitude 10.7.		
60. Messier 90	2-17-2013 2:00	Z10 30 MM EP
This spiral galaxy is just one field of view away from the M87 galaxy and is the largest of the spirals viewed on this night. With averted vision, appeared to have a well-defined border. It measures 9.5 x 4.4 arc minutes and is of magnitude 10.26.		
61. Messier 91	2-17-2013 2:30	Z10 30 MM EP
M91 is a barred spiral galaxy seen nearly face-on. Looking carefully, shows hints of brighter and darker regions. It measures 5.4 x 4.3 arc minutes and is of the eleventh magnitude. It was discovered by Charles Messier on March 18, 1781.		
62. Messier 53	3-8-2013 11:30	Z10 30 MM EP
This globular cluster in Coma Berenices is smallish and not as bright or large as M3. Found by slewing the scope in the Canes Venatici/Coma Berenices area. Appeared granular with stars resolved around the edges.		
63. Messier 63	3-8-2013 12:00	Z10 30 MM EP
This galaxy was viewed by slewing east from Ursa Major and M51. Known as the Sunflower galaxy it was viewed at 45X. Appeared as a 12.5 by 7.2 arc minute hazy patch. Spiral structure almost visible with hints of the spiral arms showing around the edges.		
64. Messier 64	4-8-2013 12:00	Z10 30 MM EP
This galaxy was viewed by slewing upward from the midpoint of an imaginary line between Arcturus and Denebola, first catching the Needle Galaxy and then proceeding in a southwesterly direction to M64, which was found by slewing the scope. Appeared as a 9.4 magnitude spiral galaxy, whose arms were greatly elongated by using averted vision. Also noticed some darkness in the haze on the right hand side of the galaxy, the well-known black eye.		
65. Messier 5	4-10-13 11:00	Z10 30 MM EP
This globular cluster was found by slewing southwest from Arcturus. It appeared granular at the eyepiece with many stars resolved at the edges. A nice view. It shines at a magnitude of 6.65.		
66. Messier 12	4-10-13 11:20	Z10 30 MM EP
Another globular cluster was identified on this same evening by slewing southwest from M5 and is the most easterly of the globulars in Ophiuchus. Appeared smaller and fainter than M5 with a granular appearance, however just a few individual stars appeared to be resolved. Magnitude is 7.68.		
67. Messier 10	4-12-13 1:30	Z10 30 MM EP
This globular cluster shines at magnitude 6.4, a few stars resolved at the edges. Found by slewing southwest from Marfik or Lambda Ophiuchi.		
68. Messier 14	4-12-13 1:50	Z10 30 MM EP
This globular cluster was viewed by slewing west from M10. Shines at magnitude 8.32. Fainter than M10, but still well-seen with a few stars resolved.		
69. Messier 107	4-12-13 2:30	Z10 30 MM EP
Another globular cluster located in Ophiuchus. Magnitude of 8.85 so it appears less bright than M14. Found by slewing south from zeta Ophiuchi. Not certain if any individual stars were resolved though cluster appears very granular.		
70. Messier 9	4-12-13 3:00	Z10 30 MM EP
This globular cluster was found by slewing southwest from mu Ophiuchi. Magnitude of 8.42. Appeared very granular with a tiny chain of stars projecting from the right hand side of the object.		

71. Messier 4 8-1-13 11:00 Z10 30 MM EP
Found this globular cluster just 1.5 degree from Antares. Very impressive view with stars resolved all the way to the core across the face of the cluster. Very bright and shines at magnitude 5.9.
72. Messier 80 8-1-13 11:30 Z10 30 MM EP
Located this globular by slewing to the north of Antares. Bumped right into the FOV. Magnitude 7.87 was not as bright as M4 nor well resolved. Still interesting view.
73. Messier 6 8-13-13 11:30 Z10 30 MM EP
Located this cluster by jumping off from Shaula, counted 50 or more stars. Beautiful view, stars appeared in a box-like pattern, or a butterfly. Bright at mag. 4.2.
74. Messier 7 8-13-13 11:45 Z10 30 MM EP
Located this cluster by slewing to the northwest of Shaula in the tail of the Scorpion. Appeared to have a diamond formation. Counted approximately 40 stars. Shines at mag. 3.3.
75. Messier 76 8-29-13 11:30 Z10 30 MM EP
Found this planetary nebula by jumping off from 51 Andromedae in the finder. Moving to the north and west I was hunting for a magnitude 6.7 star. Convinced that I had located it in the finder I peeked into the eyepiece and there it was, a dim bread-loaf shaped object that reminded me a bit of M1 in Taurus. 10.1 is the magnitude.
76. Messier 15 9-4-13 11:30 Z10 30 MM EP
Located this globular cluster by slewing the scope to the west of the Great Square. Appeared very bright and highly concentrated at the eyepiece. Partially resolved with stars at the edges visible, smaller than M13 but a very nice view. Apparent magnitude is 6.2.
77. Messier 74 11-15-13 11:00 Z10 30 MM EP
Located this galaxy by directly hopping from the relatively faint star mu Piscium. Used my finderscope to plan the hop which I had looked up in Stellarium beforehand. Appeared as a ghostly oblong glow and was quite faint.
78. Messier 77 11-15-13 11:15 Z10 30MM EP
Found by slewing to the southeast of Menkar, alpha Ceti. First fixed this star in the center of the finder then completed my hop. A barred spiral, I just noticed a faint fuzzy patch.
79. Messier 79 12-9-13 10:15 15x70 binos
Located this globular cluster by slewing due South of beta Leporis. Appeared as a faint fuzzy patch of 8.56 magnitude. Started the star hop from Orion's sword to alpha Leporis from which I jumped south to beta then onto the object.
80. Messier 67 3-15-14 10:00 Z10 30MM EP
Found this interesting open cluster by slewing directly west from Acubens or alpha Cancri. While nothing compared to M44, still an impressive view with some chains of stars visible as well as some pretty contrasts between star colors.
81. Messier 48 4-2-14 10:20 Z10 30 MM EP
Located this open cluster by slewing directly east from Alphard. Presented a very nice view with chains of stars visible.
82. Messier 68 4-2-14 10:35 Z10 30 MM EP
Found this globular cluster by slowly moving the scope to the northwest of beta Hydrae. A middling size cluster, the stars were resolved at the edges.
83. Messier 83 4-2-14 11:00 Z10 30 MM EP
Located to the southwest of M68 lies the barred spiral. Was able to make out hints of the bars but mostly just looked as a softly glowing fuzzy patch. Found by hopping slightly to the northeast of Pi Hydrae. Took some time to find it but finally did after conducting three star hops.
84. Messier 62 7-5-14 10:15 Z10 30MM EP
Located this globular by slewing approximately 5 degrees SE of Antares. Small in appearance.
85. Messier 69 7-5-14 10:20 Z10 30MM EP
Found in the teapot just above Kaus Australis, rather nice globular. Magnitude is 8.31.
86. Messier 70 7-5-14 10:25 Z10 30MM EP
Located in Sagittarius just to the west of M69, found by an easy hop.
87. Messier 54 7-5-14 10:30 Z10 30MM EP
Found in the teapot just above M70 and to the northwest. Rather interesting globular.
88. Messier 55 7-5-14 10:35 Z10 30MM EP
Located to the west of M54, another fine globular.
89. Messier 75 7-5-14 10:40 Z10 30MM EP

Kind of a difficult hop, found on the border with Capricorn, presented a good view.

90. Messier 22 7-5-14 10:45 Z10 30MM EP
Found just to the northwest of Kaus Borealis. Showed impressive size, resolved at the edges. A 'chain of stars' effect at the eyepiece. Nice!
110. Messier 28 7-5-14 10:50 Z10 30MM EP
A globular located just to the northeast of Kaus Borealis. It shines at a magnitude of 7.6 and measures 11 arc minutes across. I noted some central concentration with stars resolved at the edges and an interesting chain-like effect of stars heading to the core.
92. Messier 8 7-5-14 10:55 Z10 30MM EP
The famous Lagoon Nebula was visible in the finderscope. Festoons and tendrils of gas were apparent at the eyepiece, giving the appearance of a grey fog with lights embedded within - wow!
93. Messier 20 7-5-14 11:00 Z10 30MM EP
The Trifid Nebula showed well on this eve. Dimmer than M8, it revealed a ghostly glow - nice!
94. Messier 21 7-5-14 11:05 Z10 30MM EP
A very nice open cluster, a jewel box at the eyepiece.
95. Messier 23 7-5-14 11:10 Z10 30MM EP
Another open cluster, just a hop to the northeast of M21.
96. Messier 18 7-5-14 11:15 Z10 30MM EP
Found by slewing to the northwest of M23. Quite a nice view.
97. Messier 25 7-5-14 11:25 Z10 30MM EP
Located to the northwest of M18, very nice open cluster. Noticed some chains of stars with interesting coloration.
98. Messier 30 7-5-14 11:37 Z10 30MM EP
Located it by star-hopping southwest from Nashira. A fine globular, a few stars resolved around the edges.
99. Messier 72 7-6-14 3:30 Z10 30MM EP
Fine globular visible through a Southwestern star hop from Epsilon Aquarii, some condensing of the center noted.
100. Messier 39 7-6-14 12:05 Z10 30MM EP
Swept up this open cluster in Cygnus. I found the shape largely triangular with some bright yellow stars adding an interesting twist to this bright cluster. Found by slewing northwest from Deneb. Thirty to Forty visible stars is what I counted.
101. Messier 73 7-6-14 3:45 Z10 30MM EP
A weird asterism of four stars found just to the west of M72. Unimpressive and one of the strangest objects in Messier's list.
102. Messier 104 7-13-14 9:58 Z10 30MM EP
Found 11 degrees due east of Spica and Mars. First, I found the stargate asterism lying in Corvus through the 15x70's and used this as a pointer to the "jaws" just inside Virgo. Though M104 wasn't visible through the 15x70's due to the murk, I followed this hop with the finderscope to get the jaws into the field of view of the Z10. Slewing just to the west I picked up M104. Definitely elongated, a faint glow against the sky background with perhaps a hint of the central dust lane with averted vision. Need to view again when is higher above the horizon.
103. Messier 11 7-13-14 10:30 Z10 30 MM EP
A fine open cluster located by hopping southwest from Beta Scuti. A real jewel box, resembles a tight cloud of stars.
104. Messier 26 7-13-14 10:45 Z10 30MM EP
Another open cluster, not as impressive as M11, but still worth the view!
105. Messier 17 7-13-14 11:00 Z10 30MM EP
Moved over to Sagittarius to observe M17, the Swan or Checkmark Nebula. Visible in the finderscope, truly a beautiful sight at the eyepiece. Also shows well in the 15x70 binos.
106. Messier 16 7-13-14 11:15 Z10 30MM EP
This was a fairly difficult find. An open cluster with associated nebulosity which wasn't very apparent. Overall, a nice view though.

107. Messier 102 7-13-14 11:30 Z10 30MM EP
Found by hopping in a direct line from M101 to the Northwest in the constellation Draco. 4.7' x 1.9x in size, 102 is an edge on galaxy. A fine view, but it was a little faint, couldn't pick up any signs of the central dust lane. Used averted vision to confirm it.
108. Messier 19 7-13-14 11:50 Z10 30MM EP
Yet another globular in Ophiuchus, I had missed it during my previous trips. Shining at magnitude 7.47 I found it medium-bright and resolved at the edges of its 17' diameter. I found it due west about five degrees from Antares.
109. Messier 24 7-14-14 12:10 Z10 30MM EP - 15x70 binos
The famous Sagittarius star cloud. It was best observed with the 15x70's as a hazy patch with many stars resolved, lying against the Milky Way background. It's a bit too large for its entirety to be viewed in the Z10.
110. Messier 2 7-14-14 03:45 Z10 30MM EP
Located about four degrees north of beta Aquarii, I swept up this fine globular cluster. I found it resolved at the edges and a very nice view, certainly one of the finest in the sky.

Random notes:

- 9-16-2012 Observed two faint glowing nebulosities in the same field of view on the Sagitta/Lyra border in Z10. Looked like faint galaxies. Undoubtedly missed by Messier because they are not in the catalog nor on the charts I am using, which mostly are the Wikipedia constellation charts.
- 10-14-2012 While hunting in Auriga also saw two nebulosities which probably represent IC 405 the flaming star nebula and 10th magnitude IC 410 which is associated with the star cluster NGC 1893. The nebulous regions of IC 410 appeared centered on a trapezoid of stars. Also picked up two additional clusters from the NGC catalog.
- 2-13-2013 While hunting on the border of Leo and Virgo viewed an astonishing number of galaxies. I'm doing my best to identify them both by reviewing their positions on the charts and comparing amateur photos with what is visible at the eyepiece. With the galactic profusion the hard part is not observing them but keeping track of them.