The Insider's Guide to the Galaxy Presents...

Messier Minutes

a guide to completing RASC's Messier Observing Certificate

Part 13 -

August 16th – September 13th, 2022

The following pages include a list of objects discussed in the August 16th, 2022, episode of Messier Minutes. Including finder charts and log pages.

List of Targets Discussed:

August 16 approaching 3rd Quarter; twilight ends after 10 pm; northerly summer Messiers

Messier #	Constellation	Magnitude	Type	NGC	Name
24	Sgr	4.6	OC	-	Small Sagittarius Star Cloud (IC 4715)
18	Sgr	6.9	OC	6613	Black Swan Cluster
17	Sgr	6.0	EN	6618	Omega/Swan Nebula
16	Ser	6.0	EN	-	Eagle Nebula (IC 4703)
25	Sgr	4.6	OC	-	Melotte 204 (IC 4725)
23	Sgr	5.5	OC	6494	Melotte 184
11	Sct	6.3	OC	6705	Wild Duck Cluster
26	Sct	8.0	OC	6694	Melotte 212

Notes:

M24:

(1.5 by 1 degree)

Very large and bright star cloud, visible with unaided eyes and binoculars about a palm's width to the upper right (north) of the peak of the teapot. Or, aim midway between stars Gamma Scuti and Polis. About 10,000 l-y away, in the next inner spiral arm. Use low magnification. Try to trace its shape, note dark patches within, mini-asterisms, and watch for clumps of brightness. Note the glowing H2 of IC 1284 and some small reflection nebulae to the SE.

M18:

(7 arc-minutes)

Small and less bright in a busy area, but easily located just above (or northeast of) M24 or 1 degree below M17. Or, aim midway between stars Gamma Scuti and Polis. Use binoculars and any size of telescope. Estimate the number of stars. Look for star patterns, and stars that differ from the prominent blue stars. 4,900 l-y away.

M17:

(40 by 30 arc-minutes)

A gem! Compact, very bright knot of nebulosity in the next inner spiral arm about 5,500 l-y away. Low in the south, but might be visible with unaided eyes under fine seeing conditions, but binoculars and any size of telescope will do nicely. Located above M24 and M18, just to the right of the line connecting Polis and Gamma Scuti, closer to the latter. Don't magnify it too much (~35x), and see how far the nebula can be traced. The central region resembles a swan floating on the water or the letter Omega, but upside down in refractors and SCTs. Look for structural details, internal stars, and bright

foreground stars to the lower left (SE) and upper right. Use a UHC or OIII filter to enhance it.

M16:

(20 arc-minutes)

A medium-sized, bright nebula near M21 and M8. Possible to see in binoculars, but excellent in all telescopes. Larger apertures will reveal the three lobes divided by dark dust lanes, especially using averted vision. Nebula filters may help a little, but not with the reflection nebula and dark nebula portions. Located just north of bright M8, or more than double the line from Namalsadirah (Phi Sgr) to Kaus Borealis (Lambda Sgr). Watch for the shape and structure, and internal stars, including a bright triple reminiscent of Orion's Trapezium. It shares the FOV with M21. About 5000 l-y away.

M25:

(26 arc-minutes)

Starting back at M24, search for a small knot of stars situated a few finger widths to the left (east) for M25, or look a palm's width above Kaus Borealis (Teapot lid). Unaided eyes can see it under good conditions (moon-sized). Binoculars or any size of telescope will show the brighter stars, any telescope will show the many fainter ones. 2,000 l-y away. Count the stars, look for patterns and any dissimilar stars. Watch for the bright yellow pulsating variable star U Sgr at the northeast edge.

M23:

(25 arc-minutes)

Back to M24, now search several degrees to the right (west) for M23, a medium-bright, medium-sized open cluster on the line between Polis and Xi Serpens. You will need binoculars to see the main stars, or any size of telescope to capture the many fainter stars. Note its degree of concentration, star pattens and shapes, any dissimilar stars, count the stars. Watch for lack of background stars. About 2,100 l-y away.

M11:

(14 arc-minutes)

A gem! Small, but bright and compact mass of stars – the most distant open cluster that can be seen with unaided eyes under fine conditions. A good height above the horizon for Canadians, it's located a thumb's width to the lower left of Beta Scuti. Or, continue the curve of stars in Aquila's tail. Binoculars work well, but in a telescope at medium magnification (~60x) it is terrific. Look for the shape – is it a flying V or a Borg cube? Count the stars and look for different types.

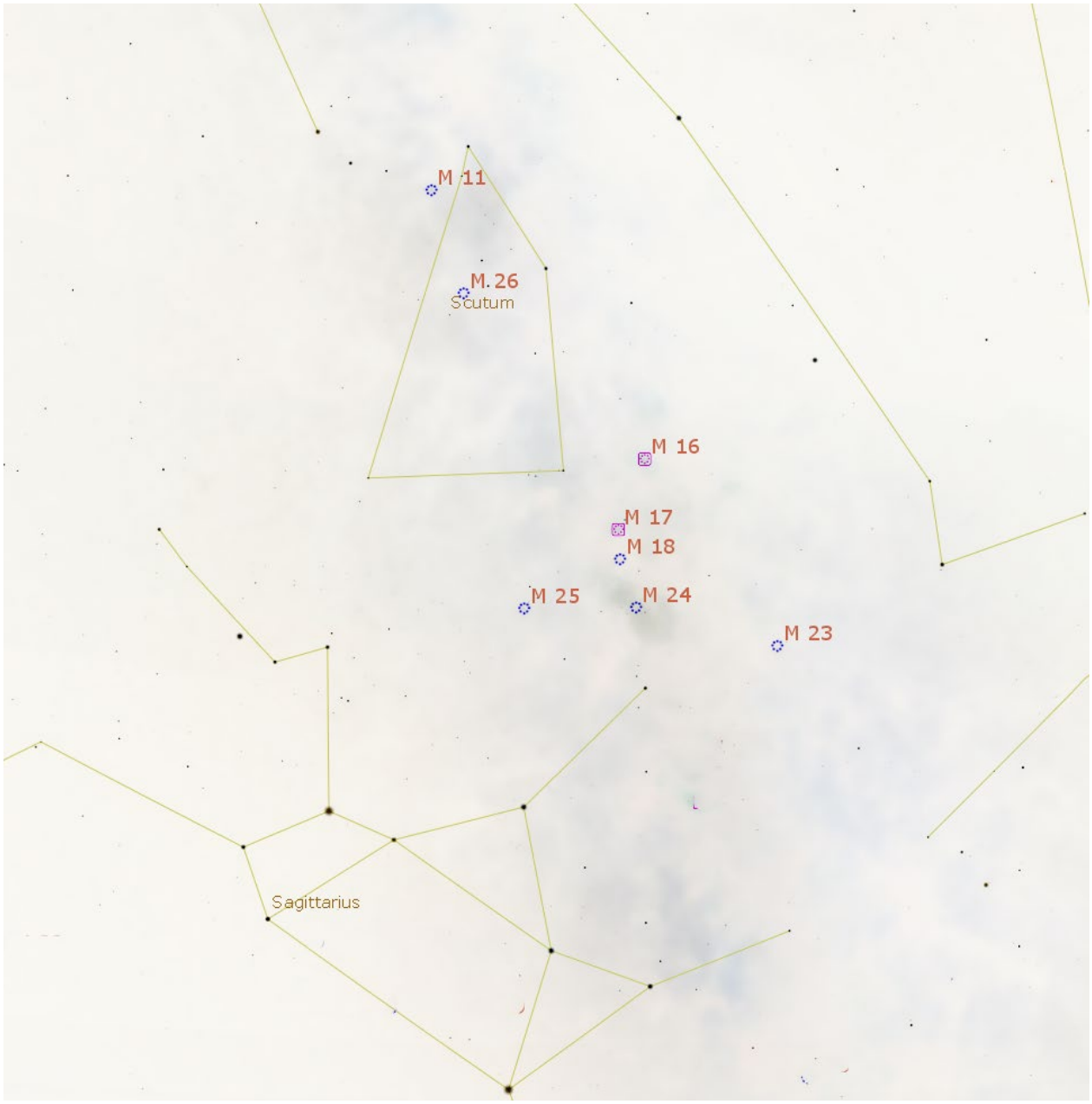
M26:

(10 arc-minutes)

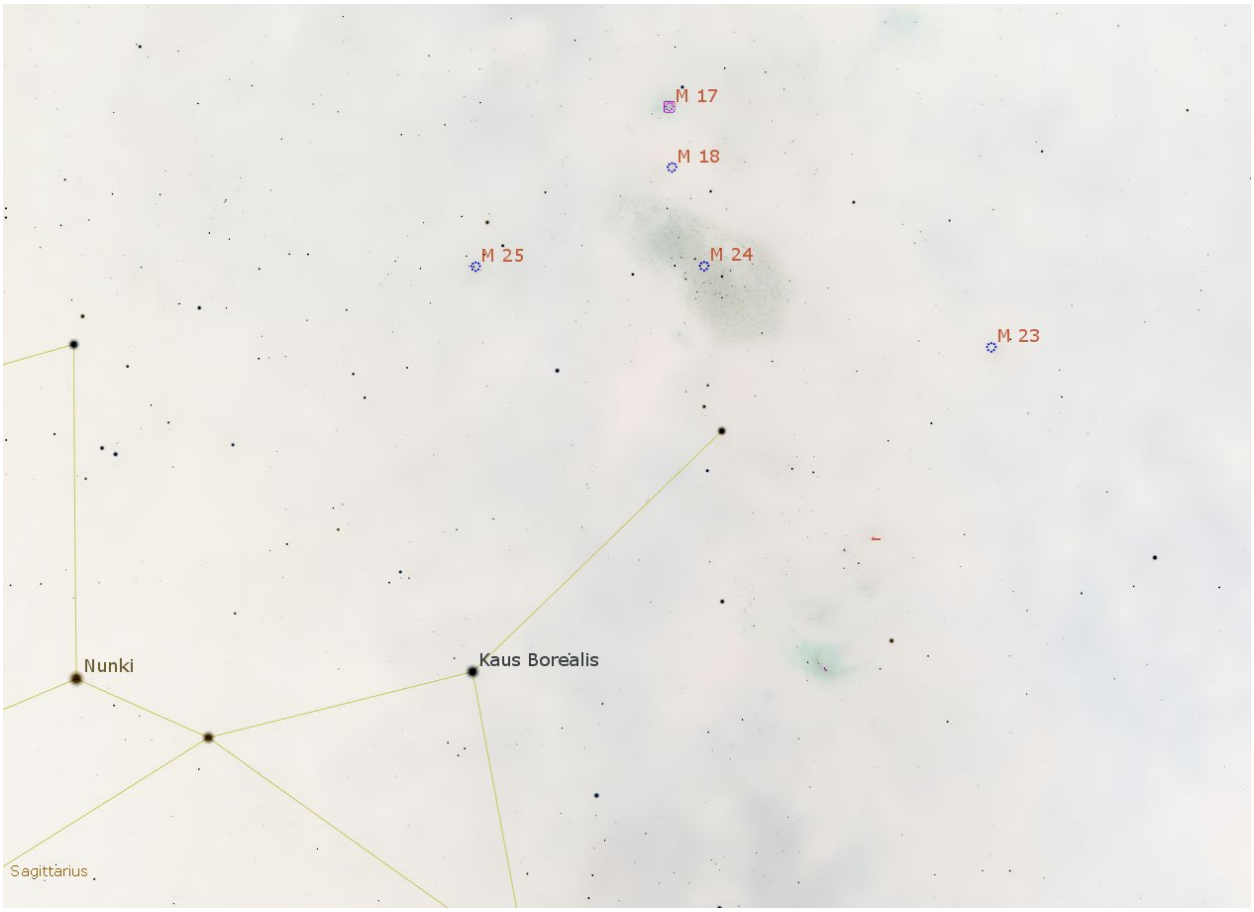
Small, faint open cluster in central Scutum, about 3° to the lower left of star Alpha Scuti, extending the line toward Delta Scuti by 50%. Use binoculars, or any size of the telescope. Larger apertures will show more fainter stars. Note the unusual central density and cluster’s shape and look for star patterns and star types.

Target Finder Charts:

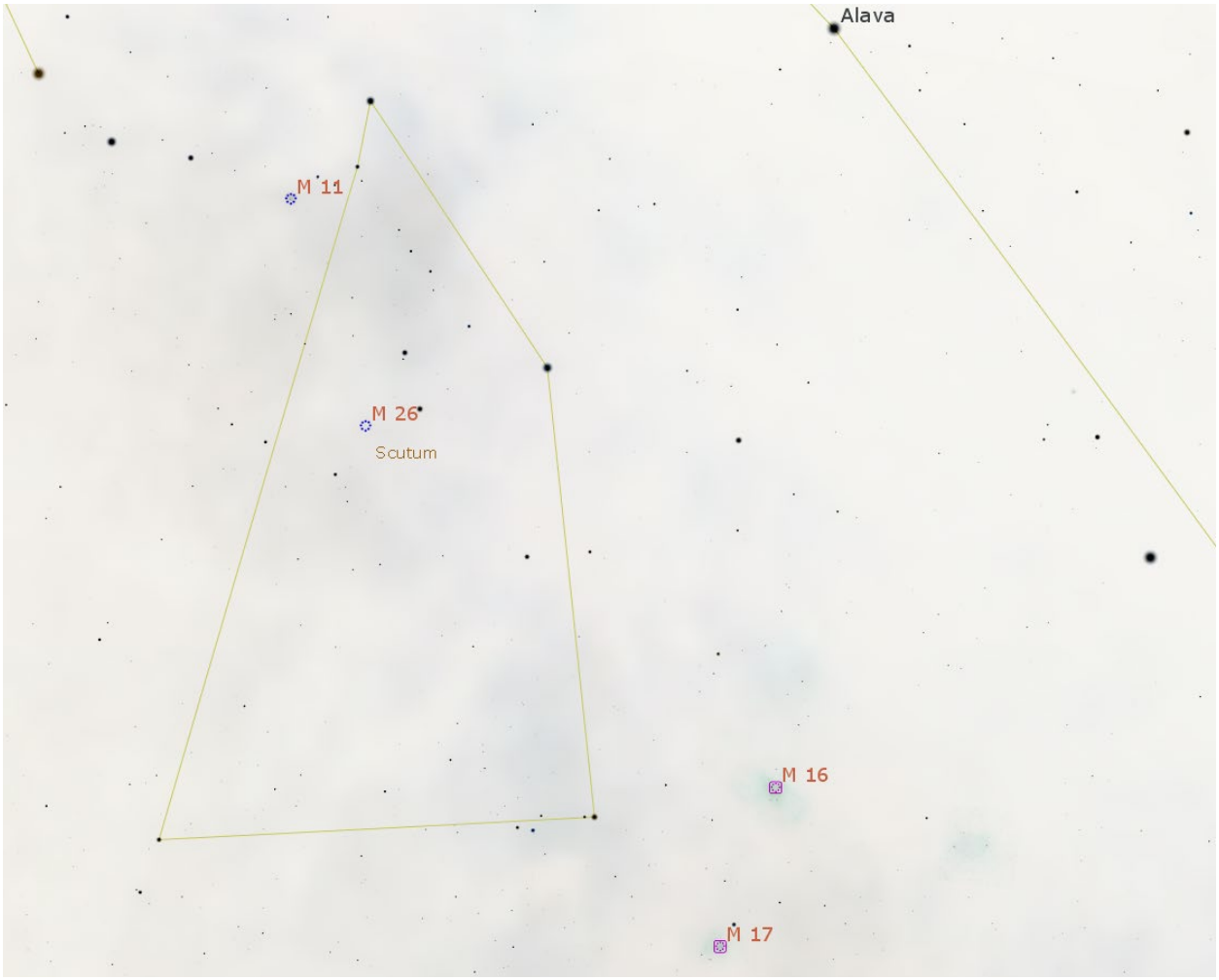
Overview of Targets -



M17, M18, M25, M24,& M23 Closer View –



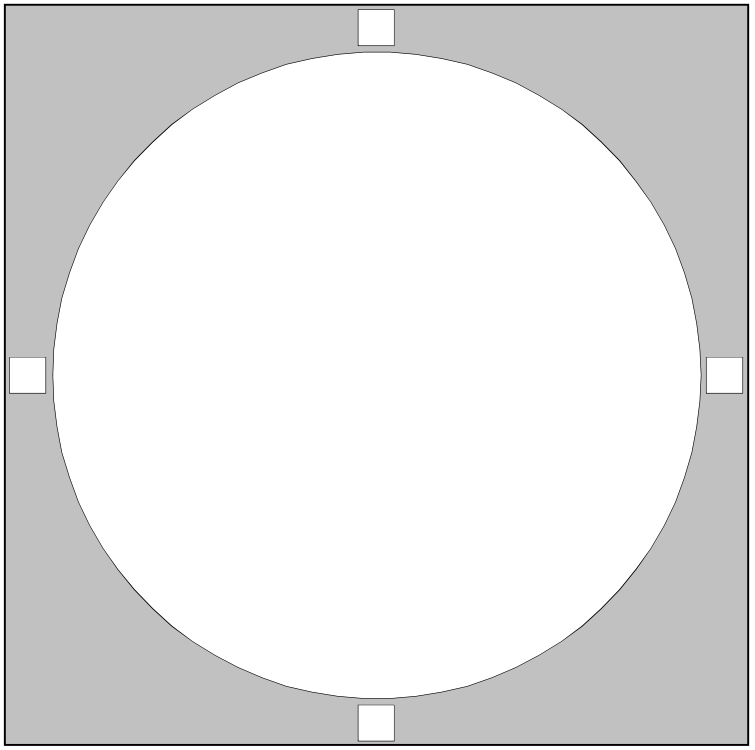
M11, M26, & M16 Closer View –



RASC Messier Objects - M24

Sagittarius Star Cloud. Delle Caustiche

Messier Object	**M24**		
NGC	**>6603**		
Constellation	**Sagittarius**		
Type	**Star Cloud**		
Magnitude	**4.6**		
Distance (Kilo light-years)	**10**		
RA	**18 16.5**		
Dec	**-18:50**		
Size	**95.0' x 35.0'**		
UM I	UM II	**294,339,340**	**145**
SA	**15, 16, 22**		
Remarks	**rich star cloud; best in big binoculars**		
Time (hh:mm)			
Seeing	1 2 3 4 5		
Transparency	1 2 3 4 5		
Observing Location			
Telescope			
Date (dd:mm:yyyy)			

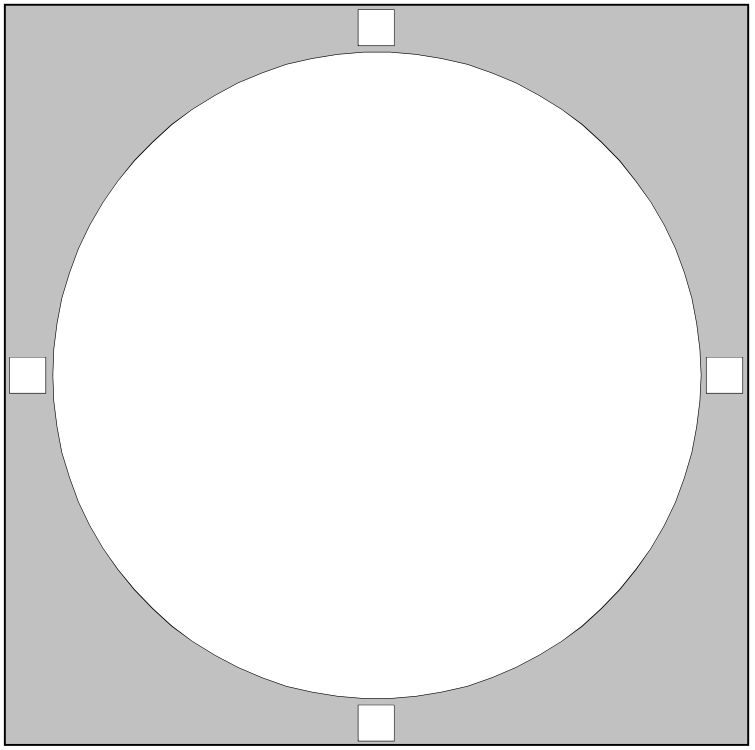


Notes

PN: Planetary Nebula	RN: (diffuse) Reflection Nebula	Seeing: 1 = Best 5 = Poor	* = Number of stars in cluster
SNR: Supernova Remnant	EN: (diffuse) Emission Nebula	Transparency: 1 = Best 5 = Poor	** p = Photographic Magnitude
GC: Globular Cluster	G-: Galaxy, with Hubble type given	Time: DD:MM:YYYY	*** !! = Showpiece Object
OC: Open Cluster	E/RN: Diffuse emission and reflection Nebula	Date: Specify Time Zone or UT	http://www.rasc.ca

RASC Messier Objects - M18

Messier Object	**M18**		
NGC	**6613**		
Constellation	**Sagittarius**		
Type	**Open Cluster**		
Magnitude	**6.9**		
Distance (Kilo light-years)	**4.9**		
RA	**18 19.9**		
Dec	**-17:08**		
Size	**10.0'**		
UM I	UM II	**294,295,339,340**	**126,145**
SA	**15, 16, 22**		
Remarks	**sparse cluster; one degree south of M17**		
Time (hh:mm)			
Seeing	1 2 3 4 5		
Transparency	1 2 3 4 5		
Observing Location			
Telescope			
Date (dd:mm:yyyy)			



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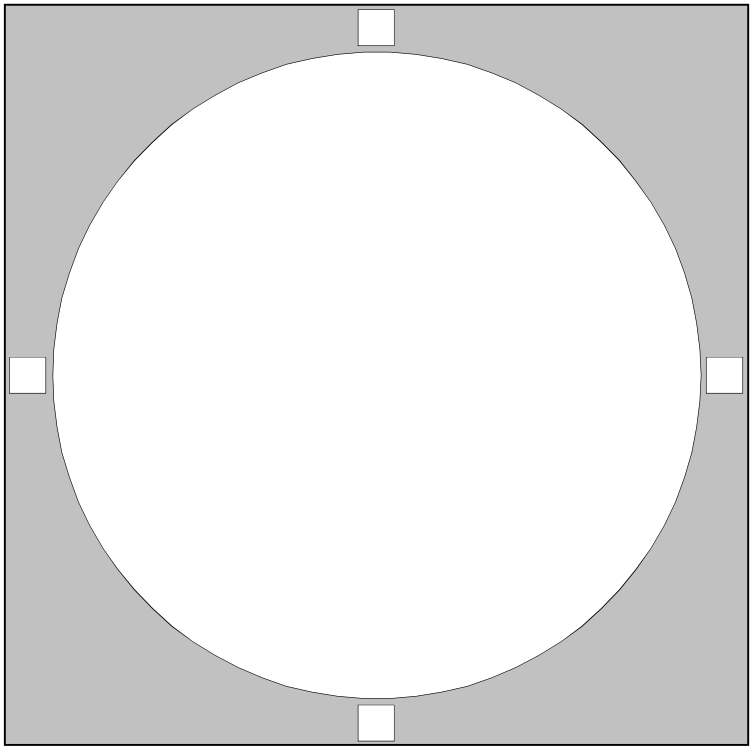
RASC Messier Objects - M17

Omega. Swan. Horseshoe. or Lobster Nebula

Messier Object	**M17**		
NGC	**6618**		
Constellation	**Sagittarius**		
Type	**Emission Nebula**		
Magnitude	**na**		
Distance (Kilo light-years)	**5**		
RA	**18 20.8**		
Dec	**-16:11**		
Size	**20.0' x 15.0'**		
UM I	UM II	**294,295,339,340**	**126**
SA	**15, 16**		
Remarks	**!! Swan or Omega nebula; use nebular filter**		
Time (hh:mm)			
Seeing	1 2 3 4 5		
Transparency	1 2 3 4 5		
Observing Location			
Telescope			
Date (dd:mm:yyyy)			



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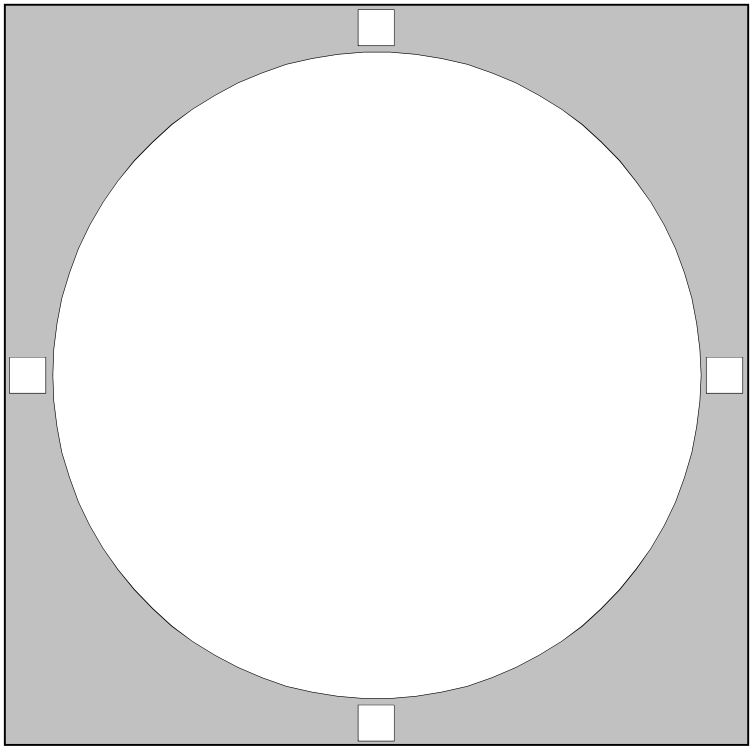
RASC Messier Objects - M16

Eagle Nebula

Messier Object	**M16**		
NGC	**6611**		
Constellation	**Serpens**		
Type	**Emission Nebula+Open Cluster**		
Magnitude	**na**		
Distance (Kilo light-years)	**7**		
RA	**18 18.6**		
Dec	**-13:58**		
Size	**35.0' x 28.0'**		
UM I	UM II	**294**	**126**
SA	**15, 16**		
Remarks	**Eagle Nebula with Open Cluster; use nebular filter**		
Time (hh:mm)			
Seeing	1 2 3 4 5		
Transparency	1 2 3 4 5		
Observing Location			
Telescope			
Date (dd:mm:yyyy)			



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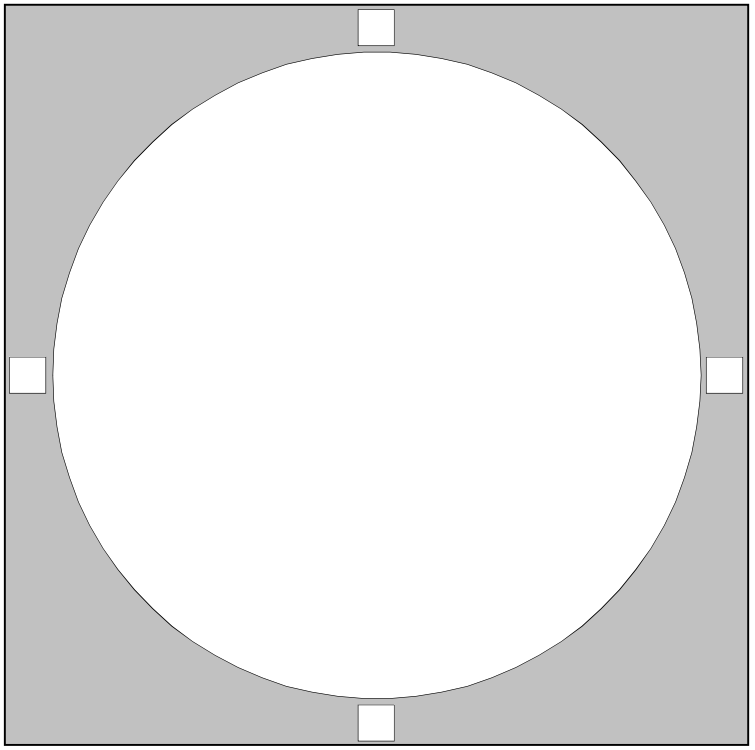
SNR: Supernova Remnant	EN: (diffuse) Emission Nebula	Transparency: 1 = Best 5 = Poor	** p = Photographic Magnitude
GC: Globular Cluster	G-: Galaxy, with Hubble type given	Time: DD:MM:YYYY	*** !! = Showpiece Object
OC: Open Cluster	E/RN: Diffuse emission and reflection Nebula	Date: Specify Time Zone or UT	http://www.rasc.ca

RASC Messier Objects - M25

Messier Object	**M25**		
NGC	**IC4725**		
Constellation	**Sagittarius**		
Type	**Open Cluster**		
Magnitude	**4.6**		
Distance (Kilo light-years)	**2**		
RA	**18 31.6**		
Dec	**-19:15**		
Size	**32.0'**		
UM I	UM II	**340**	**145**
SA	**15, 16, 22**		
Remarks	**bright but sparse open cluster**		
Time (hh:mm)			
Seeing	1 2 3 4 5		
Transparency	1 2 3 4 5		
Observing Location			
Telescope			
Date (dd:mm:yyyy)			



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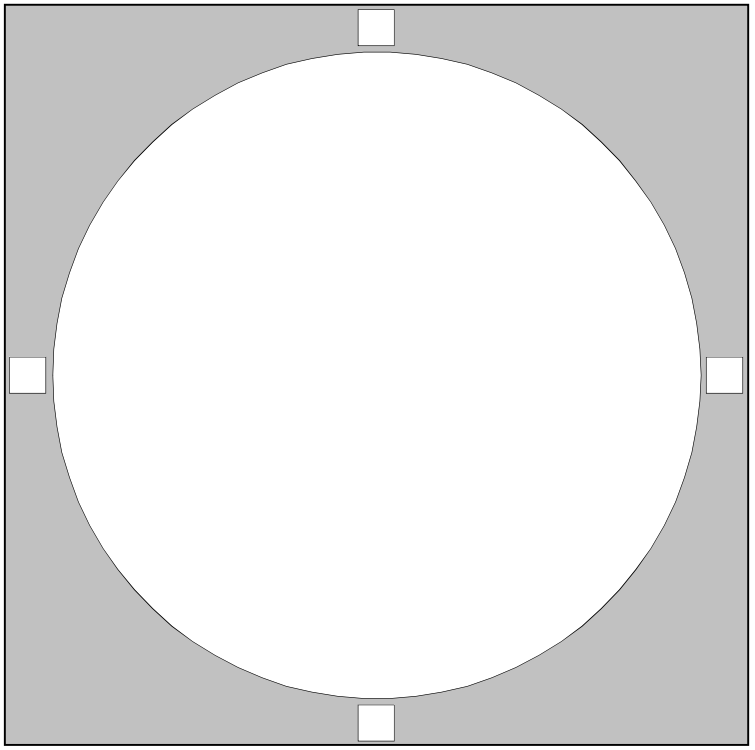
RASC Messier Objects - M23

Messier Object	**M23**		
NGC	**6494**		
Constellation	**Sagittarius**		
Type	**Open Cluster**		
Magnitude	**5.5**		
Distance (Kilo light-years)	**2.15**		
RA	**17 56.8**		
Dec	**-19:01**		
Size	**27.0'**		
UM I	UM II	**388,339**	**145,146**
SA	**15, 22**		
Remarks	**bright, loose open cluster**		
Time (hh:mm)			
Seeing	1 2 3 4 5		
Transparency	1 2 3 4 5		
Observing Location			
Telescope			
Date (dd:mm:yyyy)			



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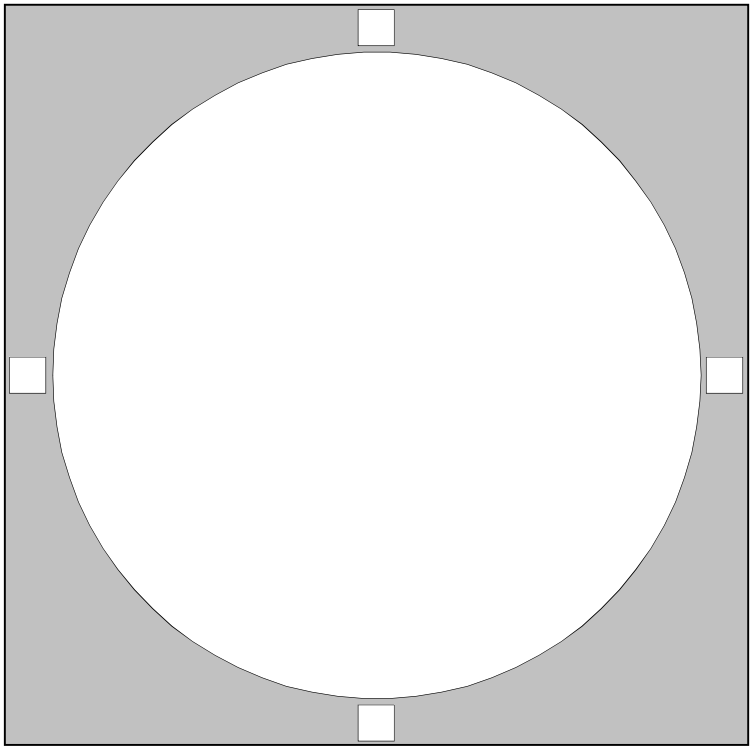
GC: Globular Cluster	G-: Galaxy, with Hubble type given	Time: DD:MM:YYYY	*** !! = Showpiece Object
OC: Open Cluster	E/RN: Diffuse emission and reflection Nebula	Date: Specify Time Zone or UT	http://www.rasc.ca

RASC Messier Objects - M11

Wild Duck Cluster

Messier Object	**M11**		
NGC	**6705**		
Constellation	**Scutum**		
Type	**Open Cluster**		
Magnitude	**5.8**		
Distance (Kilo light-years)	**6**		
RA	**18 51.1**		
Dec	**-06:16**		
Size	**13.0'**		
UM I	UM II	**295**	**125,A14**
SA	**15, 16**		
Remarks	**!! Wild Duck cluster; the best open cluster?**		
Time (hh:mm)			
Seeing	1 2 3 4 5		
Transparency	1 2 3 4 5		
Observing Location			
Telescope			
Date (dd:mm:yyyy)			



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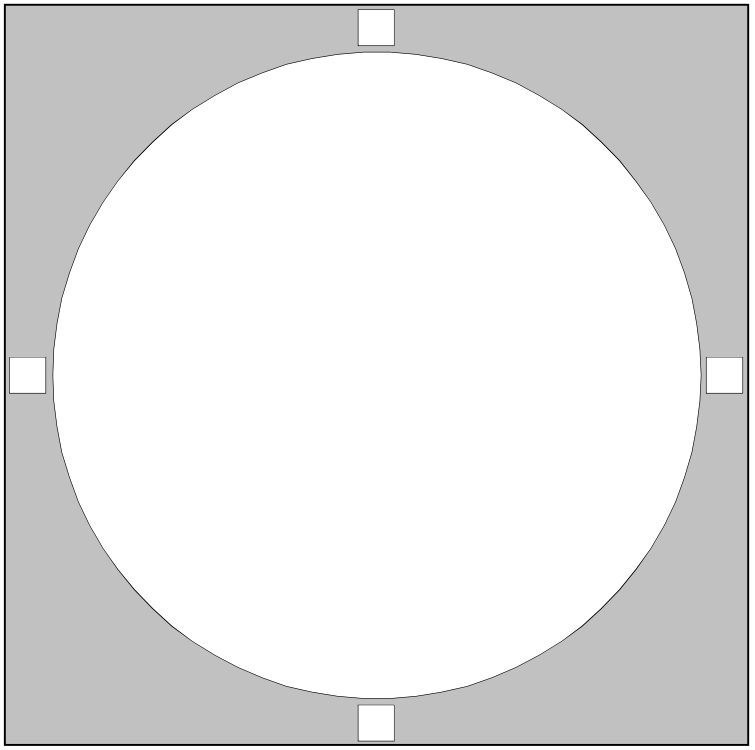
RASC Messier Objects - M26

Messier Object	**M26**		
NGC	**6694**		
Constellation	**Scutum**		
Type	**Open Cluster**		
Magnitude	**8.0**		
Distance (Kilo light-years)	**5**		
RA	**18 45.2**		
Dec	**-09:24**		
Size	**14.0'**		
UM I	UM II	**295**	**125**
SA	**15, 16**		
Remarks	**bright, course cluster**		
Time (hh:mm)			
Seeing	1 2 3 4 5		
Transparency	1 2 3 4 5		
Observing Location			
Telescope			
Date (dd:mm:yyyy)			



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