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, miniasterisms, 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.

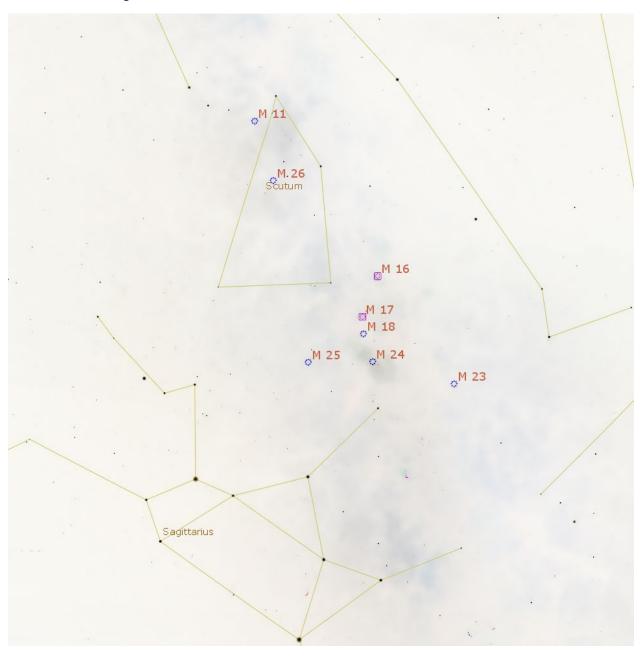
M26:

(10 arc-minutes)

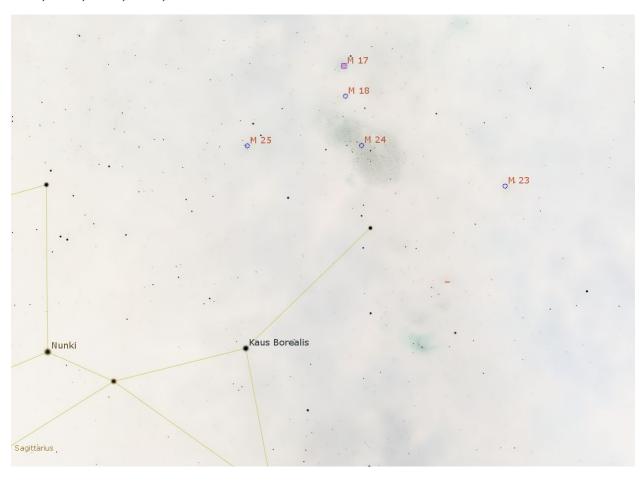
Small, faint open cluster in central Scutum, about 3° to the lower left of star Alpha Scuti, extending the line toward Delta Scuti by 50%. Use binoculars, or any size of the telescope. Larger apertures will show more fainter stars. Note the unusual central density and cluster's shape and look for star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

Target Finder Charts:

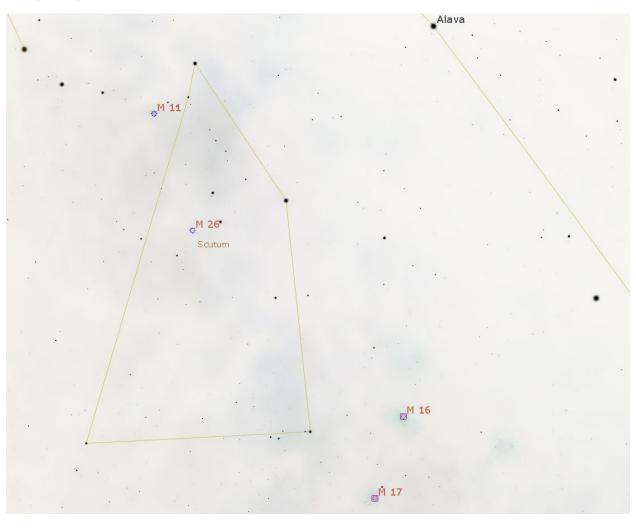
Overview of Targets -



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

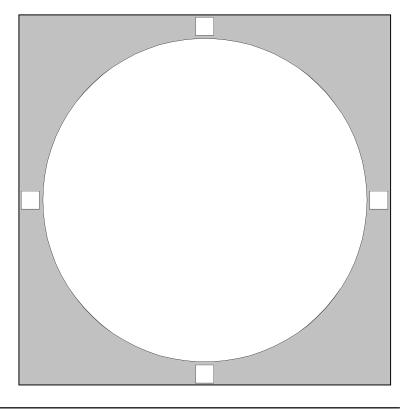


M11, M26, & M16 Closer View -



Sagittarius Star Cloud. Delle Caustiche

	_							
N	Messier Object	M	24					
	NGC	>6	60.	3				
	Constellation	Sa	git	tar	ius	;		
	Type	Sta	ar (Clo	oud			
	Magnitude	4.6	5					
Distance (K	(ilo light-years	10						
	RA	18	16	.5				
	Dec	-18	8:5	0				
	Size	95	.0'	x 3	35.0)'		
UM I	UM II	29	4,3	39,	,34	0		145
	SA	15	, 10	5, 2	22			
	Remarks	ric	h s	stai	r cl	oud	; be	st in big
		bii	noc	cula	ars			
	Time (hh:mm)							
	Seeing	1	2	3	4	5		
	Transparency	1	2	3	4	5		
Obse	rving Location							
	Telescope							
Date	e (dd:mm:yyyy)							



Notes			

PN: Planetary Nebula
SNR: Supernova Remnant
GC: Globular Cluster
OC: Open Cluster

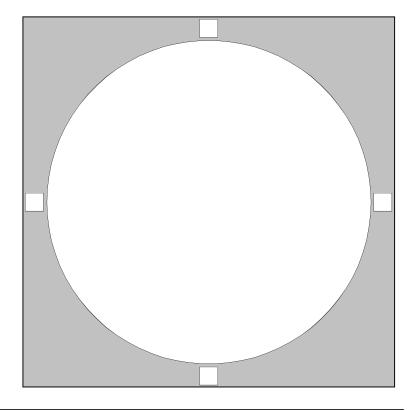
RN: (diffuse) Reflection Nebula
EN: (diffuse) Emission Nebula
G-: Galaxy, with Hubble type given
E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor Transparency: 1 = Best 5 = Poor Time: DD:MM:YYYY

Time: DD:MM:YYYY
Date: Specify Time Zone or UT

* = Number of stars in cluster ** p = Photographic Magnitude ***!! = Showpiece Object http://www.rasc.ca

		10				
lessier Object	M	18				
NGC	66	13				
Constellation	Sa	git	tar	ius	}	
Туре	Oj	pen	C	lus	ter	
Magnitude	6.9)				
ilo light-years)	4.9)				
RA	18	19	.9			
Dec	-1'	7:0	8			
Size	10	.0'				
UM II	29	4,2	95,	,33	9,340	126,145
SA	15	, 10	5, 2	22		•
Remarks	sp	ars	e c	lus	ter; on	e degree south of
	M	17				_
Γime (hh:mm)						
Seeing	1	2	3	4	5	
Transparency	1	2	3	4	5	
ving Location						
Telescope						
(dd:mm:yyyy)						
	Constellation Type Magnitude ilo light-years) RA Dec Size UM II SA Remarks Fime (hh:mm) Seeing Transparency	NGC 66 Constellation Sa Type Op Magnitude 6.9 ilo light-years) 4.9 RA 18 Dec -1' Size 10 UM II 29 SA 15 Remarks sp M Time (hh:mm) Seeing 1 Transparency 1 ving Location Telescope	NGC 6613 Constellation Sagit Type Open Magnitude 6.9 ilo light-years) 4.9 RA 18 19 Dec -17:0 Size 10.0' UM II 294,2 SA 15, 10 Remarks spars M17 Fime (hh:mm) Seeing 1 2 Transparency 1 2 ving Location Telescope	NGC 6613 Constellation Sagittar Type Open C Magnitude 6.9 ilo light-years) 4.9 RA 18 19.9 Dec -17:08 Size 10.0' UM II 294,295 SA 15, 16, 2 Remarks sparse c M17 Time (hh:mm) Seeing 1 2 3 Transparency 1 2 3 ving Location Telescope	NGC 6613 Constellation Sagittarius Type Open Clus Magnitude 6.9 ilo light-years) 4.9 RA 18 19.9 Dec -17:08 Size 10.0' UM II 294,295,33 SA 15, 16, 22 Remarks sparse clus M17 Time (hh:mm) Seeing Seeing 1 2 3 4 Ving Location Telescope	NGC 6613 Constellation Sagittarius Type Open Cluster Magnitude 6.9 ilo light-years) 4.9 RA 18 19.9 Dec -17:08 Size 10.0' UM II 294,295,339,340 SA 15, 16, 22 Remarks sparse cluster; on M17 Time (hh:mm) Seeing 1 2 3 4 5 Transparency 1 2 3 4 5 ving Location Telescope



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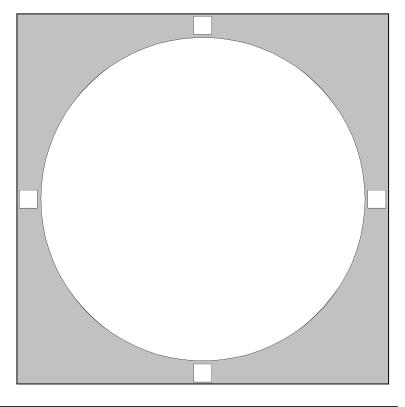
Date: Specify Time Zone or UT

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Omega. Swan. Horseshoe. or Lobster Nebula

Messier Object	M	17				
NGC	66	18				
Constellation	Sa	git	tar	ius	}	
Туре	Er	nis	sio	n N	lebula	
Magnitude	na	1				
ilo light-years)	5					
RA	18	20	.8			
Dec	-10	6:1	1			
Size	20	.0'	x 1	5.0)'	
UM II	29	4,2	95,	,339	9,340	126
SA	15	, 10	5		,	•
Remarks	!!	Św	an	or	Omega	nebula; use
	ne	bu	lar	fili	ter	•
Time (hh:mm)						
Seeing	1	2	3	4	5	
Transparency	1	2	3	4	5	
rving Location						
Telescope						
	Constellation Type Magnitude Kilo light-years) RA Dec Size UM II SA Remarks Time (hh:mm) Seeing Transparency rving Location Telescope	NGC 66 Constellation Sa Type En Magnitude na Kilo light-years) 5 RA 18 Dec -10 Size 20 UM II 29 SA 15 Remarks !! ne Time (hh:mm) Seeing 1 Transparency 1 rving Location Telescope	NGC 6618 Constellation Sagit Type Emis Magnitude na Kilo light-years) 5 RA 18 20 Dec -16:1 Size 20.0' UM II 294,2 SA 15, 16 Remarks !! Sw nebu Time (hh:mm) Seeing 1 2 Transparency 1 2 rving Location Telescope	NGC 6618 Constellation Sagittar Type Emissio Magnitude na Kilo light-years) 5 RA 18 20.8 Dec -16:11 Size 20.0' x 1 UM II 294,295 SA 15, 16 Remarks !! Swan nebular Time (hh:mm) Seeing Transparency 1 2 3 rving Location	NGC 6618 Constellation Sagittarius Type Emission N Magnitude na Kilo light-years 5 RA 18 20.8 Dec -16:11 Size 20.0' x 15.0 UM II 294,295,33 SA 15, 16 Remarks !! Swan or nebular file Time (hh:mm) Seeing 1 2 3 4 Transparency 1 2 3 4 rving Location Telescope	NGC 6618 Constellation Sagittarius Type Emission Nebula Magnitude na Kilo light-years 5 RA 18 20.8 Dec -16:11 Size 20.0' x 15.0' UM II 294,295,339,340 SA 15, 16 Remarks !! Swan or Omeganebular filter Time (hh:mm) Seeing 1 2 3 4 5 Transparency 1 2 3 4 5 rving Location Telescope



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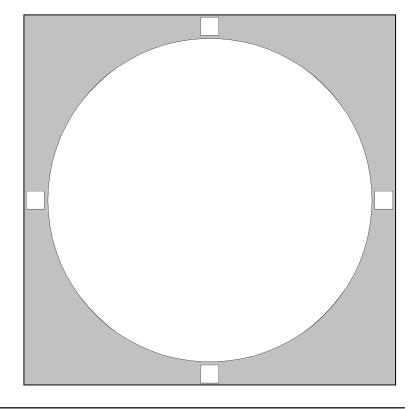
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Time: DD:MM:YYYY
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Eagle Nebula

Messier Object 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)		5 1 011	3 7 4 2				
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 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							
Type Magnitude na		NGC	6611				
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		Constellation	Serp	ens	3		
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		Type	Emi	ssio	n N	Nebula	a+Open Cluster
RA		Magnitude	na				
Dec -13:58	Distance (k	(ilo light-years	7				
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		RA	18 18	3.6			
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		Dec	-13:5	58			
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		Size	35.0	x 2	28.0)'	
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	UM I	UM II	294				126
Time (hh:mm) Seeing 1 2 3 4 5 Transparency 1 2 3 4 5 Observing Location Telescope		SA	15, 1	6			·
Time (hh:mm) Seeing 1 2 3 4 5 Transparency 1 2 3 4 5 Observing Location Telescope		Remarks	Eagl	e N	ebi	ula wi	th Open Cluster;
Seeing 1 2 3 4 5 Transparency 1 2 3 4 5 Observing Location Telescope			use 1	ieb	ula	r filte	r
Transparency 1 2 3 4 5 Observing Location Telescope		Time (hh:mm)					
Observing Location Telescope		Seeing	1 2	3	4	5	
Telescope		Transparency	1 2	3	4	5	
Telescope	Obse	rving Location					
Date (dd:mm:yyyy)		Telescope					
	Date	e (dd:mm:yyyy)					



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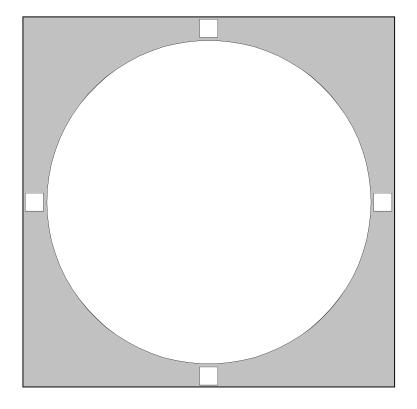
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Me	ssier Object	M	25						
	NGC	IC	<u> </u>	25					
C	onstellation	Sa	ıgit	tar	ius				
	Type	O	per	ı C	lus	ter			
	Magnitude	4.0	6						
Distance (Kilo	light-years)	2							
	RA	18	31	.6					
	Dec	-1	9:1	5					
	Size								
UM I	UM II	34	340 145				145		
·	SA	15	5, 10	6, 2	22				
	Remarks	br	igh	nt b	ut	spa	rse	open cluster	
								_	
Ti	me (hh:mm)								
	Seeing	1	2	3	4	5			
T	ransparency	1	2	3	4	5			
Observi	ng Location								
	Telescope								
Date (dd:mm:yyyy)								



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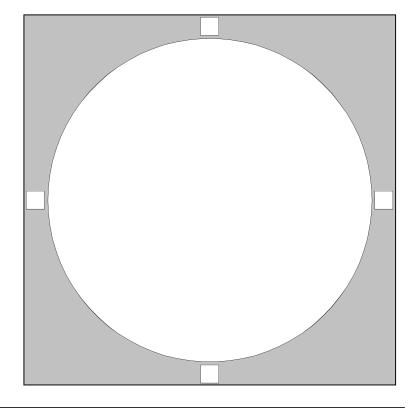
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Messier Obje	et M23
NG	C 6494
Constellation	n Sagittarius
Туӷ	e Open Cluster
Magnitud	le 5.5
Distance (Kilo light-yea	rs) 2.15
R	A 17 56.8
De	c -19:01
Siz	e 27.0 '
UM I UM	II 388,339 145,146
S	A 15, 22
Remark	s bright, loose open cluster
	•
Time (hh:mm	
Seein	g 1 2 3 4 5
Transparence	y 1 2 3 4 5
Observing Location	n
Telescop	ne
Date (dd:mm:yyyy	



Notes			
	 	 _	

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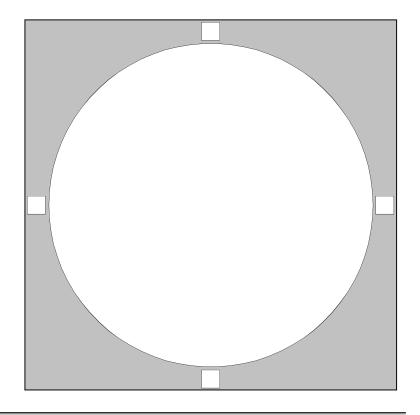
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Wild Duck Cluster

1	<i>I</i> . O1 . (N #	11					
N	Messier Object	M						
	NGC	67	<u>05</u>					
	Constellation	Sc	utı	ım				
	Type	O	pen	C	lus	ter		
	Magnitude	5.8	3					
Distance (K	(ilo light-years	6						
	RA	18	51	.1				
	Dec	-0	6:1	6				
	Size	13	.0'					
UM I	UM II	29	5					125,A14
	SA	15	, 10	6				
	Remarks	!!	Wi	ld	Du	ck	clust	er; the best open
		clı	ıste	er?				
,	Time (hh:mm)							
	Seeing	1	2	3	4	5		
	Transparency	1	2	3	4	5		
Obser	ving Location							
	Telescope							
Date	e (dd:mm:yyyy)							



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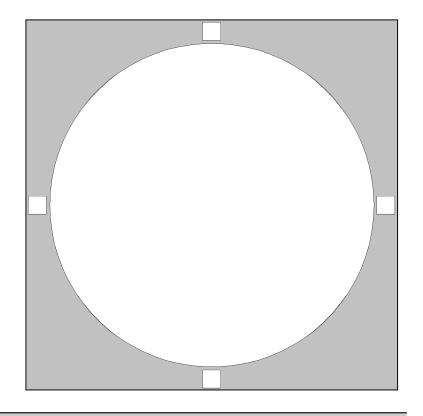
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Me	ssier Object	M26						
	NGC	6694						
C	onstellation	Scutu	ım					
	Туре	Open		lus	ter			
	Magnitude	8.0						
Distance (Kilo	light-years)	5						
	RA	18 45	.2					
	Dec	-09:2	4					
	Size	14.0'						
UM I	UM II	295					125	
	SA	15, 10	5					
	Remarks	brigh	it, c	cou	rse	clust	er	
Ti	me (hh:mm)							
	Seeing	1 2	3	4	5			
T	ransparency	1 2	3	4	5			
	ng Location							
	Telescope							
Date (dd:mm:yyyy)							



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