

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

Messier Minutes

a guide to completing RASC's Messier Observing Certificate



Part 2 -

February 1st – 14th, 2022

The following pages include a list of objects discussed in the February 1st, 2022, episode of Messier Minutes. Including finder charts and log pages.

List of Targets Discussed:

Early Evening Targets (7 – 8 pm)

Note: The following targets are already west of the meridian at the end of astronomical twilight. So try to catch them on the “moonless” Feb 1st – 3rd, 2022 or wait until autumn

Messier #	Constellation	Magnitude	Type	NGC	Name
77	Cet	8.9	SG	1068	Cetus A/Arp 37
74	Psc	9.4	SG	628	Phantom Galaxy
31	And	3.4	SG	224	Andromeda Galaxy
32	And	8.1	EG	221	Companion of M31/Arp 168
110	And	8.1	SG	205	Companion of M31/UGC426
33	Tri	5.7	SG	598	Triangulum Galaxy & Internal NGCs

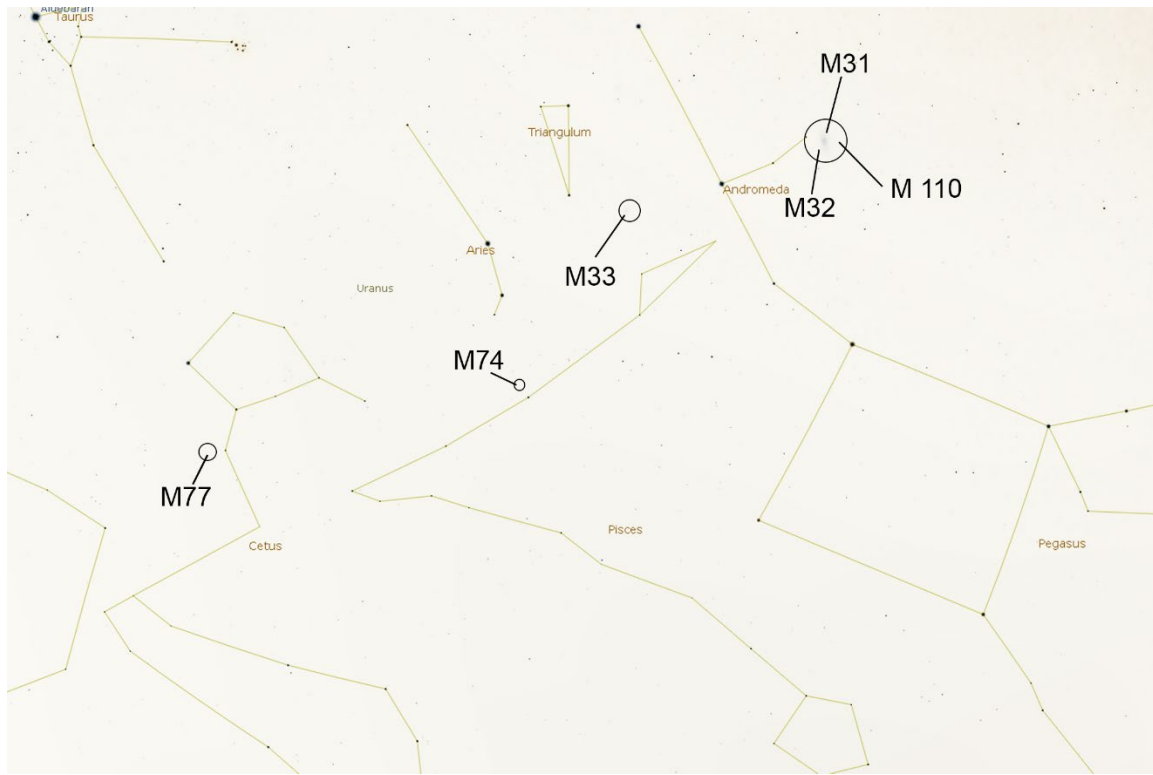
Later Evening Targets (8 – 10 pm)

Nebulae in Orion are fainter and prefer moonless nights the week of Feb 1st, 2022, or Feb 23rd – March 3rd, 2022. M79 Globular cluster is low – try to catch it ASAP!

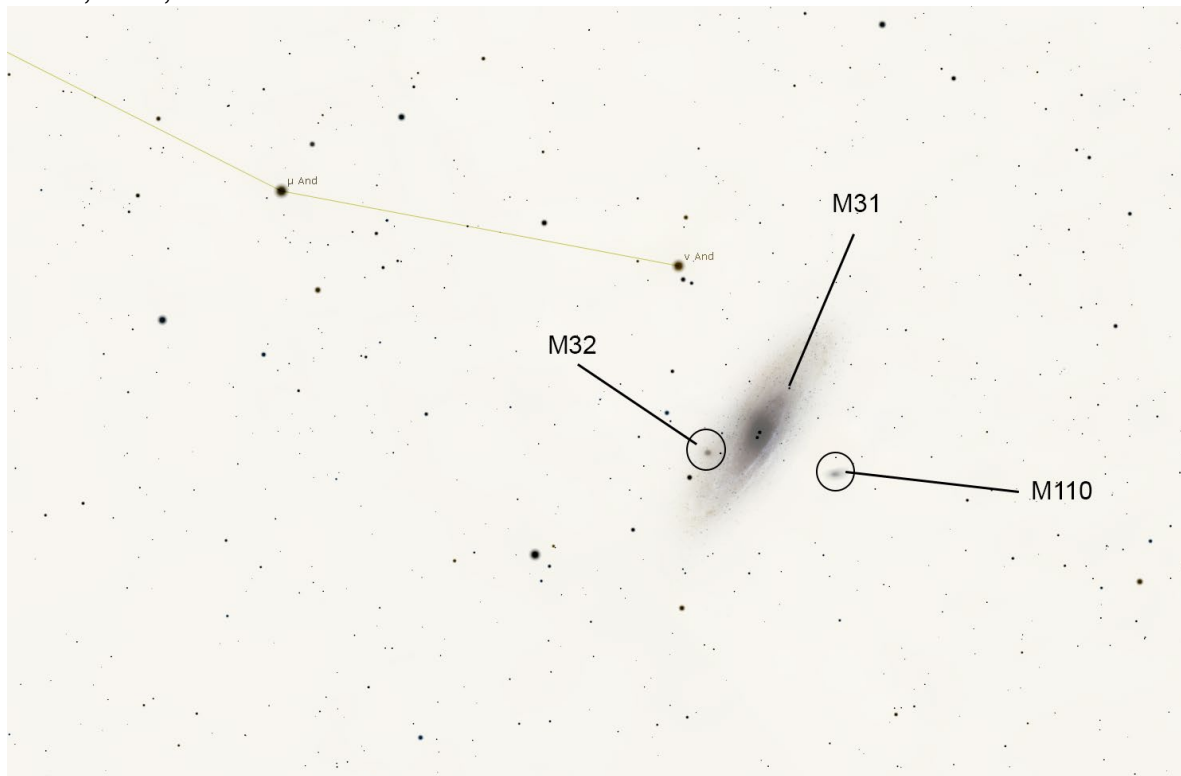
Messier #	Constellation	Magnitude	Type	NGC	Name
1	Tau	8.4	SN	1952	Crab Nebula
43	Ori	9.0	EN/RN	1982	De Mairan's Nebula
42	Ori	4.0	EN/RN	1976	Great Orion Nebula
78	Ori	8.3	RN	2068	Casper the Friendly Ghost Nebula
79	Lep	8.6	GC	1904	Melotte 34

Early Evening Targets Finder Charts:

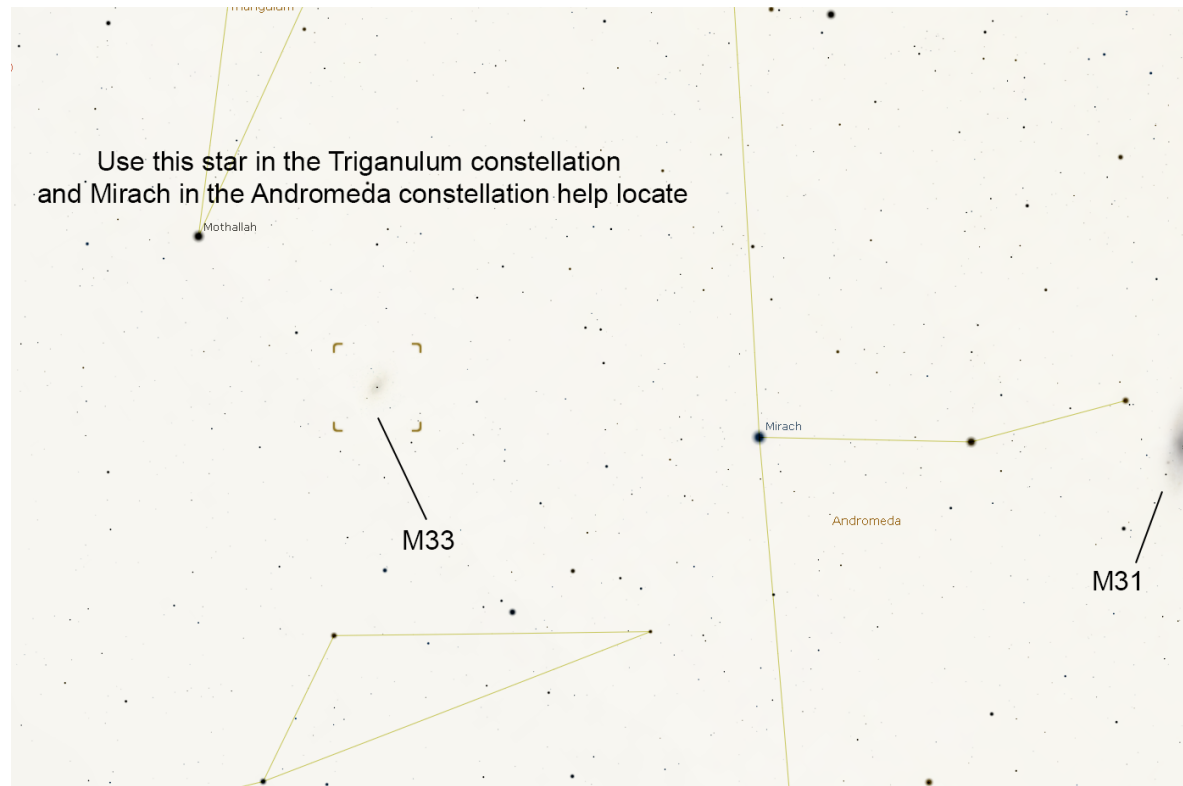
Overview of Targets –



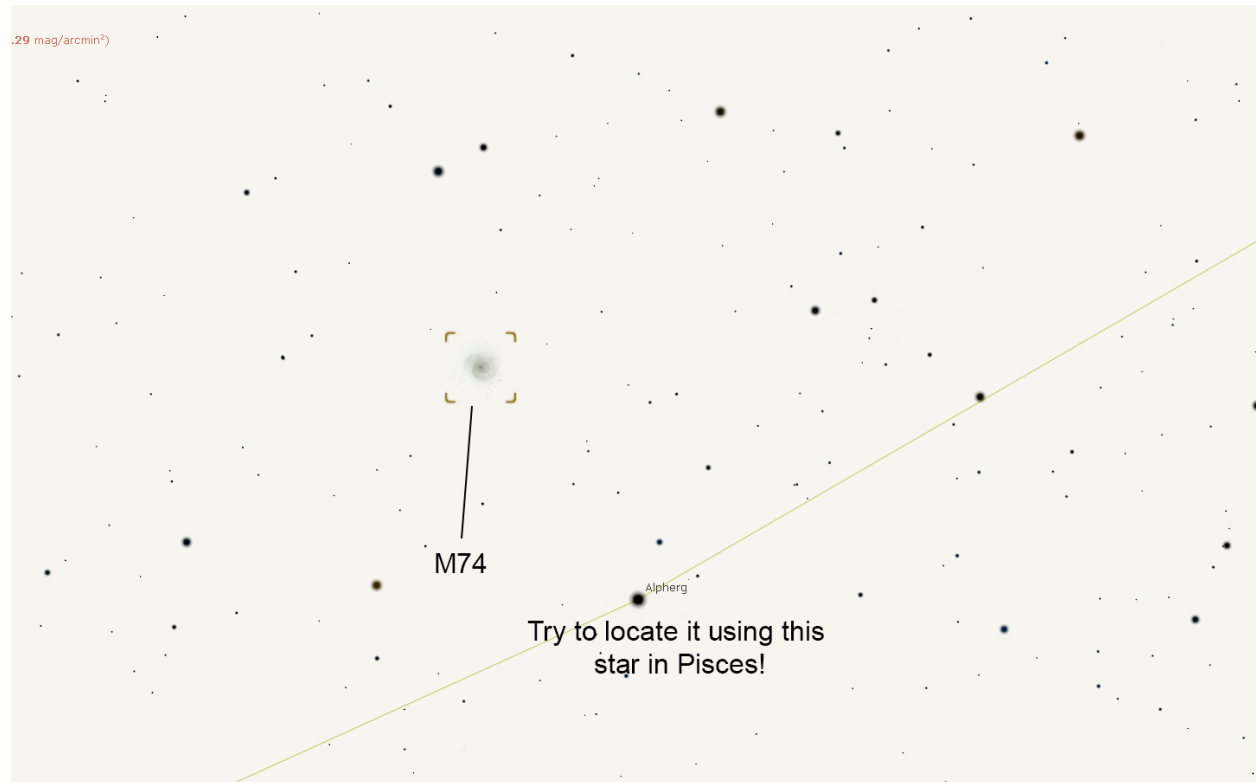
M31, M32, M110 Closer View



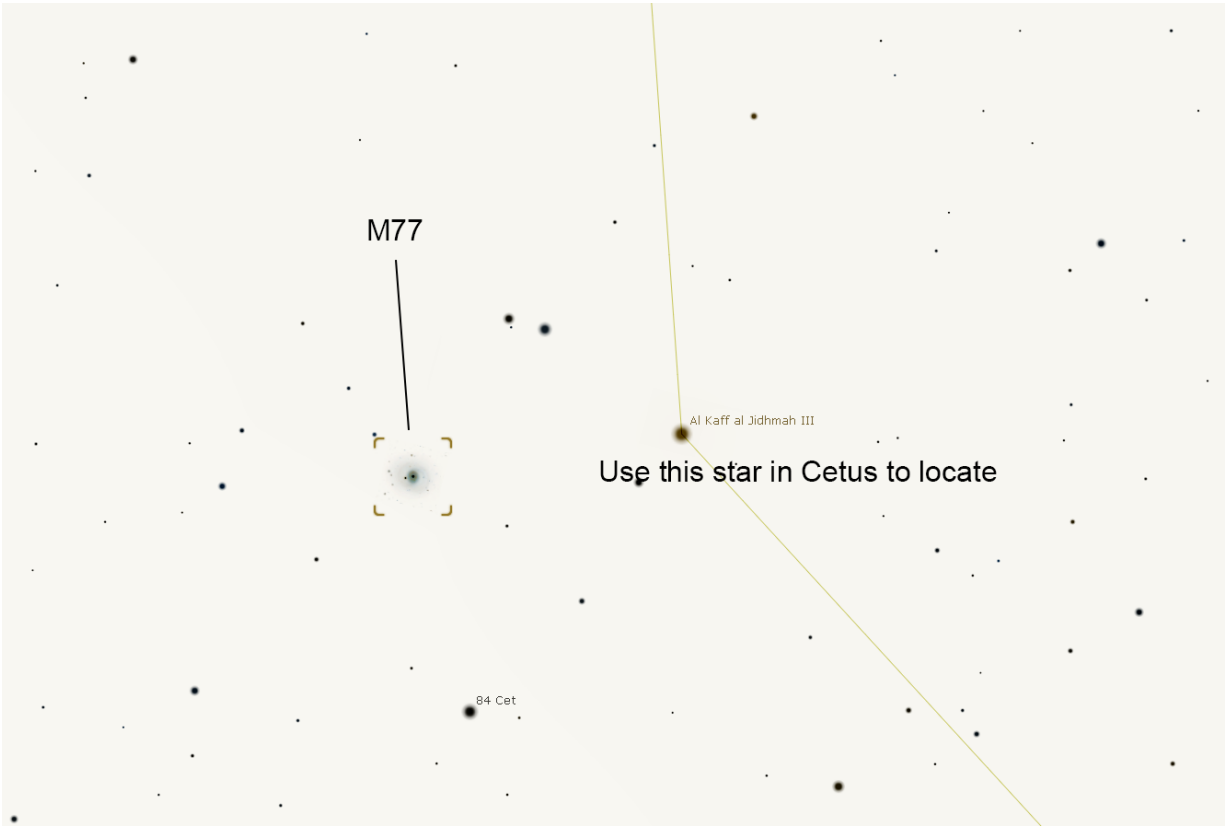
M33 Closer View



M74 Closer View



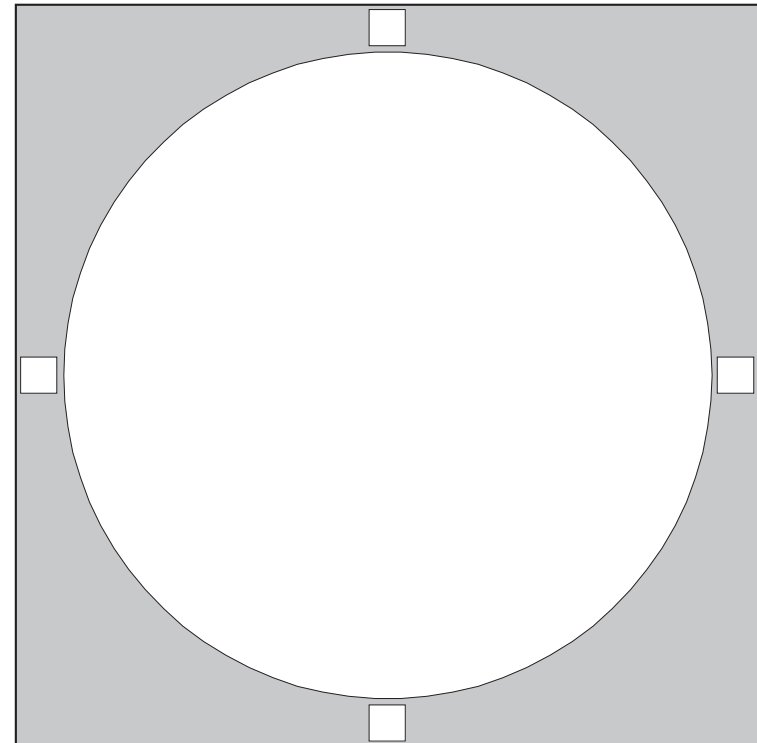
M77 Closer View



RASC Messier Objects - M31

Andromeda Galaxy

Messier Object	M31		
NGC	224		
Constellation	Andromeda		
Type	Spiral Galaxy (G-SAb)		
Magnitude	3.4		
Distance (Kilo light-years)	2900		
RA	00 42.7		
Dec	+41:16		
Size	185.0' x 75.0'		
UM I	UM II	60	30
	SA	4, 9	
Remarks	!! Andromeda Galaxy; look for dust lanes		
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

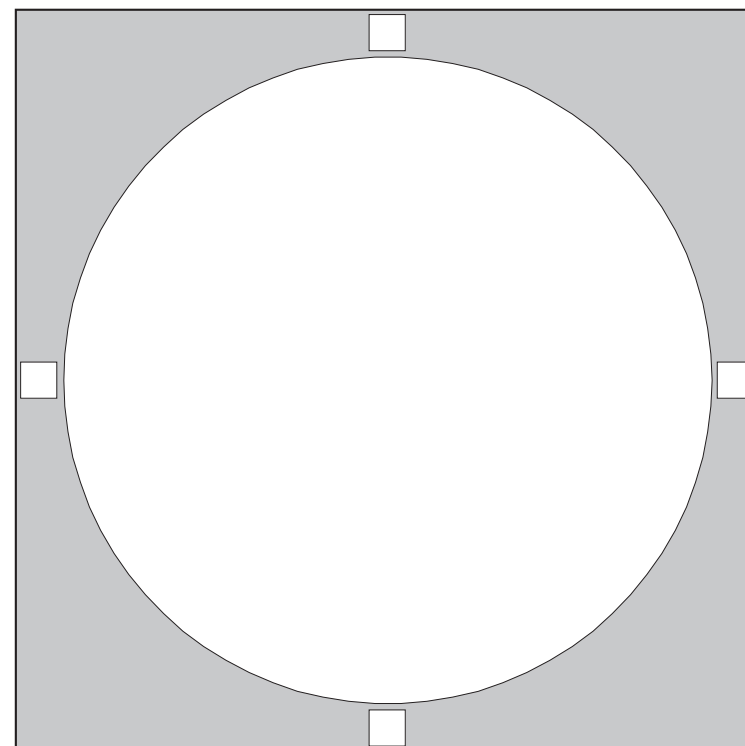
E/RN: Diffuse emission and reflection Nebula

Date: Specify Time Zone or UT

<http://www.rasc.ca>

RASC Messier Objects - M32

Messier Object	M32		
NGC	221		
Constellation	Andromeda		
Type	Elliptical Galaxy (G-E5 peculiar)		
Magnitude	8.1		
Distance (Kilo light-years)	2900		
RA	00 42.7		
Dec	+40:52		
Size	110.0' x 7.0'		
UM I	UM II	60	30,45,62
	SA	4, 9	
Remarks	closest companion to M31		
Time (hh:mm)			
Seeing	1	2	3 4 5
Transparency	1	2	3 4 5
Observing Location			
Telescope			
Date (dd:mm:yyyy)			

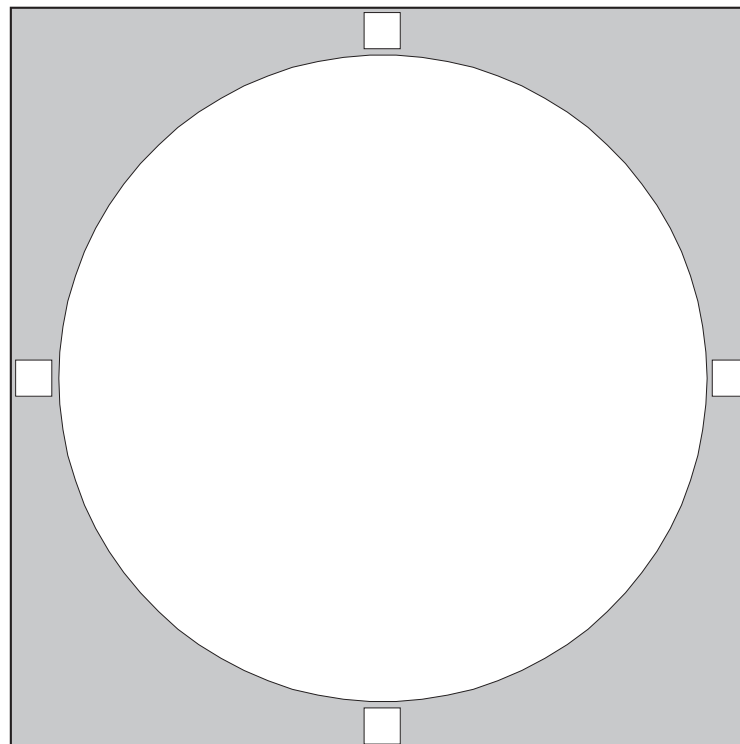


Notes

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 - M110

Messier Object	M110		
NGC	205		
Constellation	Andromeda		
Type	Elliptical Galaxy (G-E3 peculiar)		
Magnitude	8.1		
Distance (Kilo light-years)	2900		
RA	00 40.4		
Dec	+41:41		
Size	20.0' x 12.0'		
UM I	UM II	60	30
	SA	4, 9	
Remarks	more distant companion to M31		
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

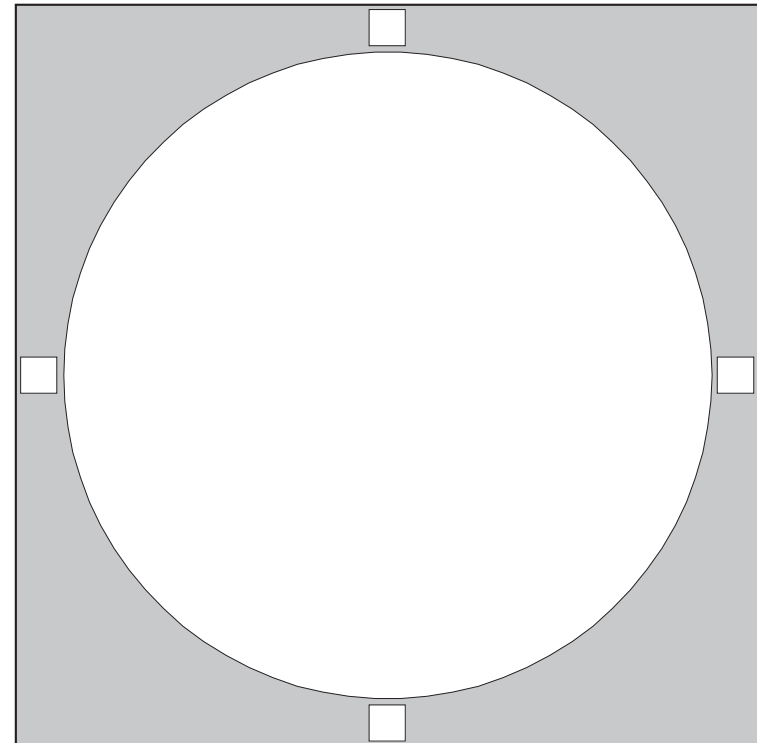
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<http://www.rasc.ca>

RASC Messier Objects - M33

Triangulum Galaxy

Messier Object	M33		
NGC	598		
Constellation	Triangulum		
Type	Spiral Galaxy (G-SAc)		
Magnitude	5.7		
Distance (Kilo light-years)	3000		
RA	01 33.9		
Dec	+30:39		
Size	67.0' x 42.0'		
UM I	UM II	91	62
	SA	4	
Remarks	large, diffuse spiral; requires dark sky		
Time (hh:mm)			
Seeing	1	2	3 4 5
Transparency	1	2	3 4 5
Observing Location			
Telescope			
Date (dd:mm:yyyy)			

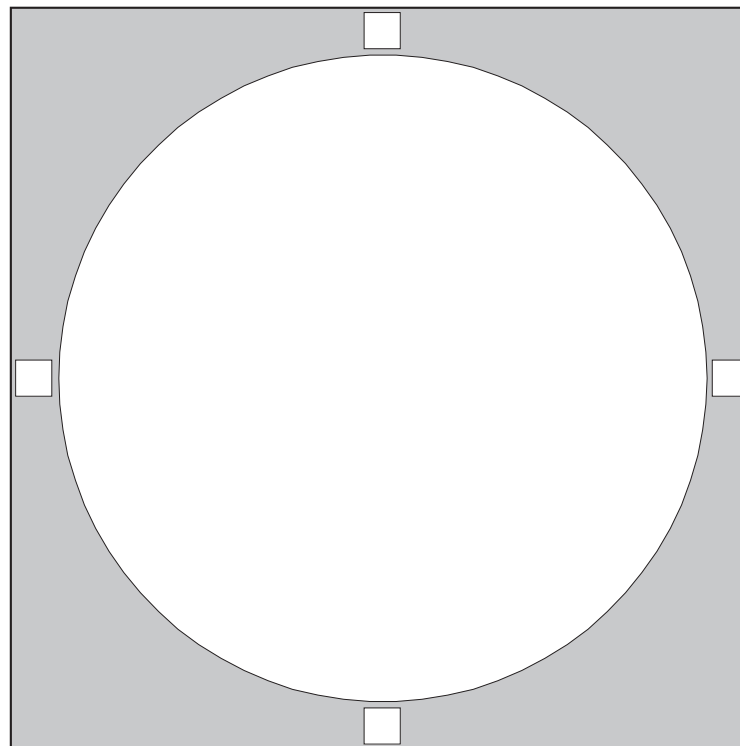


Notes

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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 - M74

Messier Object	M74		
NGC	628		
Constellation	Pisces		
Type	Spiral Galaxy (G-SAc)		
Magnitude	9.4		
Distance (Kilo light-years)	35000		
RA	01 36.7		
Dec	+15:47		
Size	11.0' x 11.0'		
UM I	UM II	173	100
	SA	10	
Remarks	faint. elusive spiral; tough in small scope		
Time (hh:mm)			
Seeing	1	2	3 4 5
Transparency	1	2	3 4 5
Observing Location			
Telescope			
Date (dd:mm:yyyy)			



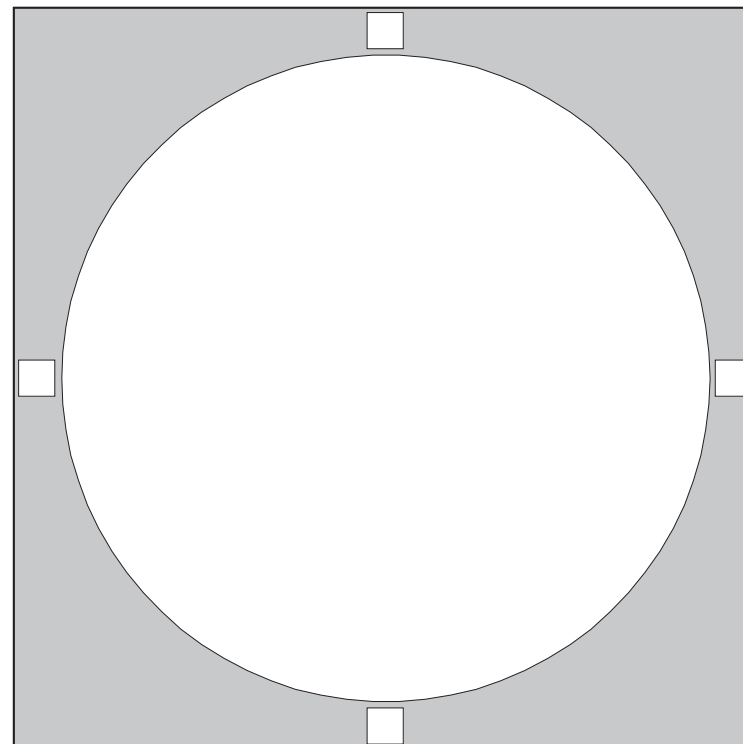
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RASC Messier Objects - M77

Cetus A

Messier Object	M77		
NGC	1068		
Constellation	Cetus		
Type	Spiral Galaxy (G-SABab)		
Magnitude	8.9		
Distance (Kilo light-years)	60000		
RA	02 42.7		
Dec	-00:01		
Size	8.2' x 7.3'		
UM I	UM II	220	119
	SA	10	
Remarks	a Seyfert galaxy; with starlike nucleus		
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

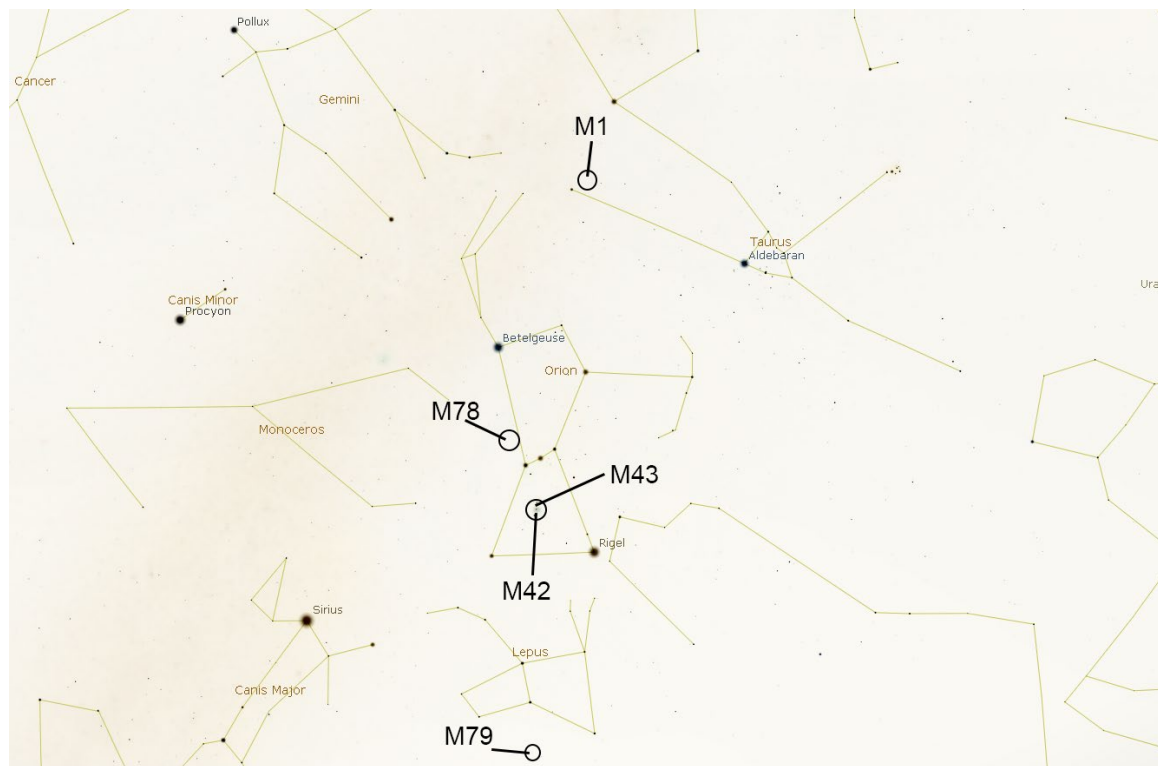
E/RN: Diffuse emission and reflection Nebula

Date: Specify Time Zone or UT

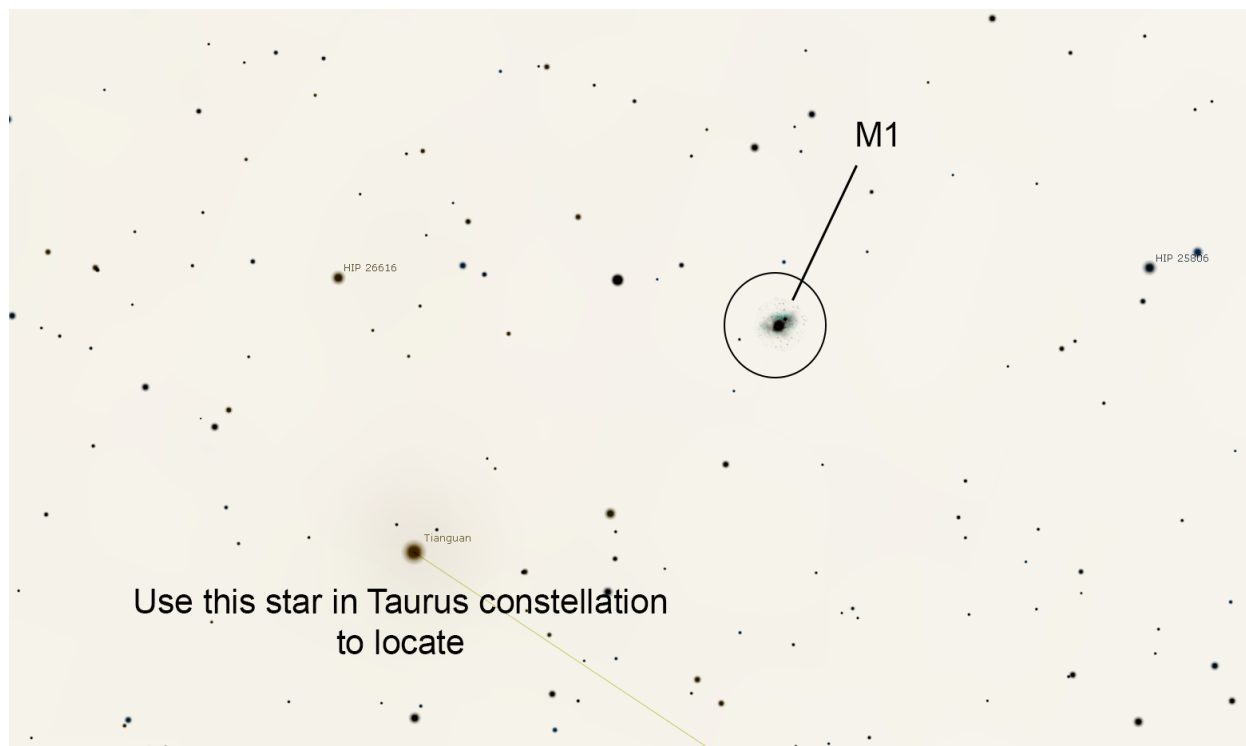
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Later Evening Target Finder Charts:

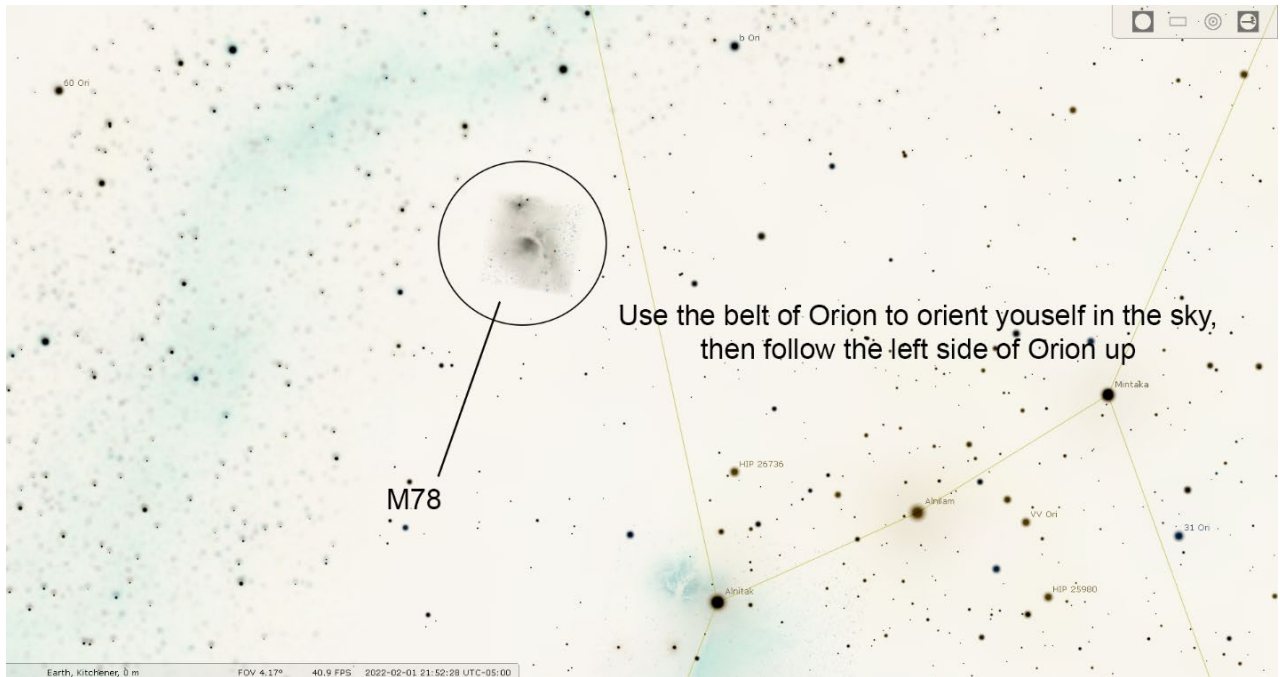
Overview of Targets –



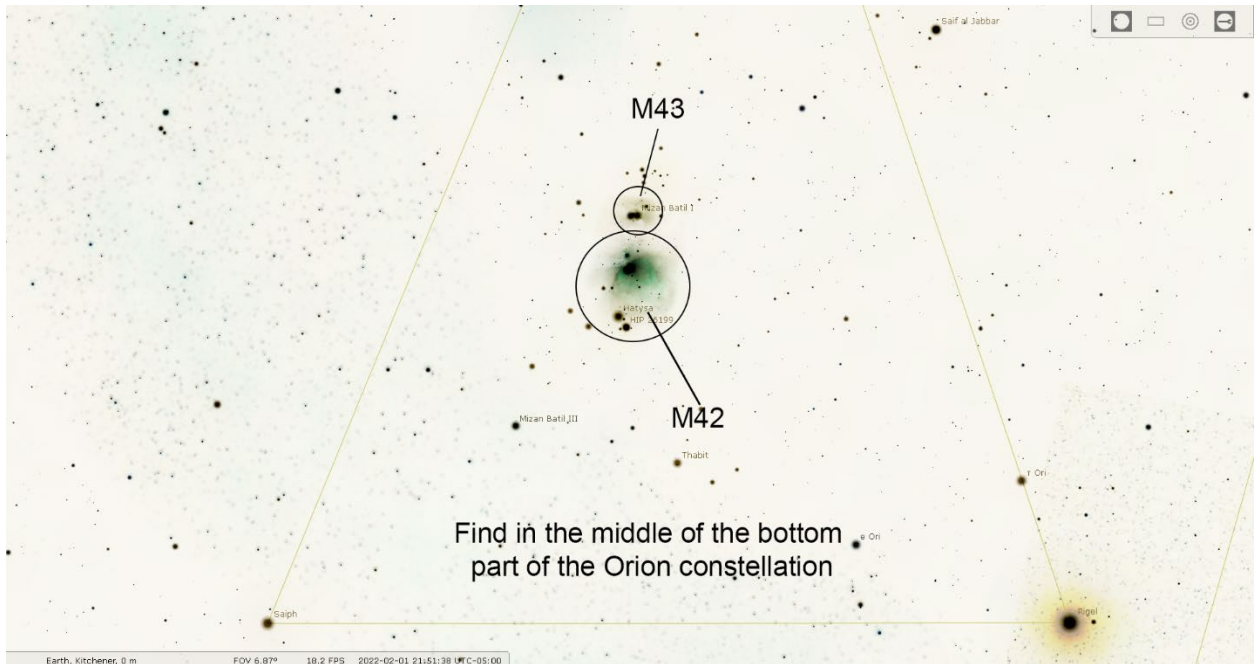
M1 Closer View



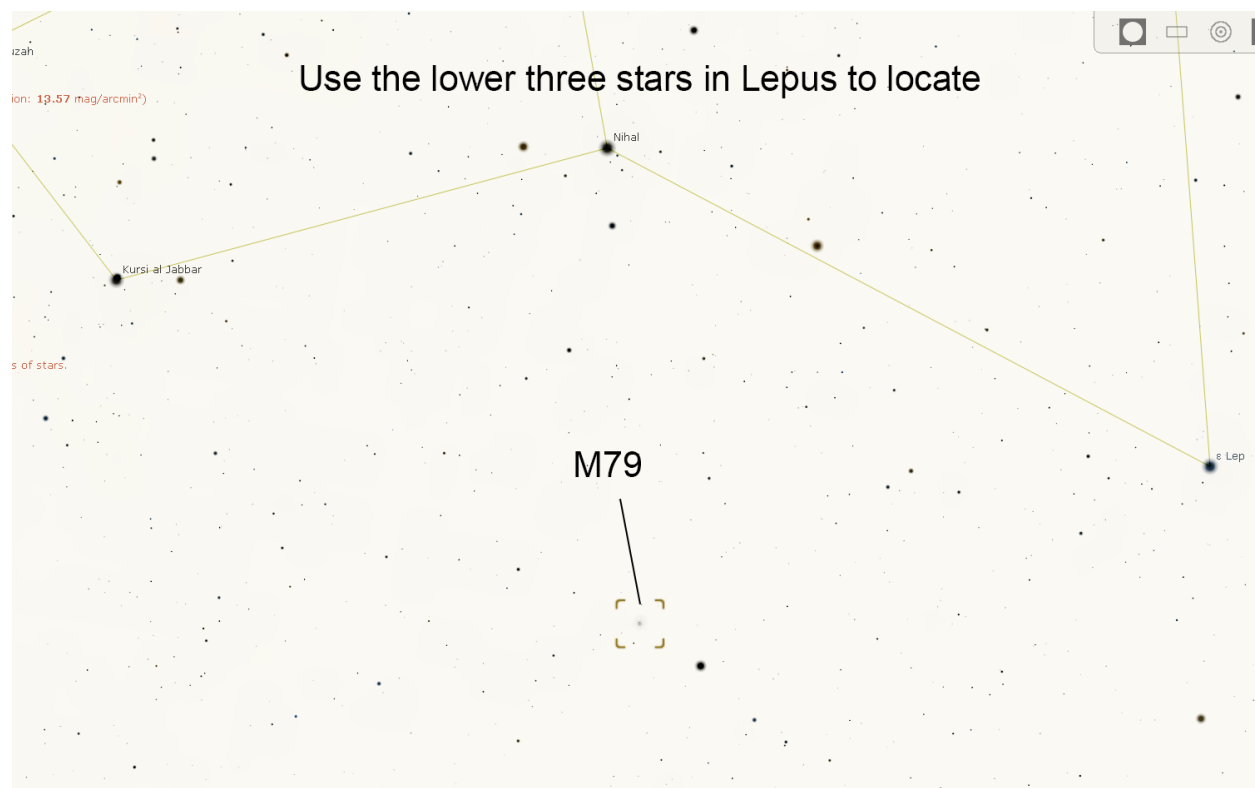
M78 Closer View



M42 and M43 Closer View



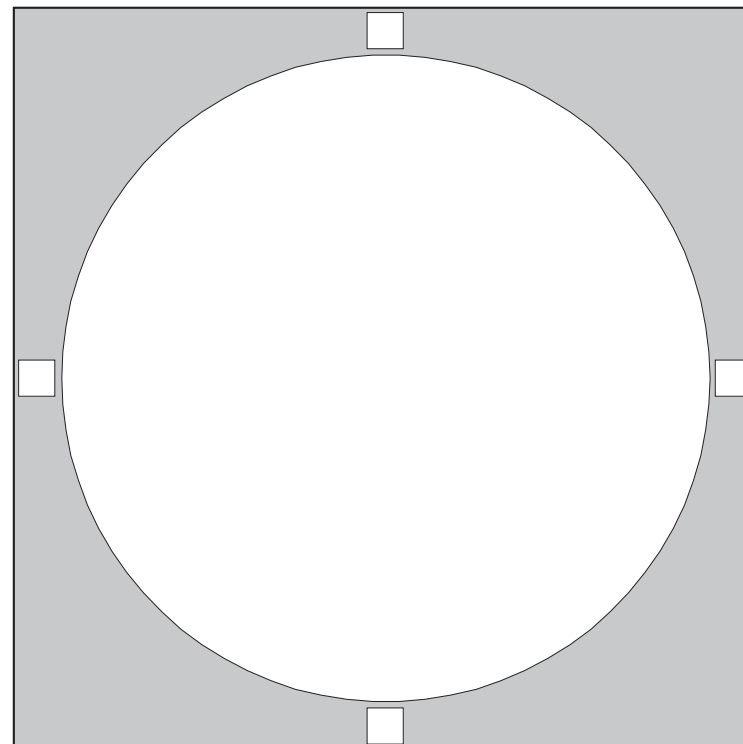
M79 Closer View



RASC Messier Objects - M1

Crab Nebula

Messier Object	M1		
NGC	1952		
Constellation	Taurus		
Type	Supernova Remnant		
Magnitude	8.4		
Distance (Kilo light-years)	6.3		
RA	05 34.5		
Dec	+22:01		
Size	6' x 4'		
UM I	UM II	135,136	77
	SA	16, 17	
Remarks	!! Famous Crab Nebula, Supernova Remnant		
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

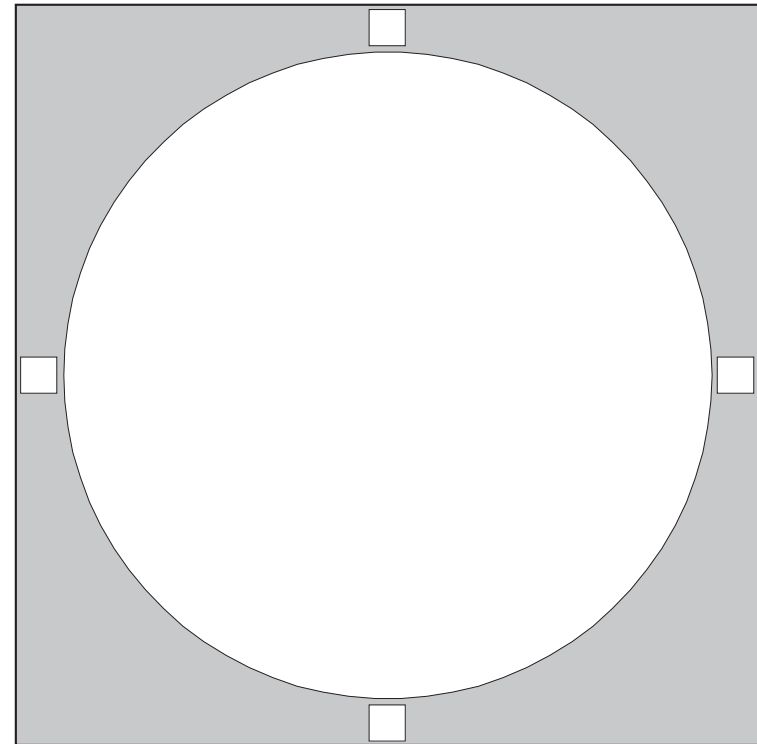
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<http://www.rasc.ca>

RASC Messier Objects - M42

Orion Nebula

Messier Object	M42		
NGC	1976		
Constellation	Orion		
Type	Emission/Reflection Nebula		
Magnitude	4.0		
Distance (Kilo light-years)	1.6		
RA	05 35.4		
Dec	-05:27		
Size	65' x 60'		
UM I	UM II	225,226,270,271	116,136
	SA	11, B2	
Remarks	!! Orion Nebula; finest in northern sky		
Time (hh:mm)			
Seeing	1	2	3 4 5
Transparency	1	2	3 4 5
Observing Location			
Telescope			
Date (dd:mm:yyyy)			



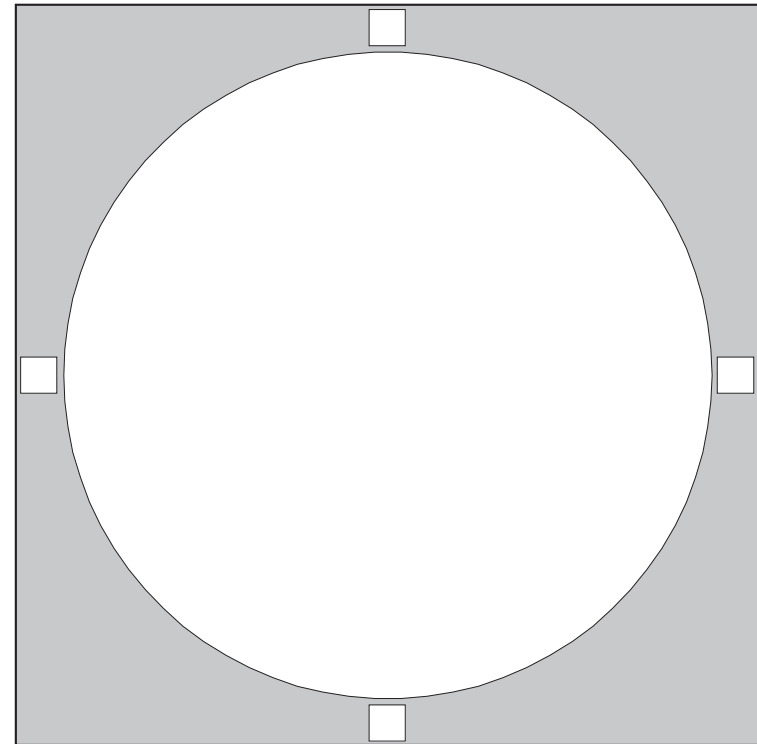
Notes

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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 - M43

De Mairan's Nebula

Messier Object	M43		
NGC	1982		
Constellation	Orion		
Type	Emission/Reflection Nebula		
Magnitude	9.0		
Distance (Kilo light-years)	1.6		
RA	05 35.6		
Dec	-05:16		
Size	20' x 15'		
UM I	UM II	225,226,270,271	116,136
	SA	11, B2	
Remarks	detached part of Orion Nebula; De Mairan's Nebula		
Time (hh:mm)			
Seeing	1	2	3 4 5
Transparency	1	2	3 4 5
Observing Location			
Telescope			
Date (dd:mm:yyyy)			

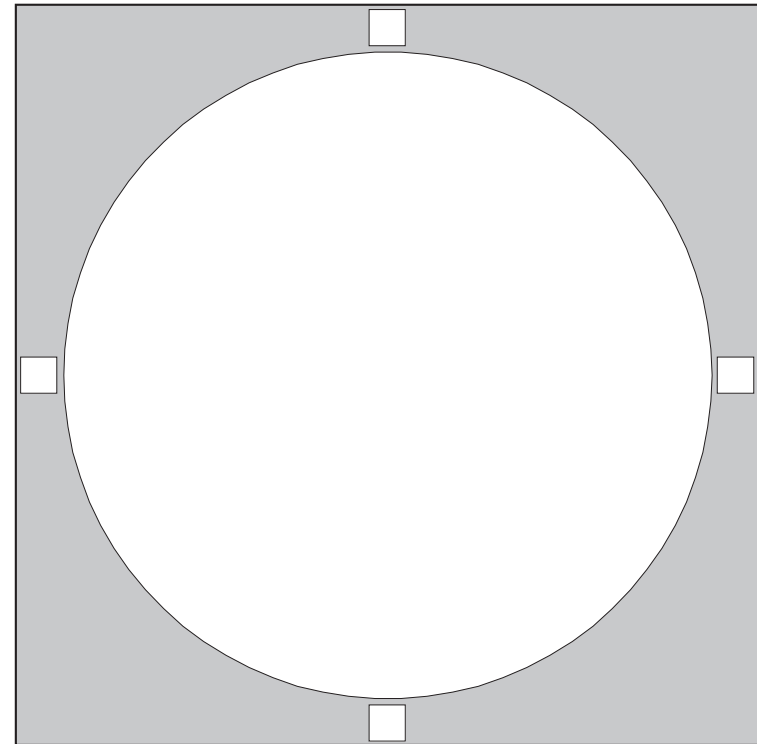


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RASC Messier Objects - M78

Messier Object	M78		
NGC	2068		
Constellation	Orion		
Type	Reflection Nebula		
Magnitude	8.3		
Distance (Kilo light-years)	1.6		
RA	05 46.7		
Dec	+00:03		
Size	8' x 6'		
UM I	UM II	226	116
SA	11, B2		
Remarks	bright featureless reflection nebula		
Time (hh:mm)			
Seeing	1	2	3 4 5
Transparency	1	2	3 4 5
Observing Location			
Telescope			
Date (dd:mm:yyyy)			

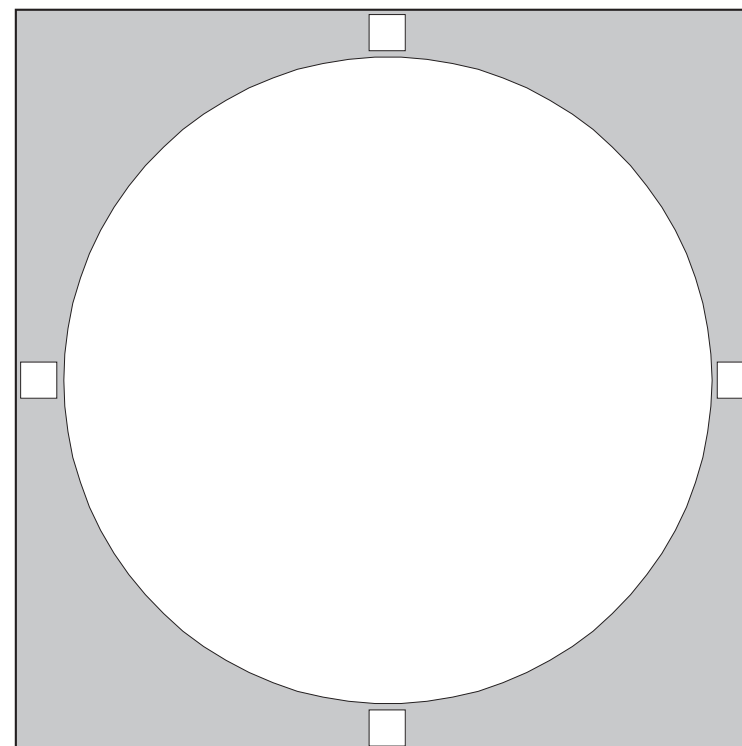


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RASC Messier Objects - M79

Messier Object	M79		
NGC	1904		
Constellation	Lepus		
Type	Globular Cluster		
Magnitude	7.8		
Distance (Kilo light-years)	42.1		
RA	05 24.5		
Dec	-24:33		
Size	8.7'		
UM I	UM II	315	155
	SA	19	
Remarks	200-mm telescope needed to resolve		
Time (hh:mm)			
Seeing	1	2	3 4 5
Transparency	1	2	3 4 5
Observing Location			
Telescope			
Date (dd:mm:yyyy)			



Notes

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