

My Messier Album

A detailed record of my journey through the Royal Astronomical Society of Canada's Messier list

Name: _____ **Centre or Home Location:** _____

The Messier Catalogue was developed in the 1700's by Charles Messier (1730 - 1817). Messier was a comet hunter working with speculum metal reflectors and small refractors that were the equivalent of a modern 80 - 100 mm reflector. As a result of the limited tools that he had to work with, he could not see the true nature of many of his "faint fuzzies" that are revealed in today's modern instruments. Once you have observed all of the objects on this list application forms can be found on the RASC website at www.rasc.ca. The Messier Certificate has been awarded since 1981.

Here is an overview of the Messier Observing List

Messier Objects	Number	Notes
Open Clusters	28	Includes many beautiful open clusters like M6, M7, The Beehive, The Pleiades and The Wild Duck.
Globular Clusters	29	Includes the showpiece objects M13, M22, M5 and M3.
Bright Nebulae	8	Includes the great Orion Nebula as well as the Lagoon, Swan, Eagle and Trifid Nebulae.
Planetary Nebulae	4	Includes the impressive Ring Nebula as well as the Dumbbell and Owl planetary nebulae.
Galaxies	40	Includes the amazing Andromeda Galaxy as well as M51, M33, M81/M82 and many others.
Double Stars	1	This is M40, an unusual Messier object.
Total	110	The Messier list can be started during any season.

Why Record Your Observations?

Recording observations is important for two reasons. It gives you a permanent record of all the great times you had while observing and recording scientific details of an observation can help researchers.

Recording Observations Overview

Very few, if any, astronomers remember everything that they have observed through the years, and for that reason alone it is wise to keep a record of your observations. Many experienced astronomers have commented on how much they enjoy looking through their logbooks and recalling the many precious memories that are contained there. It is truly worth the effort to write down your observations.

How to Record Observations

One of the most practical ways of recording observations is to have a template form completed ahead of time that contains all of the known data, like the object's name, number, location, size, magnitude, and so on. You then simply write down your description of the object in the space provided, and then use the time saved to explore other treasures in the night sky. The template can also include an area to make a drawing. The Messier Album has all of those features

Drawing at the Eyepiece

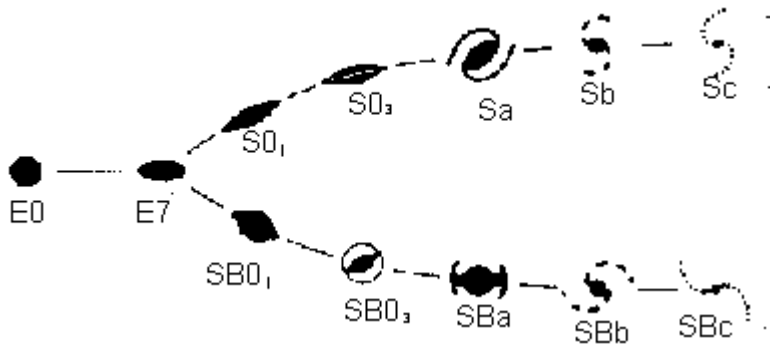
Drawing at the eyepiece can be a very rewarding experience for all the same reasons as making notes. The added bonus of a drawing is that it will clearly show what you saw to other people who may visualize a text description differently than you. Drawing is also the best way to learn how to see the fine detail in the astronomical objects you observe.

How to qualify for the Certificate

All of the objects in the Messier list have to be found by the certificate applicant without assistance from other observers. Many new telescopes are being sold with built-in "Go To" systems and while they are very useful for people who are trying to see many objects in a short time, the "Go To" approach does not allow for the full development of observing skills and abilities. By their very nature

they eliminate the challenge that the certificate recognizes and that is the ability to seek out and find astronomical objects using only your eyes, finder scope and star charts (all directed by an inquisitive mind). As a result, observations made with "Go To" telescopes, while fine for learning about the night sky, are not eligible for RASC Observing Certificates. The only exception may be to turn off the "Go To" system while doing your certificate list.

Description of fields on the log forms

FIELD	DESCRIPTION
NGC Number:	This is the New General Catalogue designation that consists of a 1-4 digit number.
IC Number:	This is the Index Catalogue designation that is a supplement to the New General Catalogue.
Constellation:	These are the official three letter designations for the 88 recognized constellations.
Type:	<p>PN = Planetary Nebula. OC = Open Cluster. GC = Globular Cluster. SNR = Supernova Remnant. EN= Emission Nebula. RN = Reflection Nebula. E/RN = Emission and Reflection Nebula. G = Galaxies as per diagram below:</p> 

Description of fields on the log forms (continued)

FIELD	DESCRIPTION
Visual Magnitude:	Apparent visual magnitude is a measurement of the objects brightness as seen using average human eyesight.
Size:	Dimensions of an object using degrees, minutes of arc (1/60 degree) and seconds of arc (1/60 minute.)
Distance:	Distance of object measured in light years. Note that these are estimates and sources of this data can vary.
R.A. (Epoch 2000.0):	Coordinates in Right Ascension, divided into 24 hourly sections as they rise in the east.
Dec. (Epoch 2000.0):	Coordinates in Declination as measured +90 degrees north and -90 degrees south of the celestial equator.
UM I:	Map number where you can find the object in the first edition of Uranometria 2000.
UM II:	Map number where you can find the object in the second edition of Uranometria 2000.
Sky Atlas 2000:	Map number where you can find the object in Sky Atlas 2000.
Season:	Season of the year when the object is best seen after dusk.
Remarks:	Brief description of the object and some key observing tips.
Date:	Field for recording the date of the observation.
Time:	Field for recording the time of the observation. Please specify Time Zone or Universal Time.
Seeing:	Place a circle around or an X on top of one number that best describes the stability of the atmosphere. 1 = Best 2 = Above Average 3 = Average 4 = Below Average 5 = Poor Note: A somewhat hazy sky may provide good seeing; therefore use this for measuring stability only.
Transparency:	Place a circle around or an X on top of one number that best describes how clear the sky is. 1 = Best 2 = Above Average 3 = Average 4 = Below Average 5 = Poor Note: A crystal clear sky may provide less than perfect seeing; therefore use this for measuring clarity only.
Telescope:	Field for recording the aperture and type of telescope used. Example: 25 cm reflector.
Eyepiece:	Field for recording the focal length and type of eyepiece used. Example: 17mm Plossel.
Magnification:	Field for recording the magnification of the telescope/eyepiece combination used. Magnification equals the focal length of the telescope as measured in millimeters divided by the focal length of the eyepiece in millimeters. To calculate the focal length of your telescope in millimeters, use this formula: (Aperture in inches multiplied by the focal ratio) then divide by 25.4. For example an 8 inch aperture scope with a focal ratio of F6 would have a focal length of (8 x 6 = 48 inches) Conversion: 48 inches x 25.4 = 1219.2 mm.
Observing Location:	Field for recording the location of the observing site.

Credits for the development of these forms

This project began when Stan Runge of the Winnipeg Centre approached the Observing Committee in regards to creating some detailed observing forms that would be specific to the RASC Messier and Finest NGC lists. He then presented prototypes that were made in conjunction with members of the Saskatoon Centre. The committee was impressed and we very much liked the idea that was presented. Soon after that work started on the project and during the time frame from autumn 2002 to spring 2004, as time allowed, we proceeded to further develop the forms and to provide enhanced content.

Dan Williams of the London Centre and Christopher Fleming, Chair of the Committee worked together on many cloudy evenings to perfect the design as much as possible and to do the tedious work of entering the data for each object. Dan is a computer professional and he managed the various database, graphics and word processing software programs that were used to bring the whole project together. Christopher acted as the astronomical content advisor and source of the data for the objects as well as the reference material. We hope you enjoy the results of our efforts.

Clear Skies,

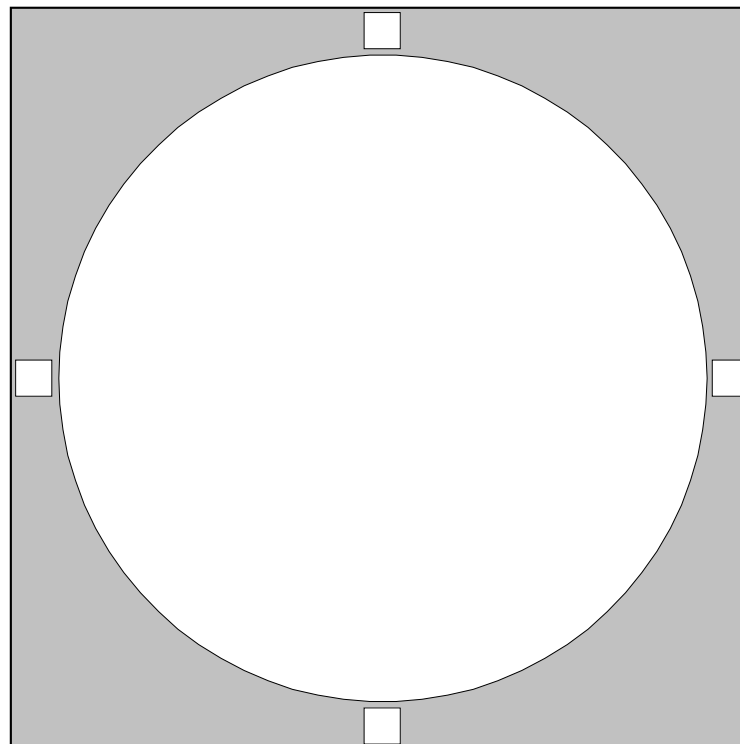
RASC Observing Committee,

Summer 2004

RASC Messier Objects - M1

Crab Nebula

Messier Object		M1				
NGC		1952				
Constellation		Taurus				
Type		Supernova Remnant				
Magnitude		8.4				
Distance (Kilo lightyears)		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
 SNR: Supernova Remnant
 GC: Globular Cluster
 OC: Open Cluster

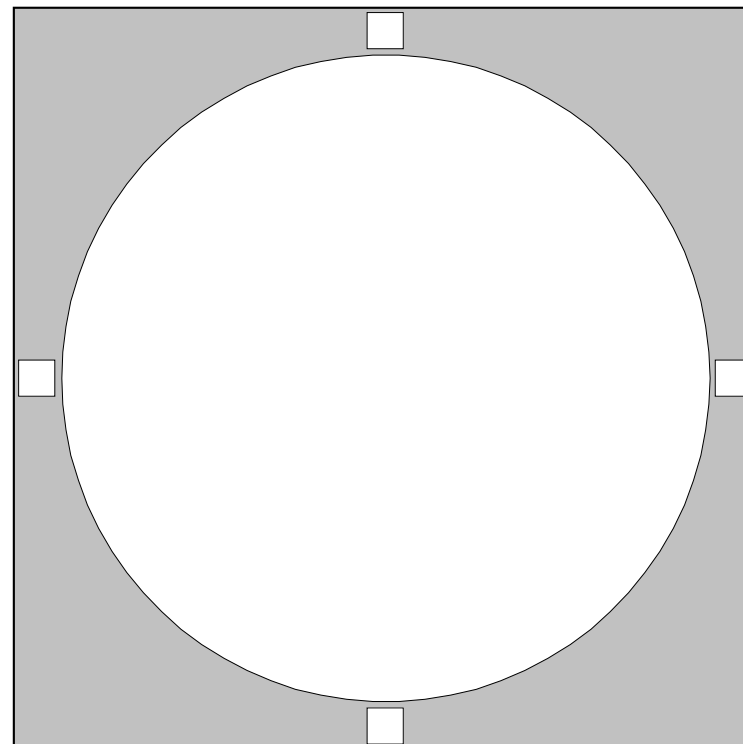
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M2

Messier Object	M2		
NGC	7089		
Constellation	Aquarius		
Type	Globular Cluster		
Magnitude	6.4		
Distance (Kilo lightyears)	37.9		
RA	21 33.5		
Dec	-00:49		
Size	12.9		
UM I	UM II	255,256	103
SA	7		
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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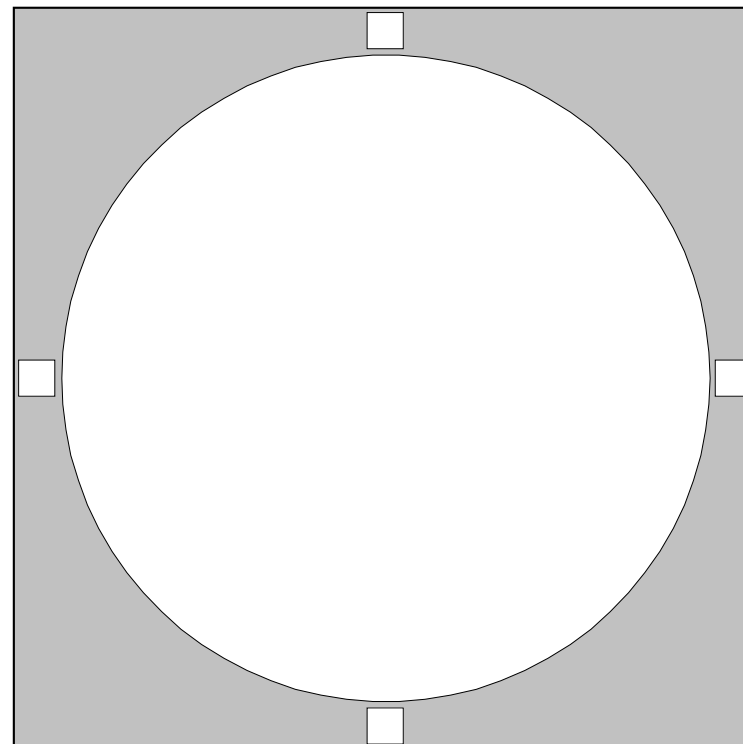
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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 ** p = Photographic Magnitude
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RASC Messier Objects - M3

Messier Object	M3		
NGC	5272		
Constellation	Canes Venatici		
Type	Globular Cluster		
Magnitude	5.9		
Distance (Kilo lightyears)	33.9		
RA	13 42.2		
Dec	+28:23		
Size	16.2'		
UM I	UM II	109,110,151	71
SA	22		
Remarks	!! contains many variable stars		
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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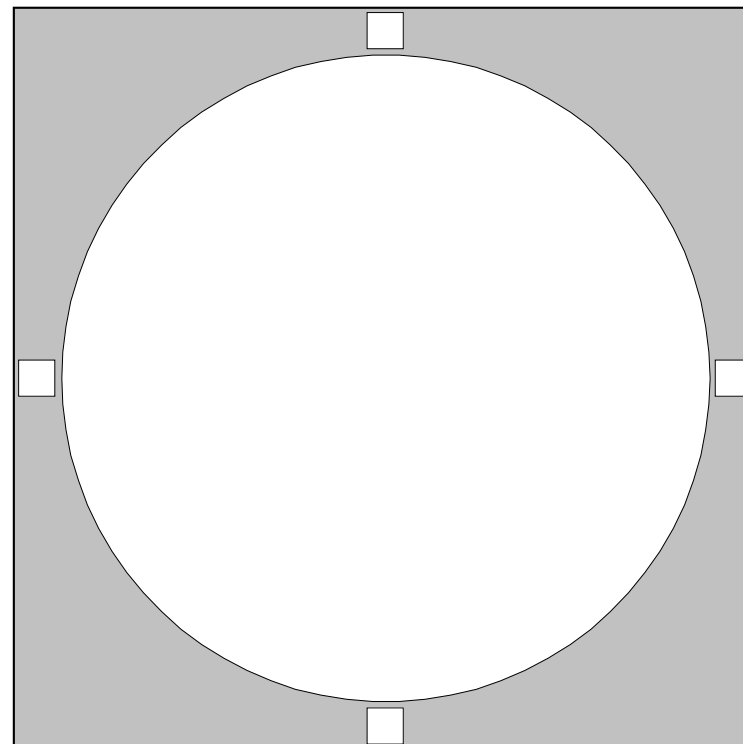
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 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
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<http://www.rasc.ca>

RASC Messier Objects - M4

Messier Object		M4				
NGC		6121				
Constellation		Scorpius				
Type		Globular Cluster				
Magnitude		5.8				
Distance (Kilo lightyears)		7.2				
RA		16 23.6				
Dec		-26:32				
Size		26.3'				
UM I	UM II	336			147	
SA		4, 15				
Remarks		bright globular near Antares				
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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 OC: Open Cluster

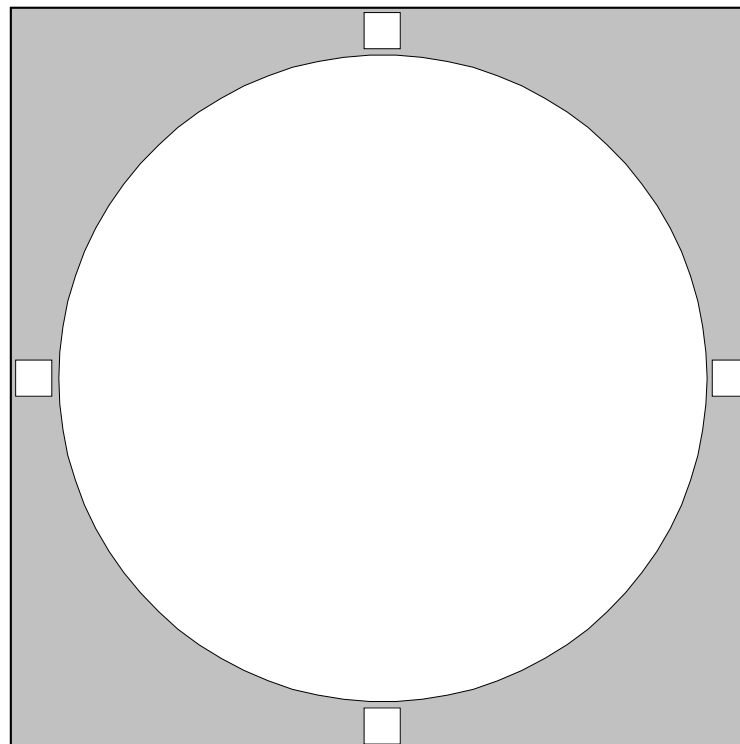
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M5

Messier Object	M5		
NGC	5904		
Constellation	Serpens		
Type	Globular Cluster		
Magnitude	5.7		
Distance (Kilo lightyears)	24.5		
RA	15 18.6		
Dec	+02:05		
Size	17.4'		
UM I	UM II	244	108
SA	22		
Remarks	!! one of the sky's finest globulars		
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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 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

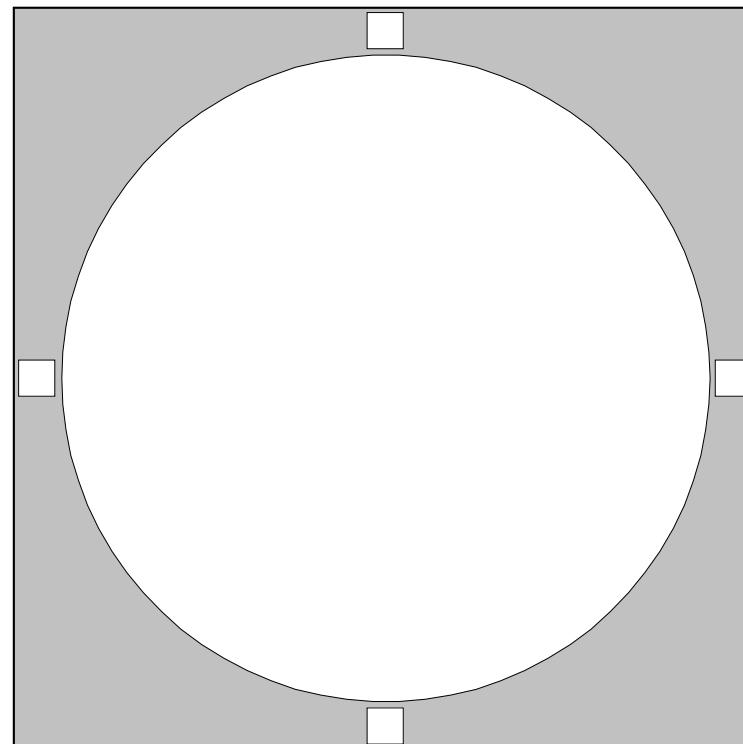
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M6

Butterfly Cluster

Messier Object	M6		
NGC	6405		
Constellation	Scorpius		
Type	Open Cluster		
Magnitude	4.2		
Distance (Kilo lightyears)	2		
RA	17 40.1		
Dec	-32:13		
Size	33.0'		
UM I	UM II	376,377	164,A20
SA	22		
Remarks	!! Butterfly Cluster; best at low power		
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
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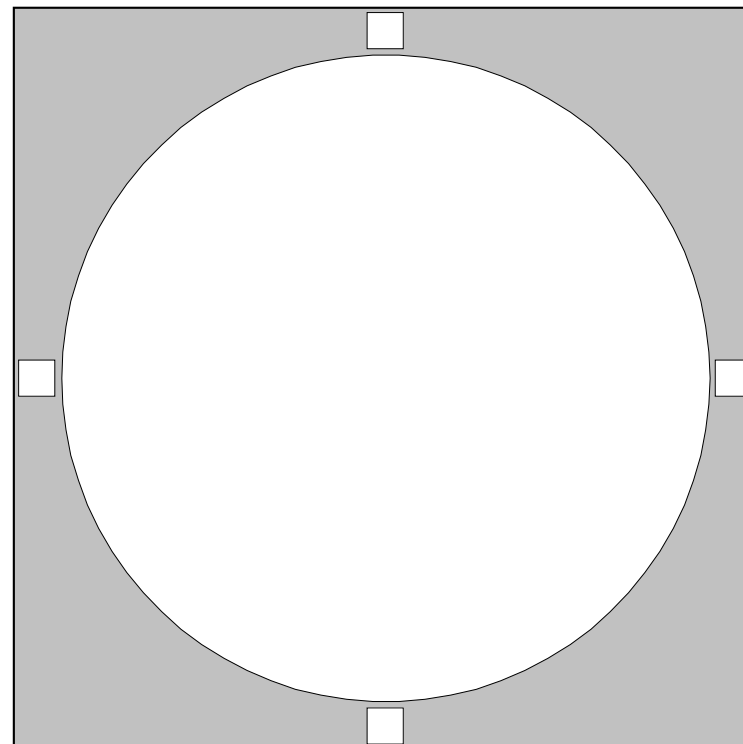
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M7

Messier Object		M7				
NGC		6475				
Constellation		Scorpius				
Type		Open Cluster				
Magnitude		3.3				
Distance (Kilo lightyears)		0.8				
RA		17 53.9				
Dec		-34:49				
Size		80.0'				
UM I	UM II	377			164,A20	
SA		22				
Remarks		!! excellent in binoculars or rich-field scope				
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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 E/RN: Diffuse emission and reflection Nebula

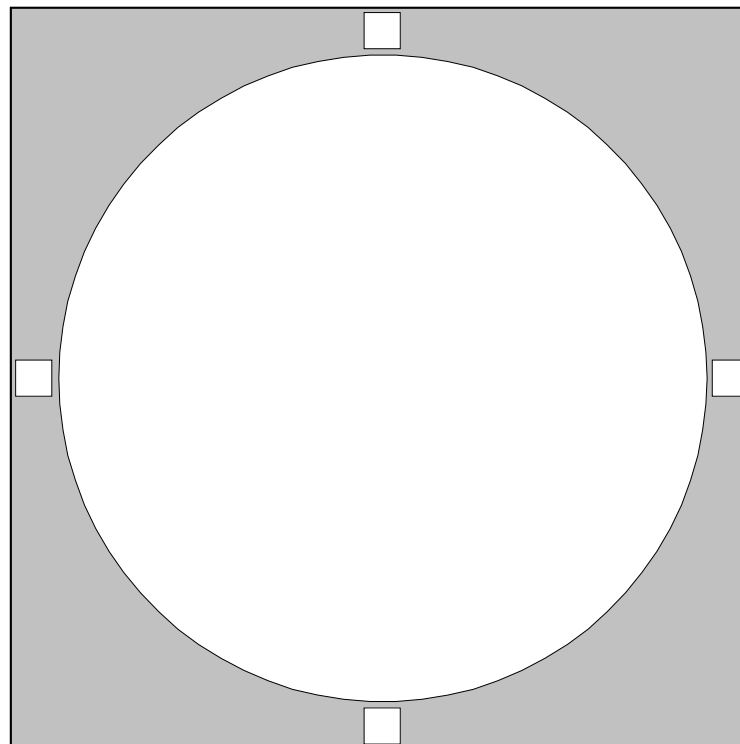
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M8

Lagoon Nebula

Messier Object		M8				
NGC		6523				
Constellation		Sagittarius				
Type		Emission Nebula				
Magnitude		na				
Distance (Kilo lightyears)		5.2				
RA		18 03.8				
Dec		-24:23				
Size		45.0' x 30.0'				
UM I	UM II	339			145,146	
SA		22				
Remarks		!! Lagoon Nebula with Open Cluster NGC 6530				
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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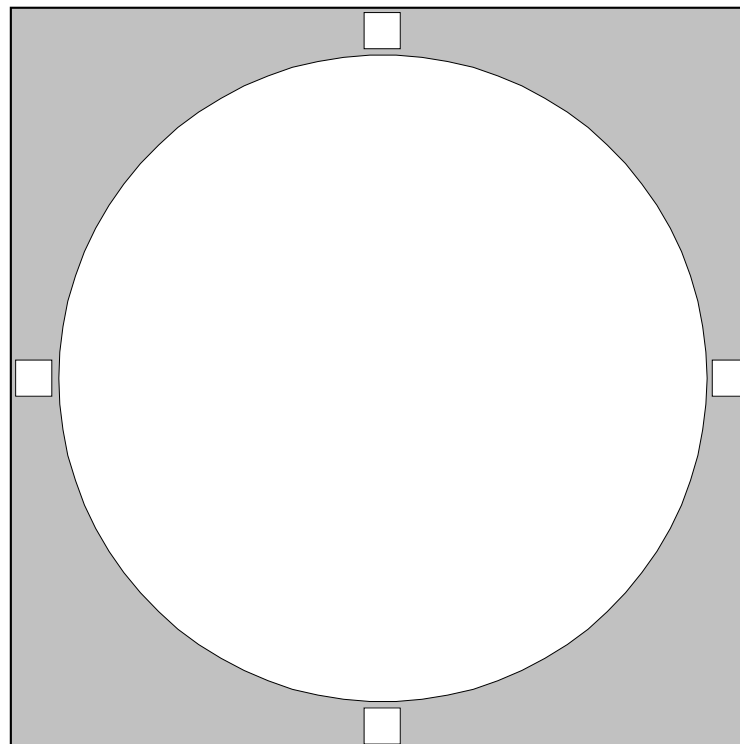
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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 ** p = Photographic Magnitude
 *** !! = Showpiece Object
<http://www.rasc.ca>

RASC Messier Objects - M9

Messier Object		M9				
NGC		6333				
Constellation		Ophiuchus				
Type		Globular Cluster				
Magnitude		7.6				
Distance (Kilo lightyears)		26.7				
RA		17 19.2				
Dec		-18:31				
Size		9.3'				
UM I	UM II	337,338			146	
SA		15, 22				
Remarks		smallest of Ophiuchus globulars				
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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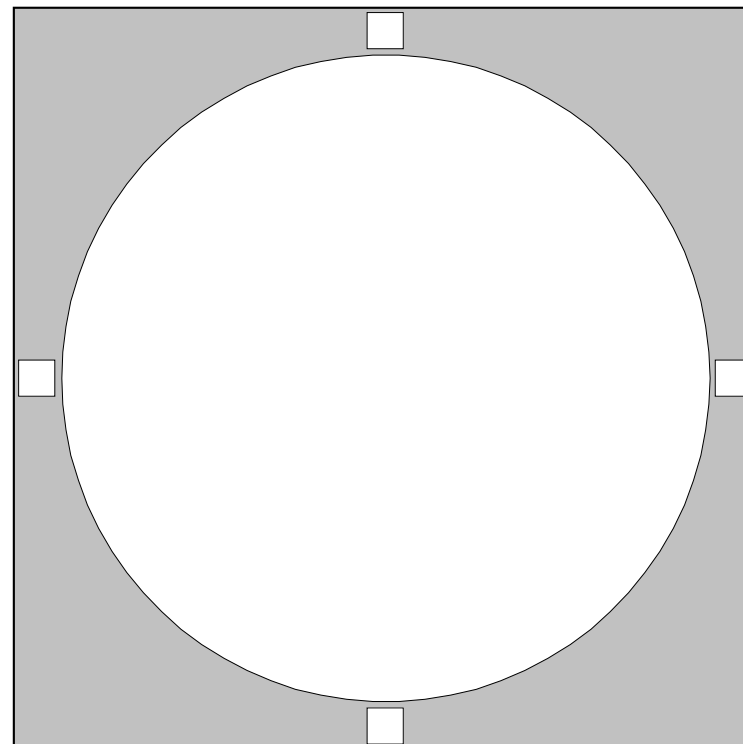
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 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M10

Messier Object		M10				
NGC		6254				
Constellation		Ophiuchus				
Type		Globular Cluster				
Magnitude		6.6				
Distance (Kilo lightyears)		14.4				
RA		16 57.1				
Dec		-04:06				
Size		15.1'				
UM I	UM II	247			107	
SA		15				
Remarks		rich globular cluster; M12 is three degrees north west				
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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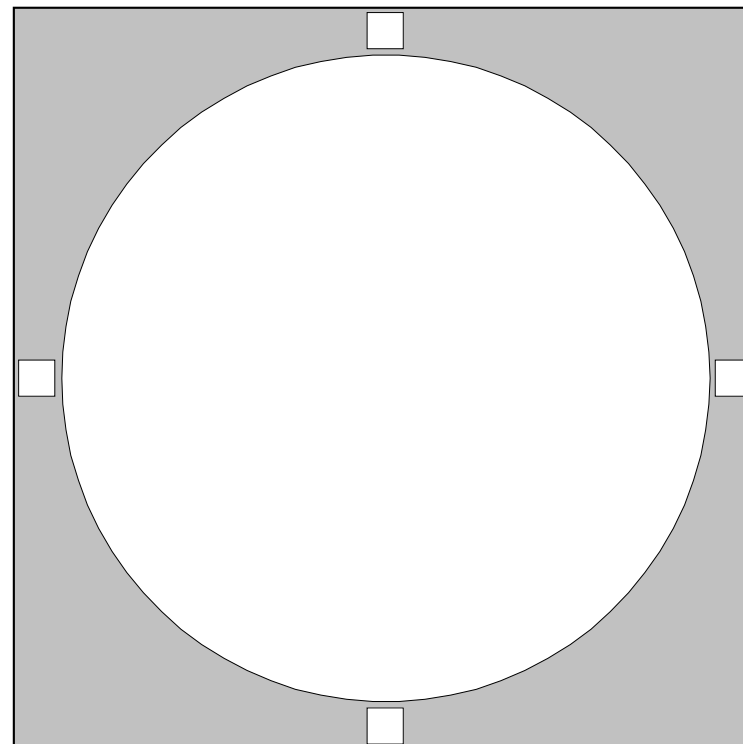
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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 ** p = Photographic Magnitude
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<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 lightyears)	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)			



Notes

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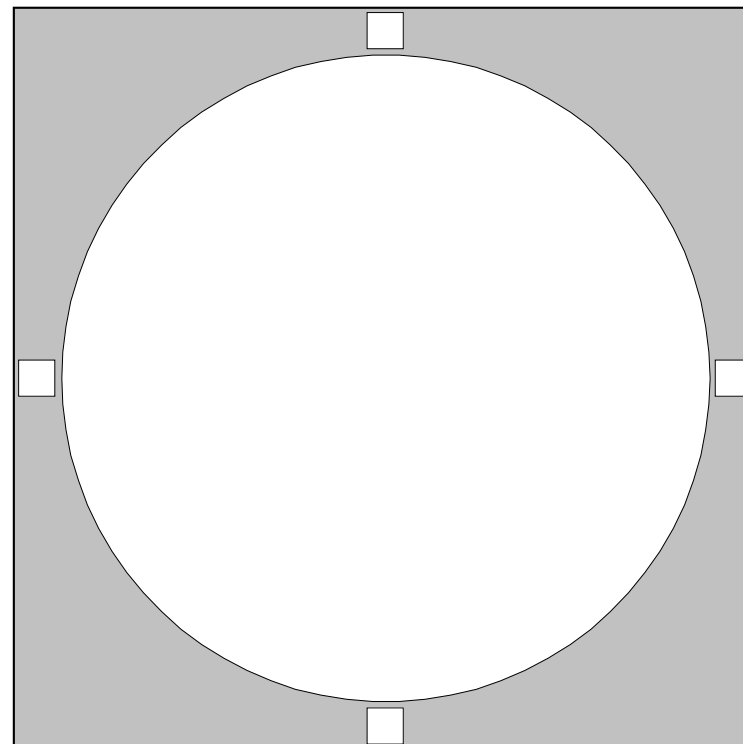
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 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M12

Messier Object	M12		
NGC	6218		
Constellation	Ophiuchus		
Type	Globular Cluster		
Magnitude	6.8		
Distance (Kilo lightyears)	16.0		
RA	16 47.2		
Dec	-01:57		
Size	14.5'		
UM I	UM II	246,247	107
SA	15		
Remarks	loose globular cluster near M10		
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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 E/RN: Diffuse emission and reflection Nebula

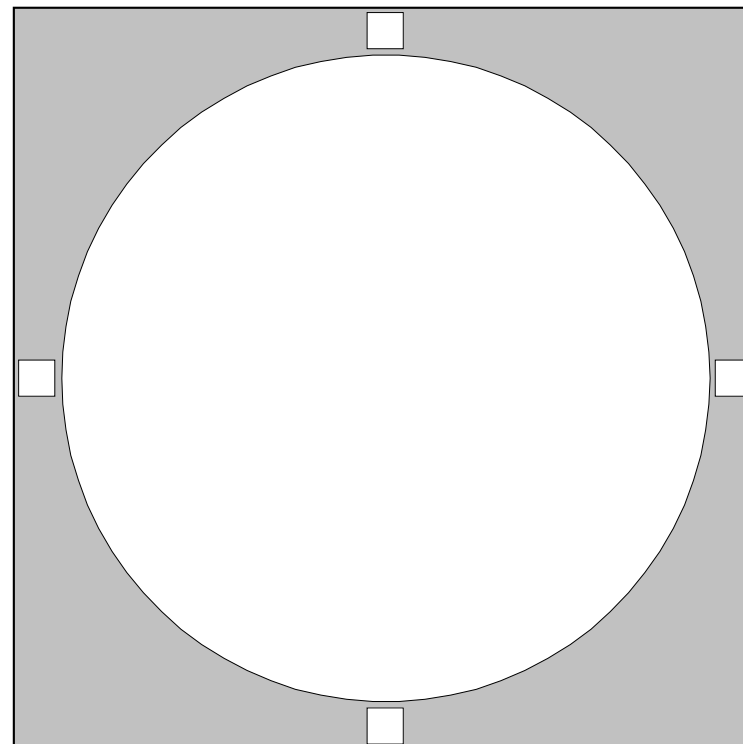
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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 ** p = Photographic Magnitude
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<http://www.rasc.ca>

RASC Messier Objects - M13

Hercules Globular Cluster

Messier Object	M13		
NGC	6205		
Constellation	Hercules		
Type	Globular Cluster		
Magnitude	5.7		
Distance (Kilo lightyears)	25.1		
RA	16 41.7		
Dec	+36:28		
Size	16.6'		
UM I	UM II	114	50,51
SA	8		
Remarks	!! Hercules Cluster; NGC6207 half degree north east		
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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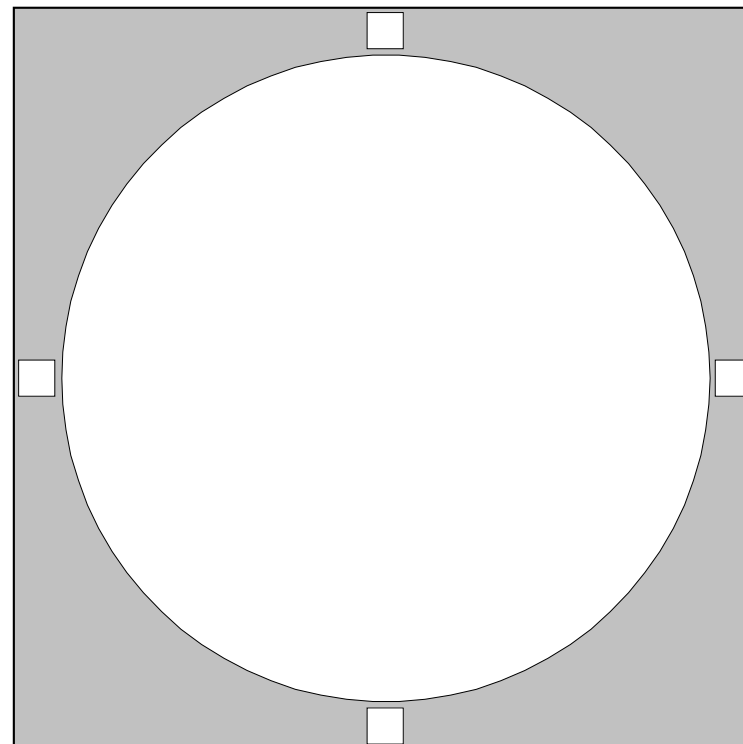
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Seeing: 1 = Best 5 = Poor
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RASC Messier Objects - M14

Messier Object		M14				
NGC		6402				
Constellation		Ophiuchus				
Type		Globular Cluster				
Magnitude		7.6				
Distance (Kilo lightyears)		29.0				
RA		17 37.6				
Dec		-03:15				
Size		11.7'				
UM I	UM II	248			106	
SA		15				
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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 OC: Open Cluster

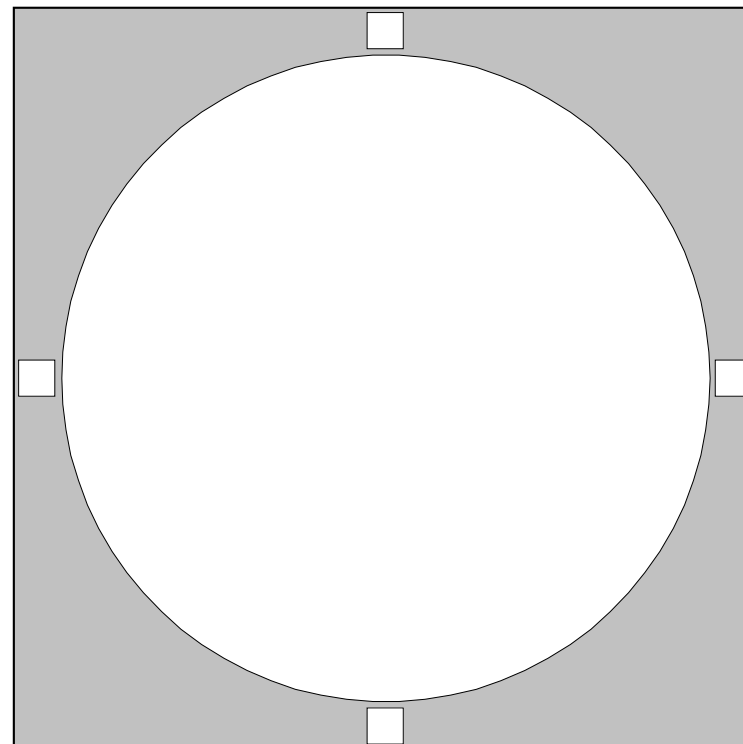
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M15

Messier Object		M15				
NGC		7078				
Constellation		Pegasus				
Type		Globular Cluster				
Magnitude		6.0				
Distance (Kilo lightyears)		33.6				
RA		21 30.0				
Dec		+12:10				
Size		12.3'				
UM I	UM II	210			83	
SA		16, 17				
Remarks		rich, compact globular				
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
 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

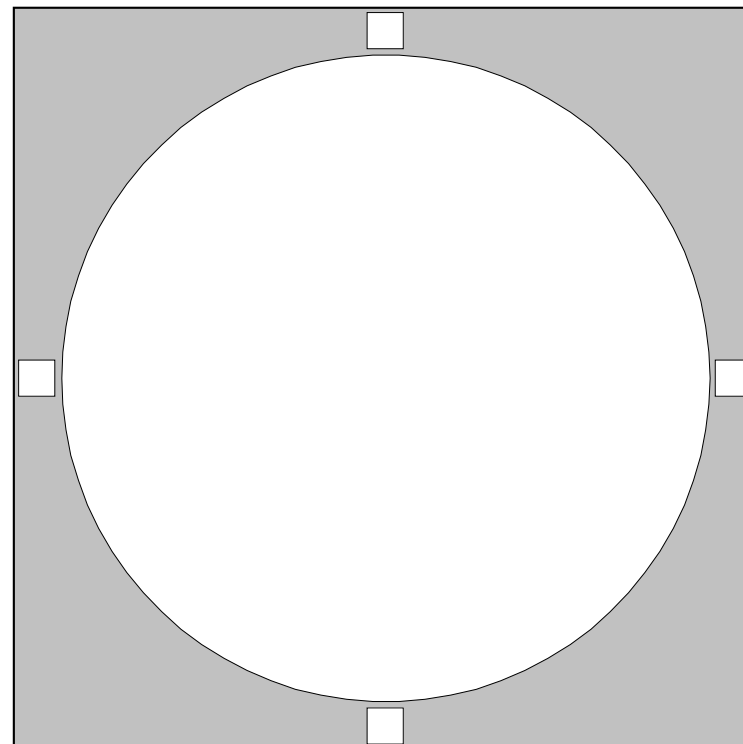
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M16

Eagle Nebula

Messier Object	M16		
NGC	6611		
Constellation	Serpens		
Type	Emission Nebula+Open Cluster		
Magnitude	na		
Distance (Kilo lightyears)	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)			



Notes

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

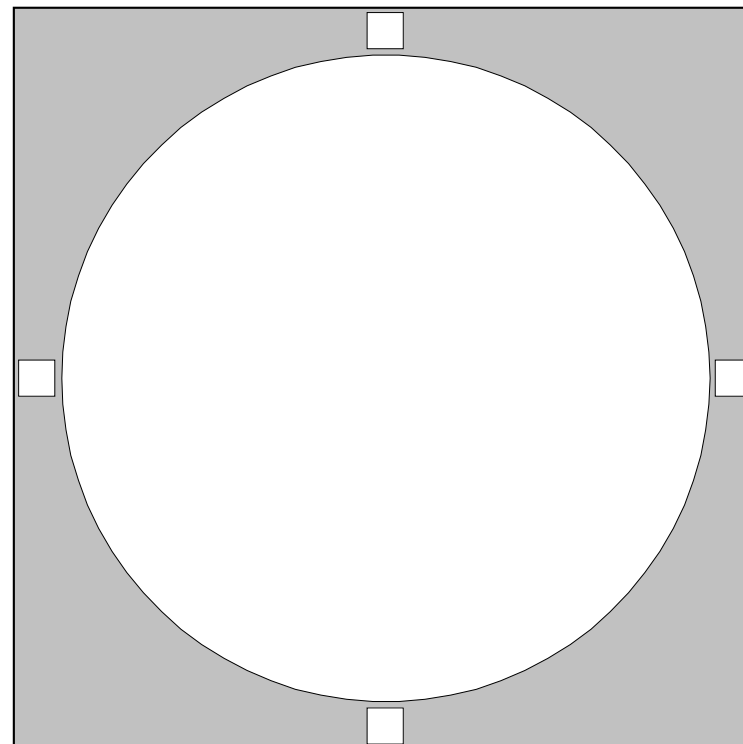
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M17
Omega. Swan. Horseshoe. or Lobster Nebula

Messier Object	M17		
NGC	6618		
Constellation	Sagittarius		
Type	Emission Nebula		
Magnitude	na		
Distance (Kilo lightyears)	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)			



Notes

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

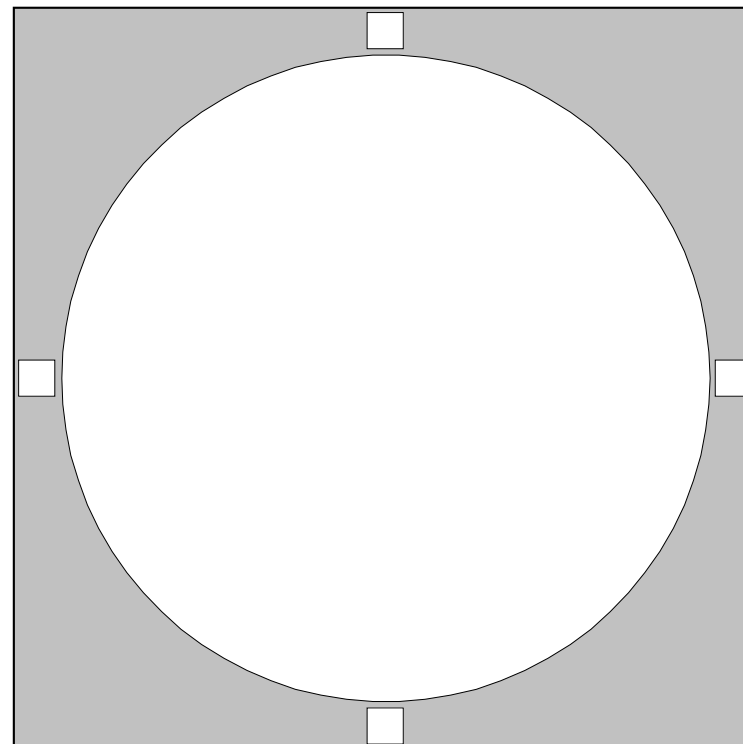
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M18

Messier Object	M18		
NGC	6613		
Constellation	Sagittarius		
Type	Open Cluster		
Magnitude	6.9		
Distance (Kilo lightyears)	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)			



Notes

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

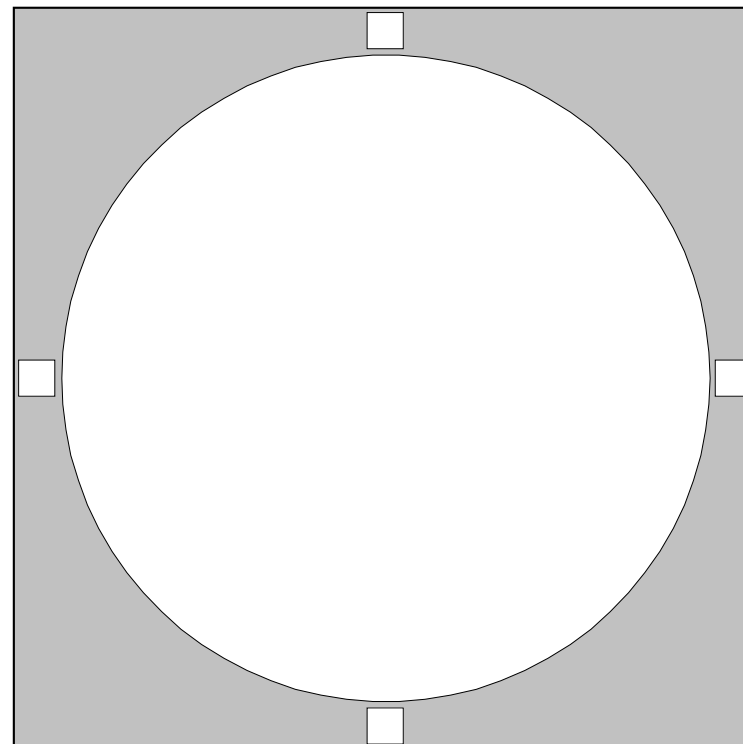
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M19

Messier Object	M19		
NGC	6273		
Constellation	Ophiuchus		
Type	Globular Cluster		
Magnitude	6.7		
Distance (Kilo lightyears)	28.4		
RA	17 02.6		
Dec	-26:16		
Size	13.5'		
UM I	UM II	337	146
SA	22		
Remarks	oblate globular; M62 four degrees south		
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
 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

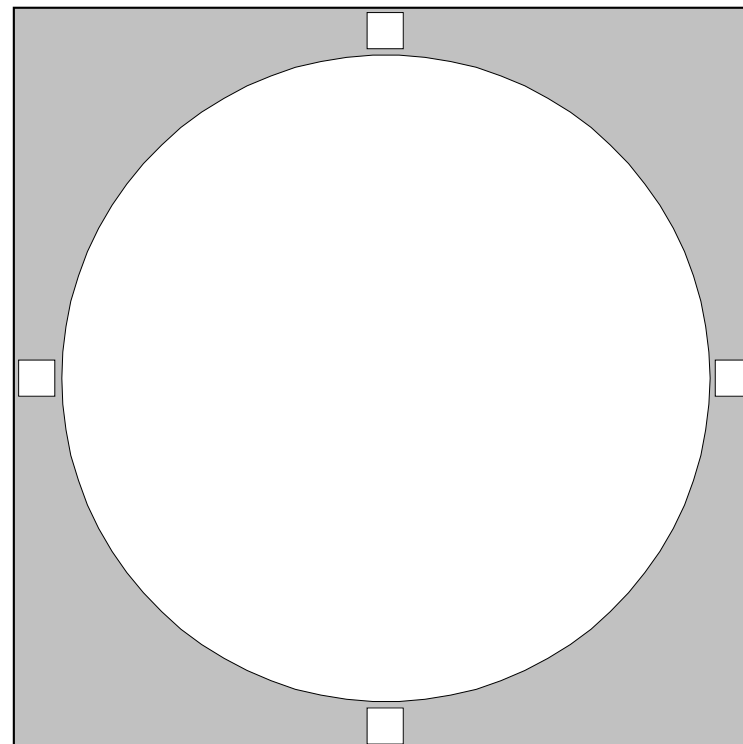
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M20

Trifid Nebula

Messier Object		M20				
NGC		6514				
Constellation		Sagittarius				
Type		Emission/Reflection Nebula				
Magnitude		na				
Distance (Kilo lightyears)		5.2				
RA		18 02.3				
Dec		-23:02				
Size		20.0' x 20.0'				
UM I	UM II	339			145,146,A17	
SA		22				
Remarks		!! Trifid Nebula; look for dark 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
 SNR: Supernova Remnant
 GC: Globular Cluster
 OC: Open Cluster

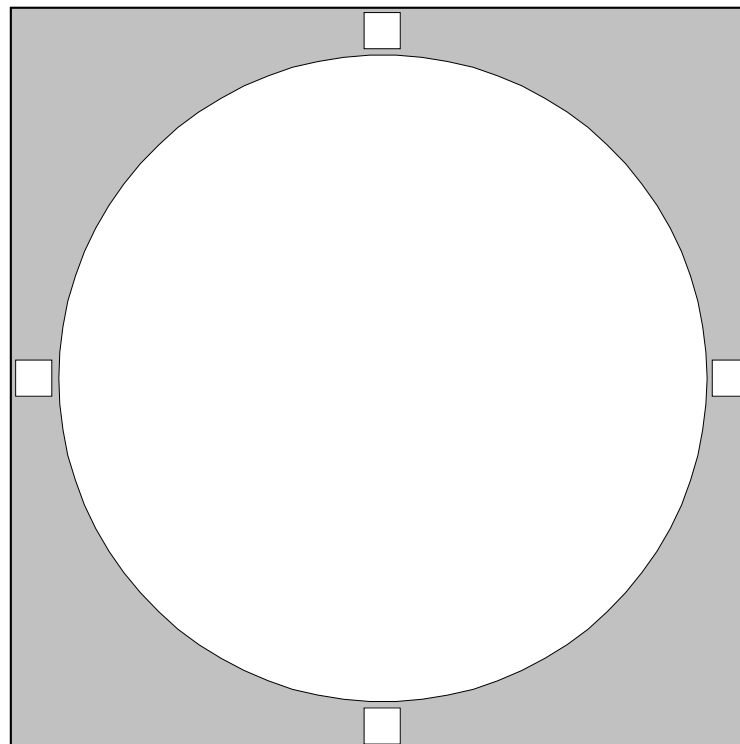
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M21

Messier Object		M21				
NGC		6531				
Constellation		Sagittarius				
Type		Open Cluster				
Magnitude		5.9				
Distance (Kilo lightyears)		4.25				
RA		18 04.6				
Dec		-22:30				
Size		13.0'				
UM I	UM II	339			145,A17	
SA		22				
Remarks		0.7' noth east of M20; sparse cluster				
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
 SNR: Supernova Remnant
 GC: Globular Cluster
 OC: Open Cluster

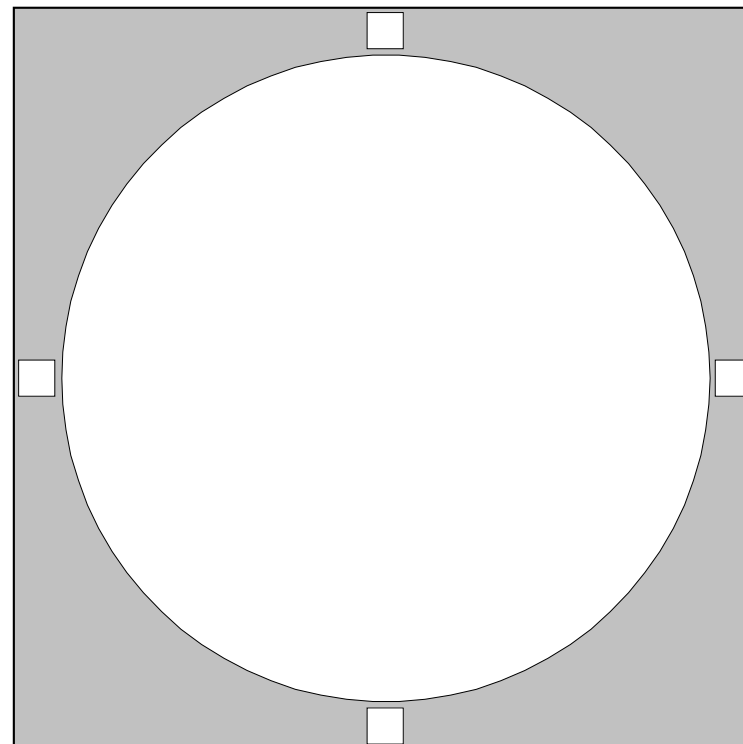
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M22

Messier Object	M22		
NGC	6656		
Constellation	Sagittarius		
Type	Globular Cluster		
Magnitude	5.1		
Distance (Kilo lightyears)	10.4		
RA	18 36.4		
Dec	-23:54		
Size	24.0'		
UM I	UM II	340	145
SA	22		
Remarks	spectacular from southern latitude		
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
 SNR: Supernova Remnant
 GC: Globular Cluster
 OC: Open Cluster

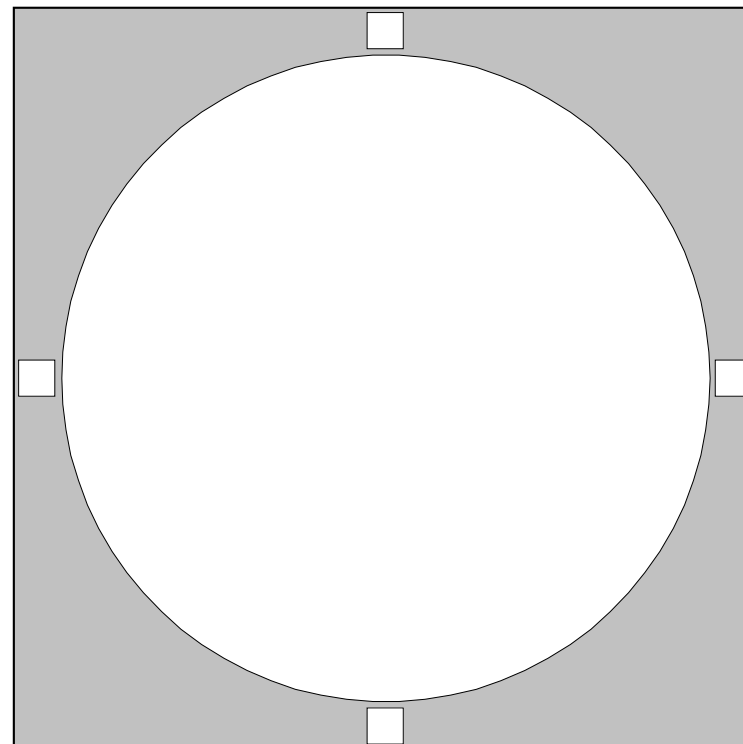
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M23

Messier Object	M23		
NGC	6494		
Constellation	Sagittarius		
Type	Open Cluster		
Magnitude	5.5		
Distance (Kilo lightyears)	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)			



Notes

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

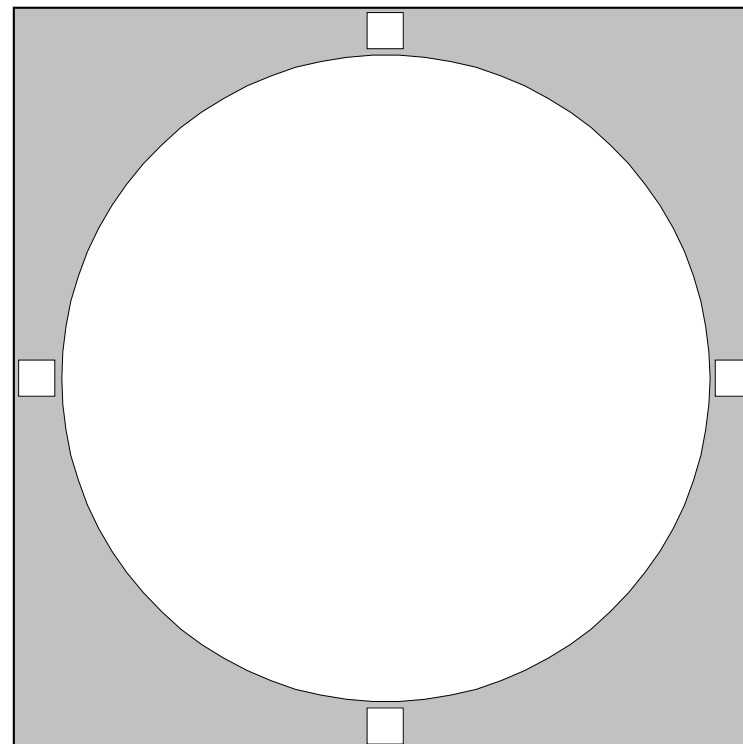
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M24
Sagittarius Star Cloud. Delle Caustiche

Messier Object	M24		
NGC	>6603		
Constellation	Sagittarius		
Type	Star Cloud		
Magnitude	4.6		
Distance (Kilo lightyears)	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
 SNR: Supernova Remnant
 GC: Globular Cluster
 OC: Open Cluster

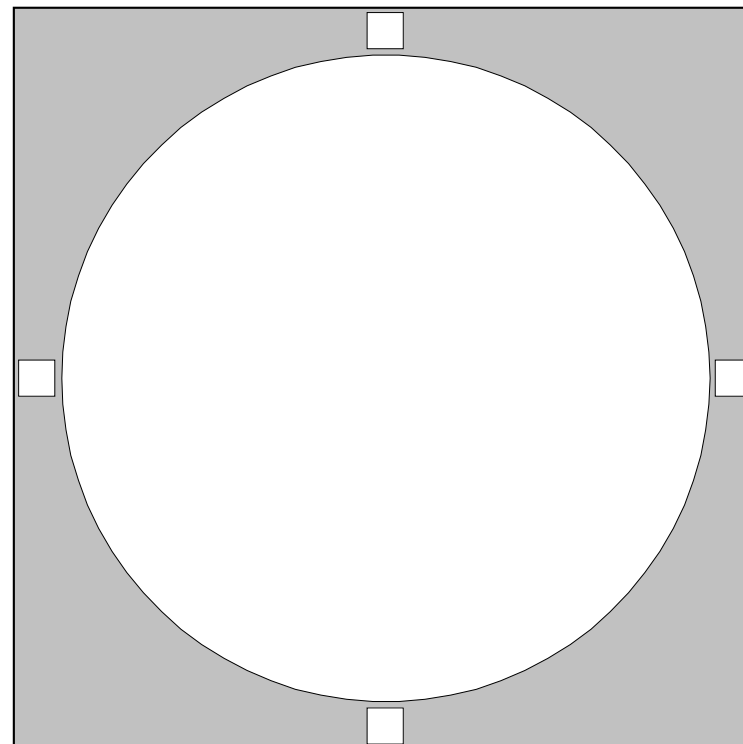
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M25

Messier Object	M25		
NGC	IC4725		
Constellation	Sagittarius		
Type	Open Cluster		
Magnitude	4.6		
Distance (Kilo lightyears)	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)			



Notes

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

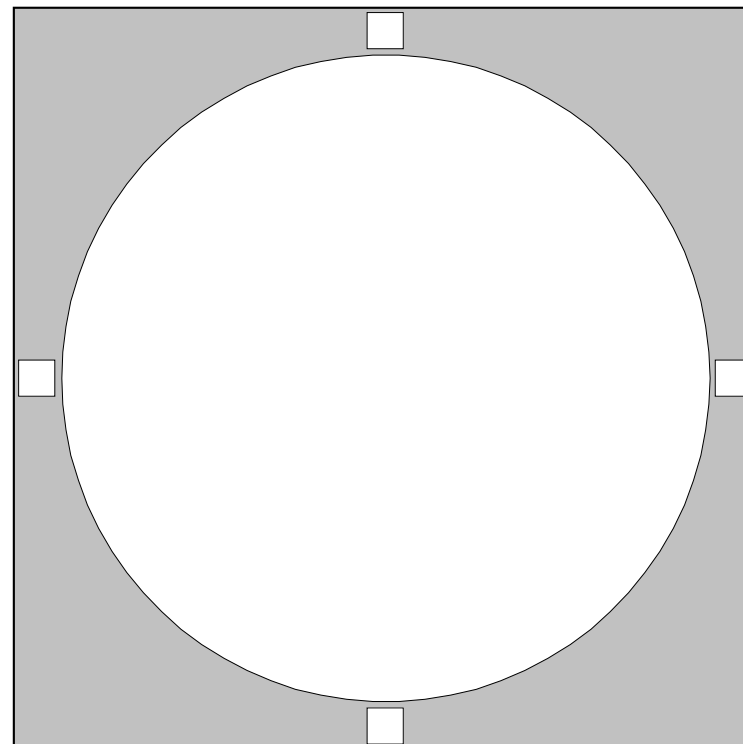
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M26

Messier Object	M26		
NGC	6694		
Constellation	Scutum		
Type	Open Cluster		
Magnitude	8.0		
Distance (Kilo lightyears)	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)			



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

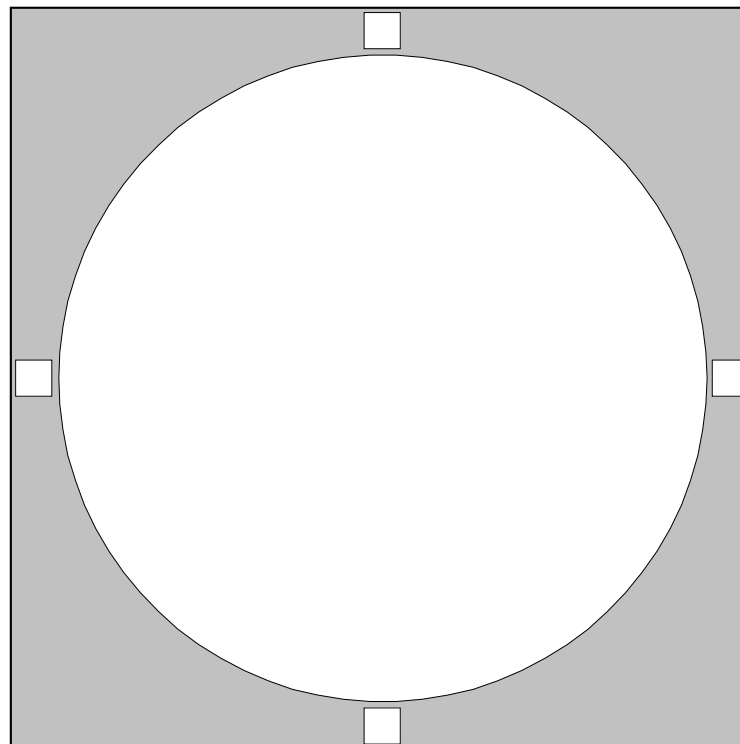
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M27

Dumbbell Nebula

Messier Object	M27		
NGC	6853		
Constellation	Vulpecula		
Type	Planetary Nebula		
Magnitude	7.3		
Distance (Kilo lightyears)	1.25		
RA	19 59.6		
Dec	+22:43		
Size	> 5' 48"		
UM I	UM II	162,163	66
SA	8, 9		
Remarks	!! Dumbbell Nebula; a superb object		
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
 SNR: Supernova Remnant
 GC: Globular Cluster
 OC: Open Cluster

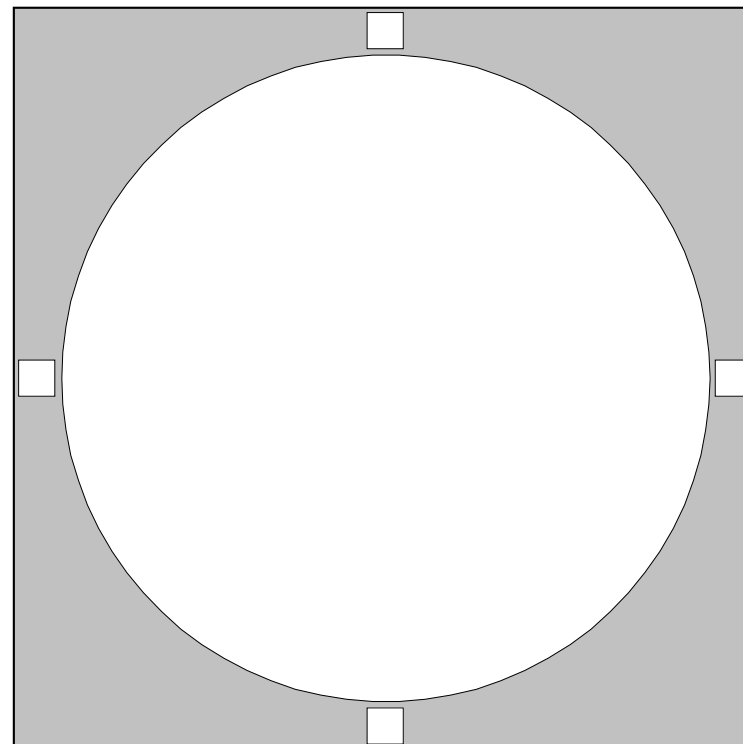
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M28

Messier Object		M28				
NGC		6626				
Constellation		Sagittarius				
Type		Globular Cluster				
Magnitude		6.8				
Distance (Kilo lightyears)		18.6				
RA		18 24.5				
Dec		-24:52				
Size		11.2'				
UM I	UM II	339,340			145	
SA		22				
Remarks		compact globular near M22				
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
 SNR: Supernova Remnant
 GC: Globular Cluster
 OC: Open Cluster

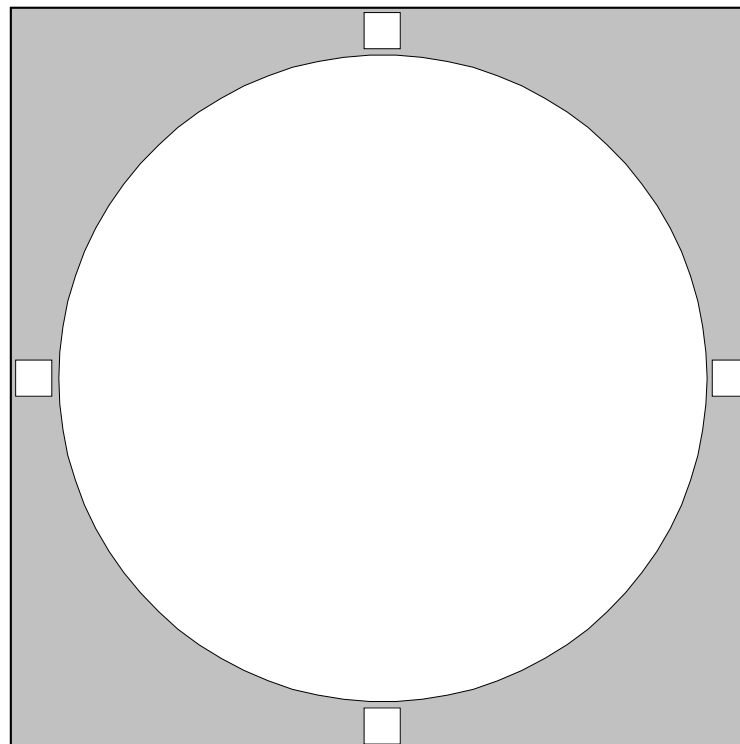
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M29

Messier Object		M29				
NGC		6913				
Constellation		Cygnus				
Type		Open Cluster				
Magnitude		6.6				
Distance (Kilo lightyears)		4.0				
RA		20 23.9				
Dec		+38:32				
Size		6.0'				
UM I	UM II	84,85,119,120			48,A2	
SA		8, 9				
Remarks		small, poor open cluster two degrees south of Gamma Cygni				
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
 SNR: Supernova Remnant
 GC: Globular Cluster
 OC: Open Cluster

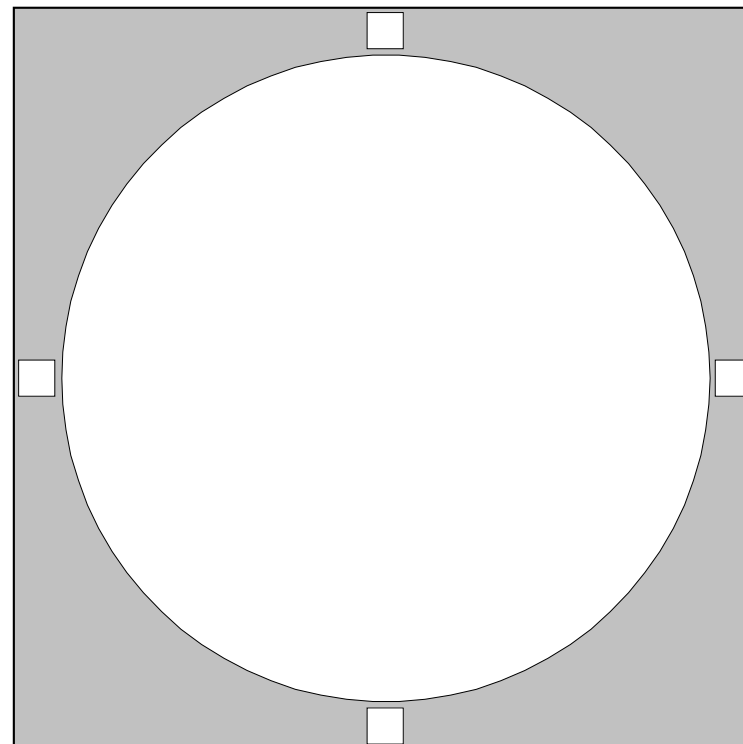
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M30

Messier Object	M30		
NGC	7099		
Constellation	Capricornus		
Type	Globular Cluster		
Magnitude	7.3		
Distance (Kilo lightyears)	26.1		
RA	21 40.4		
Dec	-23:11		
Size	11.0'		
UM I	UM II	345,346	143
SA	23		
Remarks	toughest in 1-night Messier marathon		
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
 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

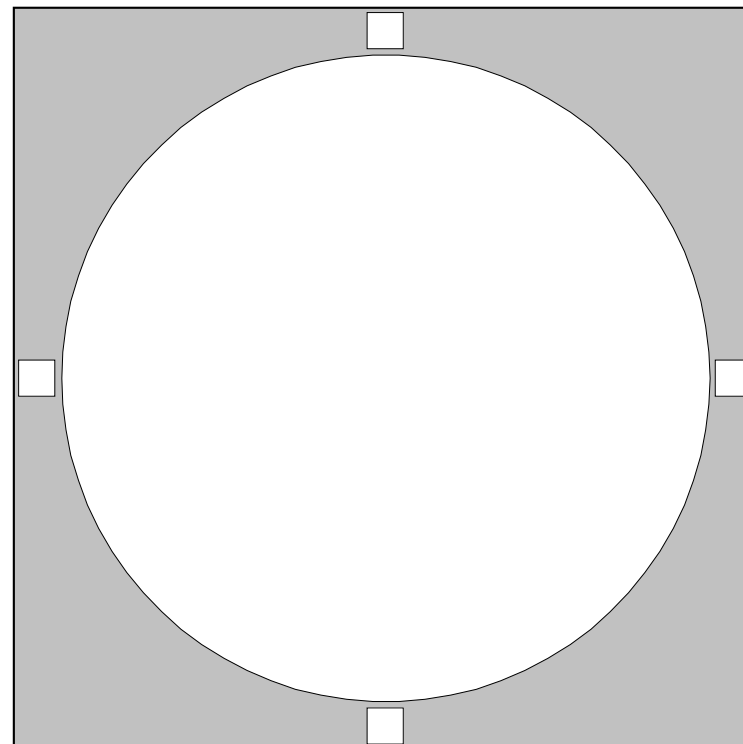
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M31

Andromeda Galaxy

Messier Object		M31				
NGC		224				
Constellation		Andromeda				
Type		Spiral Galaxy (G-SAb)				
Magnitude		3.4				
Distance (Kilo lightyears)		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
 SNR: Supernova Remnant
 GC: Globular Cluster
 OC: Open Cluster

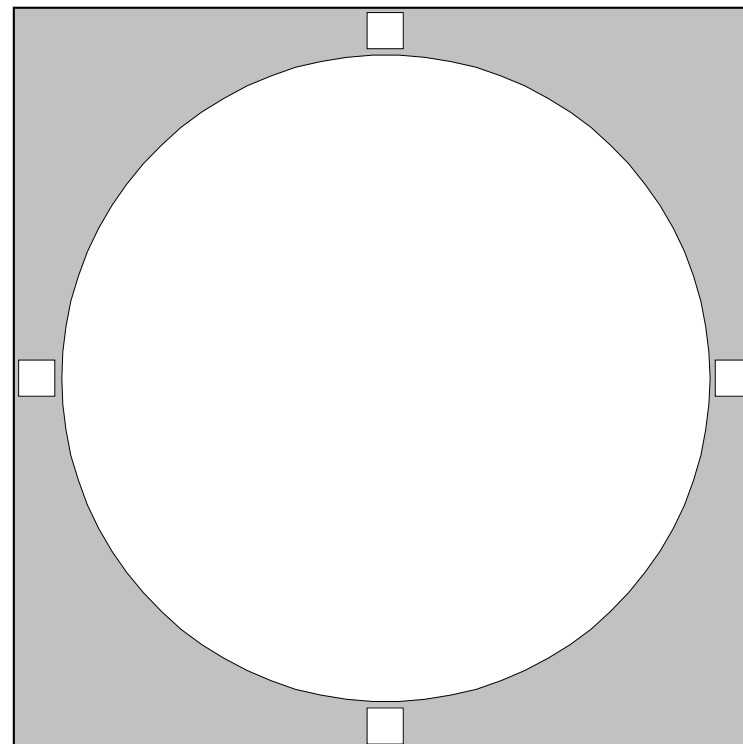
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

* = Number of stars in cluster
 ** p = Photographic Magnitude
 *** !! = Showpiece Object
<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 lightyears)		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
 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

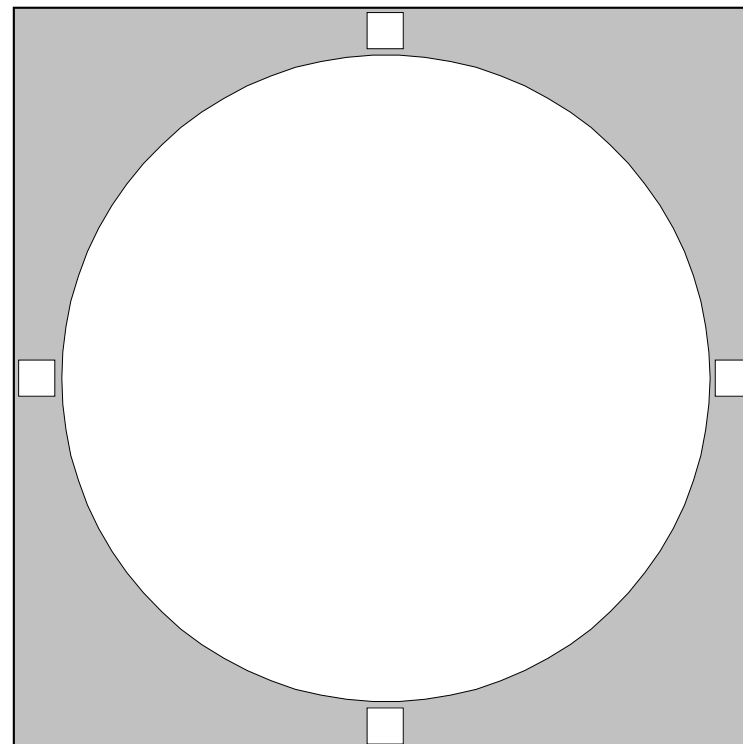
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

* = Number of stars in cluster
 ** p = Photographic Magnitude
 *** !! = Showpiece Object
<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 lightyears)	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

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

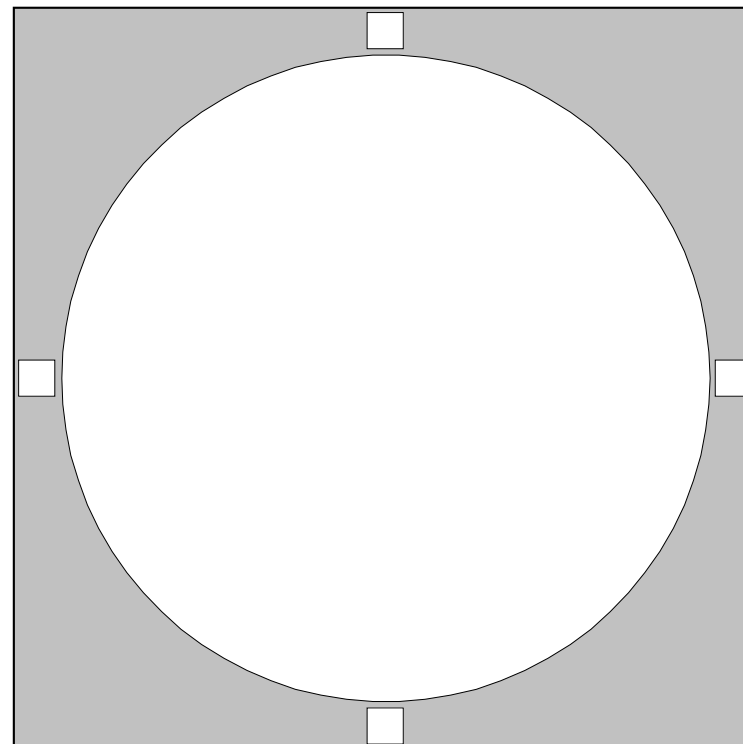
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M34

Messier Object		M34				
NGC		1039				
Constellation		Perseus				
Type		Open Cluster				
Magnitude		5.2				
Distance (Kilo lightyears)		1.4				
RA		02 42.0				
Dec		+42:47				
Size		35.0'				
UM I	UM II	62			43	
SA		1, 4				
Remarks		best at low power				
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
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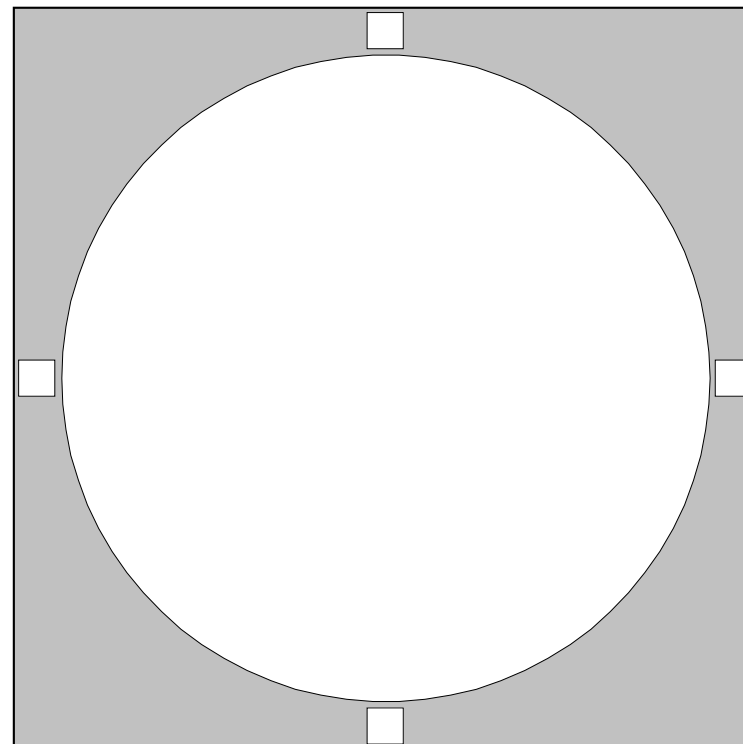
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

* = Number of stars in cluster
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 *** !! = Showpiece Object
<http://www.rasc.ca>

RASC Messier Objects - M35

Messier Object	M35		
NGC	2168		
Constellation	Gemini		
Type	Open Cluster		
Magnitude	5.1		
Distance (Kilo lightyears)	2.8		
RA	06 08.9		
Dec	+24:20		
Size	28'		
UM I	UM II	136,137	76
SA	5		
Remarks	!! look for small cluster NGC 2158 1/4 degree south		
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
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 GC: Globular Cluster
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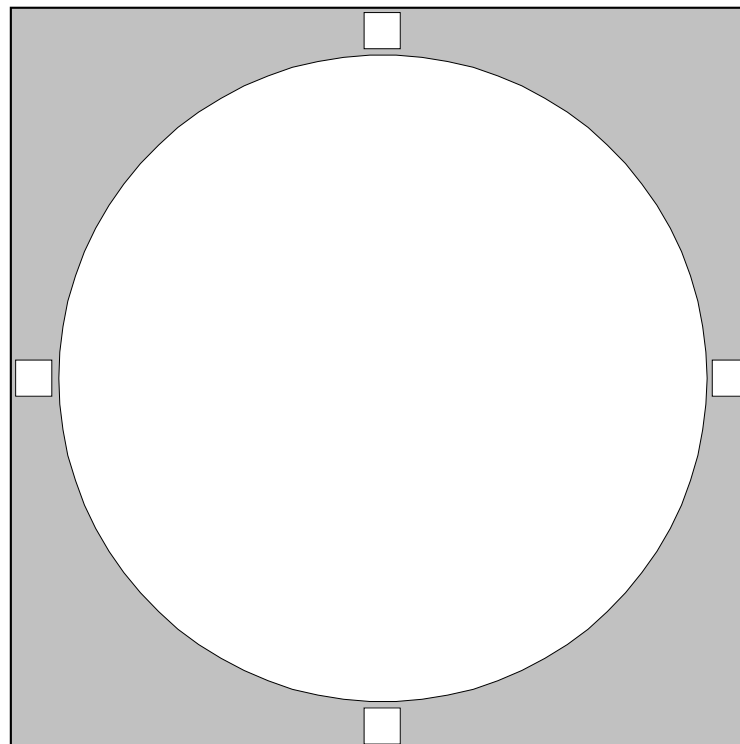
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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 ** p = Photographic Magnitude
 *** !! = Showpiece Object
<http://www.rasc.ca>

RASC Messier Objects - M36

Messier Object	M36		
NGC	1960		
Constellation	Auriga		
Type	Open Cluster		
Magnitude	6.0		
Distance (Kilo lightyears)	4.1		
RA	05 36.1		
Dec	+34:08		
Size	12'		
UM I	UM II	97,98	59
SA	5		
Remarks	Bright but scattered group;use low power		
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
 SNR: Supernova Remnant
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 OC: Open Cluster

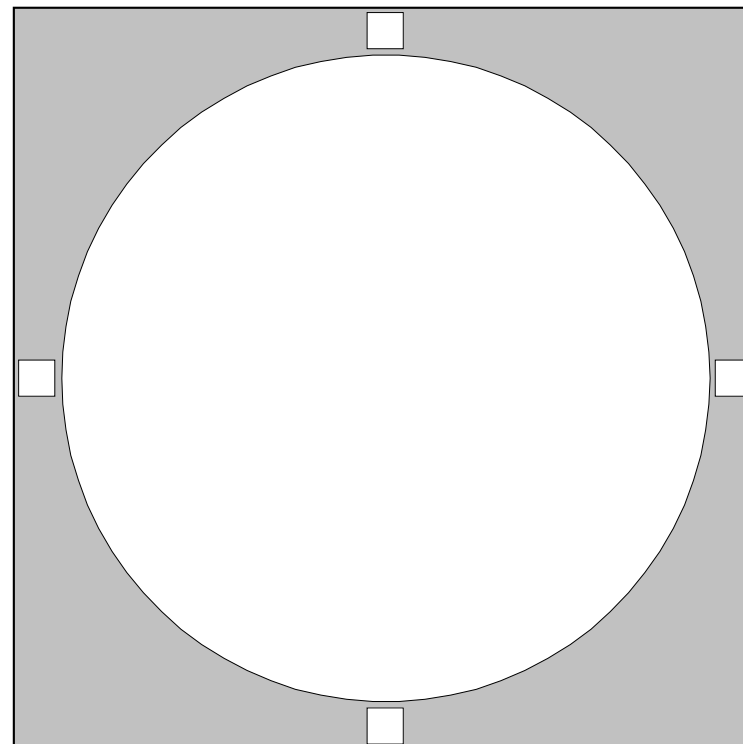
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M37

Messier Object	M37		
NGC	2099		
Constellation	Auriga		
Type	Open Cluster		
Magnitude	5.6		
Distance (Kilo lightyears)	4.4		
RA	05 52.4		
Dec	+32:33		
Size	20'		
UM I	UM II	98	59
SA	5		
Remarks	!! finest of three Auriga clusters; very rich		
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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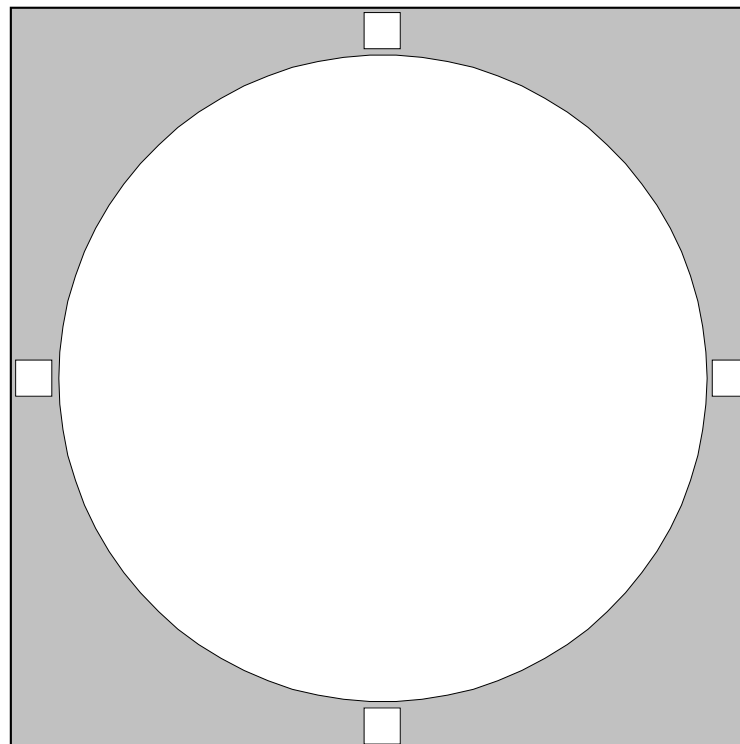
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M38

Messier Object	M38		
NGC	1912		
Constellation	Auriga		
Type	Open Cluster		
Magnitude	6.4		
Distance (Kilo lightyears)	4.2		
RA	05 28.7		
Dec	+35:50		
Size	21'		
UM I	UM II	97	59
SA	5		
Remarks	look for small cluster NGC1907 1/2 degree south		
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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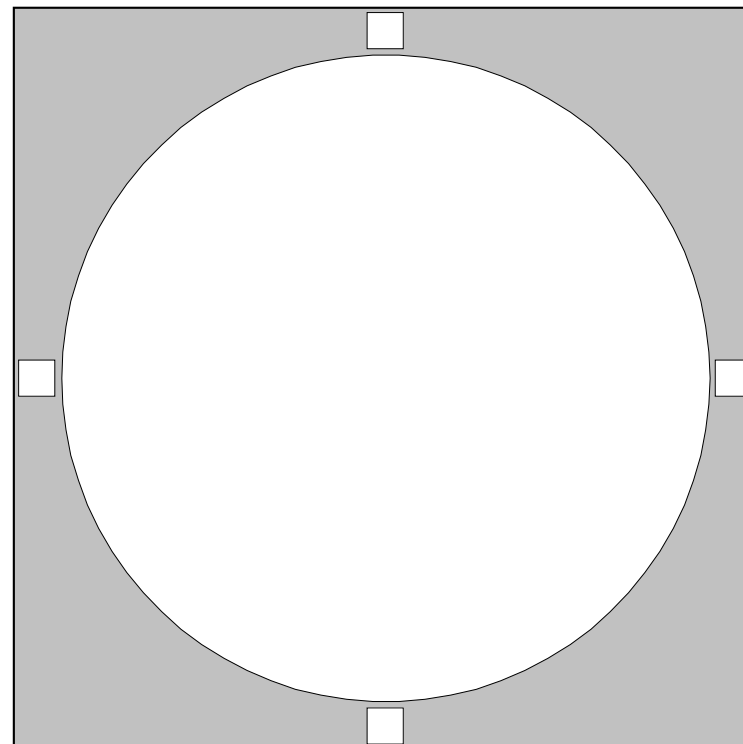
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M39

Messier Object		M39				
NGC		7092				
Constellation		Cygnus				
Type		Open Cluster				
Magnitude		4.6				
Distance (Kilo lightyears)		0.825				
RA		21 32.2				
Dec		+48:26				
Size		31.0'				
UM I	UM II	86			32	
SA		9				
Remarks		very sparse cluster; use low power				
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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RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

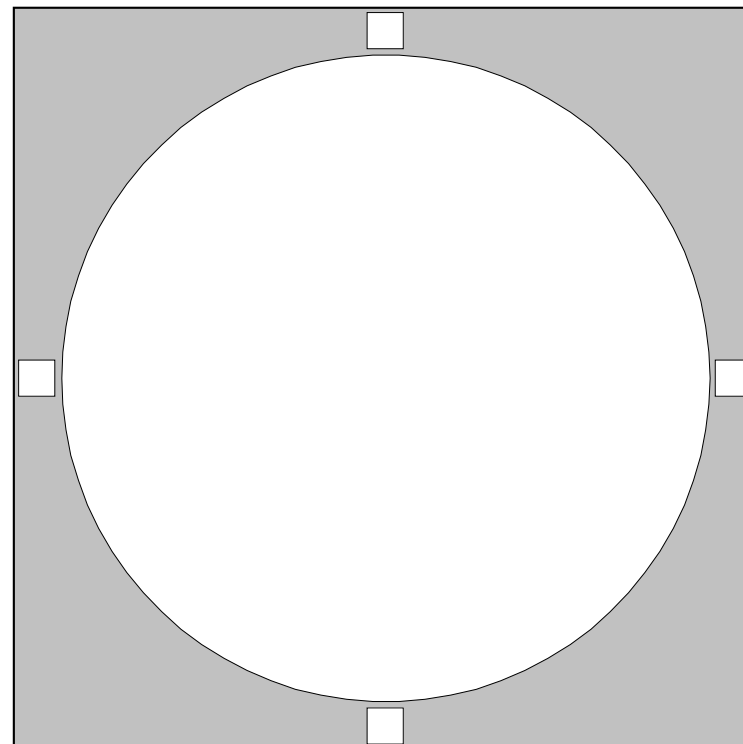
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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<http://www.rasc.ca>

RASC Messier Objects - M40

Winnecke 4

Messier Object	M40		
NGC	Win4		
Constellation	Ursa Major		
Type	Double star		
Magnitude	8.0		
Distance (Kilo lightyears)	0.51		
RA	12 22.4		
Dec	+58:05		
Size			
UM I	UM II	47	24
SA	2		
Remarks	double star Winnecke 4; seperation 50 seconds		
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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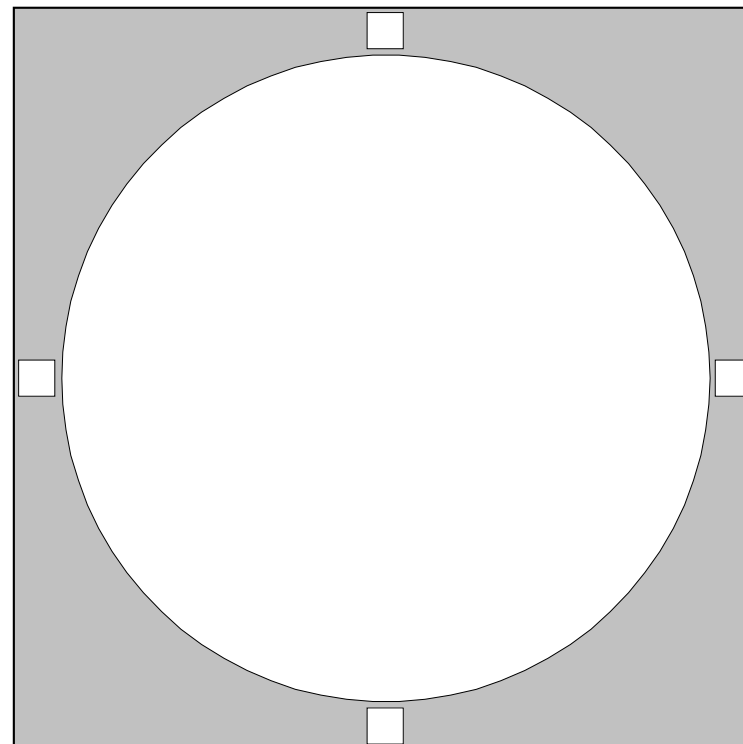
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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 *** !! = Showpiece Object
<http://www.rasc.ca>

RASC Messier Objects - M41

Messier Object	M41		
NGC	2287		
Constellation	Canis Major		
Type	Open Cluster		
Magnitude	4.5		
Distance (Kilo lightyears)	2.3		
RA	06 47.0		
Dec	-20:44		
Size	38'		
UM I	UM II	318	154
SA	19		
Remarks	4 degrees south of sirius; bright but coarse		
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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RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

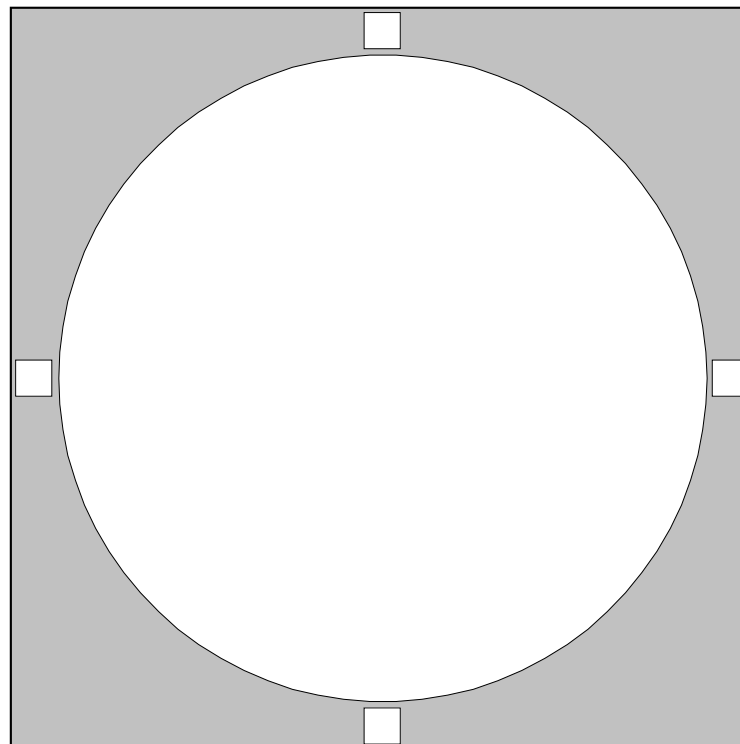
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

* = Number of stars in cluster
 ** p = Photographic Magnitude
 *** !! = Showpiece Object
<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 lightyears)		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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 E/RN: Diffuse emission and reflection Nebula

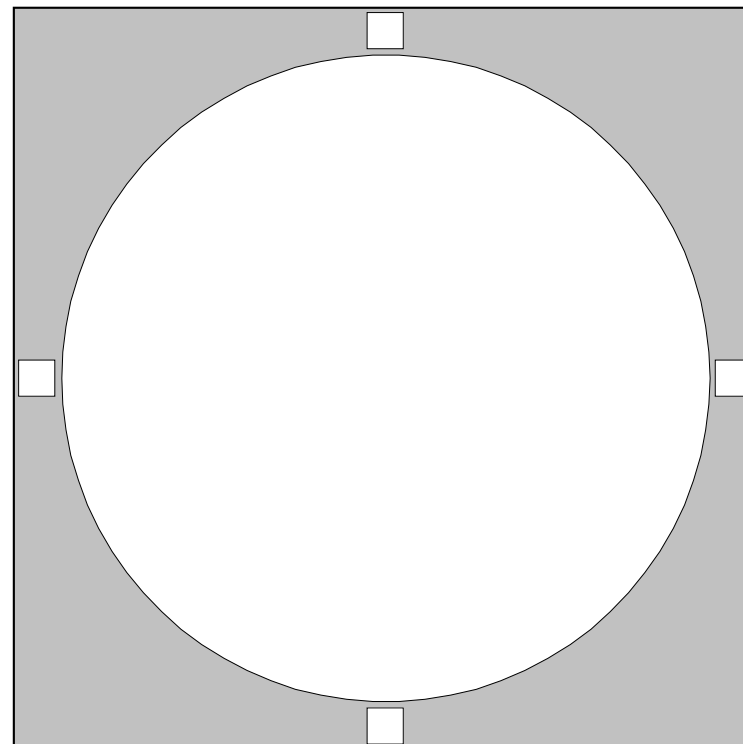
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

* = Number of stars in cluster
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<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 lightyears)		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)						



Notes

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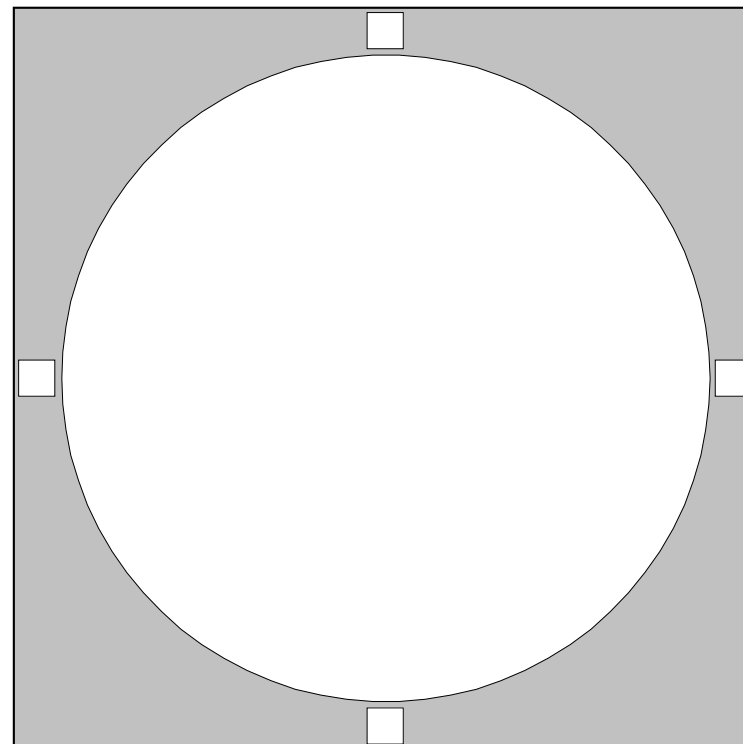
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M44
Beehive Cluster. Praesepe

Messier Object	M44		
NGC	2632		
Constellation	Cancer		
Type	Open Cluster		
Magnitude	3.1		
Distance (Kilo lightyears)	0.577		
RA	08 40.1		
Dec	+19:59		
Size	95'		
UM I	UM II	141	74,75
SA	6, 12		
Remarks	!! Beehive or Praesepe; use low power		
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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 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

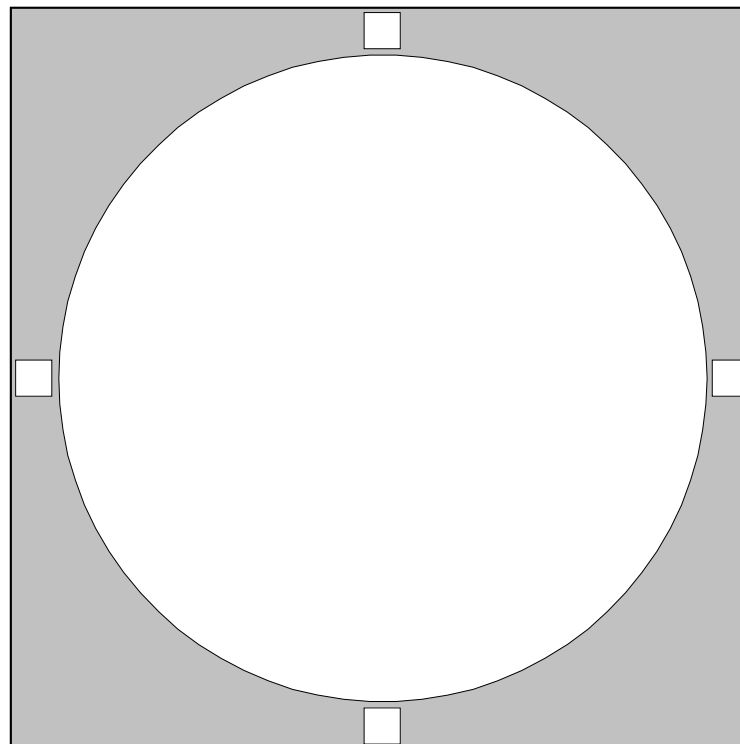
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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 ** p = Photographic Magnitude
 *** !! = Showpiece Object
<http://www.rasc.ca>

RASC Messier Objects - M45

Pleiades

Messier Object	M45		
NGC	-		
Constellation	Taurus		
Type	Open Cluster		
Magnitude	1.2		
Distance (Kilo lightyears)	0.38		
RA	03 47.0		
Dec	+24:07		
Size	110'		
UM I	UM II	132	78,A12
SA	4, A2		
Remarks	!! Pleiades; look for subtle nebulosity		
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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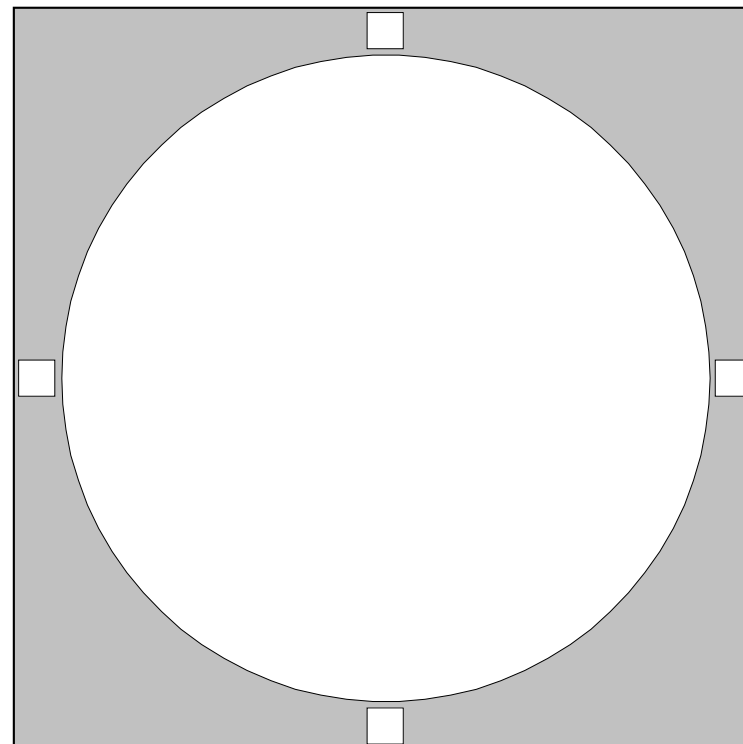
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M46

Messier Object	M46		
NGC	2437		
Constellation	Puppis		
Type	Open Cluster		
Magnitude	6.1		
Distance (Kilo lightyears)	5.4		
RA	07 41.8		
Dec	-14:49		
Size	27'		
UM I	UM II	274,275	135
SA	12, 19		
Remarks	!! contains planetary nebula NGC 2438		
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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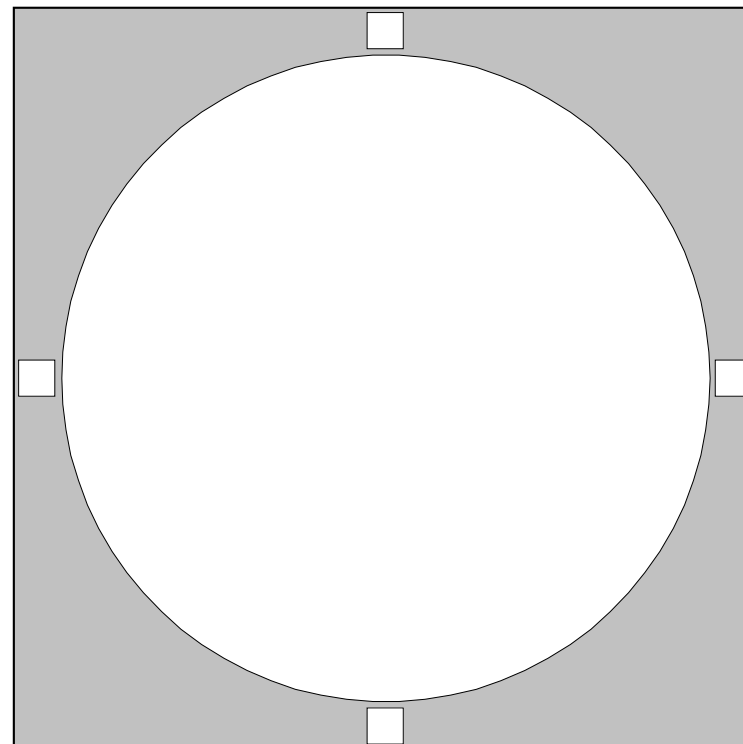
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M47

Messier Object		M47				
NGC		2422				
Constellation		Puppis				
Type		Open Cluster				
Magnitude		4.4				
Distance (Kilo lightyears)		1.6				
RA		07 36.6				
Dec		-14:30				
Size		29'				
UM I	UM II	274			135	
SA		12, 19				
Remarks		coarse cluster 1.5 degrees west of M46				
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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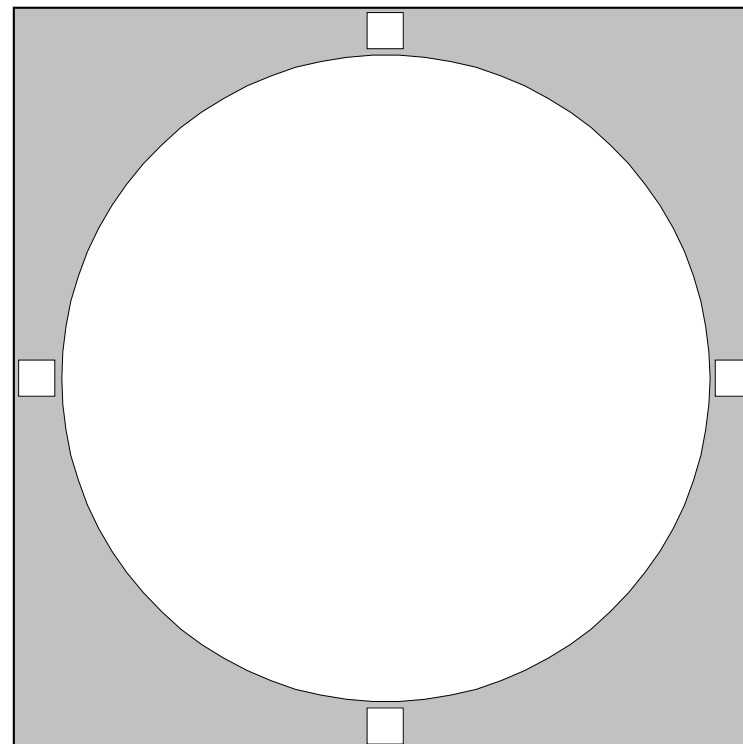
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

* = Number of stars in cluster
 ** p = Photographic Magnitude
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<http://www.rasc.ca>

RASC Messier Objects - M48

Messier Object		M48				
NGC		2548				
Constellation		Hydra				
Type		Open Cluster				
Magnitude		5.8				
Distance (Kilo lightyears)		1.5				
RA		08 13.8				
Dec		-05:48				
Size		54'				
UM I	UM II	230,231,275,276			114,134	
SA		12				
Remarks		former "lost" Messier; large sparse cluster				
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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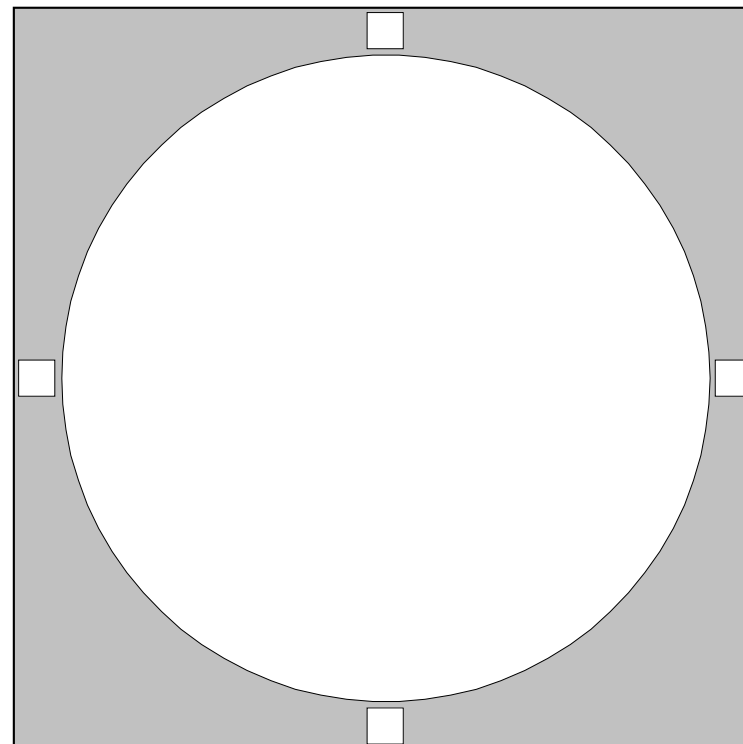
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M49

Messier Object		M49				
NGC		4472				
Constellation		Virgo				
Type		Elliptical Galaxy (G-E2)				
Magnitude		8.4				
Distance (Kilo lightyears)		60000				
RA		12 29.8				
Dec		+08:00				
Size		8.1' x 7.1'				
UM I	UM II	193,194			91,A15	
SA		13, 14, B1				
Remarks		very bright elliptical				
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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 OC: Open Cluster

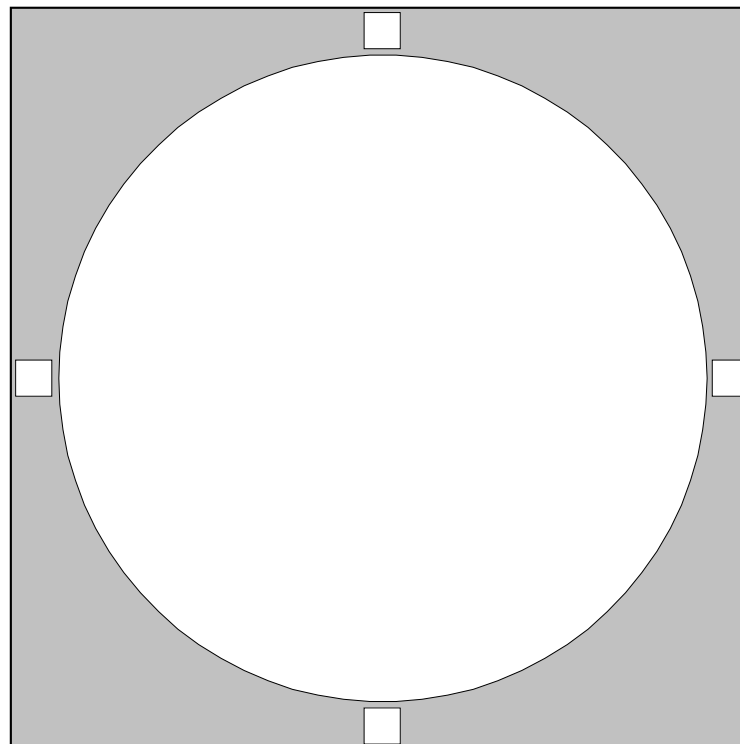
RN: (diffuse) Reflection Nebula
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 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M50

Messier Object	M50		
NGC	2323		
Constellation	Monoceros		
Type	Open Cluster		
Magnitude	5.9		
Distance (Kilo lightyears)	3		
RA	07 03.2		
Dec	-08:20		
Size	16'		
UM I	UM II	273	135
SA	12		
Remarks	between sirius and Procyon; use low magnification		
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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 OC: Open Cluster

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

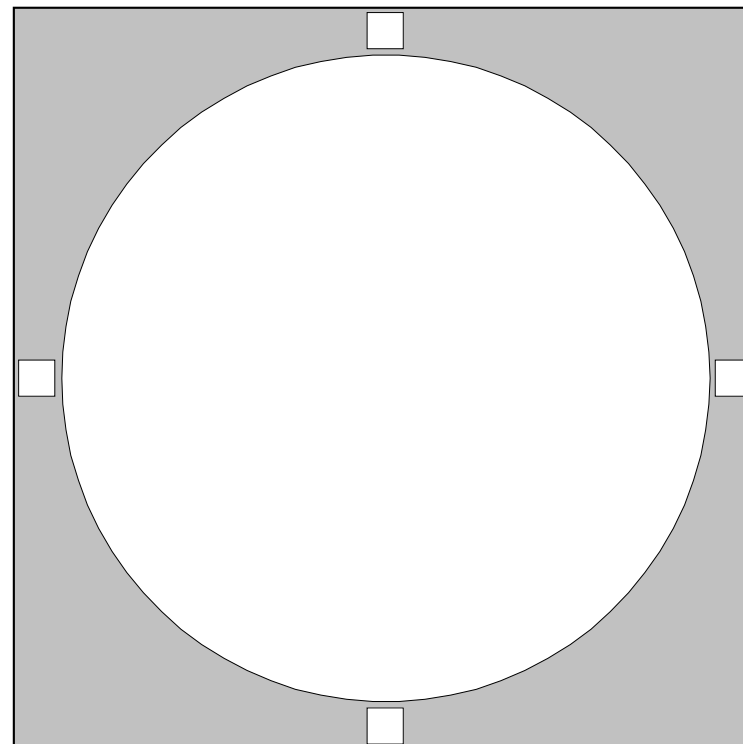
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M51

Whirlpool Galaxy

Messier Object		M51				
NGC		5194/5				
Constellation		Canes Venatici				
Type		Spiral Galaxy (G-SAbc)				
Magnitude		8.4				
Distance (Kilo lightyears)		37000				
RA		13 29.9				
Dec		+47:12				
Size		8.0' x 7.0'				
UM I	UM II	76			37	
SA		7				
Remarks		!! Whirlpool Galaxy; superb in big scope				
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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 OC: Open Cluster

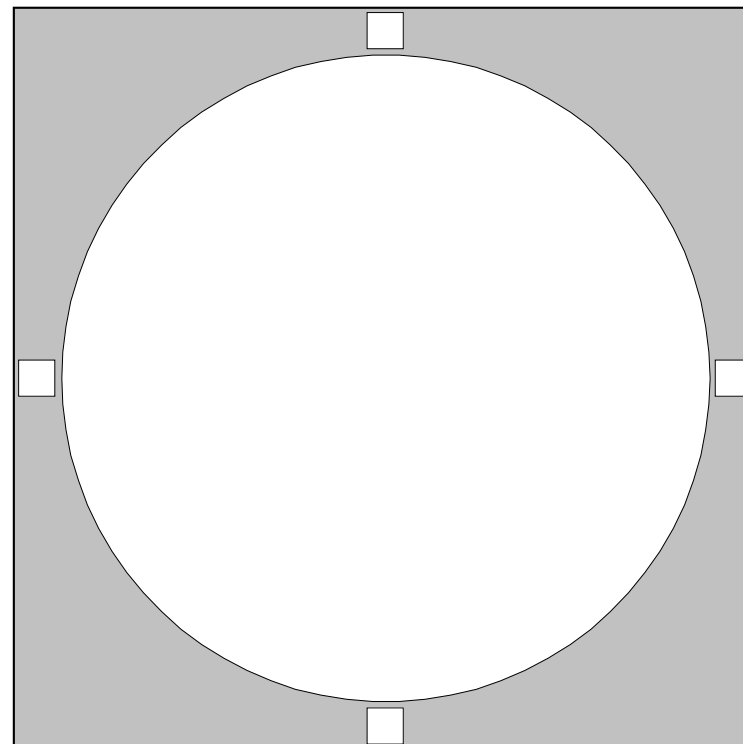
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M52

Messier Object	M52		
NGC	7654		
Constellation	Cassiopeia		
Type	Open Cluster		
Magnitude	6.9		
Distance (Kilo lightyears)	5.0		
RA	23 24.2		
Dec	+61:35		
Size	12.0'		
UM I	UM II	15,34,58	18
SA	3		
Remarks	young, rich cluster; faint Bubble Nebula near by		
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
 SNR: Supernova Remnant
 GC: Globular Cluster
 OC: Open Cluster

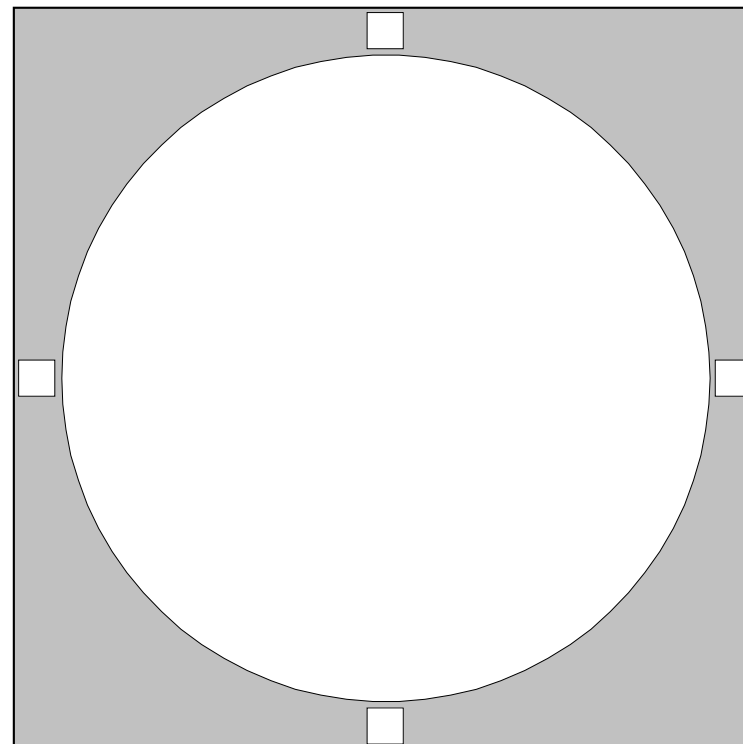
RN: (diffuse) Reflection Nebula
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Seeing: 1 = Best 5 = Poor
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 Time: DD:MM:YYYY
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RASC Messier Objects - M53

Messier Object	M53		
NGC	5024		
Constellation	Coma Berenices		
Type	Globular Cluster		
Magnitude	7.5		
Distance (Kilo lightyears)	59.7		
RA	13 12.9		
Dec	+18:10		
Size	12.6'		
UM I	UM II	150,195	71
SA	7, 14		
Remarks	150-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

PN: Planetary Nebula
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 GC: Globular Cluster
 OC: Open Cluster

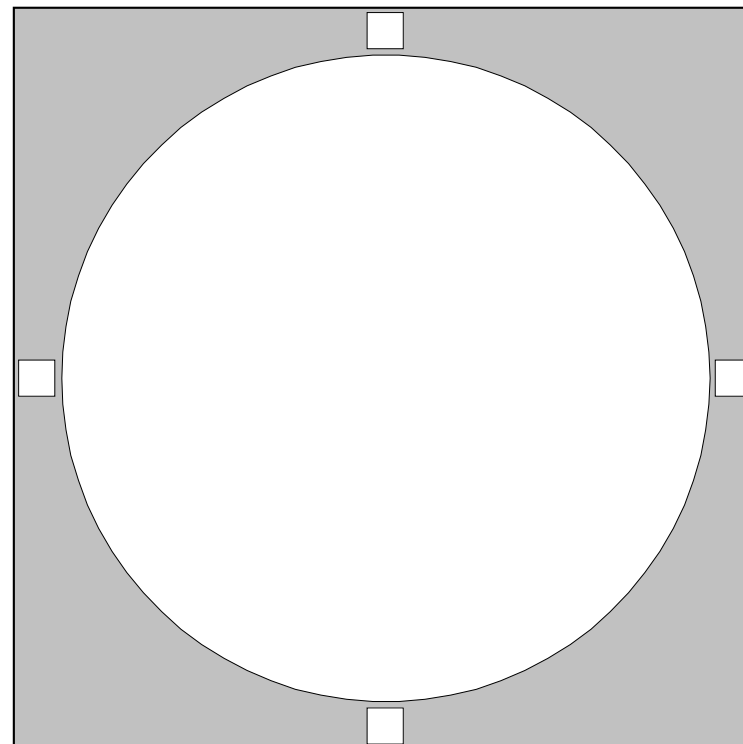
RN: (diffuse) Reflection Nebula
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 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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<http://www.rasc.ca>

RASC Messier Objects - M54

Messier Object	M54		
NGC	6715		
Constellation	Sagittarius		
Type	Globular Cluster		
Magnitude	7.6		
Distance (Kilo lightyears)	88.7		
RA	18 55.1		
Dec	-30:29		
Size	9.1'		
UM I	UM II	378	163
SA	22		
Remarks	not easily resolved		
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
 OC: Open Cluster

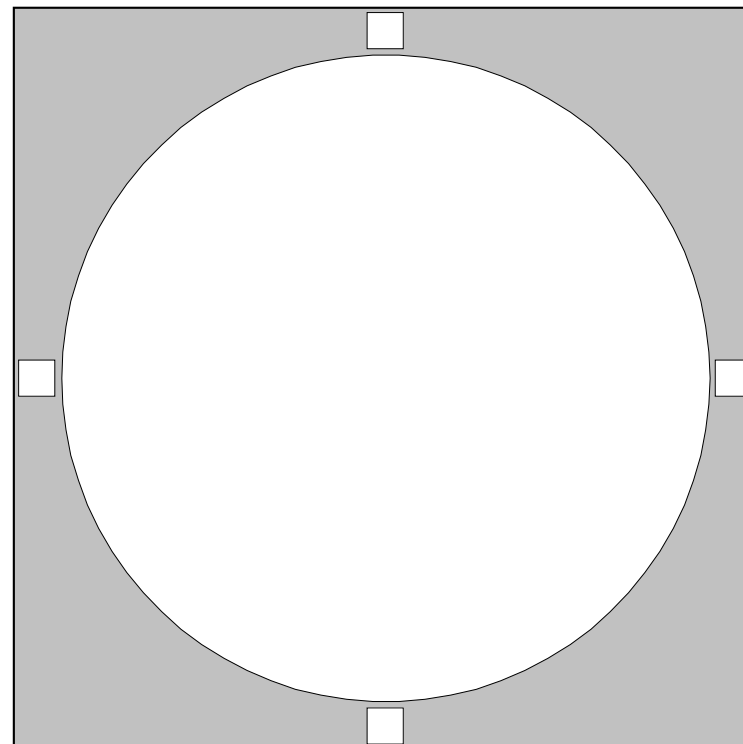
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M55

Messier Object		M55				
NGC		6809				
Constellation		Sagittarius				
Type		Globular Cluster				
Magnitude		6.4				
Distance (Kilo lightyears)		17.6				
RA		19 40.0				
Dec		-30:58				
Size		19.0'				
UM I	UM II	379,380			162	
SA		22, 23				
Remarks		bright, loose globular cluster				
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
 SNR: Supernova Remnant
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 OC: Open Cluster

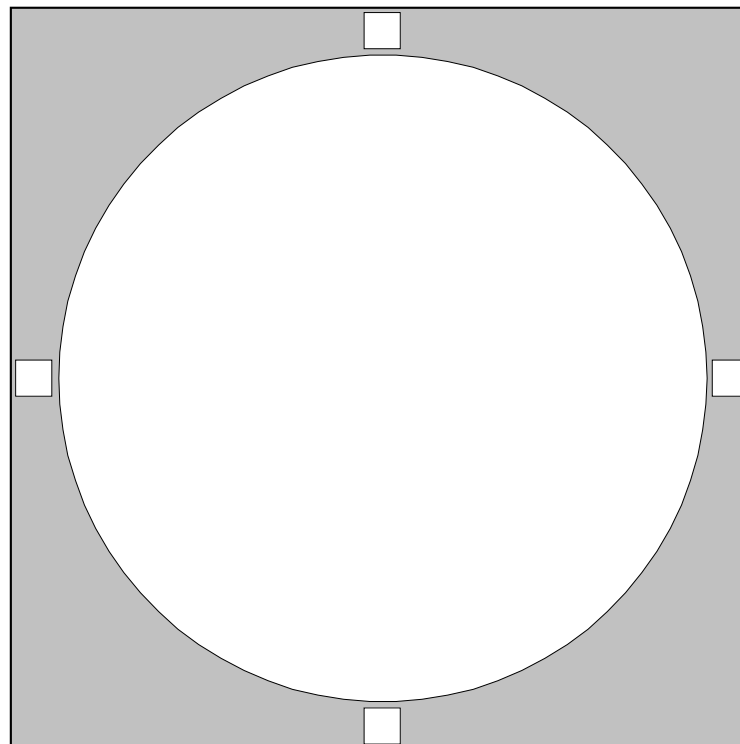
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M56

Messier Object	M56		
NGC	6779		
Constellation	Lyra		
Type	Globular Cluster		
Magnitude	8.3		
Distance (Kilo lightyears)	32.9		
RA	19 16.6		
Dec	+30:11		
Size	7.1'		
UM I	UM II	118	48,49
SA	8		
Remarks	within a rich dark field		
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
 OC: Open Cluster

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

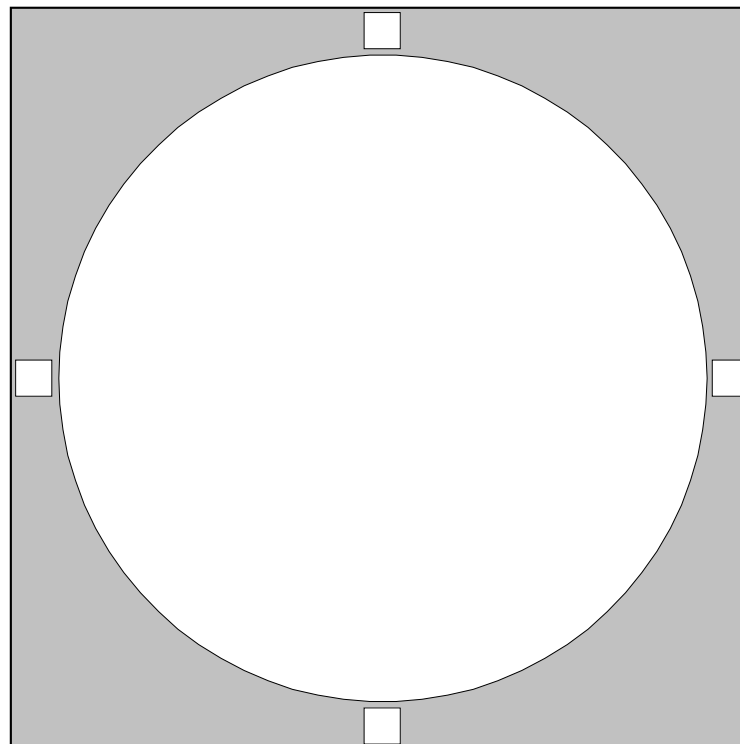
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M57

Ring Nebula

Messier Object	M57		
NGC	6720		
Constellation	Lyra		
Type	Planetary Nebula		
Magnitude	8.8		
Distance (Kilo lightyears)	2.3		
RA	18 53.6		
Dec	+33:02		
Size	> 1' 11"		
UM I	UM II	117	49
SA	8		
Remarks	!! Ring Nebula; an amazing smoke ring		
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
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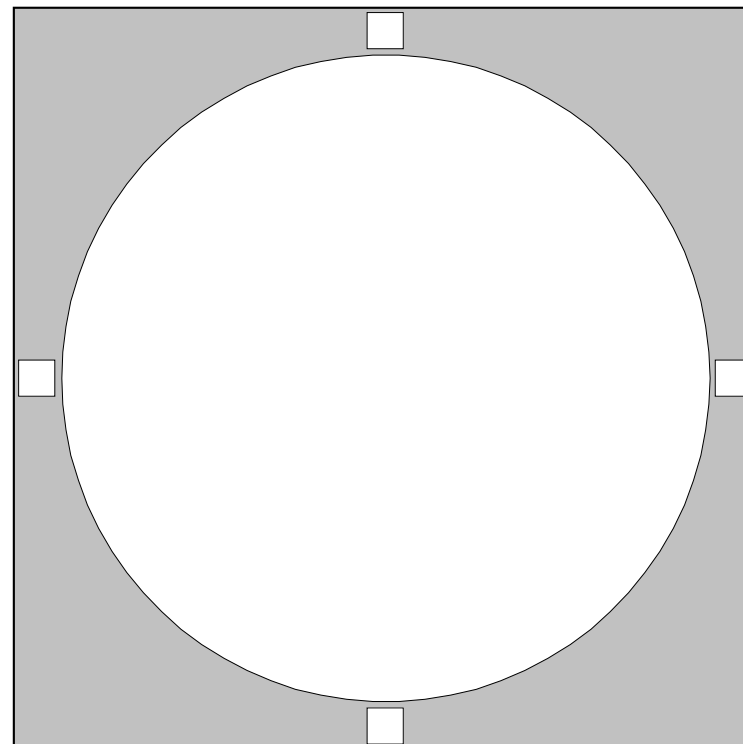
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M58

Messier Object		M58				
NGC		4579				
Constellation		Virgo				
Type		Spiral Galaxy (G-SABb)				
Magnitude		9.7				
Distance (Kilo lightyears)		60000				
RA		12 37.7				
Dec		+11:49				
Size		5.5' x 4.6'				
UM I	UM II	194			90,91,A13	
SA		13, 14, B1				
Remarks		bright barred spiral; M59 and M60 one degree E				
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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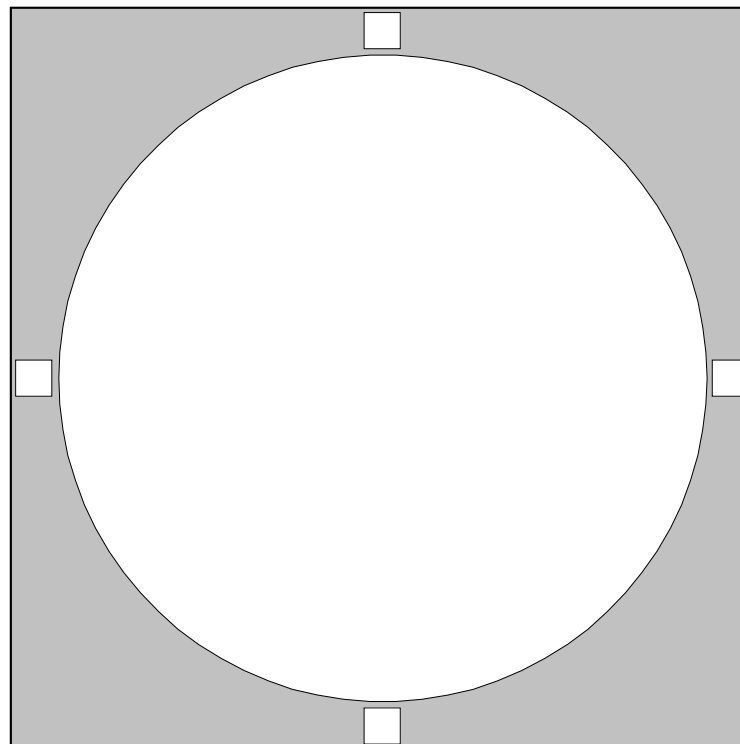
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M59

Messier Object	M59		
NGC	4621		
Constellation	Virgo		
Type	Elliptical Galaxy (G-E5)		
Magnitude	9.6		
Distance (Kilo lightyears)	60000		
RA	12 42.0		
Dec	+11:39		
Size	4.6' x 3.6'		
UM I	UM II	194	90
SA	13, 14, B1		
Remarks	bright elliptical paired with M60		
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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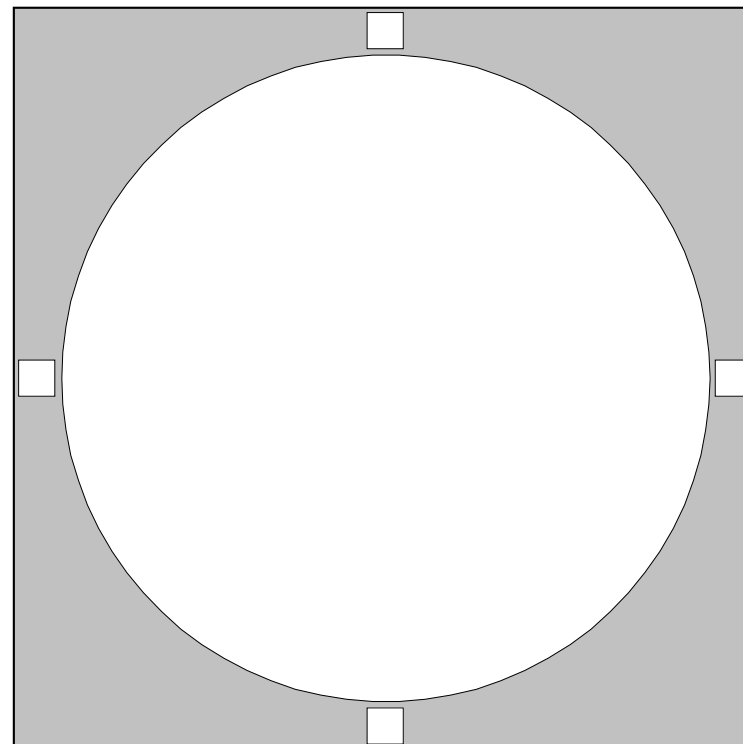
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M60

Messier Object		M60				
NGC		4649				
Constellation		Virgo				
Type		Elliptical Galaxy (G-E2)				
Magnitude		8.8				
Distance (Kilo lightyears)		60000				
RA		12 43.7				
Dec		+11:33				
Size		7.1' x 6.1'				
UM I	UM II	194			90	
SA		13, 14, B1				
Remarks		bright elliptical with M59 and NGC 4647				
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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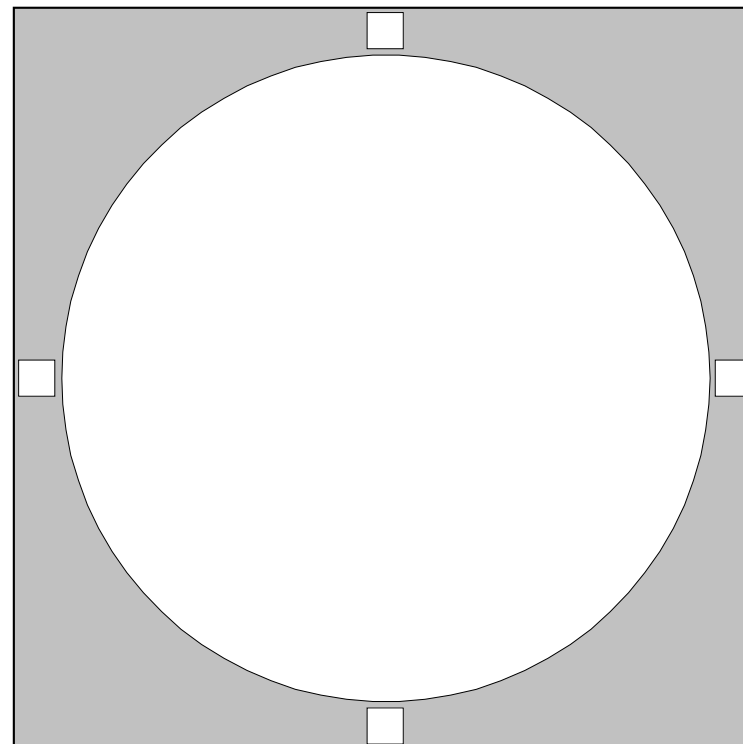
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M61

Messier Object		M61				
NGC		4303				
Constellation		Virgo				
Type		Spiral Galaxy (G-SABbc)				
Magnitude		9.7				
Distance (Kilo lightyears)		60000				
RA		12 21.9				
Dec		+04:28				
Size		6.0' x 5.9'				
UM I	UM II	238			111,A15	
SA		13, 14, B1				
Remarks		face-on two-armed spiral				
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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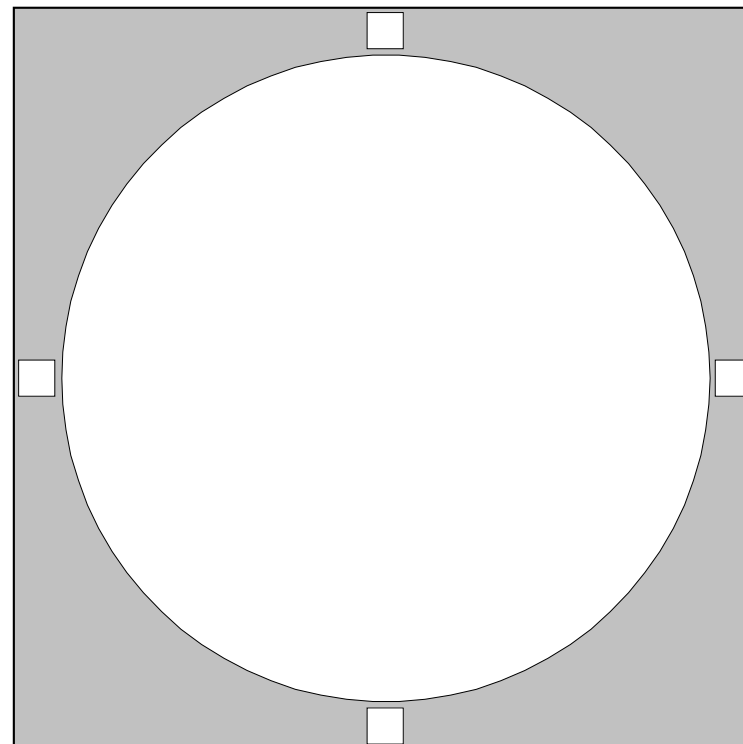
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M62

Messier Object	M62		
NGC	6266		
Constellation	Ophiuchus		
Type	Globular Cluster		
Magnitude	6.7		
Distance (Kilo lightyears)	22.5		
RA	17 01.2		
Dec	-30:07		
Size	14.1'		
UM I	UM II	375,376	164
SA	22		
Remarks	asymmetrical; in rich field		
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
 OC: Open Cluster

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

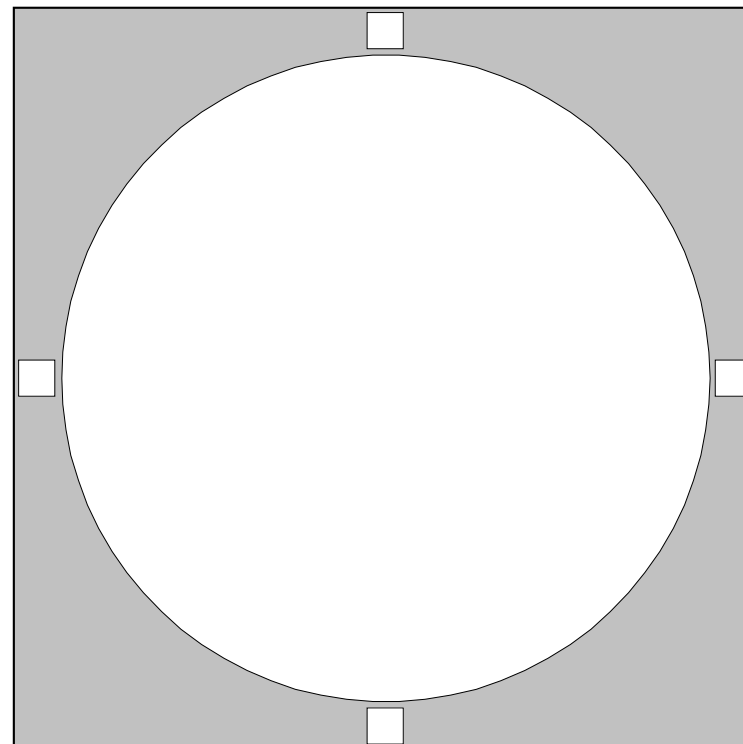
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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 ** p = Photographic Magnitude
 *** !! = Showpiece Object
<http://www.rasc.ca>

RASC Messier Objects - M63

Sunflower Galaxy

Messier Object		M63				
NGC		5055				
Constellation		Canes Venatici				
Type		Spiral Galaxy (G-SAbc)				
Magnitude		8.6				
Distance (Kilo lightyears)		37000				
RA		13 15.8				
Dec		+42:02				
Size		14.0 x 8.0'				
UM I	UM II	75,76			37	
SA		7				
Remarks		!! Sunflower Galaxy; bright, elongated				
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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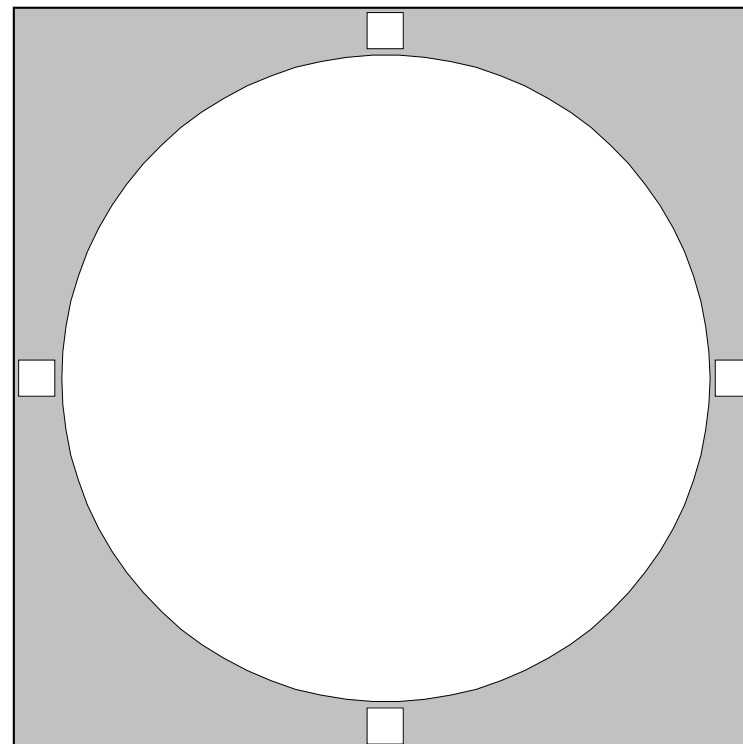
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 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M64
Black Eye Galaxy. Sleeping Beauty Galaxy

Messier Object		M64				
NGC		4826				
Constellation		Coma Berenices				
Type		Spiral Galaxy (G-SAab)				
Magnitude		8.5				
Distance (Kilo lightyears)		19000				
RA		12 56.7				
Dec		+21:41				
Size		9.2' x 4.6'				
UM I	UM II	149			71	
SA		7				
Remarks		!! Black Eye Gallaxy; eye needs big scope				
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
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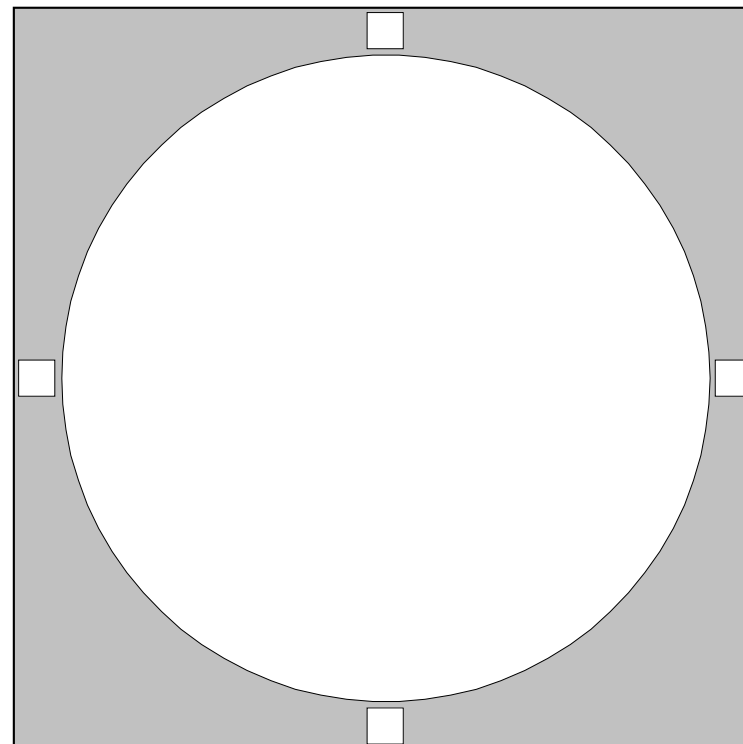
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 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

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 Transparency: 1 = Best 5 = Poor
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 Date: Specify Time Zone or UT

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 ** p = Photographic Magnitude
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<http://www.rasc.ca>

RASC Messier Objects - M65

Messier Object		M65				
NGC		3623				
Constellation		Leo				
Type		Spiral Galaxy (G-SABa)				
Magnitude		9.3				
Distance (Kilo lightyears)		35000				
RA		11 18.9				
Dec		+13:05				
Size		8.7' x 2.2'				
UM I	UM II	191			92	
SA		13				
Remarks		!! bright elongated spiral				
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
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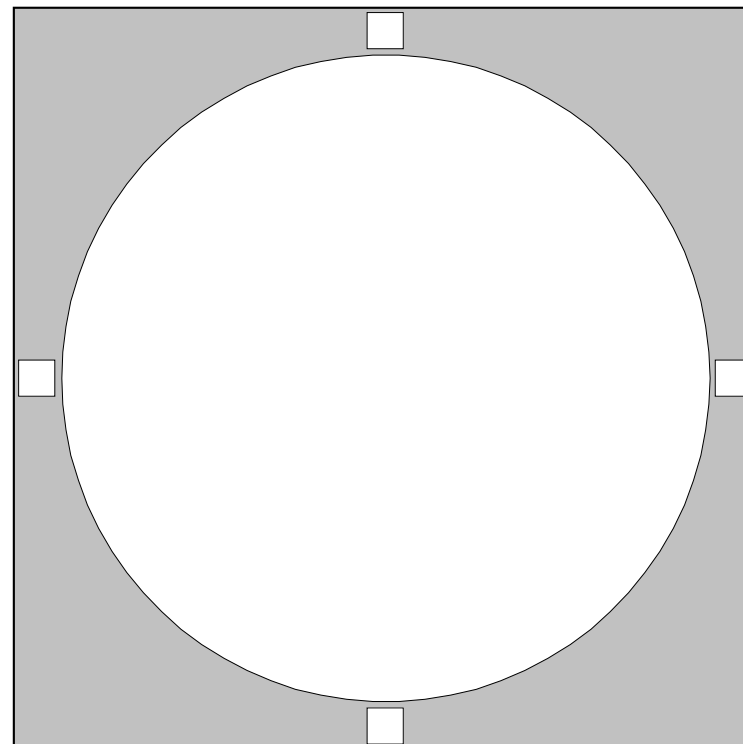
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 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M66

Messier Object	M66		
NGC	3627		
Constellation	Leo		
Type	Spiral Galaxy (G-SABb)		
Magnitude	8.9		
Distance (Kilo lightyears)	35000		
RA	11 20.2		
Dec	+12:59		
Size	8.2' x 3.9'		
UM I	UM II	191	91,92
SA	13		
Remarks	!! M65 and NGC 3628 in same field		
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
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 GC: Globular Cluster
 OC: Open Cluster

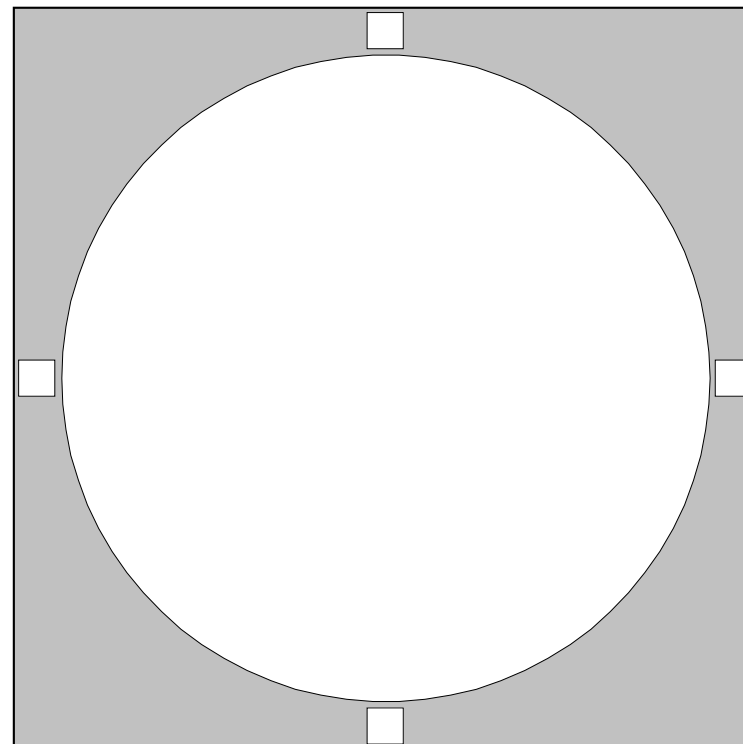
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M67

Messier Object	M67		
NGC	2682		
Constellation	Cancer		
Type	Open Cluster		
Magnitude	6.9		
Distance (Kilo lightyears)	2.7		
RA	08 50.4		
Dec	+11:49		
Size	29'		
UM I	UM II	186,187	94
SA	12		
Remarks	one of the oldest star clusters known		
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
 SNR: Supernova Remnant
 GC: Globular Cluster
 OC: Open Cluster

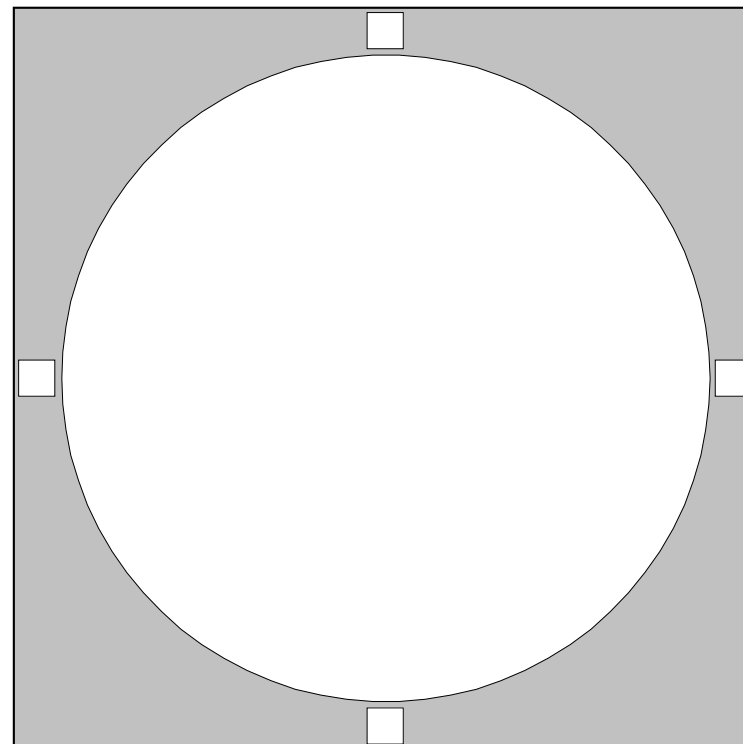
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 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M68

Messier Object		M68				
NGC		4590				
Constellation		Hydra				
Type		Globular Cluster				
Magnitude		7.7				
Distance (Kilo lightyears)		33.3				
RA		12 39.5				
Dec		-26:45				
Size		12.0'				
UM I	UM II	329			149,150	
SA		21				
Remarks		150-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

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

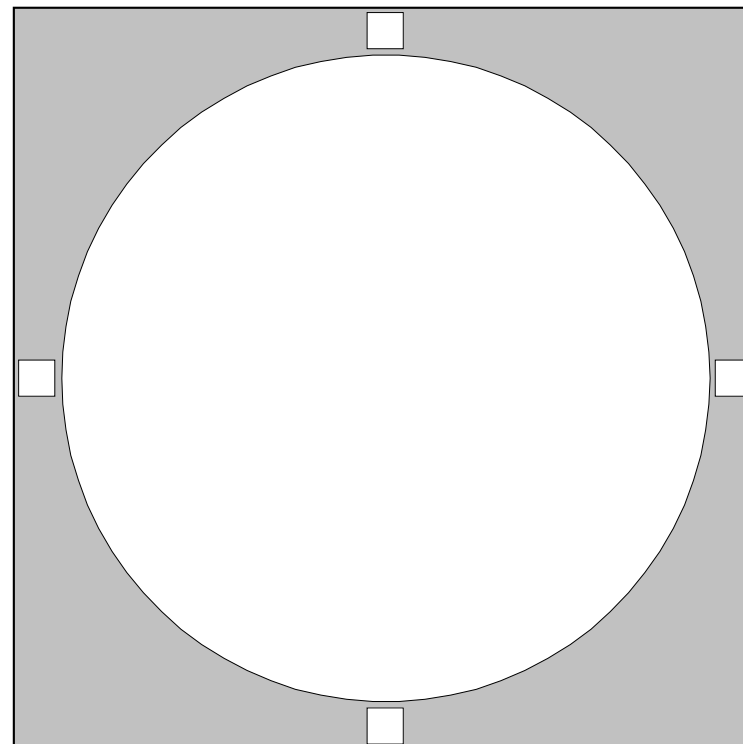
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M69

Messier Object	M69		
NGC	6637		
Constellation	Sagittarius		
Type	Globular Cluster		
Magnitude	7.6		
Distance (Kilo lightyears)	28.0		
RA	18 31.4		
Dec	-32:21		
Size	7.1'		
UM I	UM II	378	163
SA	22		
Remarks	small. poor globular cluster		
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
 SNR: Supernova Remnant
 GC: Globular Cluster
 OC: Open Cluster

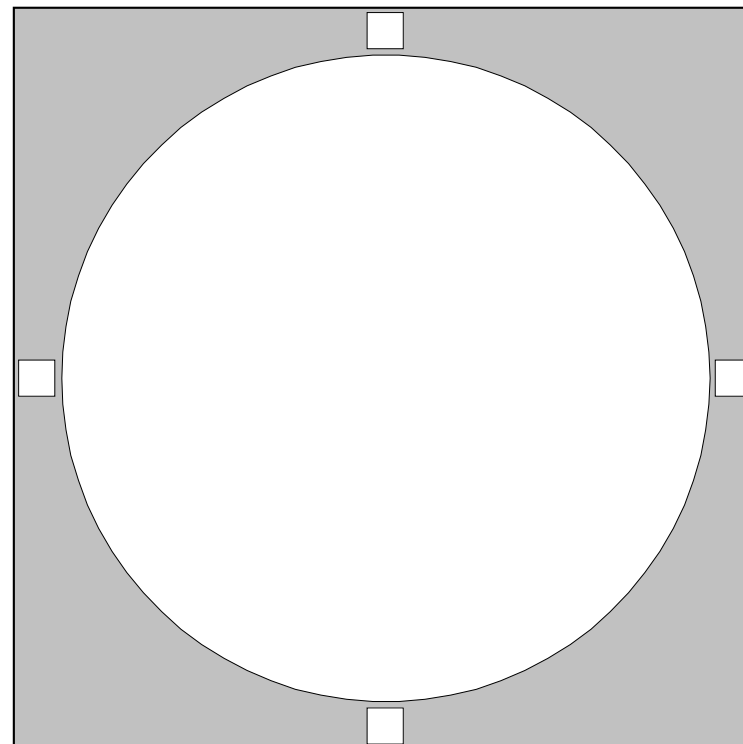
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M70

Messier Object	M70		
NGC	6681		
Constellation	Sagittarius		
Type	Globular Cluster		
Magnitude	8.0'		
Distance (Kilo lightyears)	29.4		
RA	18 43.2		
Dec	-32:18		
Size	7.8'		
UM I	UM II	378	163
SA	22		
Remarks	small globular two degrees east of M69		
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
 SNR: Supernova Remnant
 GC: Globular Cluster
 OC: Open Cluster

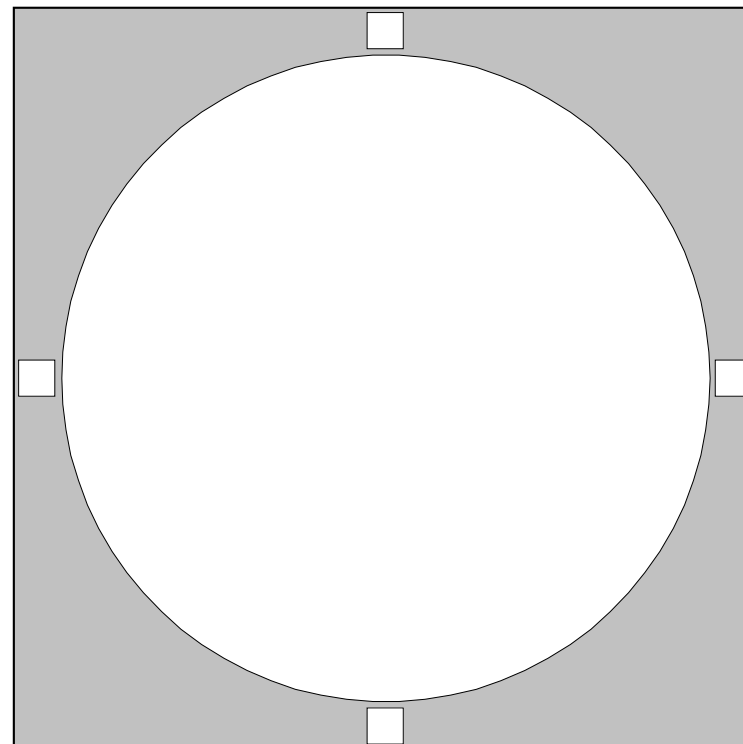
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M71

Messier Object	M71		
NGC	6838		
Constellation	Sagitta		
Type	Globular Cluster		
Magnitude	8.0		
Distance (Kilo lightyears)	12.7		
RA	19 53.8		
Dec	+18:47		
Size	7.2'		
UM I	UM II	162	66
SA	8, 16		
Remarks	loose globular; looks like and open cluster		
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
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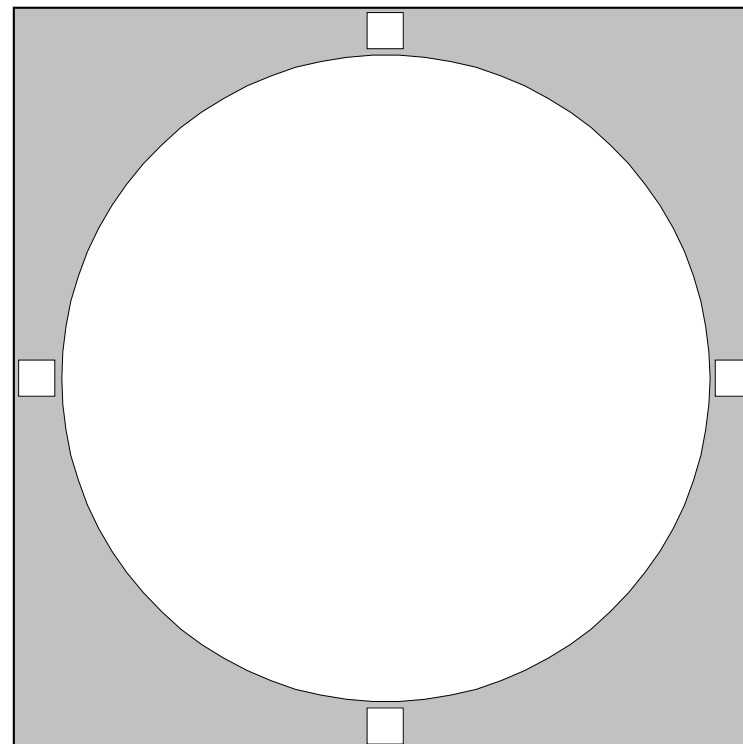
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M72

Messier Object	M72		
NGC	6981		
Constellation	Aquarius		
Type	Globular Cluster		
Magnitude	9.3		
Distance (Kilo lightyears)	55.4		
RA	20 53.5		
Dec	-12:32		
Size	5.9'		
UM I	UM II	299	124
SA	16		
Remarks	near the Saturn Nebula, NGC 7009		
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
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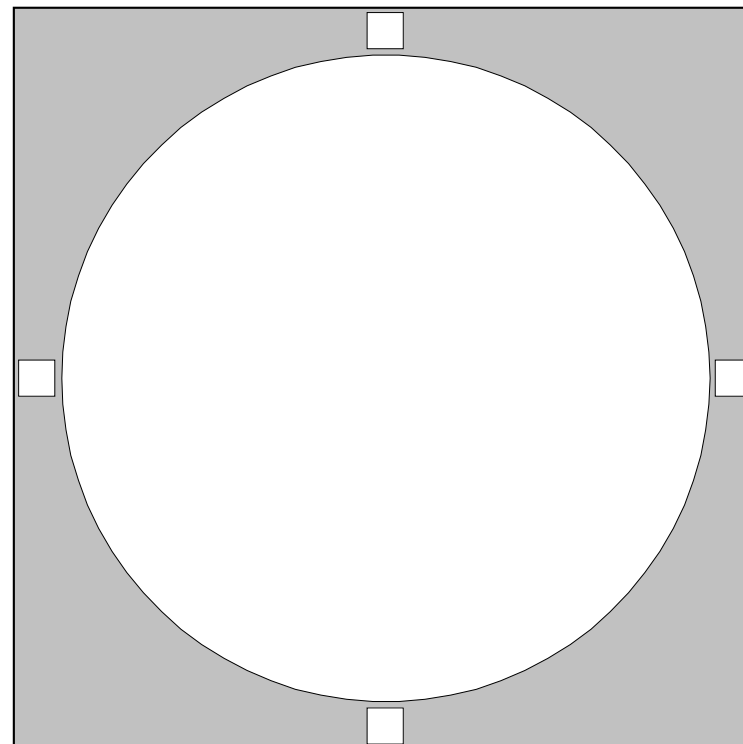
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M73

Messier Object		M73				
NGC		6994				
Constellation		Aquarius				
Type		Open Cluster				
Magnitude		8.9p				
Distance (Kilo lightyears)		2.0				
RA		20 59.0				
Dec		-12:38				
Size		2.8'				
UM I	UM II	299			123,124	
SA		16				
Remarks		group of 4 stars only; an "Asterism"				
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
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 GC: Globular Cluster
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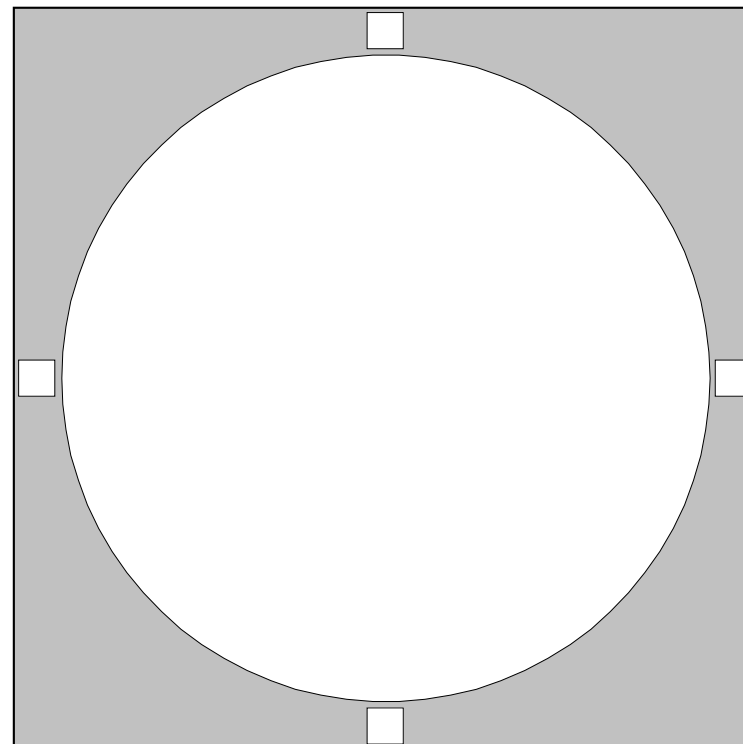
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

* = Number of stars in cluster
 ** p = Photographic Magnitude
 *** !! = Showpiece Object
<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 lightyears)		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)						



Notes

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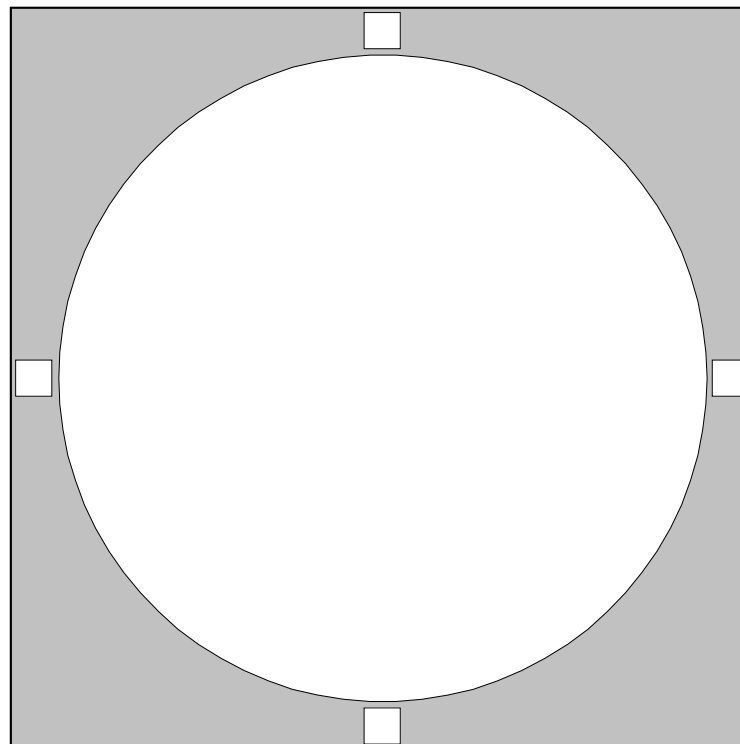
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M75

Messier Object	M75		
NGC	6864		
Constellation	Sagittarius		
Type	Globular Cluster		
Magnitude	8.5		
Distance (Kilo lightyears)	59.0		
RA	20 06.1		
Dec	-21:55		
Size	6.0'		
UM I	UM II	343	144
SA	22, 23		
Remarks	small and distant; 59 000 ly away		
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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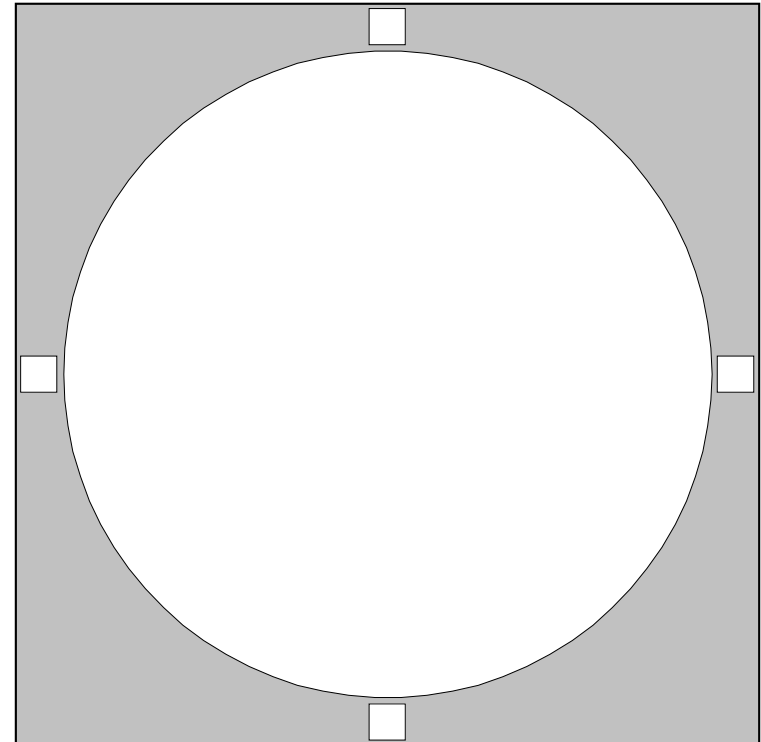
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M76
Little Dumbbell Nebula

Messier Object		M76				
NGC		650/51				
Constellation		Perseus				
Type		Planetary Nebula				
Magnitude		10.1				
Distance (Kilo lightyears)		3.4				
RA		01 42.4				
Dec		+51:34				
Size		> 1' 5"				
UM I	UM II	37			29,44	
SA		1, 4				
Remarks		Little Dumbbell; faint but distinct				
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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 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

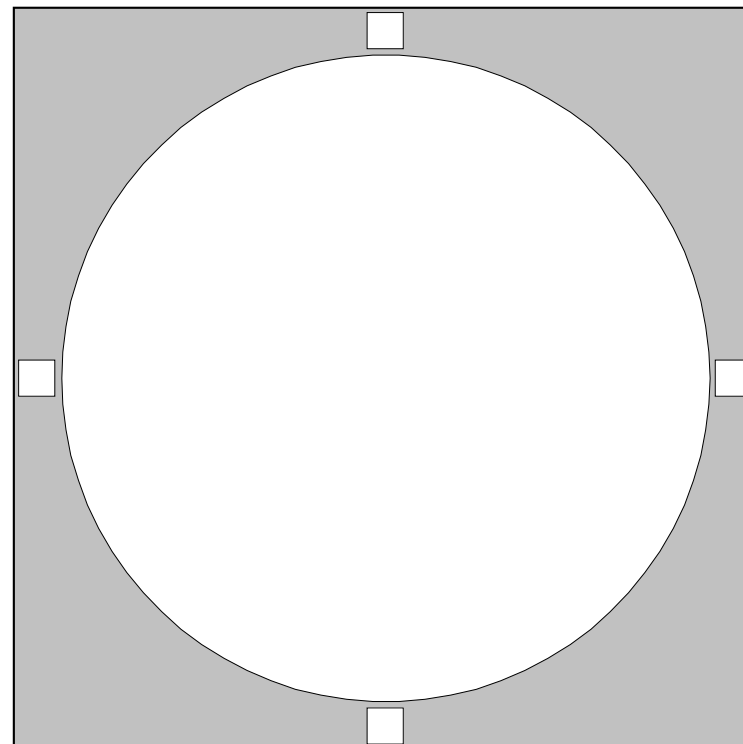
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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 *** !! = Showpiece Object
<http://www.rasc.ca>

RASC Messier Objects - M77

Cetus A

Messier Object		M77				
NGC		1068				
Constellation		Cetus				
Type		Spiral Galaxy (G-SABab)				
Magnitude		8.9				
Distance (Kilo lightyears)		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**

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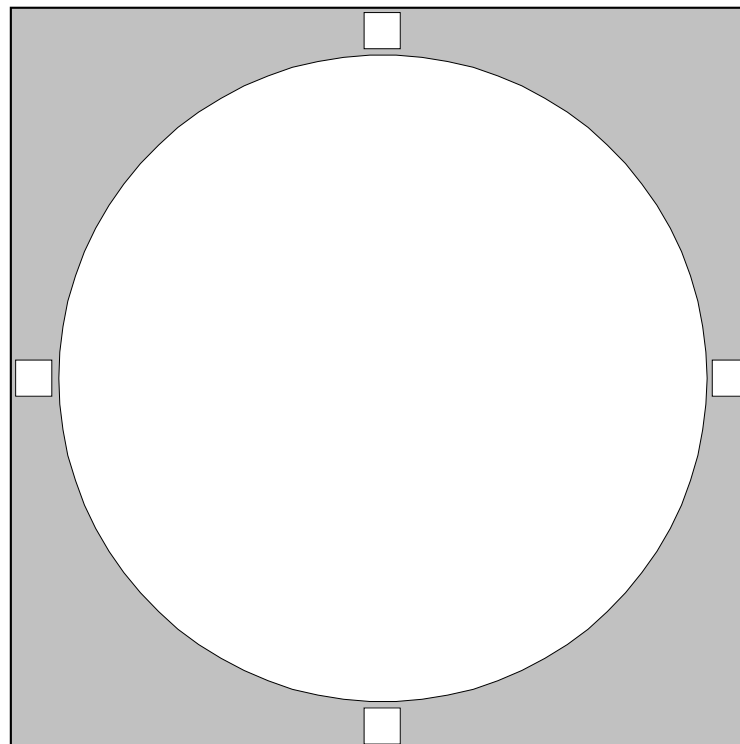
RN: (diffuse) Reflection Nebula
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 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
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 *** !! = Showpiece Object
<http://www.rasc.ca>

RASC Messier Objects - M78

Messier Object		M78				
NGC		2068				
Constellation		Orion				
Type		Reflection Nebula				
Magnitude		8.3				
Distance (Kilo lightyears)		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 relection nebula				
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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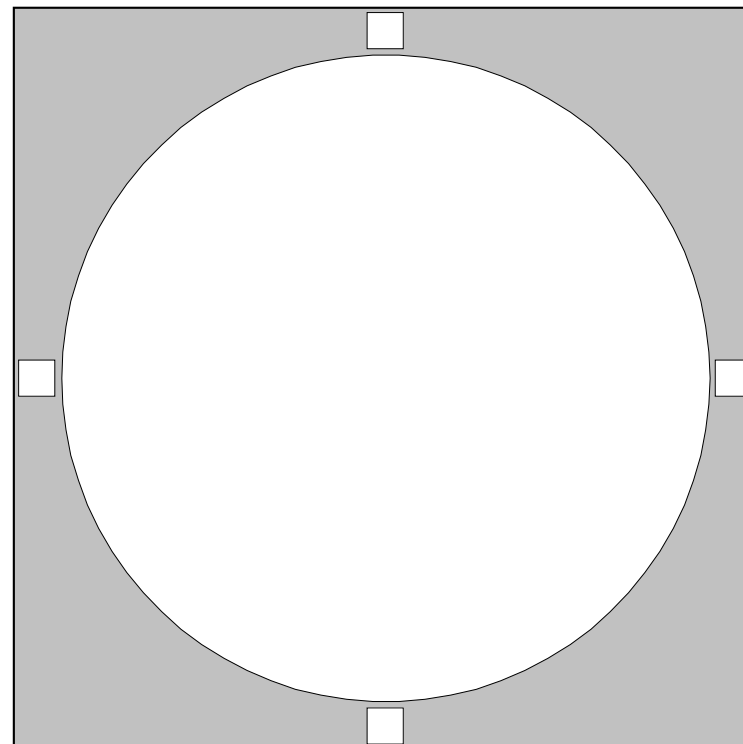
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 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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<http://www.rasc.ca>

RASC Messier Objects - M79

Messier Object		M79				
NGC		1904				
Constellation		Lepus				
Type		Globular Cluster				
Magnitude		7.8				
Distance (Kilo lightyears)		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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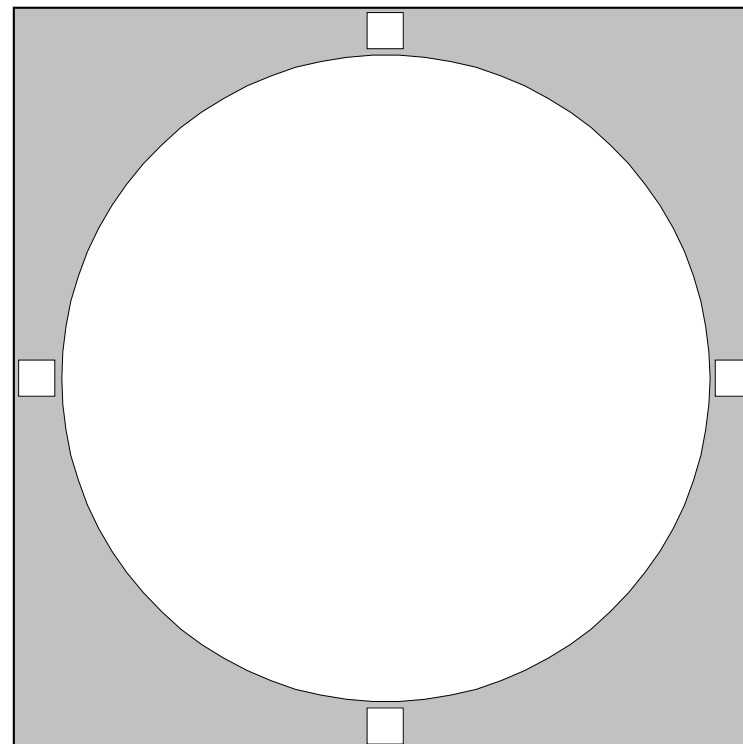
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M80

Messier Object	M80		
NGC	6093		
Constellation	Scorpius		
Type	Globular Cluster		
Magnitude	7.3		
Distance (Kilo lightyears)	32.6		
RA	16 17.0		
Dec	-22:59		
Size	8.9'		
UM I	UM II	335,336	147
SA	22		
Remarks	very compressed globular		
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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 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

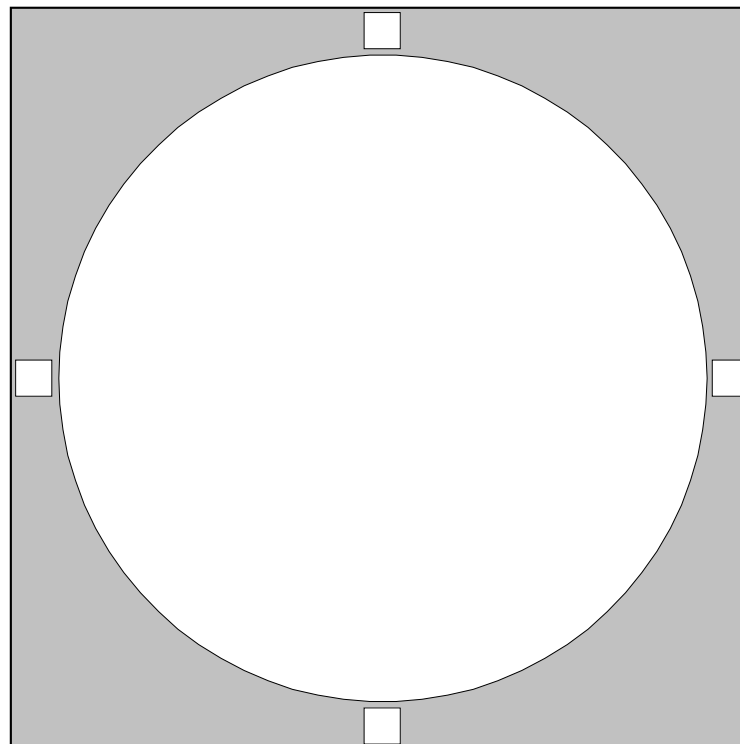
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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 ** p = Photographic Magnitude
 *** !! = Showpiece Object
<http://www.rasc.ca>

RASC Messier Objects - M81

Bode's Galaxy

Messier Object	M81		
NGC	3031		
Constellation	Ursa Major		
Type	Spiral Galaxy (G-SAab)		
Magnitude	6.9		
Distance (Kilo lightyears)	12000		
RA	09 55.6		
Dec	+69:04		
Size	24' x 13'		
UM I	UM II	23	14
SA	1, 2		
Remarks	!! bright spiral visible in binoculars		
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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 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

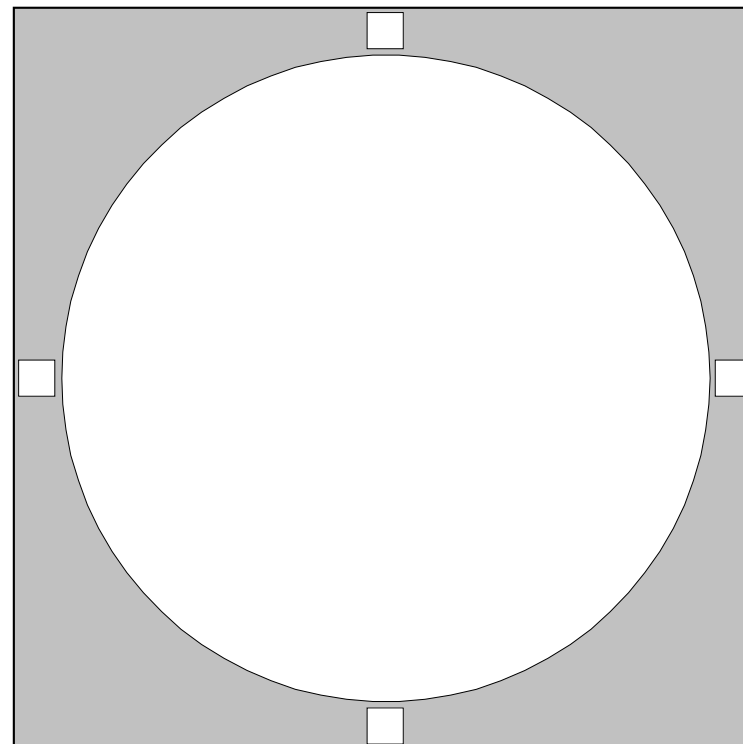
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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 ** p = Photographic Magnitude
 *** !! = Showpiece Object
<http://www.rasc.ca>

RASC Messier Objects - M82

Cigar Galaxy

Messier Object	M82		
NGC	3034		
Constellation	Ursa Major		
Type	Irregular Galaxy (G-I0)		
Magnitude	8.4		
Distance (Kilo lightyears)	12000		
RA	09 55.8		
Dec	+69:41		
Size	12' x 6'		
UM I	UM II	23	14
SA	1, 2		
Remarks	!! the "exploding" galaxy; M81 1/2 degree south		
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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RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

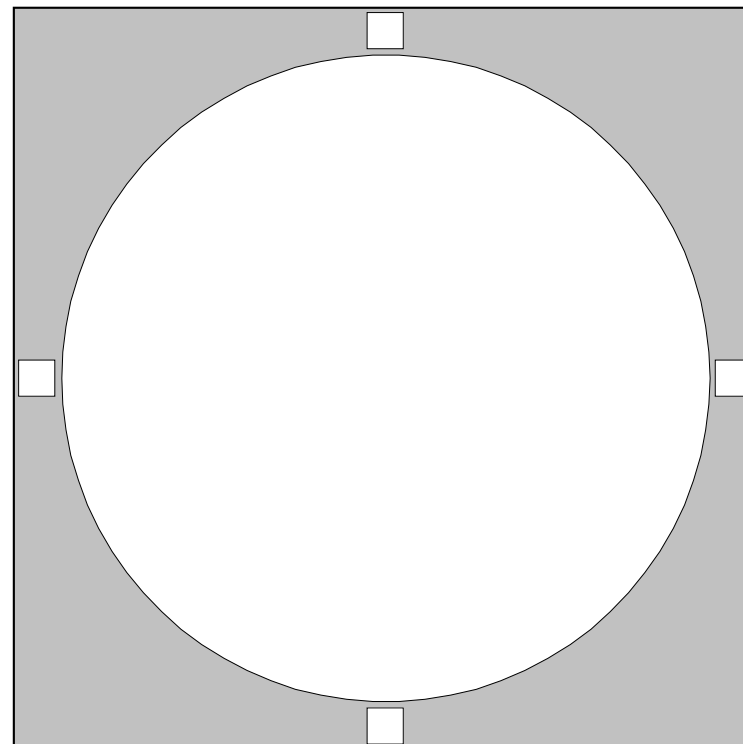
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M83

Southern Pinwheel

Messier Object		M83				
NGC		5236				
Constellation		Hydra				
Type		Spiral Galaxy (G-SABc)				
Magnitude		7.6				
Distance (Kilo lightyears)		15000				
RA		13 37.0				
Dec		-29:52				
Size		16.0' x 13.0'				
UM I	UM II	370,371			149,167	
SA		21				
Remarks		large and diffuse; superb from far south				
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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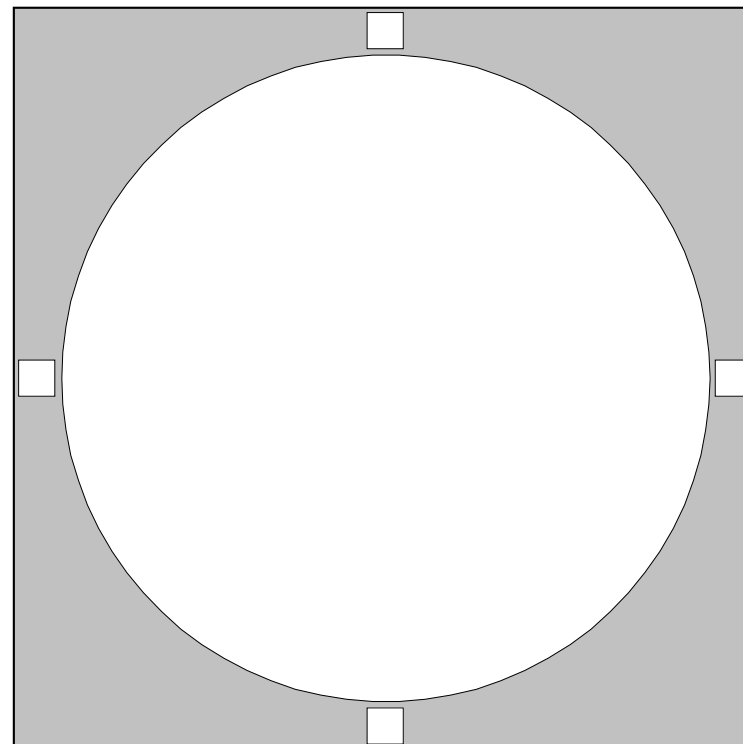
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 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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 ** p = Photographic Magnitude
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<http://www.rasc.ca>

RASC Messier Objects - M84

Messier Object		M84				
NGC		4374				
Constellation		Virgo				
Type		Elliptical Galaxy (G-E1)				
Magnitude		9.1				
Distance (Kilo lightyears)		60000				
RA		12 25.1				
Dec		+12:53				
Size		5.1' x 4.1'				
UM I	UM II	193			91,A13	
SA		13, 14, B1				
Remarks		!! with M86 in Markarian's Chain				
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
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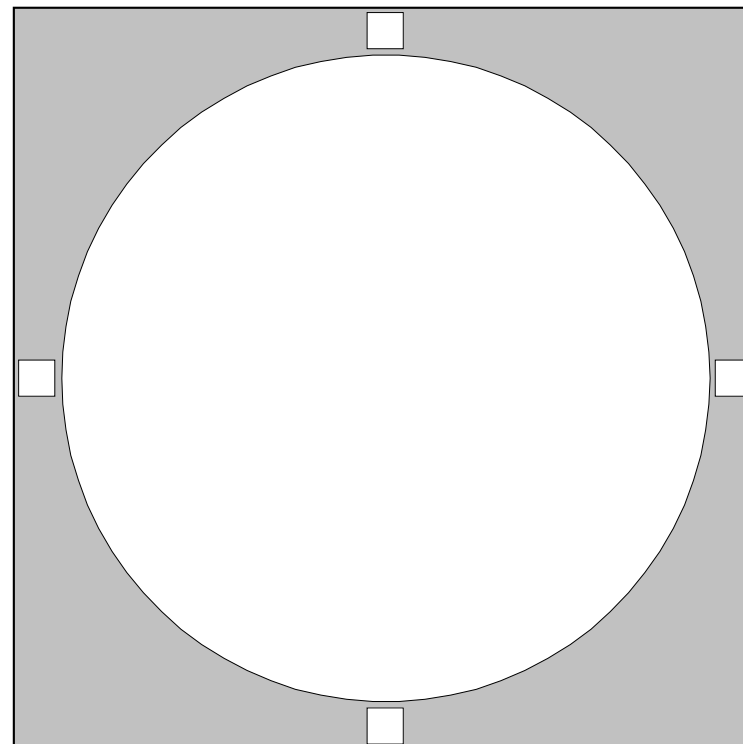
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M85

Messier Object	M85		
NGC	4382		
Constellation	Coma Berenices		
Type	Spiral Galaxy (G-Sa0+)		
Magnitude	9.1		
Distance (Kilo lightyears)	60000		
RA	12 25.4		
Dec	+18:11		
Size	7.5' x 5.7'		
UM I	UM II	148	72
SA	7, 13, 14, B1		
Remarks	bright elliptical shape		
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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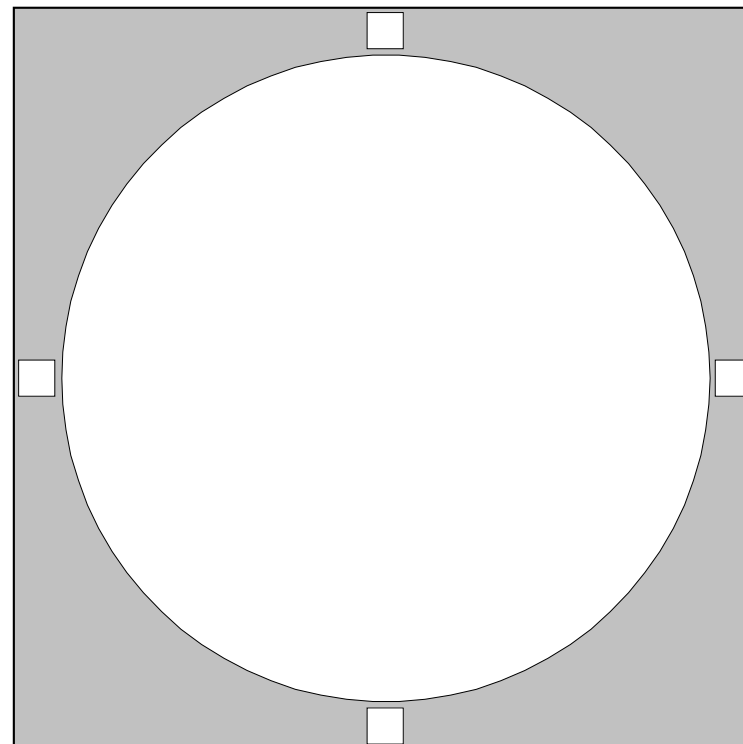
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M86

Messier Object		M86				
NGC		4406				
Constellation		Virgo				
Type		Elliptical Galaxy (G-E3)				
Magnitude		8.9				
Distance (Kilo lightyears)		60000				
RA		12 26.2				
Dec		+12:57				
Size		12.0' x 9.0'				
UM I	UM II	193			91,A13	
SA		13, 14, B1				
Remarks		!! with many NGC galaxies in Chain				
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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 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

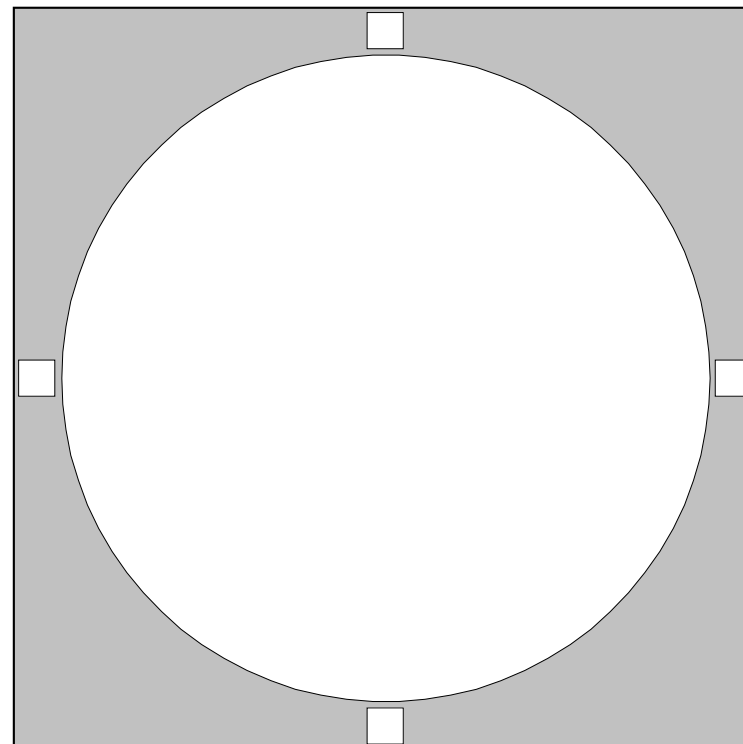
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M87

Virgo A

Messier Object	M87		
NGC	4486		
Constellation	Virgo		
Type	Elliptical Galaxy (G-E0-1)		
Magnitude	8.6		
Distance (Kilo lightyears)	60000		
RA	12 30.8		
Dec	+12:24		
Size	7.1' x 7.1'		
UM I	UM II	193,194	91,A13
SA	13, 14, B1		
Remarks	the one with famous jet and black hole		
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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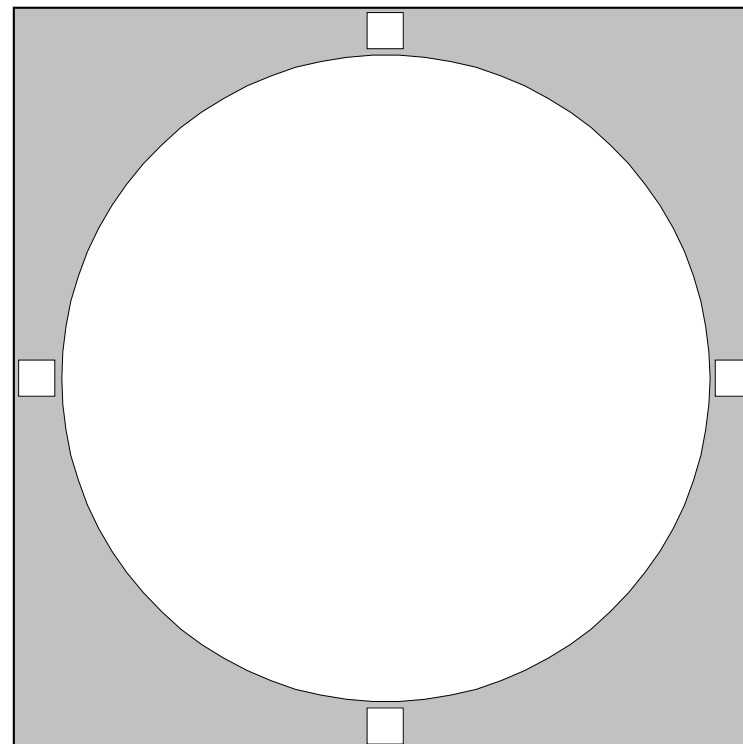
RN: (diffuse) Reflection Nebula
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 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M88

Messier Object		M88				
NGC		4501				
Constellation		Coma Berenices				
Type		Spiral Galaxy (G-SAb)				
Magnitude		9.6				
Distance (Kilo lightyears)		60000				
RA		12 32.0				
Dec		+14:25				
Size		6.1' x 2.8'				
UM I	UM II	193,194			90,91,A13	
SA		13, 14, B1				
Remarks		bright multiple arm spiral				
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
 SNR: Supernova Remnant
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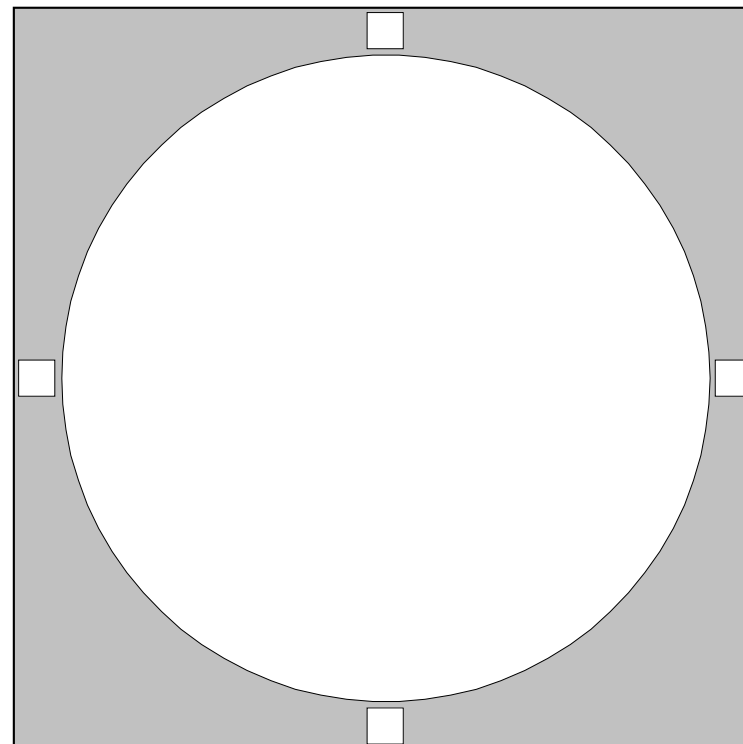
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M89

Messier Object		M89				
NGC		4552				
Constellation		Virgo				
Type		Elliptical Galaxy (G-E)				
Magnitude		9.8				
Distance (Kilo lightyears)		60000				
RA		12 35.7				
Dec		+12:33				
Size		3.4' x 3.4'				
UM I	UM II	193,194			90,91,A13	
SA		13, 14, B1				
Remarks		elliptical; resembles M86 but smaller				
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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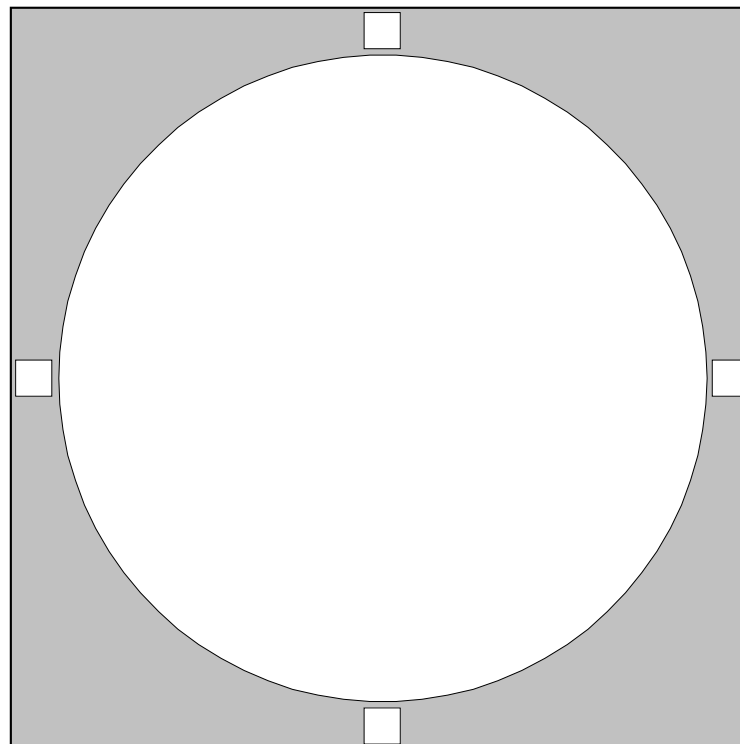
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M90

Messier Object		M90				
NGC		4569				
Constellation		Virgo				
Type		Spiral Galaxy (G-SABab)				
Magnitude		9.5				
Distance (Kilo lightyears)		60000				
RA		12 36.8				
Dec		+13:10				
Size		10.0' x 4.0'				
UM I	UM II	194			90,91,A13	
SA		13, 14, B1				
Remarks		bright barred spiral near M89				
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
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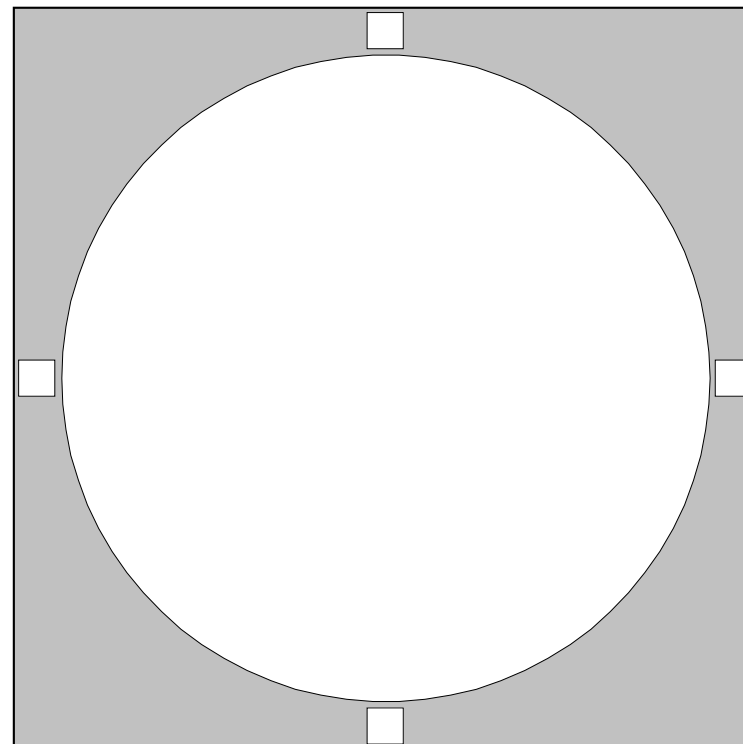
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M91

Messier Object		M91				
NGC		4548				
Constellation		Coma Berenices				
Type		Spiral Galaxy (G-SBb)				
Magnitude		10.2				
Distance (Kilo lightyears)		60000				
RA		12 35.4				
Dec		+14:30				
Size		5.0' x 4.1'				
UM I	UM II	193,194			90,91,A13	
SA		13, 14, B1				
Remarks		some lists say M91 = M58, not NGC 4548				
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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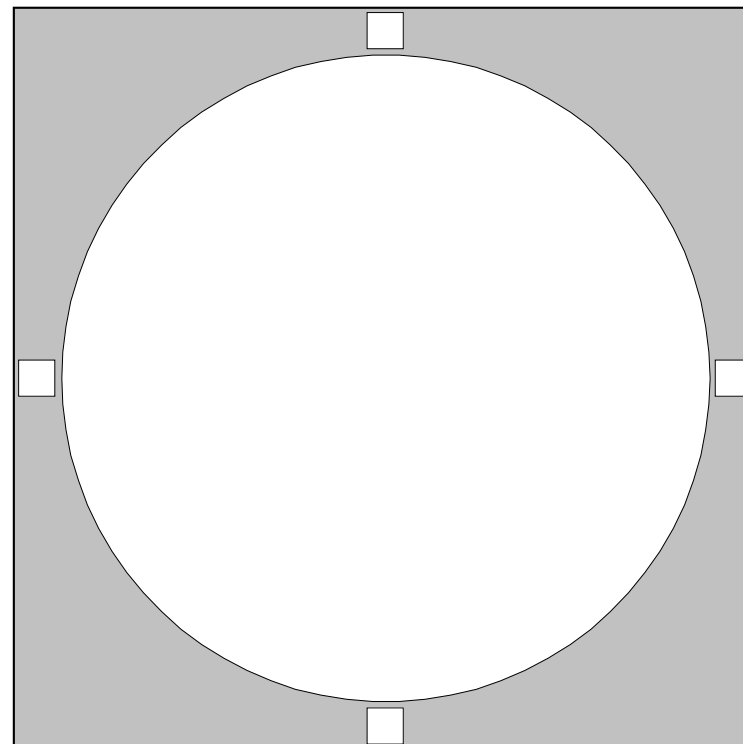
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M92

Messier Object		M92				
NGC		6341				
Constellation		Hercules				
Type		Globular Cluster				
Magnitude		6.4				
Distance (Kilo lightyears)		26.7				
RA		17 17.1				
Dec		+43:08				
Size		11.2'				
UM I	UM II	81			34	
SA		8				
Remarks		nine degrees noth east of M13; fine but often overlooked				
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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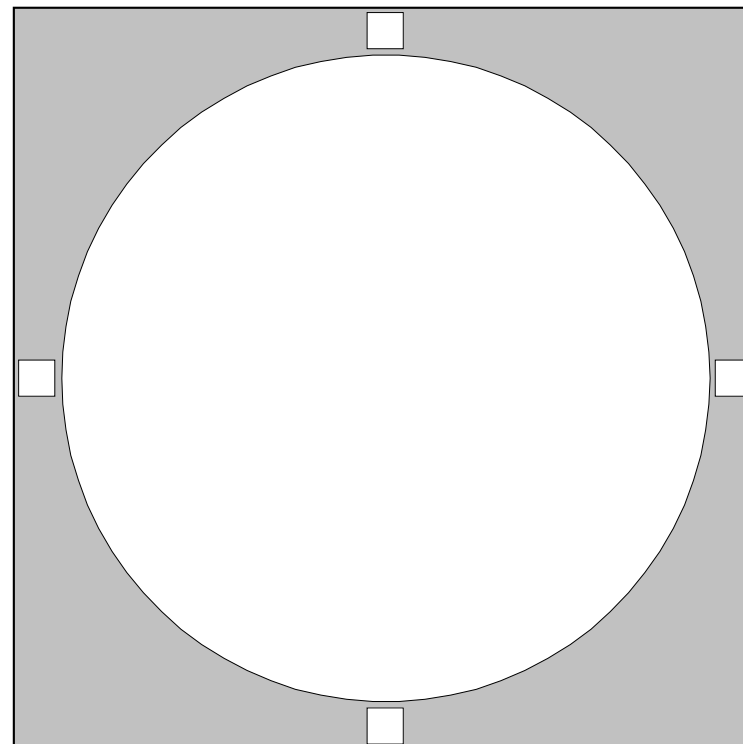
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

* = Number of stars in cluster
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 *** !! = Showpiece Object
<http://www.rasc.ca>

RASC Messier Objects - M93

Messier Object	M93		
NGC	2447		
Constellation	Puppis		
Type	Open Cluster		
Magnitude	~ 6.2		
Distance (Kilo lightyears)	3.6		
RA	07 44.6		
Dec	-23:52		
Size	22'		
UM I	UM II	319,320	153
SA	19		
Remarks	compact, bright cluster;fairly rich		
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
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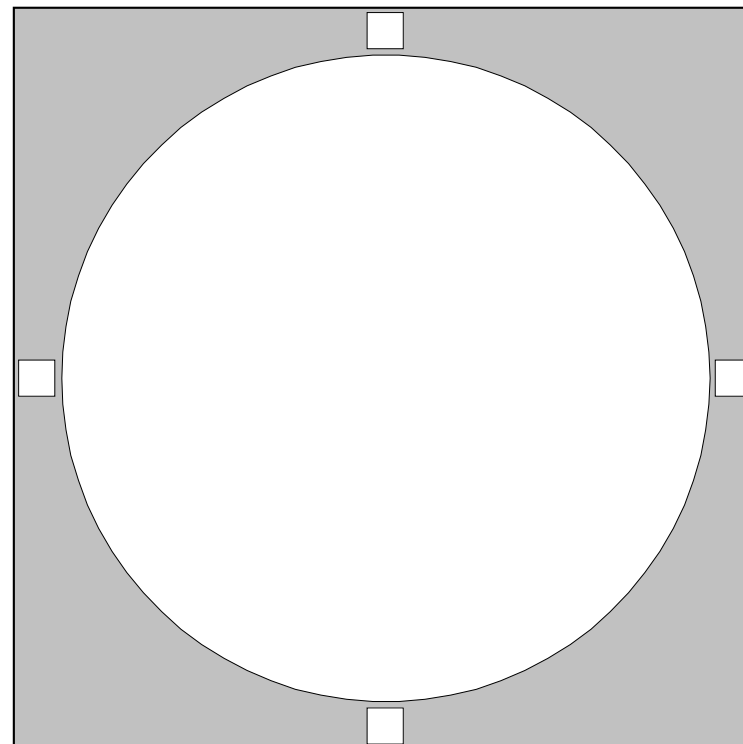
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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<http://www.rasc.ca>

RASC Messier Objects - M94

Messier Object		M94				
NGC		4736				
Constellation		Canes Venatici				
Type		Spiral Galaxy (G-SAab)				
Magnitude		8.2				
Distance (Kilo lightyears)		14500				
RA		12 50.9				
Dec		+41:07				
Size		13.0' x 11.0'				
UM I	UM II	75			37	
SA		7				
Remarks		very bright and comet-like				
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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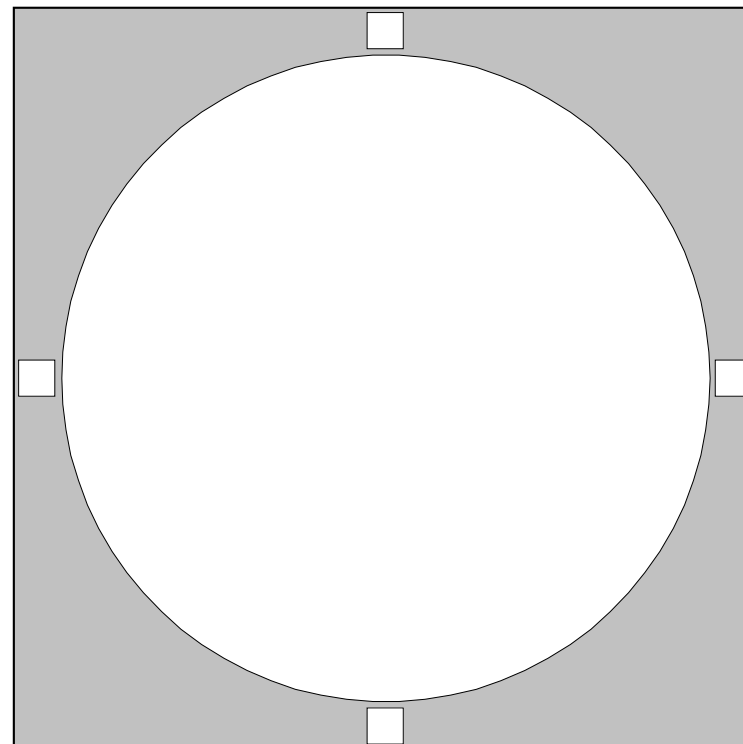
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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 ** p = Photographic Magnitude
 *** !! = Showpiece Object
<http://www.rasc.ca>

RASC Messier Objects - M95

Messier Object		M95				
NGC		3351				
Constellation		Leo				
Type		Spiral Galaxy (G-SBb)				
Magnitude		9.7				
Distance (Kilo lightyears)		38000				
RA		10 44.0				
Dec		+11:42				
Size		7.8' x 4.6'				
UM I	UM II	190			92	
SA		13				
Remarks		bright barred spiral				
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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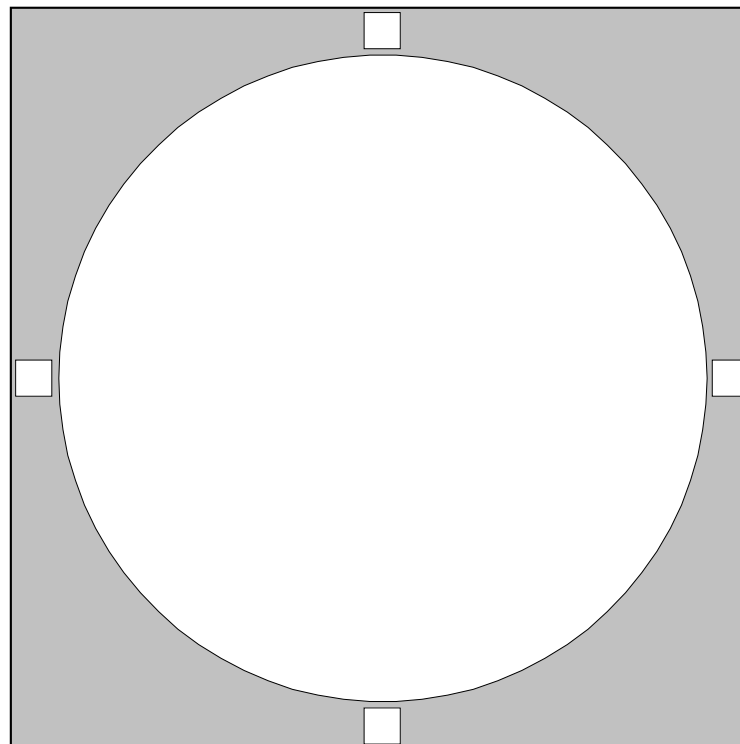
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M96

Messier Object		M96				
NGC		3368				
Constellation		Leo				
Type		Spiral Galaxy (G-SABab)				
Magnitude		9.2				
Distance (Kilo lightyears)		38000				
RA		10 46.8				
Dec		+11:49				
Size		6.9' x 4.6'				
UM I	UM II	190			92	
SA		13				
Remarks		M95 in same field				
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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RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

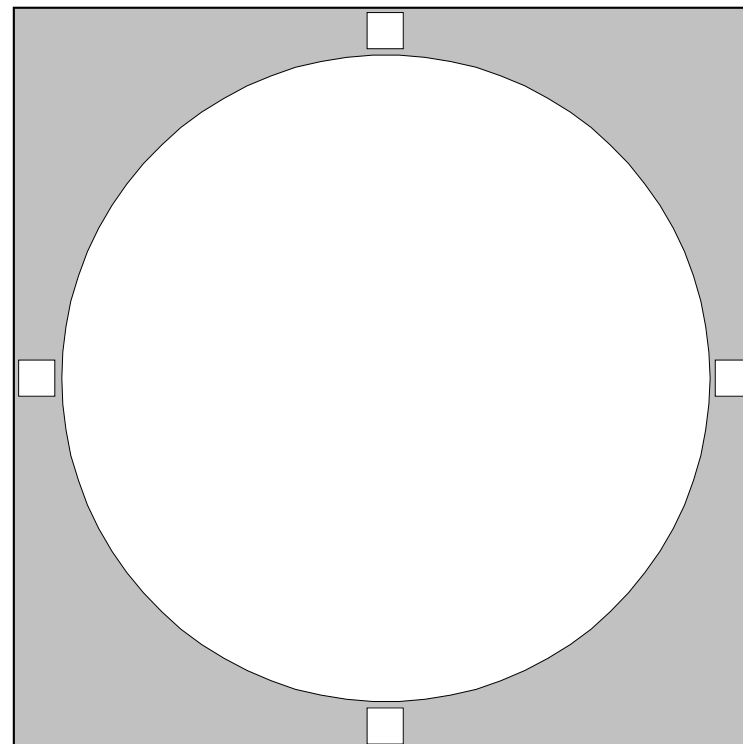
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M97

Owl Nebula

Messier Object	M97		
NGC	3587		
Constellation	Ursa Major		
Type	Planetary Nebula		
Magnitude	9.9		
Distance (Kilo lightyears)	2.6		
RA	11 14.8		
Dec	+55:01		
Size	3' 14"		
UM I	UM II	46	24
SA	2, 6		
Remarks	!! Owl Nebula; distinct grey oval		
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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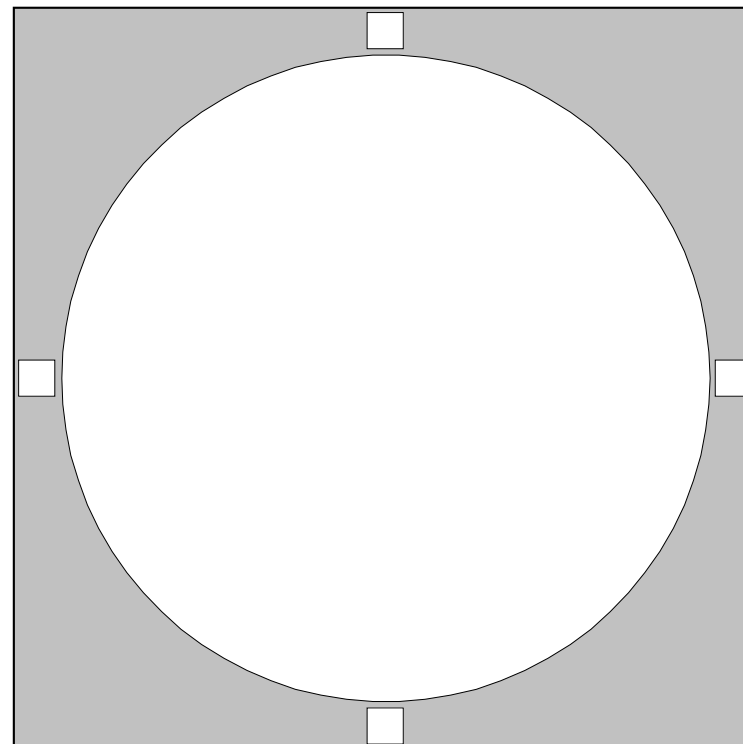
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M98

Messier Object	M98		
NGC	4192		
Constellation	Coma Berenices		
Type	Spiral Galaxy (G-SABab)		
Magnitude	10.1		
Distance (Kilo lightyears)	60000		
RA	12 13.8		
Dec	+14:54		
Size	9.1' x 2.1'		
UM I	UM II	193	91
SA	7, 13, 14, B1		
Remarks	nearly edge-on spiral near star 6 Comae Berenices		
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
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 OC: Open Cluster

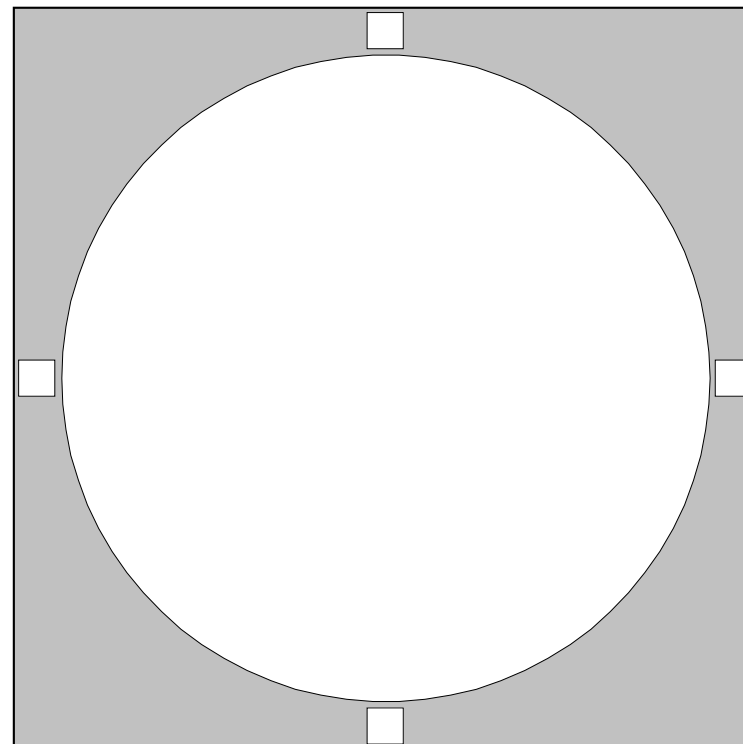
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M99

Messier Object		M99				
NGC		4254				
Constellation		Coma Berenices				
Type		Spiral Galaxy (G-SAC)				
Magnitude		9.9				
Distance (Kilo lightyears)		60000				
RA		12 18.8				
Dec		+14:25				
Size		4.6' x 4.3'				
UM I	UM II	193			91,A13	
SA		7, 13, 14, B1				
Remarks		nearly face-on spiral near M98				
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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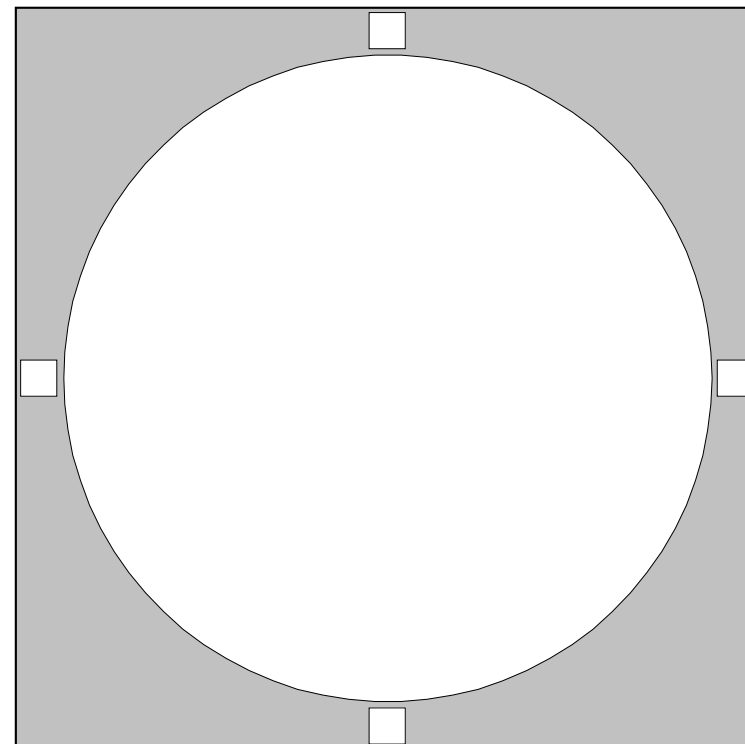
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

* = Number of stars in cluster
 ** p = Photographic Magnitude
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<http://www.rasc.ca>

RASC Messier Objects - M100

Messier Object		M100				
NGC		4321				
Constellation		Coma Berenices				
Type		Spiral Galaxy (G-SABbc)				
Magnitude		9.3				
Distance (Kilo lightyears)		60000				
RA		12 22.9				
Dec		+15:49				
Size		6.2' x 5.3'				
UM I	UM II	193			91,A13	
SA		7, 13, 14, B1				
Remarks		face-on spiral 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

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 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

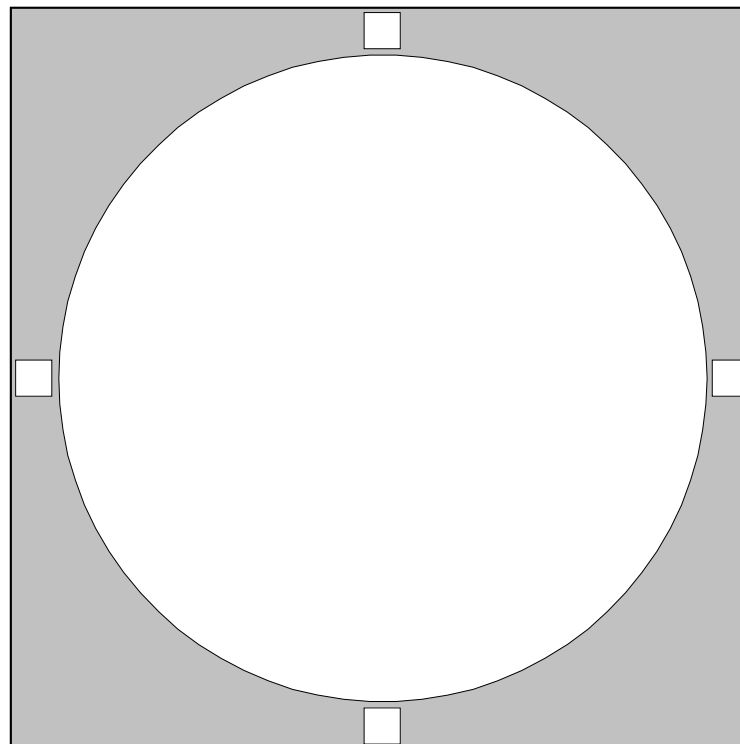
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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RASC Messier Objects - M101

Pinwheel Galaxy

Messier Object	M101		
NGC	5457		
Constellation	Ursa Major		
Type	Spiral Galaxy (G-SABcd)		
Magnitude	7.9		
Distance (Kilo lightyears)	27000		
RA	14 03.2		
Dec	+54:21		
Size	26' x 26'		
UM I	UM II	49	23
SA	2, 7		
Remarks	!! Pinwheel Galaxy; diffuse face-on spiral		
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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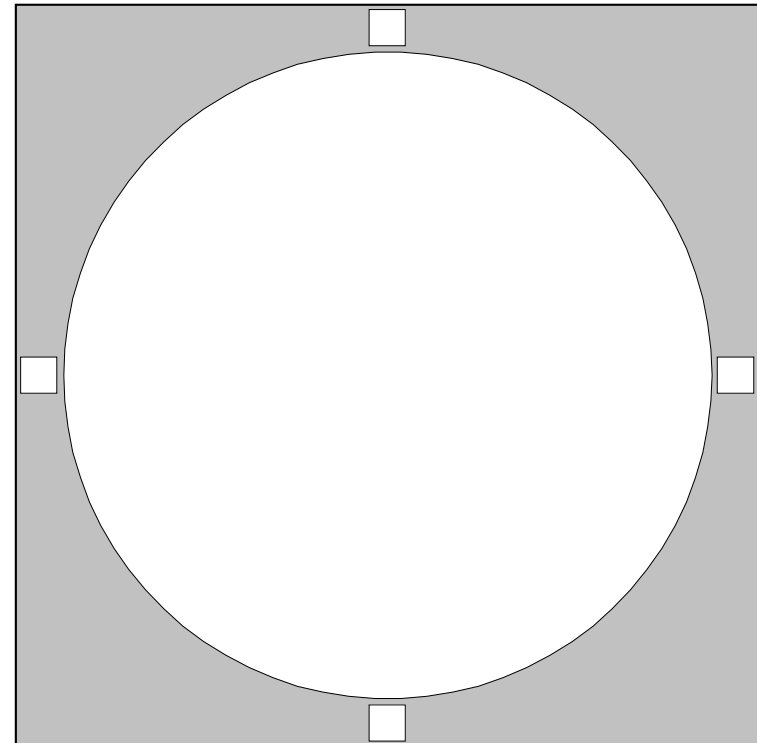
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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<http://www.rasc.ca>

RASC Messier Objects - M102?
NGC 5866 Spindle Galaxy

Messier Object	M102?		
NGC	5866?		
Constellation	Draco		
Type	Spiral Galaxy (G-SA0)		
Magnitude	9.9		
Distance (Kilo lightyears)	40000		
RA	15 06.5		
Dec	+55:46		
Size	6.6' x 3.2'		
UM I	UM II	50	22
SA			
Remarks	or is M102 = M101? (look for 4907)		
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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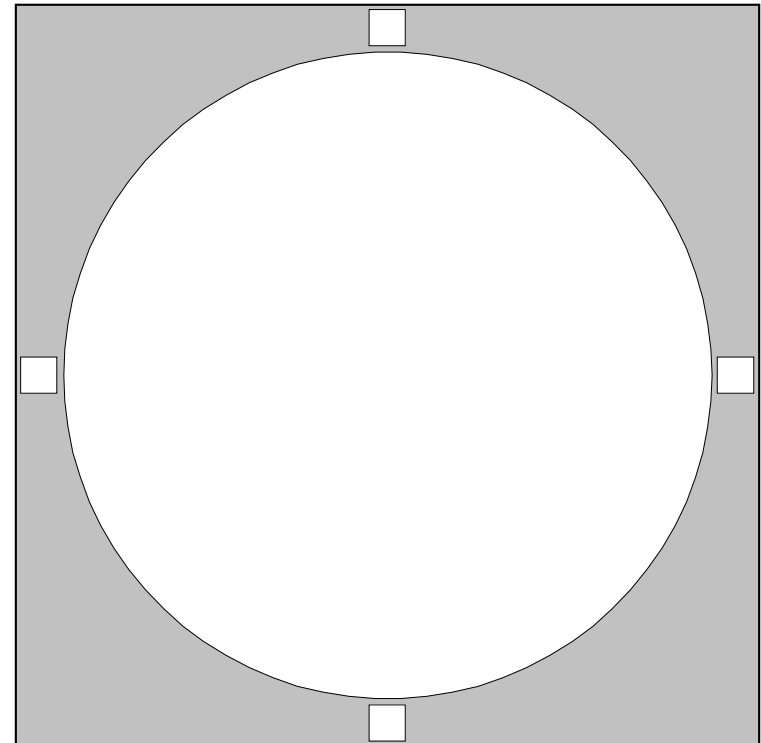
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M103

Messier Object	M103		
NGC	581		
Constellation	Cassiopeia		
Type	Open Cluster		
Magnitude	7.4		
Distance (Kilo lightyears)	8.5		
RA	01 33.2		
Dec	+60:42		
Size	6.0'		
UM I	UM II	16,36,37	29
SA	1		
Remarks	three NGC open clusters near by		
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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RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

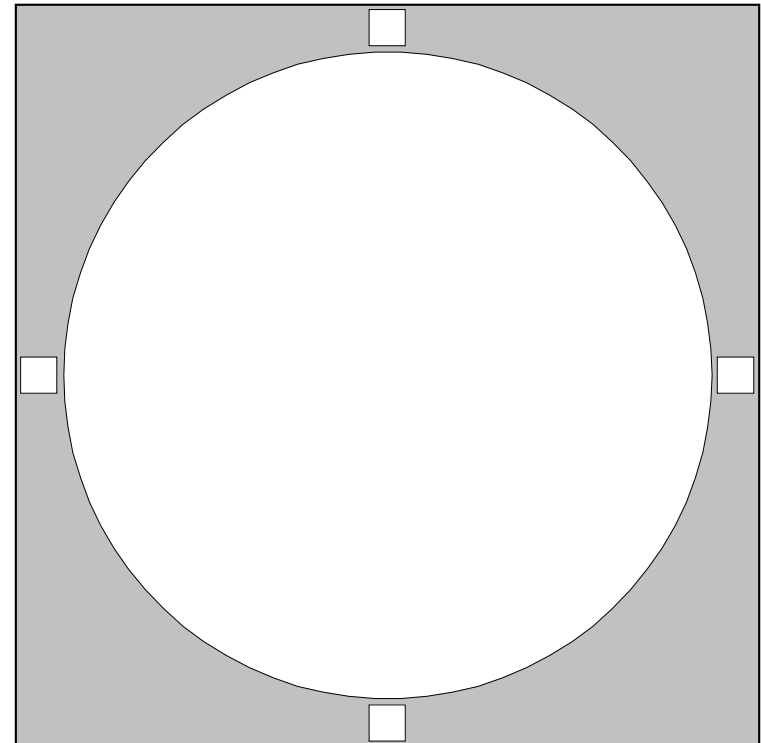
Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M104

Sombrero Galaxy

Messier Object		M104				
NGC		4594				
Constellation		Virgo				
Type		Spiral Galaxy (G-SA)				
Magnitude		8.0				
Distance (Kilo lightyears)		50000				
RA		12 40.0				
Dec		-11:37				
Size		7.1' x 4.4'				
UM I	UM II	284			130,131	
SA		13, 14				
Remarks		!! Sombrero Galaxy; look for dust lane				
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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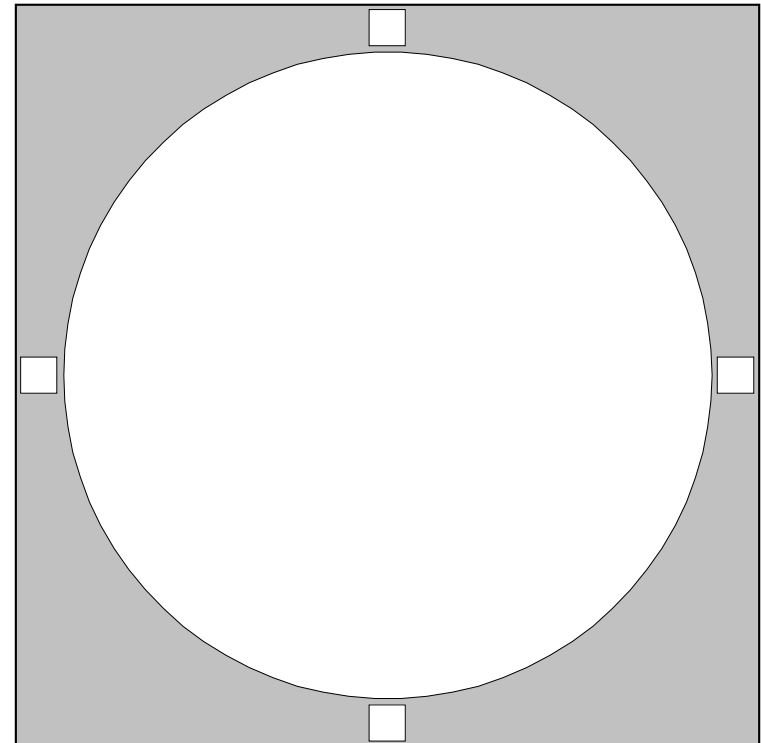
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M105

Messier Object		M105				
NGC		3379				
Constellation		Leo				
Type		Elliptical Galaxy (G-E1)				
Magnitude		9.3				
Distance (Kilo lightyears)		38000				
RA		10 47.8				
Dec		+12:35				
Size		3.9' x 3.9'				
UM I	UM II	190			92	
SA		13				
Remarks		bright ellipical near M95 and M96				
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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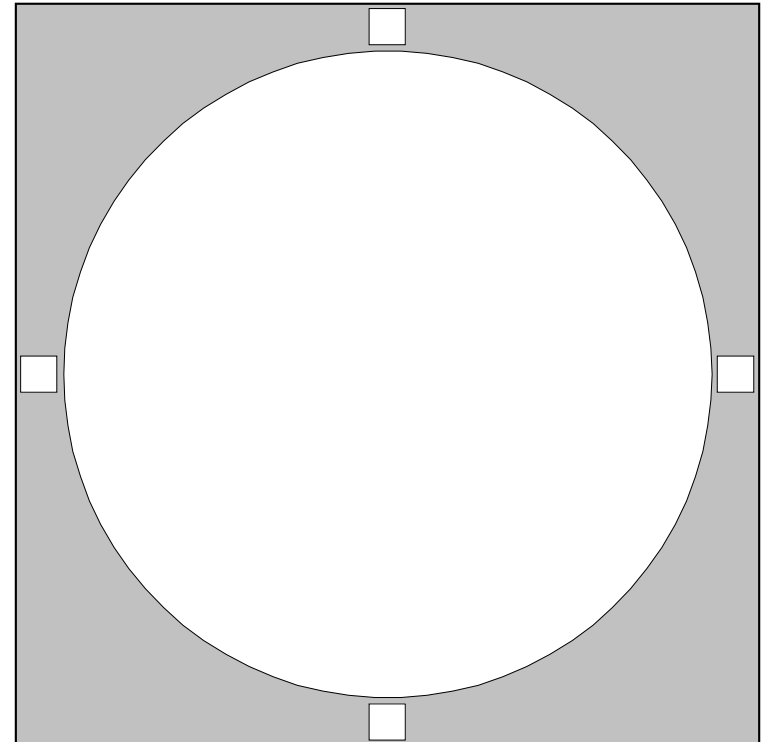
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M106

Messier Object	M106		
NGC	4258		
Constellation	Canes Venatici		
Type	Spiral Galaxy (G-SABbc)		
Magnitude	8.4		
Distance (Kilo lightyears)	25000		
RA	12 19.0		
Dec	+47:18		
Size	20.0' x 8.0'		
UM I	UM II	74,75	37
SA	2, 6, 7		
Remarks	!! Superb large. bright spiral		
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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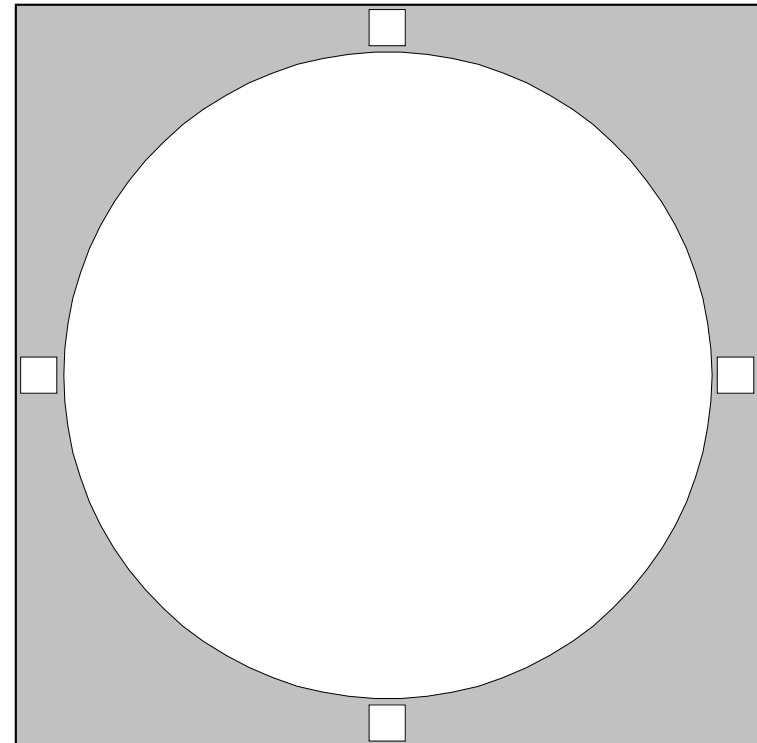
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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

RASC Messier Objects - M107

Messier Object		M107				
NGC		6171				
Constellation		Ophiuchus				
Type		Globular Cluster				
Magnitude		8.1				
Distance (Kilo lightyears)		20.9				
RA		16 32.5				
Dec		-13:03				
Size		10.0'				
UM I	UM II	291			127	
SA		15				
Remarks		small. faint globular				
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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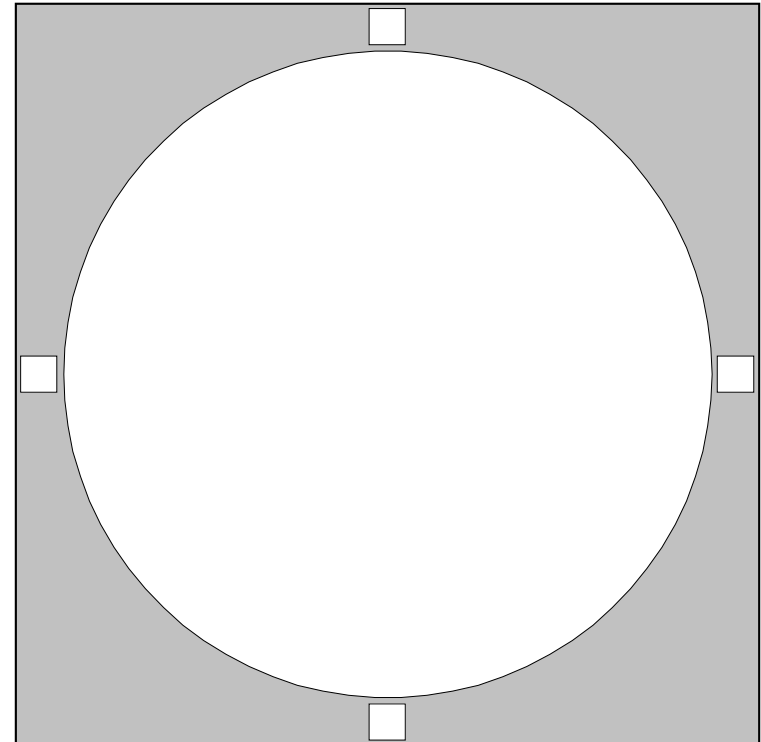
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RASC Messier Objects - M108

Messier Object	M108		
NGC	3556		
Constellation	Ursa Major		
Type	Spiral Galaxy (G-SBcd)		
Magnitude	10.0		
Distance (Kilo lightyears)	45000		
RA	11 11.5		
Dec	+55:40		
Size	8.1' x 2.1'		
UM I	UM II	46	24
SA	2, 6		
Remarks	nearly edge-on; paired with M97 3/4 degree south east		
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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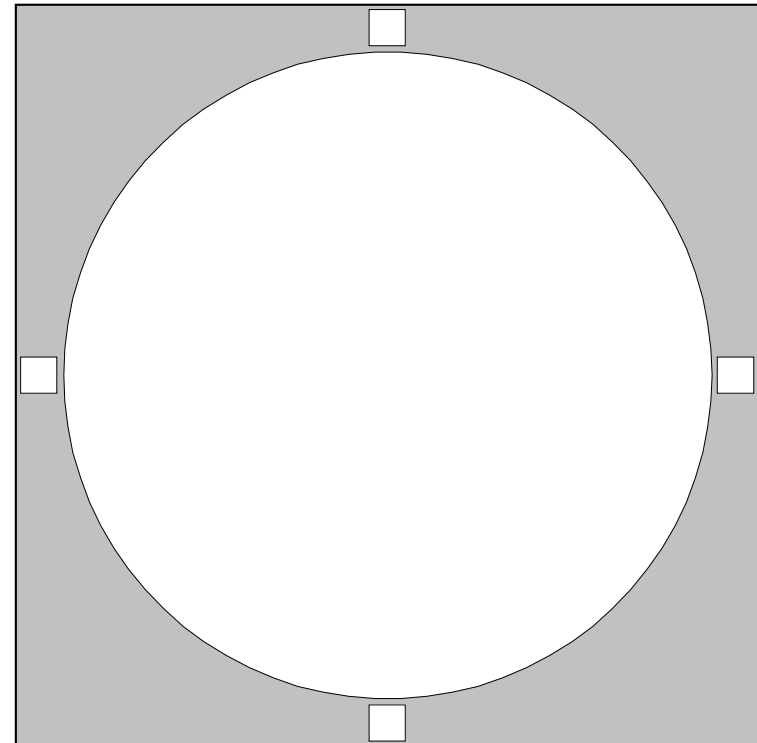
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 Transparency: 1 = Best 5 = Poor
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RASC Messier Objects - M109

Messier Object	M109		
NGC	3992		
Constellation	Ursa Major		
Type	Spiral Galaxy (G-SBbc)		
Magnitude	9.8		
Distance (Kilo lightyears)	55000		
RA	11 57.6		
Dec	+53:23		
Size	7.6' x 4.3'		
UM I	UM II	47	24
SA	2, 6, 7		
Remarks	barred spiral near Gamma UMa		
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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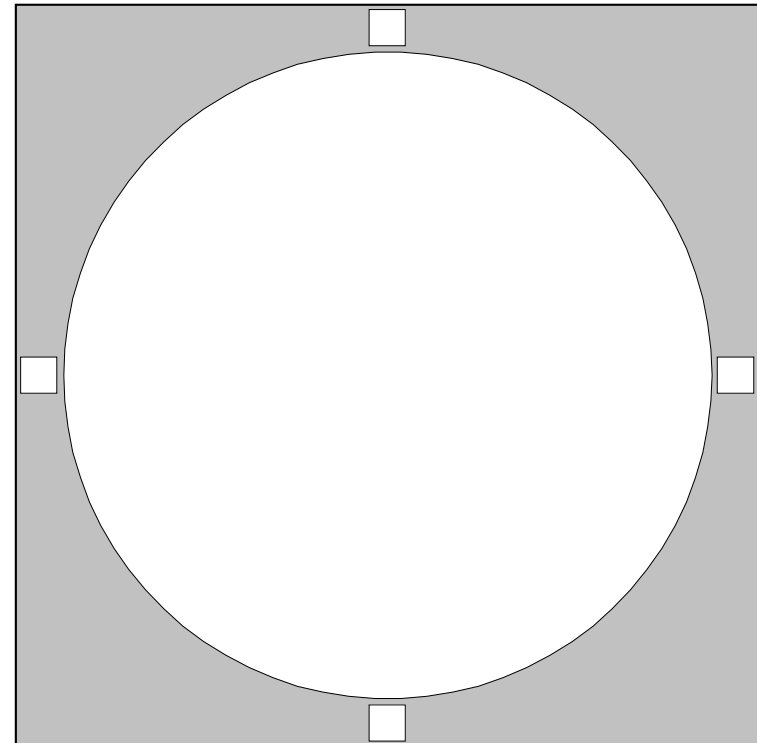
RN: (diffuse) Reflection Nebula
 EN: (diffuse) Emission Nebula
 G-: Galaxy, with Hubble type given
 E/RN: Diffuse emission and reflection Nebula

Seeing: 1 = Best 5 = Poor
 Transparency: 1 = Best 5 = Poor
 Time: DD:MM:YYYY
 Date: Specify Time Zone or UT

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RASC Messier Objects - M110

Messier Object		M110				
NGC		205				
Constellation		Andromeda				
Type		Elliptical Galaxy (G-E3 peculiar)				
Magnitude		8.1				
Distance (Kilo lightyears)		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)						



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