

Messier Objects

**Peterborough Astronomical Association
Novice Astronomy Class**

January 3, 2025

Brett Hardy

Brian Colville – M74

Seasonal Change

Spring

Leo, Virgo, Coma Berenices, Cancer,
Ursa Major, Canes Venatici, Hydra,
Draco, Serpens

Summer

Sagittarius, Scorpius, Hercules, Lyra,
Cygnus, Ophiuchus, Scutum, Sagitta,
Vulpecula

Fall

Aquarius, Andromeda, Capricornus,
Pegasus, Perseus, Cetus, Cassiopeia,
Triangulum, Pisces

Winter

Orion, Taurus, Canis Major, Auriga,
Gemini, Lepus, Monoceros, Puppis,
Hydra

Circumpolar

Ursa Major, Ursa Minor, Draco,
Cassiopeia, Cepheus



Rick Stankiewicz - M8

Charles Messier

- Born in Badonviller, France 1730
- A bright comet in 1744 inspired him when he was 14
- At 21 he moved to Paris and began working at the Marine Observatory
- Recovered Halley's Comet on the night of January 21, 1759
- In Messier's time detailed star charts that mark the positions of galaxies, nebulae and star clusters did not exist
- When he began his search for comets he would frequently come across what he called "embarrassing objects"
- So as to not get fooled by these objects again, he began compiling a list on August 28, 1758, carefully recording the exact right ascension and declination along with detailed observation notes
- **Messier died April 12, 1817**



Messier Catalogue

- 110 objects
- 3 asterisms
- 26 open clusters
- 29 globular clusters
- 4 planetary nebulae
- 7 diffuse nebulae
- 25 spiral galaxies
- 3 barred spiral galaxies
- 11 elliptical galaxies
- 1 irregular galaxy
- 1 supernova remnant



Rick Stankiewicz – M22

Asterisms

Spring

M40

Summer

M24

Fall

M73



0 5 arc-minutes 10

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www.AstroPixels.com

Open Clusters

Spring

M44, M67

Summer

M6, M7, M11, M16, M18, M21, M23,
M25, M26, M29, M39

Fall

M34, M52, M103

Winter

M35, M36, M37, M38, M41, M45, M46,
M47, M48, M50, M93



Brian Colville – M45

Globular Clusters

Spring

M3, M5, M53, M68

Summer

M4, M9, M10, M12, M13, M14, M19,
M22, M28, M54, M55, M56, M62, M69,
M70, M71, M75, M80, M92, M107

Fall

M2, M15, M30, M72

Winter

M79



Planetary Nebulae

Spring

M97

Summer

M27, M57

Fall

M76



Brian Colville – M27

Diffuse Nebulae

Summer

M8, M16, M17, M20

Winter

M42, M43, M78



Rodger Forsyth – M42/43

Galaxies

Spring

M49, M51, M58, M59, M60, M61, M63,
M64, M65, M66, M81, M82, M83, M84,
M85, M86, M87, M88, M89, M90, M91,
M94, M95, M96, M98, M99, M100,
M101, M102, M104, M105, M106,
M108, M109

Fall

M31, M32, M33, M74, M77, M110

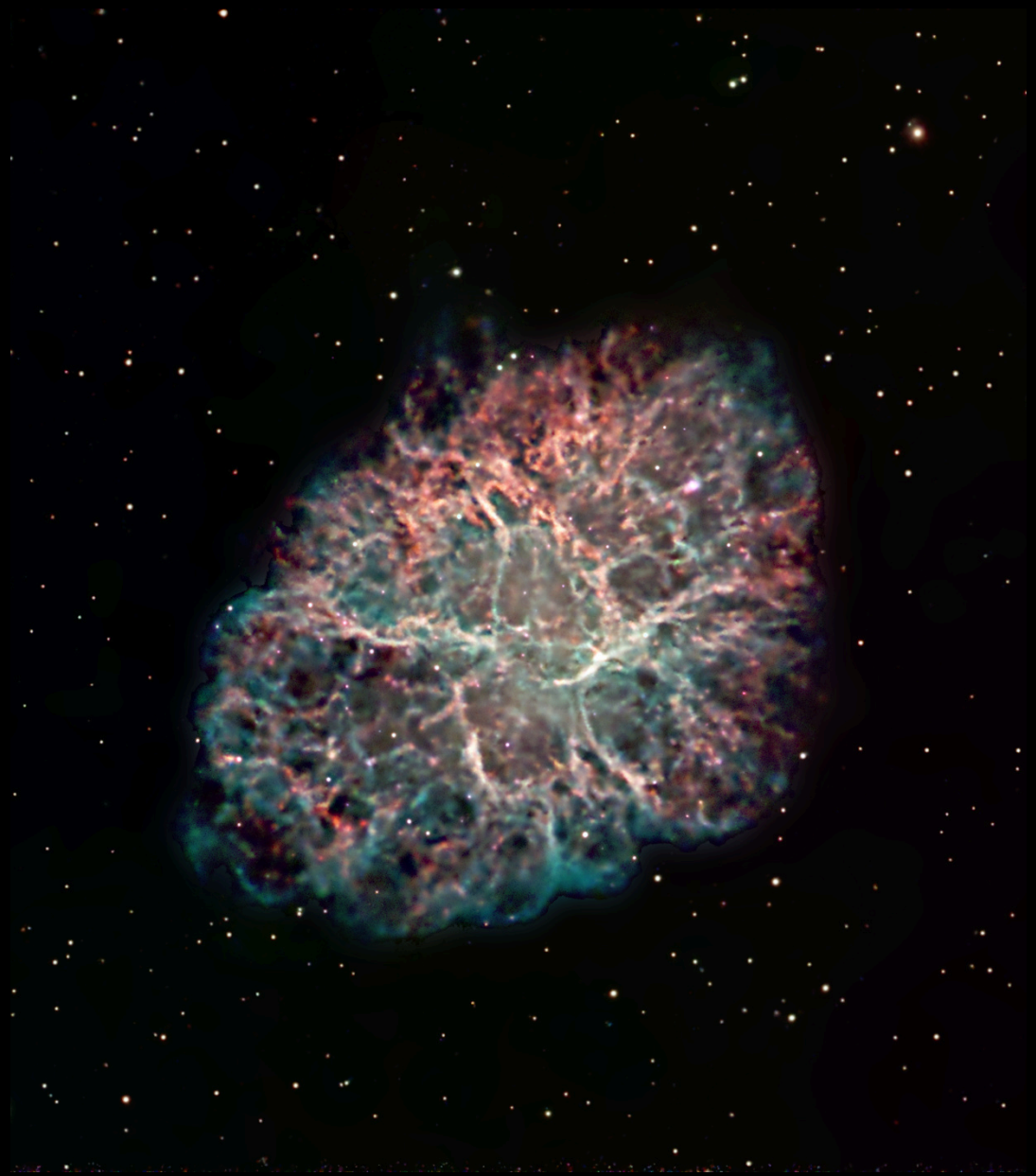


Brian Colville – M33

Supernova Remnants

Winter

M1



PAA Messier Certificates

Four different levels

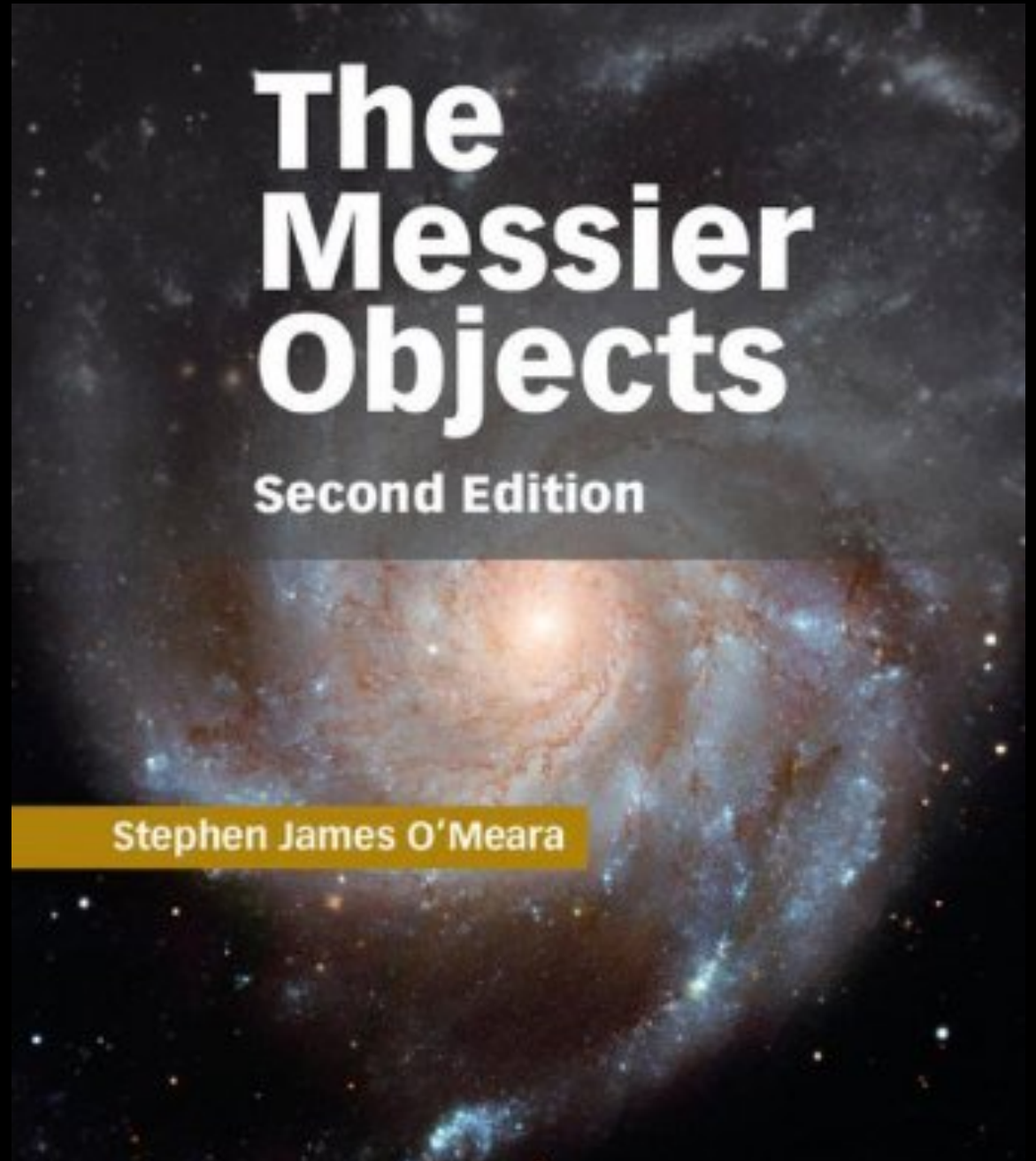
- 30+ Messier Objects observed
 - 60+ Messier Objects observed
 - 90+ Messier Objects observed
 - All 110 Messier Objects observed
- Certificates differentiated by acquisition method
 - Printable resource:
<http://www.star-shine.ch/astro/messiercharts/messierTelrad.htm>



Brett Hardy – M51

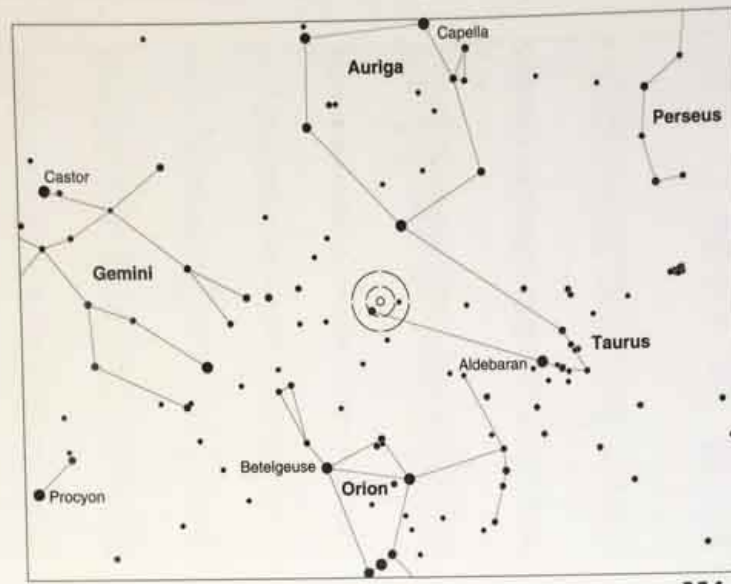
Books

- The Messier Objects
 - ISBN: 978-1-107-01837-2
 - \$56.95 (Amazon.ca)



Books

- Messier object finder charts
- Two volume set
- Spiral bound & laminated
- <https://www.sky-spot.com>
- \$39.99 USD



M1

M1

NGC Description: Very bright, very large, extended along position angle 135, very gradually brightening a little toward the middle, mottled.

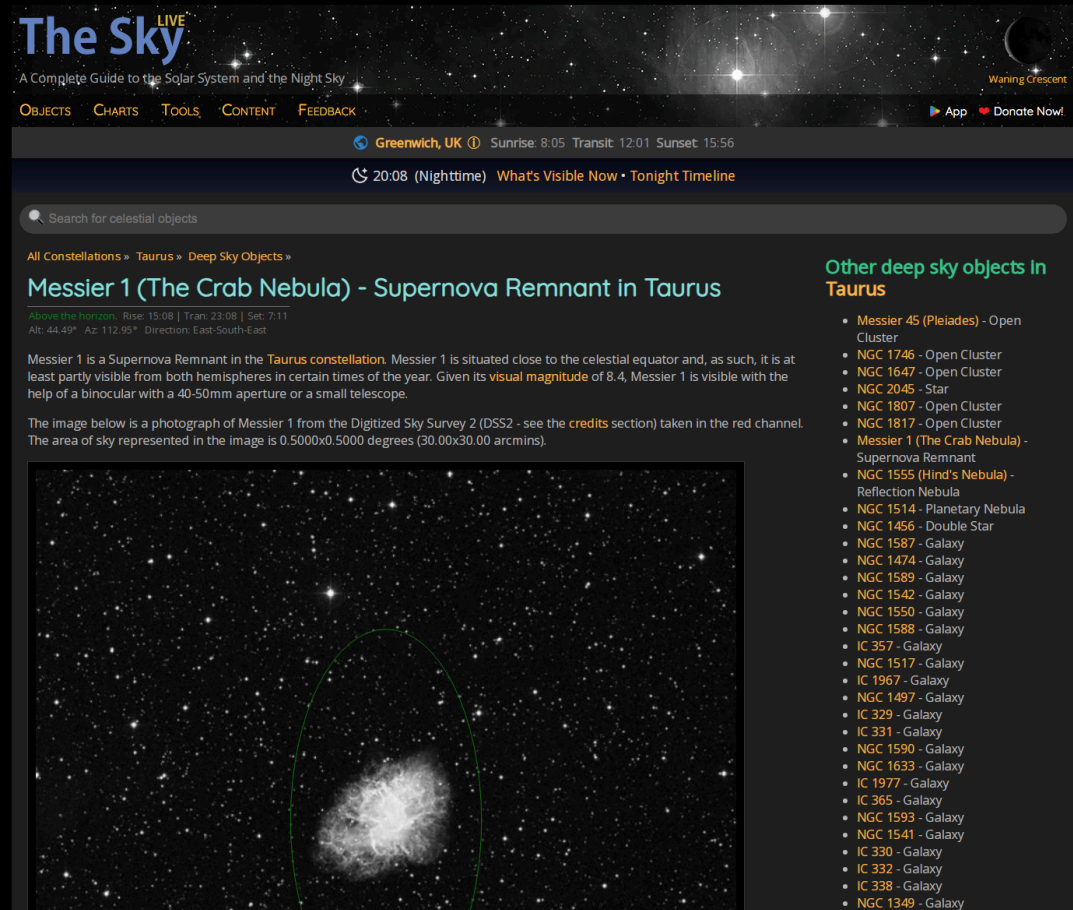
The Crab Nebula's history is better known than that of any other planetary nebula, for it is the remnant of the supernova of 1054 AD. M1 appears in small telescopes as an elongated smudge, but in apertures of 16 inches or greater the filamentary detail begins to appear.

M1 has been intensely studied by professional astronomers. It is the sight of the discovery of the first visual pulsar.


NGC	TYPE	MAG.	DISTANCE	SIZE	DIAMETER
1952	Di	8	6,300 l.y.	6' x 4'	11 l.y.

Websites & Applications

- Telescopius
 - <https://telescopius.com>
- The Sky Live
 - <https://theskylive.com>
- Stellarium
 - <https://stellarium.org>



The screenshot shows the 'The Sky LIVE' website interface. At the top, it says 'A Complete Guide to the Solar System and the Night Sky'. The navigation menu includes 'OBJECTS', 'CHARTS', 'TOOLS', 'CONTENT', and 'FEEDBACK'. The current location is 'Greenwich, UK' with sunrise at 8:05, transit at 12:01, and sunset at 15:56. The time is 20:08 (Nighttime). A search bar is present with the text 'Search for celestial objects'. The main content area is titled 'All Constellations > Taurus > Deep Sky Objects > Messier 1 (The Crab Nebula) - Supernova Remnant in Taurus'. Below the title, it provides coordinates: 'Right Ascension: 05h 15m 00s | Trans: 23h 00m | Set: 7h 11m | Alt: 44.49° | Az: 112.95° | Direction: East-South-East'. The text describes Messier 1 as a Supernova Remnant in the Taurus constellation, visible with a binocular or small telescope. A photograph of the nebula is shown with a green outline. To the right, a list of 'Other deep sky objects in Taurus' includes Messier 45 (Pleiades), NGC 1746, NGC 1647, NGC 2045, NGC 1807, NGC 1817, NGC 1555 (Hind's Nebula), NGC 1514, NGC 1456, NGC 1587, NGC 1474, NGC 1589, NGC 1542, NGC 1550, NGC 1588, IC 357, NGC 1517, IC 1967, NGC 1497, IC 329, IC 331, NGC 1590, NGC 1633, IC 1977, IC 365, NGC 1593, NGC 1541, IC 330, IC 332, IC 338, and NGC 1349.



Solar System Series
The Sun
February 7, 2025

Brian Colville