

Messier 13 (M13), also designated NGC 6205 and sometimes called the Great Globular Cluster in Hercules or the Hercules Globular Cluster, is a globular cluster of about 300,000 stars in the constellation of Hercules.

DISCOVERY AND VISIBILITY

M13 was discovered by **Edmond Halley** in 1714, and catalogued by **Charles Messier** on June 1, 1764. It is located at right ascension 16h 41.7m and declination +36° 28'. With an apparent magnitude of 5.8, it is barely visible with the naked eye on a very clear night. Its diameter is about 23 arc minutes (**half the diameter of the full Moon**) and it is readily viewable in small telescopes. Nearby is NGC 6207, a 12th magnitude edge-on galaxy that lies 28 arc minutes directly north east. A small galaxy, IC 4617, lies halfway between NGC 6207 and M13, north-northeast of the large globular cluster's centre.



The heart of Hercules Globular Cluster

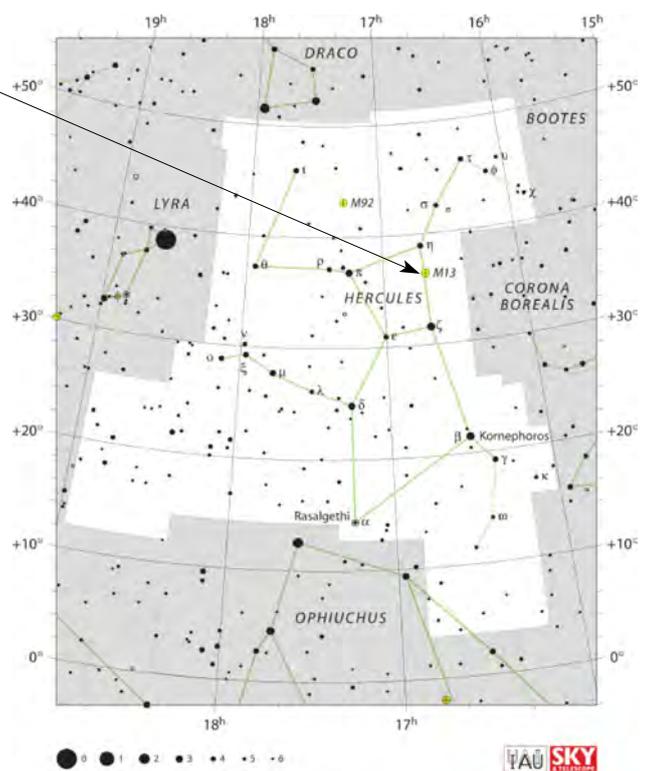


Wide field image of Messier 13.

M13 is about 145 light-years in diameter, and it is composed of several hundred thousand stars, the brightest of which is a red giant, the variable star V11, with an apparent visual magnitude of 11.95.

M13 is 25,100 light-years away from Earth.

In 1974 a message was beamed from the Arecibo Observatory radio telescope towards M13 as an experiment in contacting potential extraterrestrial civilizations in the cluster. The message contained encoded information about the human race, DNA, atomic numbers, Earth's position and other relevant information. While the cluster will move through space during the transit time, its proper motion is small enough that the message will still arrive near the centre of the cluster in about 25,100 years Earth time.



Hercules is a constellation named after Hercules, the Greek mythological hero adapted from the Greek hero Heracles. It was one of the 48 constellations listed by the 2nd century astronomer **Ptolemy**, and it remains one of the 88 modern constellations today. **In the sky it is situated – kneeling upside down – above the constellation Ophiuchus, and is the fifth largest of the modern constellations.** The *Alpha Herculis* is a multi-star feature in the head of the constellation the brightest of which is named Raselgethi (arabic for Head of the Kneeler).

Hercules contains two bright globular clusters: **M13, the brightest globular cluster in the northern hemisphere,** and M92. It also contains the nearly spherical planetary nebula Abell 39.



Hercules as depicted in Urania's Mirror, a set of constellation cards published in London c.1825. The figure appears upside down in the sky relative to neighbouring constellations.