Fun Facts:

**M2: GLOBULAR CLUSTER**

Computer Code: M2

* **Other Names:**
  + NGC 7089
* **Location:**
  + RA: 21h 34m 2s
  + Dec: -00⁰ 45’
* **Basics:**
  + Description: globular cluster in Aquarius
  + Visual Magnitude: +6.46
    - It is just visible to the naked eye under extremely good conditions. Binoculars & small telescopes will see the object, but not resolve it to stars. Large telescopes will resolve it to stars, the brightest of which are magnitude 13.1.
  + Apparent Size: 2.1 arcminutes
  + Distance: 33,000 light years away, well beyond the center of the Milky Way.
    - It is about 171,000 light years from the galactic center.
    - It is about 165,000 light years above and below the galactic plane.
    - It is approaching us at about 3 miles/second.
  + Diameter: 175 light years across
* **History:**
  + First discovered by 1746 by Jean Dominique Maraldi while observing a comet with Jacques Cassini.
  + Charles Messier rediscovered it in 1760, but described it as a “nebula without stars.”
  + William Herschel was the first to resolve it into individual stars in 1783. He described it as, “like a heap of fine sand!”
* **Other Notes:**
  + It is one of the largest known globular clusters with a dense, rich inner core. The central core has a diameter of only about 3.7 light years across.
  + Its tidal radius is about 233 light years, which means that is the distance from its center that it would start losing stars to the Milky Way’s gravitational pull. Everything inside that radius is bound together gravitationally in this cluster.
  + The cluster contains about 150,000 stars, including 21 known variable stars. Most of its brightest stars are yellow and red giants.
  + It is fairly symmetrical, with a slight north-south elongation making it look elliptical.
  + Its estimated age is about 13 billion years old.
  + If you want a challenge in a larger telescope, look for the darker dust lane that crosses through the northeast section.