

The Earth

Scale Notes for 1-meter Earth

- The scaled Sun would be 109 meters across, or the length of a football field
- The Sun would be 12km/7miles away
- The Asteroid Belt would begin 12km in the opposite direction, and continue for 14km/8mi.



Meteors glow around 80km (50 miles) above the surface of the Earth as they enter our atmosphere and heat up.



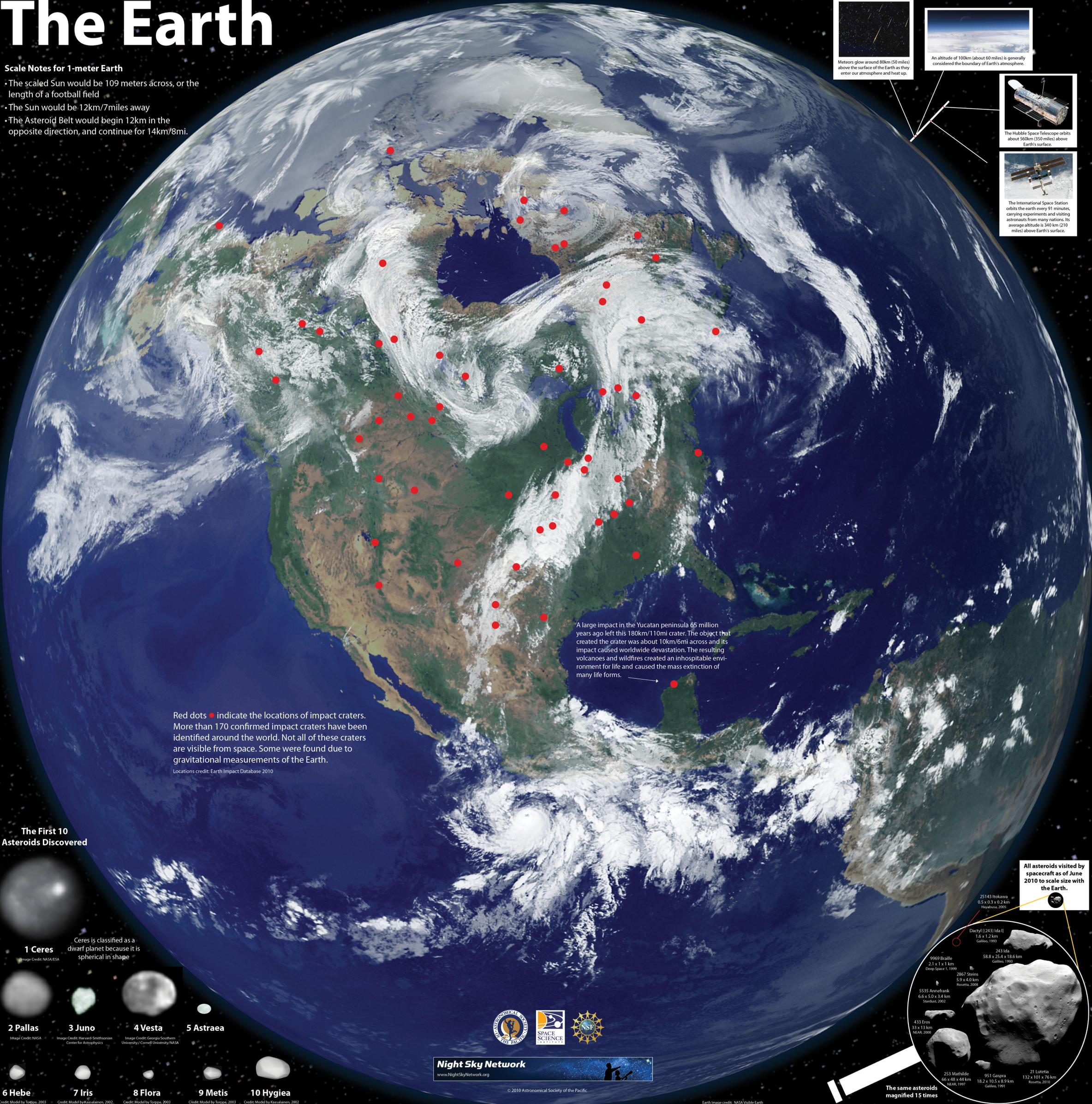
An altitude of 100km (about 60 miles) is generally considered the boundary of Earth's atmosphere.



The Hubble Space Telescope orbits about 560km (350 miles) above Earth's surface.



The International Space Station orbits the earth every 91 minutes, carrying experiments and visiting astronauts from many nations. Its average altitude is 340 km (210 miles) above Earth's surface.

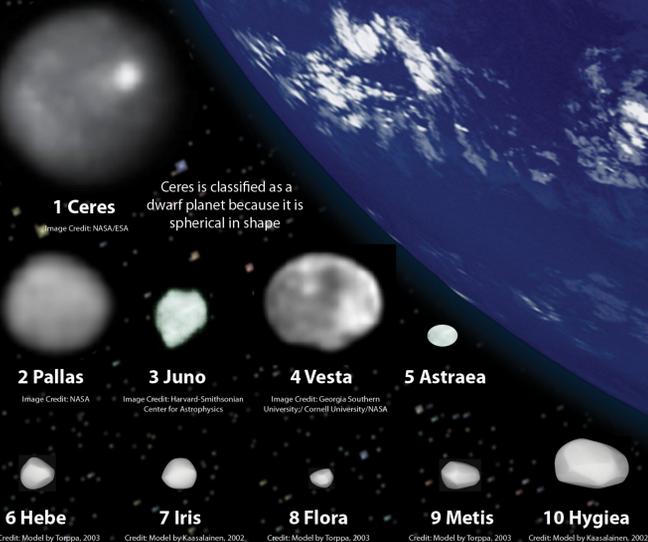


Red dots indicate the locations of impact craters. More than 170 confirmed impact craters have been identified around the world. Not all of these craters are visible from space. Some were found due to gravitational measurements of the Earth.

Locations credit: Earth Impact Database 2010

A large impact in the Yucatan peninsula 65 million years ago left this 180km/110mi crater. The object that created the crater was about 10km/6mi across and its impact caused worldwide devastation. The resulting volcanoes and wildfires created an inhospitable environment for life and caused the mass extinction of many life forms.

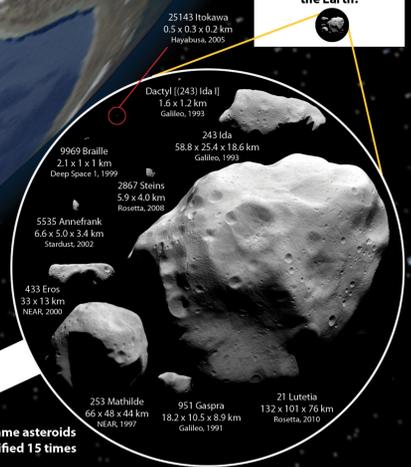
The First 10 Asteroids Discovered



1 Ceres
Ceres is classified as a dwarf planet because it is spherical in shape.

2 Pallas **3 Juno** **4 Vesta** **5 Astraea** **6 Hebe** **7 Iris** **8 Flora** **9 Metis** **10 Hygiea**

All asteroids visited by spacecraft as of June 2010 to scale size with the Earth.



25143 Itokawa 0.5 x 0.3 x 0.2 km Hayabusa, 2005
Dactyl [(243) Ida] 1.6 x 1.2 km Galileo, 1991
243 Ida 58.8 x 25.4 x 18.6 km Galileo, 1993
9999 Braille 2.1 x 1 x 1 km Deep Space 1, 1999
2867 Steins 5.9 x 4.0 km Rosetta, 2005
5535 Annefrank 6.6 x 5.0 x 3.4 km Stardust, 2002
433 Eros 33 x 13 km NEAR, 2000
253 Mathilde 66 x 48 x 44 km NEAR, 1997
951 Gaspra 18.2 x 10.5 x 8.9 km Galileo, 1991
21 Lutetia 132 x 101 x 76 km Rosetta, 2010

The same asteroids magnified 15 times



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Earth Image credit: NASA Visible Earth