

Planets of our Milky Way

Saturn

Nathaniel Bowditch, American Practical Navigator, 9th Ed., 1966

"Saturn is the only planet having a density less than that of water, yet it has a mass of nearly one-third of Jupiter, and nearly three times that of all the other known planets combined." Bowditch 1773 - 1835

Saturn is a perfect planet to take a Celestial Fix by in our night sky.

Britannica: Saturn and its spectacular rings were best studied by the Cassini spacecraft. Saturn is 95 times as massive as Earth and occupies a volume 766 times greater than Earth. Saturn's mean density is 0.69 gram per cubic cm or only 12% of Earth's density. Saturn would float if there were an ocean large enough to hold it.

NASA: Saturn is unique among our Milky Way planets. Saturn is adorned with thousands of beautiful ringlets. Cassini orbited Saturn 294 times from 2004 to 2017. Saturn is mostly a massive ball of hydrogen {H₂} and helium {He}. All four gas giants have rings made up of chunks of ice and rocks. Saturn is 10-times farther from the Sun than our Earth. Saturn's diameter is about 72,000 miles, nine-times Earth's diameter. Saturn's effective temperature is 288 degrees Fahrenheit. Saturn has 53 known moons and 29 additional moons awaiting confirmation.

Instructor, Mr. Nick: When taking a celestial fix of Saturn while underway you must remember to: #1: No side-talk, #2: Carry a stopwatch. #3: Start that time piece when you take the elevation of Saturn by sextant. #4: Stop the stopwatch when you write down the time on the ship's clock. #5: Subtract the stop-watch time from the ship's time. That gives you your **Local Mean Time** of observation. Over: SNW