**Introduction**

All other planets in the solar system have magnetic field like earth. Some of the planets like Uranus, Saturn, Jupiter, and Neptune has large magnetic field than earth. Magnetosphere of an astronomical object is the area surrounding that object where its Magnetic field is present. Like all other planets Saturn also has the similar magnetosphere structure it has a bow shock, Magneto sheath, Magnetopause and magnetotail. Among this structure bow shock is the point at which the magnetosphere of the Saturn interacts with the solar wind which in turn suddenly reduces its speed and pressure. Magneto pause is the boundary between Saturn’s Magnetic field and Solar wind. The magneto sheath exists between the bow shock and the magnetopause, an area of shocked solar wind that is significantly influenced by the changes that occur within the bow shock and whose features can impact the interaction across the magnetopause. The dynamic pressure of Solar wind usually determines boundary and position of Magneto pause and Bowshock [2]. The Cassini spacecraft recorded magnetic field and plasma condition of the environment during its insertion to Saturn’s orbit by using the Cassini Magnetometer (MAG), Plasma Spectrometer (CAPS). From the graph plotted using the magnetic field strength readings clearly shows there is some “overshoot” and “foot”

Reference

[2] Cassini observations of planetary-period oscillations of Saturn’s magnetopause