

Pan Satellite

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Not exceeding 35 kilometers in diameter, orbiting in the Encke gap of A Ring, one of the little moons of Saturn is called Pan and appears as an insignificant dot compared to its master. In Greek beliefs, Pan was thought to be the god of the wild, shepherds, rustic music and hunting, similar to the roman mythic character Faunus. The designation comes from the Greek word „paen”- meaning „to pasture”.

First noticed in 1990 by the American astronomer Mark R. Showalter in some photos taken on Voyager 2 space expeditions, S/1981 S13 satellite officially receives its name one year later.

Cassini scientist described the form of Saturn's pasture as a walnut-like one, which can be clearly seen in 11 photos captured by Voyager 2.

The Encke Gap, where the natural satellite is located, contains a smaller ring that intersects Pan's orbit, indicating the fact that the satellite maintains the particles in horseshoe form. A second ring is periodically disturbed by Pan similarly to the situation when the F Ring is perturbed by Prometheus. Because the satellite orbits along the Encke division, the saturnian rings can be seen from any point of the satellite.

Perpetual and ubiquitous there are changes in the Universe. They allow or inhibit the evolution of cosmic orbs. Thereby, the catastrophe that generated the formation of the rings of Saturn favored the development of an ample system, where satellites wander continuously.

It would be a great opportunity for Cassini to better explore the aspect and physical and chemical characteristics of Pan, so that the astronomers will be able to answer questions about the Solar System and about the primordial Terra. Cassini's Scientist for a Day target one is an interesting choice that should not be ruled-out, indeed the mission should be given the chance to be accomplished. There are already known aspects such as dimensions, mean density, equatorial surface gravity, orbital period, inclination, temperature, etc. but a detailed study would help calculating more other amounts.

A close up reveals the aspect and features of bewildering Pan, but like any other cosmic objects it has its own undiscovered secrets. The double sense of the name suggests that the connection between human beliefs and Universe science is unimaginably strong, even though our existence is transient. That's why people developed an interest on both human existentialism and Universe science that holds out hope for solving problems and scientific matters.