

**\_\_\_\_\_** 

**Topic-Triton** 

Award by NASA



"The most mysterious moon in the solar system is Triton, which is the largest moon of Neptune's 13 moons, and the largest moon in our solar system that orbits in opposite direction, which is also known as satellite of Neptune the next destination for an astronomer.

It's quite old, almost 4.5 billion years discovered on Oct. 10, 1846, by English astronomer William Lasselle. Triton was discovered seven days after discovering Neptune

Triton; its diameter of 1680 miles, its surface area is almost as big as Australia and Europe together. Approximately 23 million km2, It takes 14 days to orbit Neptune. Triton surface temperature is -391celcius, gravity is 0.779ms.

Triton contains carbon and variety of gases, it is believed that it was a dwarf planet and was captured by Neptune. Triton has sparsely catered surface which develops similarities with Mars, Mars also has sparsely catered surface which indicates that we can get an idea we can easily land on its surface. It is also only volcanic active body of Neptune like as mercury. The ice lava flows in triton is similar to Charon and Titan.

There would be possibility of existence of life in triton as its atmosphere is thick which allows excessively light and heat pass through its atmosphere, Such as earth and Mars. Its atmosphere is mostly composed of nitrogen which shows it sky looks blue like earth. Though NASA have visited it one's when voyager 2 had visited though in future soon we will be able to discover this planet.

A very thin atmosphere extending to 800kms approx. above surface is 14 microbar that is 70000th surface pressure of earth. Surface is blocky outcrops, ridges, troughs, furrows, hollows, plateaus, icy plain and few craters relatively flat as topography never varies beyond a kilometer as observed by Voyager 2.

Triton is young and has relatively few impact craters, and it is geographically active.

Although Triton crust is made of various ices ad sub surface process are similar to those produce volcanoes and rift valleys on earth but with ammonia as opposed to liquid rock

Triton South pole region is full of nitrogen and methane sprinkled by impact craters and opening geysers. North Pole is little known as it was in night side during voyager 2 encounter but it must be ice cap in North Pole. The existence of liquid nitrogen seas and nitrogen and methane in atmosphere gives atmospheric density and similarity of Mars.

According to my observation there is a lot to explore as there are lot of unique features."