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Modern Day Space Elevators Entering Development (3)

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SPACE ELEVATORS FOR RESOURCE UTILIZATION IN THE SOLAR SYSTEM

Abstract

The space elevator is an innovative space traffic and transportation system that may be built in the future. A space elevator can not only be built on the Earth but also on the Moon and other planets such as Mars, and even on asteroids. Cargos and/or crewed spacecraft dispatched by the Earth space elevator can fly to the Moon and Mars to be caught at the end tips of the Lunar or Martian space elevators, and then brought down to the surface. Space elevators can be utilized at both ends of a flight when cargo and crew return from the Moon or Mars to the Earth. Asteroids are known to be rich in various kinds of resources, from platinum to nickel to carbon to water. Space elevators built on asteroids will help to mine and transport such resources. Transportation between the Earth, the Moon, Mars, the moons of Mars, and asteroids will be made possible by using space elevators at each location. While constructing a space elevator will take tremendous effort, when it is completed, it will contribute greatly to the resource utilization of the solar system.