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Modern Day Space Elevator Transformational Strengths and their Applications (3)

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FUTURE MULTIPLANETARY ECONOMY UTILIZING THE SPACE ELEVATOR

Abstract

The potential introduction of the space elevator represents a paradigm shift in space accessibility, characterized by significantly lower costs and increased payload capacity. Its utilization forecasts the development of a space-based economy spanning the entire solar system, including planets, moons, selected asteroids, and comets, with space itself becoming a platform for a multiplanetary society. This paper aims to explore various scenarios enabled by space elevator technology, extending beyond Earth to incorporate it into traveling settlements as essential infrastructure. Possibilities include assembling space settlements in geostationary terminals, implementing space transportation systems with a cruiser- feeder concept where the elevator serves as a link between planetary surfaces, cruisers, and container transportation systems. Additionally, it encompasses employing the elevator to deflect asteroid collisions, assembling traveling settlements, and utilizing them as primary instruments for solar system colonization. The envisioned space economy could surpass the terrestrial one, potentially generating quadrillion-dollar figures to benefit humanity at large. While these goals are ambitious, leveraging space elevator technology can expedite the process, offering immediate benefits and facilitating the establishment of a multiplanetary society, integrating both humans and AI-powered artificial beings. Introduction