

Download Space Tethers And Space Elevators

In 1979, space elevators were introduced to a broader audience with the simultaneous publication of Arthur C. Clarke's novel, *The Fountains of Paradise*, in which engineers construct a space elevator on top of a mountain peak in the fictional island country of "Taprobane" (loosely based on Sri Lanka, albeit moved south to the Equator), and ...Space tethers are long cables which can be used for propulsion, momentum exchange, stabilization and attitude control, or maintaining the relative positions of the components of a large dispersed satellite/spacecraft sensor system. Depending on the mission objectives and altitude, spaceflight using this form of spacecraft propulsion is ...The single most difficult task in building the Space Elevator is achieving the required tether strength-to-weight ratio -- in other words, developing a material that is both strong enough and light enough to support the 60,000 mile long tether. As BBC Future has discovered before, proponents of space elevators believe not. They see chemical rockets as an outdated, risky, environmentally damaging and exorbitant means of getting into space.