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THE RING AN OPTIMIZED SPACESHIP FOR THE 21ST CENTURY

Abstract

Up to now spaceships were conditioned by missile shapes , with multistage launchers and relatively small payload capability conditioned by the cylindrical fairing dimensions . Such conditions could be drastically changed by a proposed new vehicle with a different shape : the ring. As defined by its name the vehicle is a ring shaped proposed standard cargo and pax transfer system defined by two integrated components : -a space tug transporter / lander -a modular container The system would transfer entire containers between spacecrafts in space or between space and ground stations on Earth, the Moon , Mars or asteroids in a minimum time and risk free conditions, for cargo , crew even entire habitats The main components of the system are -The lander A ring shaped vehicle to allow the positioning of the container inside the vehicle . This spacecraft will contain the engines, the fuel, the navigation and communication systems the foldable landing gear, landing pads and any equipment for autonomus safe navigation -the modular container A cylinder shaped container . dimensioned to fit concentrically inside the ring shaped lander This equipment can be multifunctional carrying different payloads , even a habitat with crew and will be composed by containers of similar diameter but variable height according to payload requirements . The container , when on the ground , will be positioned in such a way to allow easy access for loading and unloading. It will be possible to leave the container on the ground or transport it back after a mission. The system is totally reusable and its utilization will simplify future missions that would be planned accordingly. The containers being independent from the launcher can be designed as needed for unmanned or manned missions with maximum flexibility giving new and unexpected capabilities in mission planning. Needed technologies are fully available and a scale model prototype could be easily built to prove the system advantages.