

IAF SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)
Future Space Transportation Systems (4)

Author: Mr. Navjeet Singroha
India, navjeetsingroha1998@gmail.com

INTERPLANETARY NON-PROPULSIVE TRANSPORT

Abstract

The current rate of increase in human population along with deforestation, global warming and natural resource exhaustion which ultimately is leading to a future with extremely low resources per capita is becoming the severest problem which will be faced by modern civilization. Keeping the above mentioned problems in mind one pragmatic solution is establishing extra-terrestrial settlements. For this Mars, Europa and Titan are the prime contenders. Mars will be the first to colonize and it is ideal due to certain reasons, one being the presence of atmosphere and water. The distance of Mars from Earth give rise to the need of a fast, efficient and economical transportation system. The non-propulsive launch system is the only method which satisfy all the requirements in long run. The system uses magnetism as the driving force for launching the spacecraft. The spacecraft launched by this mechanism need not to carry fuel with it, hence more space for payload. The Earth's Moon and Mars moon serves as the launching and landing pads. These intermediate bases, in future, will serve as the checkpoints for making the first solar system highway which will take mankind to the very end of the solar system. The first phase is up-to Mars after that it can be extended to Jupiter's moon Europa and then to Saturn's moon Titan making it within our reach. In this, the complete design and location of the launching system along with energy production methods for the operation on the respective moons is discussed.