

Launch Vehicles and Indirect Injection for a Low-Earth Orbit Satellite

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Technically, there exist many launch vehicles which have capability of injecting a satellite into its mission orbit all over the world. However, considering practical aspects including availability, cost and so on, sometimes available launch vehicles are very limited. On the contrary, in the designing phase of the satellite, it is highly recommended to broaden the selection range of candidate launch vehicles. One way to broaden the range is to perform indirect injection. This paper describes candidate launch vehicles for a low-earth orbit satellite. And it also describes an indirect injection method to broaden the limited selection range of candidate launch vehicles. Not to affect reliability and lifetime of the satellite, the data obtained from the previous similar mission operation was taken into consideration in calculating the propellant budget.