



Delta-V (meters/sec)

Delta-V (meters/sec)

Exhaust V Velocity (meters/sec)

Rocket Performance Graph
 $D = E \cdot \ln(R)$

These are constant acceleration brachistochrone type trajectories, where the spacecraft accelerates to the midpoint, does a skew flip, then decelerates to destination

Hohman are minimum-delta-V, maximum-duration impulse trajectories. I-3 are impulse trajectories near the transition between delta-V levels for high impulse trajectories and low brachistochrone trajectories (it is a hyperbolic solar escape orbit plus 30 km/s). I-2 is an impulse trajectory in-between Hohman and I-3 (it is equivalent to an elliptical orbit from Mercury to Pluto)
 Note that propulsion systems with thrust-to-weight ratios below one can only perform a Hohman or other impulse trajectory, they are incapable of performing brachistochrones or lift-offs. Such propulsion systems have dotted vertical lines on the table.

Mass Ratio