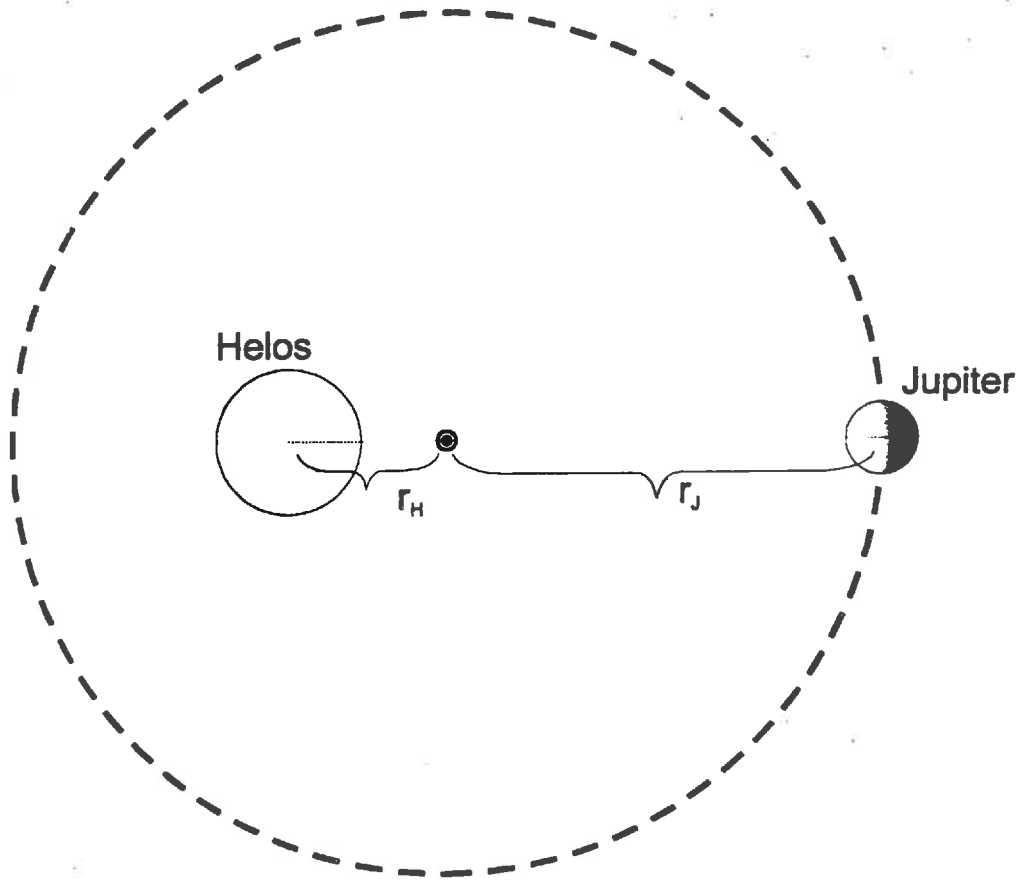
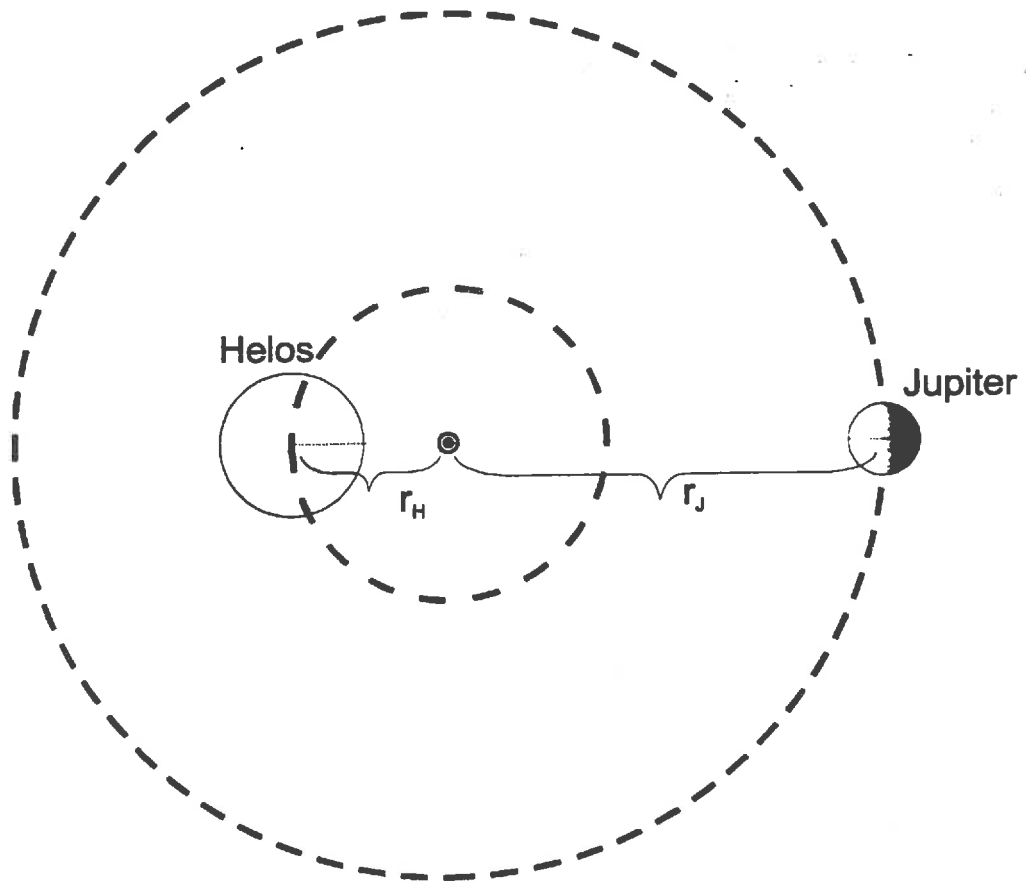


# JUPITER INTERACTING WITH THE SUN



$$\frac{r_H}{r_J} = \text{constant}$$

## DETERMINATION OF $r_H$



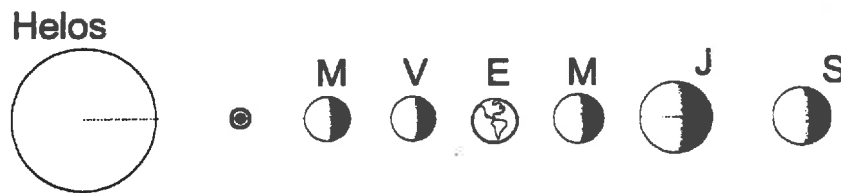
$$\dot{V}_{J_{cent}} \propto \frac{r_J}{P_J^2} \propto \frac{[a^3/P^2]_H}{r_{JH}^2}$$

$$\dot{V}_{H_{cent}} \propto \frac{r_H}{P_H^2} \propto \frac{[a^3/P^2]_J}{r_{JH}^2}$$

$$\frac{r_H}{r_J} = \frac{[a^3/P^2]_J}{[a^3/P^2]_H}$$

# GENERALIZING TO THE "PROOF"

## THE WORST CASE



$\text{MAX } r_H \leq 6 \text{ times } r_H \text{ from Jupiter-Sun case}$

"...For if in any position of the planets their common center of gravity is computed, this either falls in the body of the Sun or will always be close to it...."