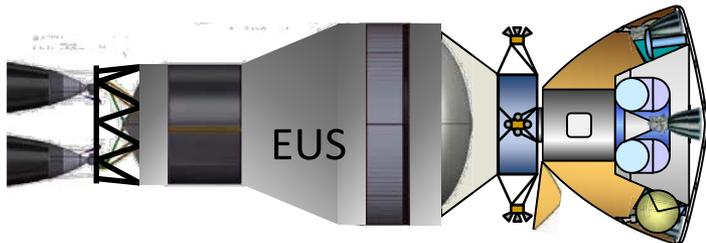


JPL Minimal Mars Architecture Notional Vehicle Configurations

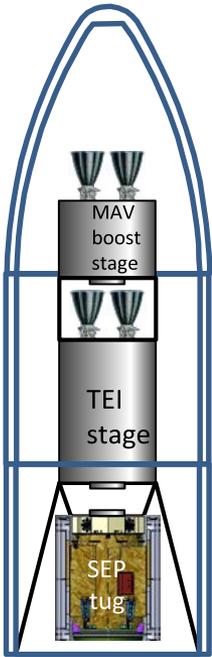
Hoppy Price
Jet Propulsion Laboratory
California Institute of Technology

July 1, 2016

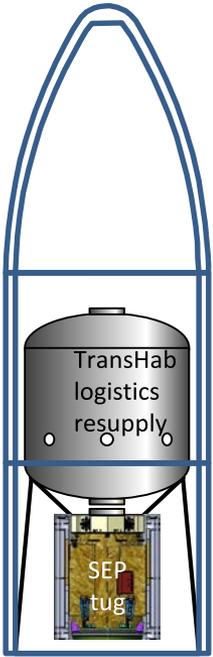
SLS Block 2 Launch Concepts for Minimal Architecture all 8.4 m fairings except for lander



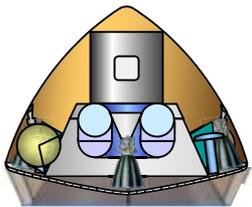
Earth departure configuration for lander (from HEO)



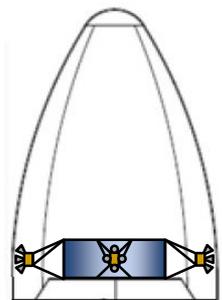
TEI and boost stage cargo launch
Launch #1



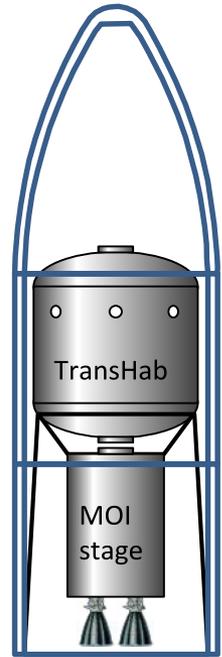
TransHab resupply cargo launch
Launch #2



Lander using backshell as payload fairing
Launch #3



Docking kit for EUS to use as departure stage
Launch #4

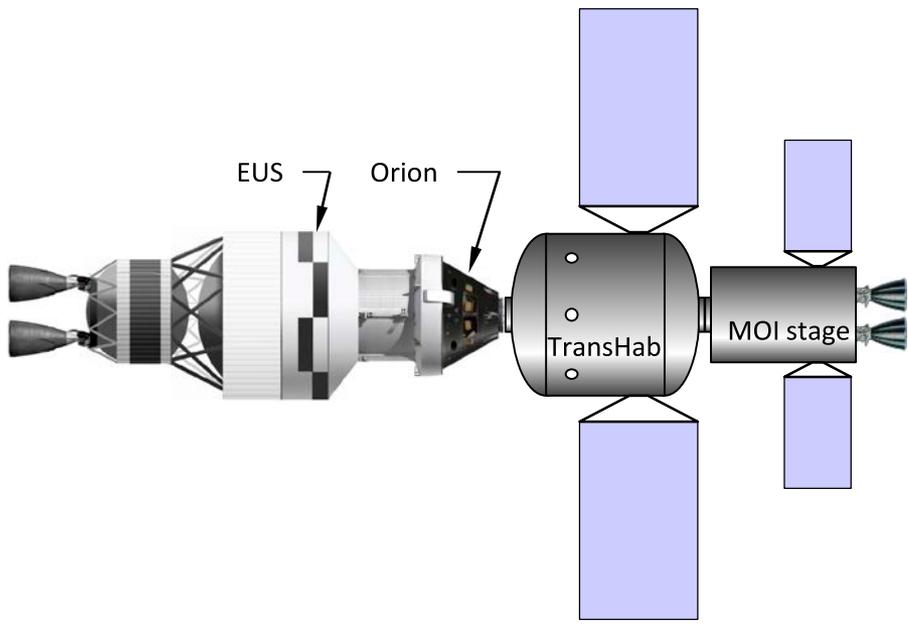


MOI stage and TransHab launch to HEO
Launch #5

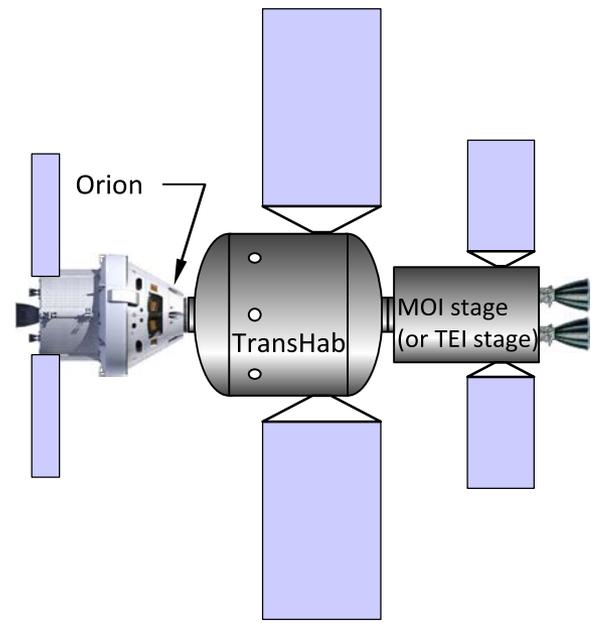


Orion with crew
Launch #6

Notional Crewed Mars Transit Vehicle Configuration

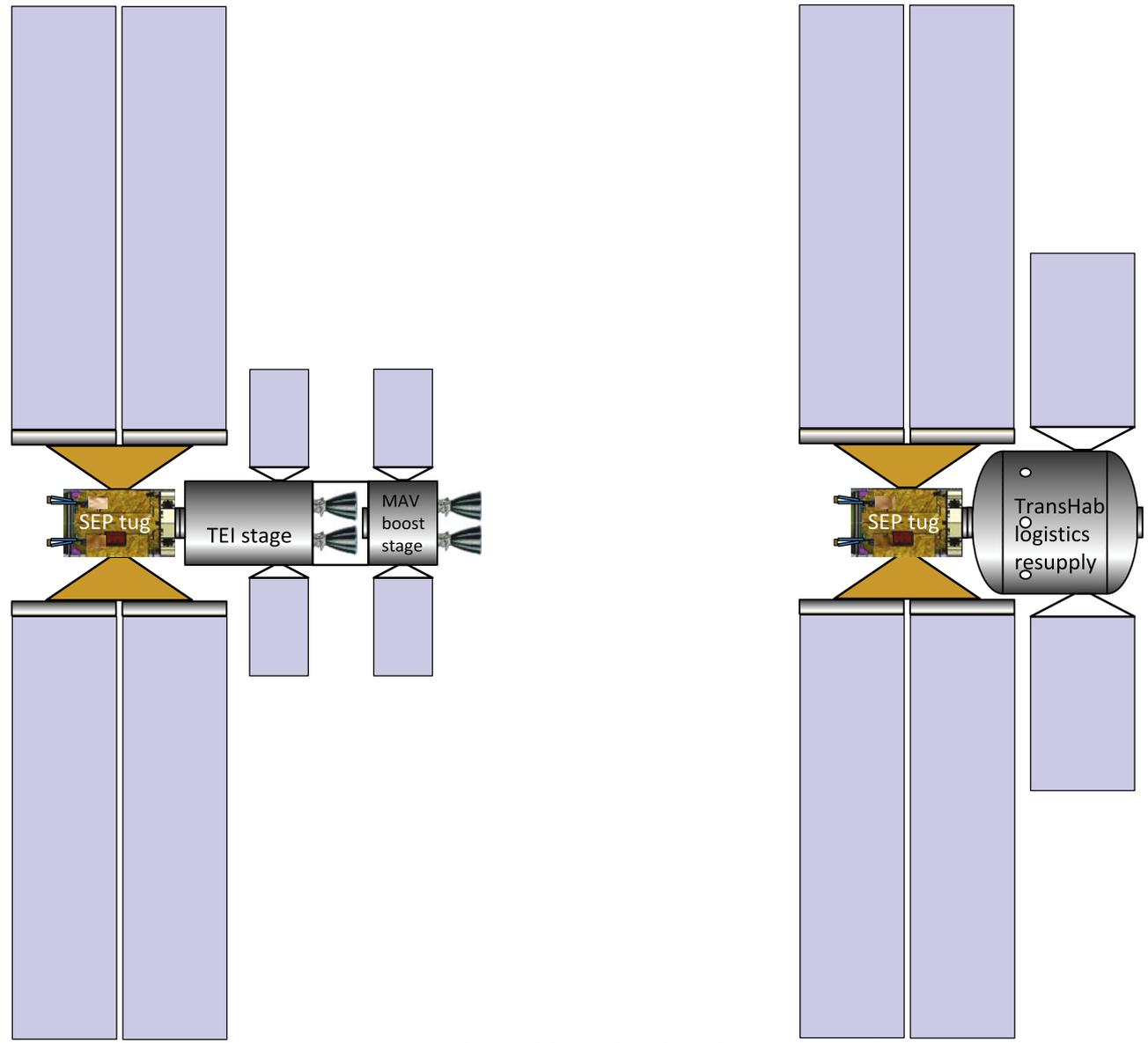


Earth departure configuration for crew

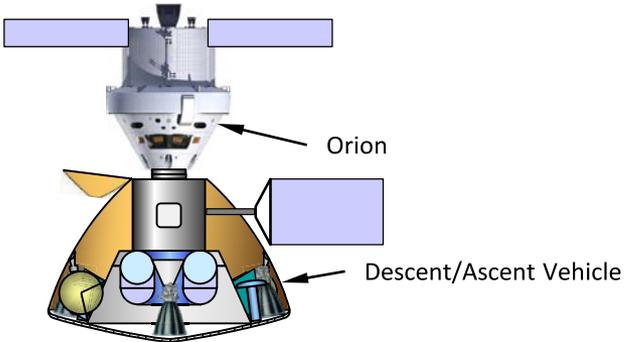


Earth/Mars transit configuration

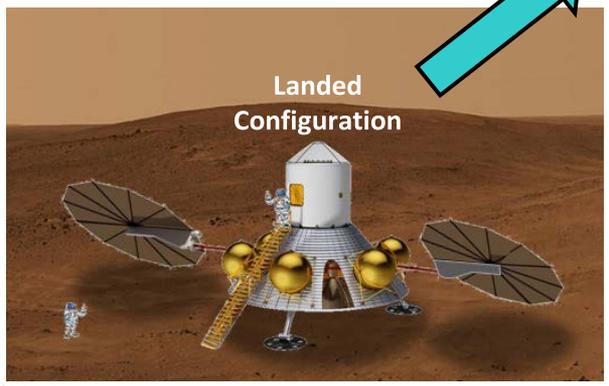
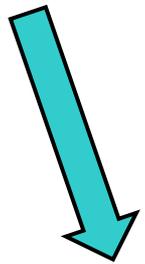
Notional SEP Tug Cargo Flight Configurations



Crewed Mars Descent/Ascent Vehicle Concept



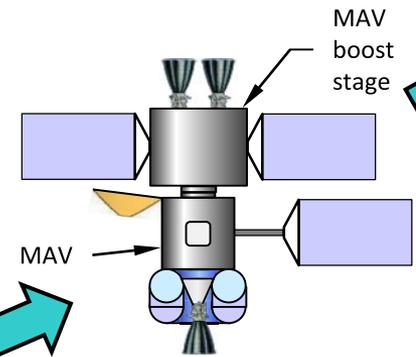
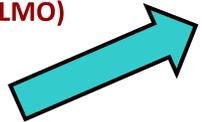
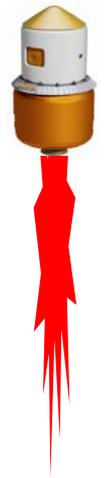
Crew transfer to Descent/Ascent Vehicle In High Mars Orbit (HMO)



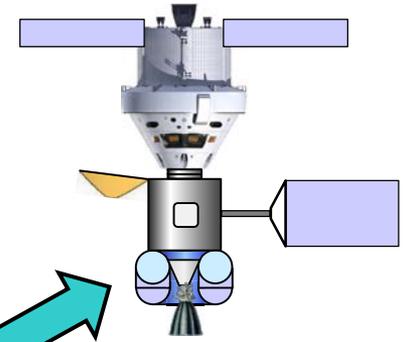
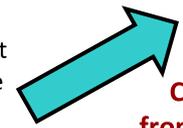
Landed Configuration



MAV Ascent to Low Mars Orbit (LMO)



MAV boost phase from LMO to HMO



Crew transfer from MAV in HMO

EDL Concept for 10 m Blunt Body Lander

