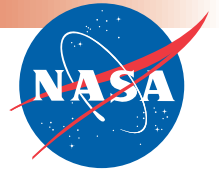


SPACE LAUNCH INITIATIVE

Technology Summary



Flight Demonstration

NASA's Space Launch Initiative focuses on increasing the safety of accessing space while reducing payload launch costs from today's \$10,000 per pound to \$1,000 per pound.

Before a safer, more reliable and cost-effective new launch system can be built, selected hardware and software technologies must first be flight tested – in a relevant ascent, orbit and reentry environment to reduce the risk of future launch system development.

The Space Launch Initiative plans to develop and flight test key enabling technologies during the first half of this decade, then incorporate them into a second generation reusable launch vehicle to be developed later this decade.

Enabling technologies to be flight tested include avionics, guidance and navigation systems, thermal protection systems, fuel tanks, integrated vehicle health management systems, autonomous flight operations and crew escape systems.

Technology experiments will be integrated into flight vehicles able to accommodate technologies that can be added-on, and/or embedded – technology which is built in as a permanent part of the flight vehicle during construction.

Flight test platforms used to mature critical Space Launch Initiative risk reduction technologies may include new vehicles, vehicles in development and existing operational vehicles.

The performance of the flight technology experiments will be closely monitored and reviewed – to ensure that the safety and reliability goals of the Space Launch Initiative are clearly addressed.

The Marshall Space Flight Center in Huntsville, Ala., leads the Space Launch Initiative with support from Dryden Flight Research Center in Edwards, Calif.; Ames Research Center in Moffett Field, Calif.; Stennis Space Center in Bay St. Louis, Miss.; Kennedy Space Center, Florida; Johnson Space Center in Houston; Langley Research Center in Hampton, Va.; Jet Propulsion Laboratory in Pasadena, Calif.; Glenn Research Center in Cleveland; and the Air Force Research Laboratory, which includes research and development facilities at nine United States Air Force bases nationwide.