



National Aeronautics and Space Administration



NASA's Space Launch System — Powering the Future of Exploration

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America's new Space Launch System (SLS) will provide the heavy-lift capability necessary to propel the next generation of explorers on entirely new missions throughout the solar system. From asteroids to Mars, SLS will be a key infrastructure asset that, along with the Orion spacecraft, allows NASA to send humans beyond Earth's orbit for the first time since the Apollo Moon program. This next wave of human exploration will transport us to new worlds—finding potential resources, developing new technologies, and discovering answers to mysteries about our place in the universe.

While work progresses on the initial 70-metric ton SLS, NASA is conducting advanced development activities to reduce costs, increase reliability, and deliver the performance needed to evolve the initial vehicle to configurations with even greater lift capacity. As the SLS evolves, a 130-metric ton rocket will be designed to support a variety of missions to carry crew, equipment, and experiments of varying sizes on long-duration trips.

As part of the development process, hardware designed to connect spacecraft and other payloads to SLS will first be flown on Exploration Flight Test 1 (EFT-1), which will fly the Orion Multi-Purpose Crew Vehicle test article to high-Earth orbit in 2014. EFT-1 will be followed by two flight tests of the 70-metric ton vehicle, sending Orion beyond low Earth orbit in 2017 and 2021. These first two planned exploration flights of SLS will set the stage for a range of missions NASA is considering, including the best path for humans to explore Mars—the planet most like Earth.

As NASA's commercial partners create an American supply line to the International Space Station, SLS will provide the transportation for crews to forge a route to far frontiers. It will be the most powerful rocket in history and it is being built in the U.S.A. today. SLS is designed to fly many missions—to wherever our imaginations can take us.

