

HUMAN SPACEFLIGHT SYMPOSIUM (B3)
Governmental Human Spaceflight Programs (Overview) (1)

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ORION TECHNOLOGY COMPARISON TO APOLLO AND OTHER HUMAN RATED SPACECRAFT

Abstract

The Orion program, originally known as the Crew Exploration Vehicle (CEV) project, was awarded to Lockheed Martin in September 2006 for the Design, Development, Test and Evaluation (DDTE) and production phases. Orion is now being designed as the Multi-Purpose Crew Vehicle (MPCV) to launch astronauts into space, perform multiple long distance/long duration space missions, and then return the astronauts safely back to Earth. The Orion spacecraft is the first human rated spacecraft since Apollo 17 launched 42 years ago designed to take humans beyond Low Earth Orbit (LEO).

This paper will describe the difference between the Orion and Apollo spacecraft designs, evolution of technologies since then, and a comparison of the requirements between other spacecraft rated for Human Space Flight.