

Multi Purpose Crew Vehicle Active Thermal Control and Environmental Control and Life Support Development Status

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The Orion Multi Purpose Crew Vehicle (MPCV) is the first crew transport vehicle to be developed by the National Aeronautics and Space Administration (NASA) in the last thirty years. Orion is currently being developed to transport the crew safely beyond Earth orbit. This year, the vehicle focused on building the Exploration Flight Test 1 (EFT1) vehicle to be launched in September of 2014. The development of the Orion Active Thermal Control (ATCS) and Environmental Control and Life Support (ECLS) System, focused on the integrating the components into the EFT1 vehicle and preparing them for launch. Work also has started on preliminary design reviews for the manned vehicle. Additional development work is underway to keep the remaining component progressing towards implementation on the flight tests of EM1 in 2017 and of EM2 in 2020. This paper covers the Orion ECLS development from April 2013 to April 2014.

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