IAF HUMAN SPACEFLIGHT SYMPOSIUM (B3)
Governmental Human Spaceflight Programmes (Overview) (1)

Author: Ms. Laura Means
NASA Marshall Space Flight Center, United States, laura.means@nasa.gov

Dr. Lisa Watson-Morgan
NASA, United States, lisa.a.watson-morgan@nasa.gov
Mrs. Lakiesha Hawkins
National Aeronautics and Space Administration (NASA), Marshall Space Flight Center, United States, lakiesha.v.hawkins@nasa.gov
Mr. John Crisler
NASA Marshall Space Flight Center, United States, john.p.crisler@nasa.gov
Mr. Larry Gagliano
NASA Marshall Space Flight Center, United States, larry.gagliano@nasa.gov
Mr. Rene Ortega
National Aeronautics and Space Administration (NASA), Marshall Space Flight Center, United States, rene.ortega@nasa.gov
Dr. Thomas Percy
NASA Marshall Space Flight Center, United States, thomas.k.percy@nasa.gov
Ms. Tara Polsgrove
NASA Marshall Space Flight Center, United States, tara.polsgrove@nasa.gov
Mr. Joseph Vermette
NASA, United States, joseph.p.vermette@nasa.gov

NASA'S INITIAL ARTEMIS HUMAN LANDING SYSTEM

Abstract

In April 2020, NASA announced the selection of three companies to begin the initial phase of development of human landing systems to take the first woman and the first person of color to the lunar surface through NASA's Artemis lunar exploration program. The selected companies were a Blue Origin-led team with Lockheed Martin, Northrup Grumman, and Draper; Dynetics (a Leidos company); and SpaceX. Contracts were awarded shortly after, kicking off a ten-month base period during which NASA worked closely with each company to finalize functional and performance requirements, confirm lander development standards, and establish baseline designs, schedules, and management plans for contract execution and human spaceflight certification. At the end of the base period, in the spring of 2021, NASA awarded a single follow-on Option A contract to SpaceX to continue their work on HLS Starship development. Currently NASA and SpaceX are working collaboratively on Option A which will ultimately culminate in one uncrewed and one crewed mission to the lunar surface under Artemis III.

This paper will provide a look at the Option A phase of development for the Human Landing System program, including publicly available information on SpaceX's HLS Starship design as well as near-term and future milestones for HLS and the Artemis program.