

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

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NASA'S HUMAN LANDING SYSTEM PROGRAM: PROGRESS TOWARD ARTEMIS III AND
BEYOND

Abstract

As part of its Artemis campaign to once again land astronauts on the Moon and usher in a new generation of science, discovery, and technology development for the benefit of all, NASA's Human Landing System (HLS) program, working with industry providers SpaceX and Blue Origin, made significant progress in 2023 toward the Artemis III mission and beyond.

In 2021, the HLS program, based out of Marshall Space Flight Center in Huntsville, Ala., awarded a firm, fixed-price (FFP) contract to SpaceX to provide an initial lunar lander for Artemis III – scheduled to be the first mission to return astronauts to the Moon since Apollo 17 in 1972. In 2022, NASA awarded SpaceX a contract modification to provide a more capable, sustaining lunar lander for Artemis IV. In parallel, the program awarded another FFP contract to Blue Origin and its partners to provide a landing system for Artemis V, giving NASA a dissimilar, redundant capability for human Moon landings. For Artemis VI and beyond, NASA plans to competitively procure landing services.

Before the crewed Artemis lunar landing missions can occur, however, there are many milestones the HLS program and its industry providers must accomplish. This paper will cover progress made in 2023 and the first three quarters of 2024 and a lookahead to the milestones and testing needed to achieve flight readiness for the Artemis III mission and beyond.