

Box 5.2: The USA: back to the Moon then on to Mars

Supporting the Administration's focus on space pioneering and exploration, NASA announced the Artemis project in 2018, as part of the *National Space Strategy*.

The Artemis project aspires to send the next man and the first woman to the Moon by 2024 (The White House, 2018). This mission will act as a testing ground for developing the capabilities necessary to reach Mars, making Artemis the foundation of NASA's Moon to Mars approach.

The project has been named after Artemis, the Greek goddess of wild animals, the hunt and the Moon, the twin sister of Apollo, god of the Sun. Apollo was the last NASA programme

to land an astronaut on the Moon, Gene Cernan, in December 1972.

Unlike the Apollo missions of the 1960s and 1970s, the Artemis mission will aim to establish a sustainable presence on the Moon and will work in collaboration with commercial and international partners.

With an ambitious time-frame, Artemis will be powered by NASA's forthcoming Space Launch System. Artemis will include a new powerful rocket and command module, Orion, which will serve as an intermediary step for flying to the Moon then back to Earth. Orion will dock with another key component of the Artemis mission, a Lunar Gateway that will serve as an orbital outpost of the Moon to support human exploration there.

The development of a modern lunar lander and a new generation of spacesuits are also key elements to NASA's return to the Moon.

Beyond the Moon

Following a series of Artemis Moon missions over the next decade, NASA will aim to put astronauts on Mars in the 2030s.

Federal funding is also projected to support both an orbiter and a lander for Jupiter's moon Europa and Saturn's largest moon, Titan, not to mention a solar probe, a new Mars rover and research on the Kuiper Belt.

Source: compiled by authors

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