



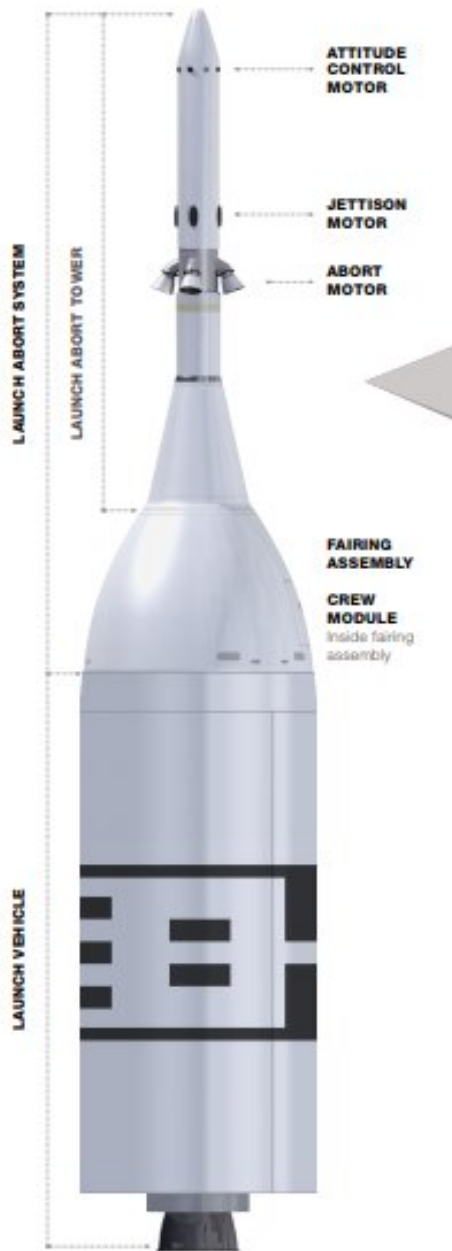
## Ascent Abort Test-2

---

 [drishtias.com/printpdf/ascent-abort-test-2](https://drishtias.com/printpdf/ascent-abort-test-2)

NASA has carried out a successful test of a **Launch-Abort System (LAS)** for the **Orion capsule** designed to take U.S. astronauts to the Moon.

- The test of the Orion's LAS is also called the **Ascent Abort Test-2 (AA-2)**.



- The **aim** was to test in almost real-life conditions the evacuation of astronauts from the capsule in the event of an explosion or rocket booster failure.
- The test is a milestone in NASA's **preparation for Artemis missions** to the Moon that will ultimately lead to astronaut missions to Mars.

The **Artemis program** will send the **first woman and the next man to the Moon by the year 2024** and develop a sustainable human presence on the Moon by the year 2028.

## Orion Capsule

- The safest spacecraft ever built, Orion, will **execute the Artemis program**.
- An integral part of ensuring safe spaceflight is Orion's Launch Abort System, or LAS. This **state-of-the-art crew escape system** is attached to the top of the spacecraft and

can propel the crew module away from the rocket within milliseconds should a life-threatening event arise during launch.

## Demonstration by the test

---

- In the test, an unmanned Orion capsule was launched by a mini-rocket.
- Fifty-five seconds after the launch, at an altitude of 9,500 m, a rocket-powered tower on top of the crew module ignited its engines to quickly **pull the Orion away from a hypothetical rocket experiencing problems.**
- In just 15 seconds, the capsule gained two miles of altitude. Then the tower reoriented the capsule to prepare it for descent and disengagement from the tower, finally **the crew module fell into the Atlantic Ocean.**
- In real-life conditions, parachutes would also open to ease the manned capsule's fall toward the Atlantic Ocean.