
WE ARE CAPABLE
ARTEMIS

1
00:00:03,040 --> 00:00:08,800
Through Artemis, the twin sister of\h
Apollo, we are returning to the Moon.

2
00:00:11,360 --> 00:00:17,520
This is Orion, the only human rated spacecraft\h
in the world capable of deep space travel.\h\h

3
00:00:18,640 --> 00:00:26,769
And now, the Space Launch System, NASA's\h
most powerful rocket since the Apollo era,\hstands ready.

4
00:00:27,600 --> 00:00:35,212
Having undergone and passed numerous\h
tests. the time has come to complete the journey.

5
00:00:36,400 --> 00:00:41,545
With hardware originating from every state\h
in the nation, and from partners around the\hworld,\h

6
00:00:42,099 --> 00:00:48,499
Artemis 1 will be the first flight test of\h
each of these components now assembled together.

7
00:00:54,880 --> 00:01:00,240
These two solid rocket boosters will provide more\h
than 75 percent of the thrust necessary to leave Earth. \h\h

8
00:01:02,234 --> 00:01:08,936
Each booster stands 17 stories tall. A full\h
segment more powerful than the SRBs of shuttle.\h\h

9
00:01:09,280 --> 00:01:16,566
Together these boosters are capable of 7.2 million\h
pounds of thrust and will burn for the first two\hminutes of flight.

10
00:01:17,729 --> 00:01:24,886
The core stage, at 212 feet, is the tallest rocket stage NASA has ever built.\h\h

11

00:01:24,960 --> 00:01:31,606
With the rocket's flight computer secured inside,\h
the core stage is designed to hold 2.3 million pounds of fuel.\h\h

12
00:01:32,714 --> 00:01:40,554
The 196 thousand gallons of liquid\hoxygen and the 537 thousand gallons of liquid hydrogen\hwill combine\h

13
00:01:40,554 --> 00:01:47,459
to provide eight and a half minutes\hof propellant to the four massive RS-25 engines\hmounted below.\h

14
00:01:47,869 --> 00:01:54,671
As proven workhorses of the shuttle\hfleet, each RS-25 engine has a legacy all its own.\h\h

15
00:01:54,960 --> 00:02:02,400
Together, these 4 engines provide 2 million pounds\h
of thrust and, with the SRBs, are capable of pushing\h\h

16
00:02:02,400 --> 00:02:10,160
Orion to a speed of 17 thousand miles-per-hour. The\h
Interim Cryogenic Propulsion Stage is a 45 foot\h\h

17
00:02:10,160 --> 00:02:17,840
tall upper stage that offers Orion nearly 25 thousand\h
pounds of thrust. Performing two separate burns,\h\h

18
00:02:17,840 --> 00:02:24,640
the ICPS will first raise Orion's orbit and, then,\h
later propel it out on a trajectory to the Moon.\h\h

19
00:02:25,840 --> 00:02:31,760
The ICPS is powered by a single RL10\hengine that will perform these two burns.\h\h

20
00:02:32,720 --> 00:02:38,320
This storied engine has propelled robotic missions\h
to every planet in the solar system, including\h\h

21
00:02:38,320 --> 00:02:46,400
Voyager 1 and Voyager 2. The first space probes\h
to reach interstellar space. Orion Service Module,\h\h

22
00:02:46,960 --> 00:02:52,960
provided by the European Space Agency, is the\h
powerhouse that fuels and propels Orion in space.\h\h

23
00:02:53,760 --> 00:02:59,280
It stores the spacecraft's propulsion, thermal\h
control, electrical power, and critical life support

24
00:02:59,280 --> 00:03:07,840
systems such as water, oxygen, and nitrogen.\h
Orion's crew module is the pressurized segment of\h\h

25
00:03:07,840 --> 00:03:12,720
the spacecraft, where future crews will\h
live and work on journeys to the Moon.\h\h

26
00:03:14,000 --> 00:03:20,240
Capable of accommodating four crew members for up\h
to 21 days. This capsule includes state-of-the-art\h\h

27
00:03:20,240 --> 00:03:26,160
avionics, innovative crew systems, and the\h
largest heat shield of its kind for entry\h\h

28
00:03:26,160 --> 00:03:32,720
back into the earth's atmosphere. Positioned\h
at the top of Orion is the Launch Abort System,\h\h

29
00:03:33,440 --> 00:03:38,566
designed to pull the crew to\hsafety in the event of an emergency on the pad or during launch.

30
00:03:39,785 --> 00:03:47,138
Three solid rocket\hmotors can activate in milliseconds, accelerating from zero to 500 miles-per-hour in two se

31
00:03:47,138 --> 00:03:51,753
to\hpropel Orion and crew safely away from the rocket.\h\h

32
00:03:54,400 --> 00:03:59,840
Now, fully assembled Artemis I stands at 322 feet.

33
00:04:02,800 --> 00:04:06,800
Artemis is no longer a series\h
of separate parts and programs.

34
00:04:09,280 --> 00:04:13,840
United together, this is the\h
first of Artemis's arrows,\h\h

35
00:04:14,640 --> 00:04:22,400
capable of ushering in the next chapter of human\h
lunar exploration. Only together, this mighty system\h\h

36
00:04:22,400 --> 00:04:28,960
represents all that is possible. All that we are\h
capable of, when united around a stunning vision.\h\h

37
00:04:30,000 --> 00:04:37,120
With each component playing its part in a grander\h
effort, we the people of NASA and our partners,\h\h