



1

00:00:00,810 --> 00:00:04,090

“Here’s some of the stories trending This Week at NASA!”

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00:00:04,090 --> 00:00:17,029

“3-2-1 and liftoff at dawn, the dawn of Orion and a new era of American space exploration.”

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00:00:17,029 --> 00:00:21,911

The successful first flight test of NASA’s Orion spacecraft on Dec. 5 not only was a

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00:00:21,911 --> 00:00:28,199

historic moment for the agency – but also was a critical step on NASA’s Journey to

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00:00:28,199 --> 00:00:29,689

Mars.

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00:00:29,689 --> 00:00:34,070

Orion rode to space from Cape Canaveral Air Force Station on a Delta IV heavy rocket with

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00:00:34,070 --> 00:00:37,810

no crew, but loaded with about 1,200 sensors.

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00:00:37,810 --> 00:00:42,230

The flight test basically was a compilation of the riskiest events that will happen when

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00:00:42,230 --> 00:00:45,370

astronauts fly on Orion on deep space missions.

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00:00:45,370 --> 00:00:50,500

These include radiation, which Orion encountered as it passed through Earth’s Van Allen belts.

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00:00:50,500 --> 00:00:55,360

“A human rated system hasn’t gone that

far since 1972.

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00:00:55,360 --> 00:00:59,970

And in fact that mission was Apollo 17 which launched December 7th – you know here we

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00:00:59,970 --> 00:01:03,950

are again, the United States leading exploration.”

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00:01:03,950 --> 00:01:08,409

But surviving the 4,000-plus degree Fahrenheit temperatures generated on Orion’s return

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00:01:08,409 --> 00:01:13,649

to Earth – its so-called trial by fire – was one of the flight’s most crucial tests.

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00:01:13,649 --> 00:01:18,219

“The first look looks really good from a data standpoint, but we’ll dig through all

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00:01:18,219 --> 00:01:20,690

of the data and make sure that everything is there.

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00:01:20,690 --> 00:01:23,270

We’ll definitely learn some things from this flight – that’s why it was a test

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00:01:23,270 --> 00:01:27,909

flight – it will really help us as we take those next steps into the solar system with

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00:01:27,909 --> 00:01:28,909

humans.”

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00:01:28,909 --> 00:01:33,320

As planned, two orbits and about four-and-a half hours after launch, Orion splashed down

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00:01:33,320 --> 00:01:38,270
in the Pacific Ocean ... successfully ending
its first flight – while at the same time,

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00:01:38,270 --> 00:01:41,560
providing forward momentum for NASA's Journey
to Mars.

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00:01:41,560 --> 00:01:45,371
“This, like I say is serial number 0-0-1
of a storied fleet of vehicles and when we

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00:01:45,371 --> 00:01:48,979
look back twenty or thirty years from now
we can trace it all back to the day where

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00:01:48,979 --> 00:01:52,090
it started out with Orion serial number 0-0-1.”

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00:01:52,090 --> 00:01:57,829
A panel discussion on Dec. 2 featured NASA
leaders at Kennedy Space Center and at headquarters,

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00:01:57,829 --> 00:02:02,640
discussing what's next on the Journey – including
the new technologies and capabilities being

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00:02:02,640 --> 00:02:07,889
developed to send astronauts farther than
ever before, first to an asteroid, and then

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00:02:07,889 --> 00:02:10,800
on to the Red Planet.

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00:02:10,800 --> 00:02:15,590
The barrel for the engine section of NASA's
new Space Launch System rocket recently was

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00:02:15,590 --> 00:02:20,630

taken off the Vertical Weld Center tool at the Michoud Assembly Facility, in New Orleans.

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00:02:20,630 --> 00:02:25,560

The barrel is flight hardware to be used on Exploration Mission-1, the first uncrewed

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00:02:25,560 --> 00:02:29,600

test flight of the 70-metric-ton configuration of the SLS.

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00:02:29,600 --> 00:02:35,220

The barrel and a ring will house four RS-25 engines that will power the core stage of

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00:02:35,220 --> 00:02:37,620

the SLS.

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00:02:37,620 --> 00:02:42,599

NASA has approved the completion of the first milestone in the Boeing Company's path toward

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00:02:42,599 --> 00:02:47,650

launching NASA astronauts to the International Space Station from U.S. soil again, under

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00:02:47,650 --> 00:02:51,700

a groundbreaking Commercial Crew Transportation Capability (CCtCap) contract.

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00:02:51,700 --> 00:02:57,519

The Certification Baseline Review established a baseline design that includes Boeing's

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00:02:57,519 --> 00:03:03,760

CST-100 spacecraft, a United Launch Alliance Atlas V rocket, and associated ground and

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00:03:03,760 --> 00:03:05,930

mission operations systems.

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00:03:05,930 --> 00:03:12,150
On Sept. 16, the agency unveiled its selection
of Boeing and SpaceX to transport U.S. crews

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00:03:12,150 --> 00:03:20,159
to and from the space station using their
CST-100 and Crew Dragon spacecraft, respectively.

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00:03:20,159 --> 00:03:22,129
And that's what's up this week @NASA ...
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