
TW@N
THIS WEEK @ NASA
NASA
esa

1
00:00:00,459 --> 00:00:03,820
nstalling a critical system for our Orion
spacecraft …

2
00:00:03,820 --> 00:00:06,850
The latest engine test for our Artemis Moon
missions …

3
00:00:06,850 --> 00:00:11,650
And working to give spacecraft propulsion
a boost … a few of the stories to tell you

4
00:00:11,650 --> 00:00:12,650
about – This Week at NASA!

5
00:00:12,650 --> 00:00:14,170
Teams Adding Orion’s Critical Launch Abort
System for Artemis I

6
00:00:14,170 --> 00:00:18,499
Teams at our Kennedy Space Center moved the
Orion spacecraft for our uncrewed Artemis

7
00:00:18,499 --> 00:00:23,130
I mission to the spaceport’s Launch Abort
System Facility, to add parts of the launch

8
00:00:23,130 --> 00:00:25,630
abort system onto the spacecraft.

9
00:00:25,630 --> 00:00:29,880
This critical system is designed to safely
jettison the crew away from the Space Launch

10
00:00:29,880 --> 00:00:33,570
System or (SLS) rocket in an emergency during
launch.

11
00:00:33,570 --> 00:00:34,690

RS-25 Rocket Engine Test Series Continues

12
00:00:34,690 --> 00:00:40,210
On July 14 we conducted an RS-25 engine hot fire test at our Stennis Space Center, the

13
00:00:40,210 --> 00:00:42,559
fifth test in a seven-part series.

14
00:00:42,559 --> 00:00:48,129
Four RS-25s will help power the Space Launch System (SLS) rocket on future Moon missions,

15
00:00:48,129 --> 00:00:51,170
including Artemis I targeted for later this year.

16
00:00:51,170 --> 00:00:57,989
Learn more about the current RS-25 engine test series at: nasa.gov/SLS.

17
00:00:57,989 --> 00:01:02,140
NASA has teamed with the Department of Energy (DOE) to advance space nuclear technologies

18
00:01:02,140 --> 00:01:08,140
– selecting reactor design concept proposals from three companies for a nuclear thermal

19
00:01:08,140 --> 00:01:10,080
propulsion system.

20
00:01:10,080 --> 00:01:14,590
Nuclear propulsion is more efficient than chemical rockets, and could potentially enable

21
00:01:14,590 --> 00:01:19,830
faster and more robust crew and cargo missions to Mars and science missions to the outer

22
00:01:19,830 --> 00:01:21,810
solar system.

23
00:01:21,810 --> 00:01:26,870
Astronaut and former U.S. Marine Col. Doug
Hurley retired from NASA after 21 years of

24
00:01:26,870 --> 00:01:27,870
service.

25
00:01:27,870 --> 00:01:32,509
His career highlights include 93 days in space
and flights aboard the final space shuttle

26
00:01:32,509 --> 00:01:37,840
mission in July 2011, and most recently, as
commander on the first crewed flight of the

27
00:01:37,840 --> 00:01:40,360
SpaceX Crew Dragon spacecraft.

28
00:01:40,360 --> 00:01:45,829
That mission marked a new era of human spaceflight,
enabling crewed launches from America on commercial

29
00:01:45,829 --> 00:01:49,340
spacecraft to the International Space Station.

30
00:01:49,340 --> 00:01:54,659
On July 13, the last S-3B Viking aircraft
flying today anywhere in the world left our

31
00:01:54,659 --> 00:01:56,369
Glenn Research Center.

32
00:01:56,369 --> 00:02:02,159
The aircraft has been a research workhorse
for over 16 years, flying a variety of missions,

33
00:02:02,159 --> 00:02:06,789
including flights to help define communications
standards that could enable future unmanned

34
00:02:06,789 --> 00:02:10,720
aircraft systems to safely operate in the
U.S. airspace.

35
00:02:10,720 --> 00:02:15,300
The S-3B Viking will spend its retirement
on exhibit at the San Diego Air and Space

36
00:02:15,300 --> 00:02:16,720
Museum.

37
00:02:16,720 --> 00:02:22,530
When our Lucy spacecraft launches on a first-of-its-kind-mission
to visit the Trojan asteroids which share

38
00:02:22,530 --> 00:02:28,200
an orbit with Jupiter, it will carry a time
capsule in the form of a plaque with messages

39
00:02:28,200 --> 00:02:33,970
of advice, wisdom, joy, and inspiration for
those who might encounter the spacecraft in

40
00:02:33,970 --> 00:02:35,090
the distant future.

41
00:02:35,090 --> 00:02:40,220
The messages were solicited from thoughtful
leaders and inspirational figures, including

42
00:02:40,220 --> 00:02:45,760
members of the Beatles, whose song, “Lucy
in the Sky with Diamonds” indirectly inspired

43
00:02:45,760 --> 00:02:46,760

the mission’s name.

44
00:02:46,760 --> 00:02:56,430
“(Cymbal crash) A little noisy, but I’m
so excited.

45
00:02:56,430 --> 00:02:59,260
Lucy is going back in the sky with diamonds.

46
00:02:59,260 --> 00:03:04,209
If you meet anyone up there Lucy, give them
peace and love from me.”

47
00:03:04,209 --> 00:03:09,750
After Lucy finishes visiting a record number
of asteroids for a single mission in 2033,

48
00:03:09,750 --> 00:03:14,760
it will continue on a stable orbit—travelling
between Earth and the Trojan asteroids for

49
00:03:14,760 --> 00:03:18,320
hundreds of thousands, if not millions, of
years.

50
00:03:18,320 --> 00:03:20,770
Learn more at nasa.gov/lucy.