

A night-time photograph of a space shuttle launch. The shuttle is on the left, ascending vertically with a massive plume of fire and white smoke at its base. To the right, a tall, slender, lattice-structured tower with a spherical top is visible against the dark sky. The foreground shows dark silhouettes of trees and some ground lights.

TW@N

THIS WEEK @ NASA

1

00:00:00,480 --> 00:00:02,740

The next commercial crew mission to the space station ...

2

00:00:02,740 --> 00:00:05,330

An historic milestone on Mars ...

3

00:00:05,330 --> 00:00:10,129

And a hearing to confirm NASA's next administrator ... a few of the stories to tell you about

4

00:00:10,129 --> 00:00:15,119

– This Week at NASA!

5

00:00:15,119 --> 00:00:20,179

On April 23, NASA's SpaceX Crew-2 mission to the International Space Station launched

6

00:00:20,179 --> 00:00:23,349

from our Kennedy Space Center in Florida.

7

00:00:23,349 --> 00:00:25,960

“And liftoff ...”

8

00:00:25,960 --> 00:00:30,859

The mission is the second crew rotation flight of SpaceX's Crew Dragon spacecraft and the

9

00:00:30,859 --> 00:00:36,110

first with two international partners. The next day, the Crew-2 astronauts – our Shane

10

00:00:36,110 --> 00:00:42,440

Kimbrough and Megan McArthur, as well as Japan Aerospace Exploration Agency astronaut ■Akihiko■Hoshide■and

11

00:00:42,440 --> 00:00:47,970

Thomas■Pesquet of the European Space Agency – safely docked to the space station. They

12
00:00:47,970 --> 00:00:54,149
are scheduled to spend six months conducting science and research aboard the orbital outpost.

13
00:00:54,149 --> 00:00:58,840
On April 19, our Ingenuity Mars Helicopter made history on the Red Planet.

14
00:00:58,840 --> 00:01:05,250
“Altimeter data ... confirmed that Ingenuity has performed its’ first flight – the

15
00:01:05,250 --> 00:01:10,650
first flight of a powered aircraft on another planet.”

16
00:01:10,650 --> 00:01:15,090
The first powered, controlled flight on another planet by an aircraft happened in an area

17
00:01:15,090 --> 00:01:20,760
on Mars now known as Wright Brothers Field, so named to recognize the historic connection

18
00:01:20,760 --> 00:01:25,630
of Ingenuity’s flight to the Wright brothers’ first flight on Earth. Ingenuity rose to an

19
00:01:25,630 --> 00:01:31,110
altitude of 10 feet, maintained a stable hover for 30 seconds, and descended back down to

20
00:01:31,110 --> 00:01:33,310
the Martian surface for a safe touch down.

21
00:01:33,310 --> 00:01:37,450
“We have done it! This is the first time I’ve been able to say, ‘We’ve done it.’

22
00:01:37,450 --> 00:01:43,130
So, beyond this first flight, over the next
coming days we have up to four flights planned,

23
00:01:43,130 --> 00:01:49,070
and increasingly difficult flights, challenging
flights. And we are going to continually push

24
00:01:49,070 --> 00:01:51,210
all the way to the limit of this rotorcraft.”

25
00:01:51,210 --> 00:01:56,890
Ingenuity successfully completed its second
Mars flight on April 22, during which it climbed

26
00:01:56,890 --> 00:02:02,800
to 16 feet, moved sideways about 7 feet, made
a few additional maneuvers, then headed back

27
00:02:02,800 --> 00:02:05,390
to the center of the airfield to land.

28
00:02:05,390 --> 00:02:11,709
Meanwhile, a first for our Perseverance Mars
rover on April 20. A toaster-size experimental

29
00:02:11,709 --> 00:02:17,359
instrument aboard the rover called, the Mars
Oxygen In-Situ Resource Utilization Experiment

30
00:02:17,359 --> 00:02:23,090
or MOXIE, was used to convert some of the
Red Planet’s thin, carbon dioxide-rich atmosphere

31
00:02:23,090 --> 00:02:28,609
into oxygen. The MOXIE technology could lead
to systems capable of isolating and storing

32
00:02:28,609 --> 00:02:34,230

oxygen on Mars to power rocket launches from the Red Planet, and possibly provide breathable

33

00:02:34,230 --> 00:02:38,209

air for astronauts on future surface missions to Mars.

34

00:02:38,209 --> 00:02:43,640

On April 21, former U.S. Senator Bill Nelson, the president's nominee to be the next NASA

35

00:02:43,640 --> 00:02:49,170

administrator, appeared before the Senate Committee on Commerce, Science, and Transportation

36

00:02:49,170 --> 00:02:51,689

during a confirmation hearing on Capitol Hill.

37

00:02:51,689 --> 00:03:00,069

"If you ask me, 'What is my vision for the future of NASA?' It is to continue for

38

00:03:00,069 --> 00:03:13,530

us to explore the heavens with humans and with machines. And there is a lot of excitement."

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00:03:13,530 --> 00:03:18,670

If confirmed, Nelson would become NASA's 14th administrator. Nelson flew aboard the

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00:03:18,670 --> 00:03:25,389

space shuttle Columbia as a payload specialist on the STS-61C mission in 1986.

41

00:03:25,389 --> 00:03:31,790

On April 22, Earth Day was all about connections – to our home planet and to each other.

42

00:03:31,790 --> 00:03:38,219

Powered by the hashtag #ConnectedByEarth,

our Earth Day Virtual Event, April 21-24,

43

00:03:38,219 --> 00:03:43,719

celebrated Earth and the planet's more than
7 billion people of diverse backgrounds and

44

00:03:43,719 --> 00:03:49,609

experiences, who all share a connection. The
free, online event included live panel discussions

45

00:03:49,609 --> 00:03:55,379

and chats with NASA Earth science experts,
downloadable content, such as coloring pages,

46

00:03:55,379 --> 00:03:58,189

activity sheets, eBooks, posters and more.