



1

00:00:00,229 --> 00:00:04,000

A record-tying spacewalk to upgrade the space station ...

2

00:00:04,000 --> 00:00:07,580

The station crew receives a new shipment of supplies ...

3

00:00:07,580 --> 00:00:12,919

And looking forward to seeing Ingenuity take flight on Mars ... a few of the stories to

4

00:00:12,919 --> 00:00:17,140

tell you about – This Week at NASA!

5

00:00:17,140 --> 00:00:23,339

On July 21, NASA astronauts Bob Behnken and Chris Cassidy conducted a nearly five-and-a-half

6

00:00:23,339 --> 00:00:27,099

hour spacewalk outside the International Space Station.

7

00:00:27,099 --> 00:00:32,410

They upgraded station systems, and prepared the outpost for future equipment to deploy

8

00:00:32,410 --> 00:00:34,530

experiments into space.

9

00:00:34,530 --> 00:00:41,770

Behnken and Cassidy have joined Michael Lopez-Alegria and Peggy Whitson as the only other U.S. astronauts

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00:00:41,770 --> 00:00:44,540

to complete 10 spacewalks.

11

00:00:44,540 --> 00:00:50,380

On July 23, an uncrewed Russian Progress supply

spacecraft launched to the Station from the

12

00:00:50,380 --> 00:00:52,940

Baikonur Cosmodrome in Kazakhstan.

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00:00:52,940 --> 00:00:57,760

Several hours later it arrived with almost three tons of food, fuel, and supplies for

14

00:00:57,760 --> 00:00:59,000

the crew.

15

00:00:59,000 --> 00:01:04,760

Our Mars 2020 mission is targeted for launch July 30 from Cape Canaveral Air Force Station

16

00:01:04,760 --> 00:01:05,760

in Florida.

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00:01:05,760 --> 00:01:11,410

The mission will carry the Mars 2020 Perseverance rover to the Red Planet, and the Ingenuity

18

00:01:11,410 --> 00:01:13,340

Mars Helicopter.

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00:01:13,340 --> 00:01:18,540

This technology demonstration, which has completed its series of testing on Earth, will make

20

00:01:18,540 --> 00:01:23,200

history's first attempt at powered flight on another planet the very next time it spreads

21

00:01:23,200 --> 00:01:24,200

its wings.

22

00:01:24,200 --> 00:01:29,190

"Really our job isn't done until we see

the same test flight being performed at Mars.

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00:01:29,190 --> 00:01:31,890

So, next time we fly it will be at Mars.

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00:01:31,890 --> 00:01:35,700

But that's our ultimate goal, that's when we'll go, 'Yes!'"

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00:01:35,700 --> 00:01:39,440

You can learn more about Ingenuity at: go.nasa.gov/marshelicopter.

26

00:01:39,440 --> 00:01:46,850

"This is emblematic of greatness that comes from these kind of exploration initiatives."

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00:01:46,850 --> 00:01:52,770

Administrator Jim Bridenstine and other NASA leaders joined a July 20 virtual discussion

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00:01:52,770 --> 00:01:54,460

with the Space Foundation.

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00:01:54,460 --> 00:01:59,780

The event highlighted how NASA's Artemis program for the Moon and our Mars Perseverance

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00:01:59,780 --> 00:02:05,510

rover mission are helping us prepare for human exploration of Mars.

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00:02:05,510 --> 00:02:10,520

Technology development has already begun to enable a crewed Mars mission as early as the

32

00:02:10,520 --> 00:02:12,040

2030s.

33

00:02:12,040 --> 00:02:18,150

Capabilities being worked on range from powerful propulsion systems, to next generation high-tech

34
00:02:18,150 --> 00:02:23,629
spacesuits, to pressurized rovers astronauts can live and work in for weeks.

35
00:02:23,629 --> 00:02:30,599
Check out go.nasa.gov/marstech for more about these and other space technologies NASA is

36
00:02:30,599 --> 00:02:34,670
working on to make Mars science fiction a reality.

37
00:02:34,670 --> 00:02:40,239
NASA's Planetary Protection Office tries to ensure that missions to Mars and other

38
00:02:40,239 --> 00:02:46,319
places in the solar system that might have life, do not carry too many spores — cells

39
00:02:46,319 --> 00:02:50,780
that could re-activate and transport Earthly bacteria.

40
00:02:50,780 --> 00:02:55,659
This is especially important for a mission such as Mars 2020 that will collect samples

41
00:02:55,659 --> 00:02:58,120
for possible return to Earth.

42
00:02:58,120 --> 00:03:05,680
The latest episode of our "Gravity Assist" podcast at go.nasa.gov/planetprotect has more

43
00:03:05,680 --> 00:03:12,010
about planetary protection, including what

your hand sanitizer has in common with NASA's

44

00:03:12,010 --> 00:03:13,010

clean rooms.

45

00:03:13,010 --> 00:03:15,560

That's what's up this week @NASA ...