

TW@N

THIS WEEK @ NASA



1
00:00:00,229 --> 00:00:04,080

A commercial cargo spacecraft safely arrives
at the space station ...

2
00:00:04,080 --> 00:00:07,319

Space station crewmembers conduct a spacewalk
....

3
00:00:07,319 --> 00:00:12,099

And an update on plans to launch of our Artemis
I mission ... a few of the stories to tell

4
00:00:12,099 --> 00:00:16,340

you about – This Week at NASA!

5
00:00:16,340 --> 00:00:22,039

A SpaceX Dragon cargo spacecraft docked to
the International Space Station on July 16,

6
00:00:22,039 --> 00:00:25,380

two days after launching from our Kennedy
Space Center.

7
00:00:25,380 --> 00:00:30,859

The Dragon delivered more than 5,800 pounds
of cargo, including nearly 2,500 pounds of

8
00:00:30,859 --> 00:00:32,439

scientific research.

9
00:00:32,439 --> 00:00:37,440

A few of the research projects include a study
on the mineral composition of dust in the

10
00:00:37,440 --> 00:00:42,820

atmosphere and its effects on our climate,
an investigation into the impacts of space

11
00:00:42,820 --> 00:00:48,420

travel on the human immune system, and a look at how microgravity affects the process of

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00:00:48,420 --> 00:00:54,600

creating a concrete alternative made with an organic compound and silica, which is found

13

00:00:54,600 --> 00:00:56,829

in lunar and Martian dust.

14

00:00:56,829 --> 00:01:01,699

This was SpaceX's 25th contracted commercial resupply mission for NASA.

15

00:01:01,699 --> 00:01:07,870

On July 21, Oleg Artemyev of Roscosmos and Samantha Cristoforetti of the European Space

16

00:01:07,870 --> 00:01:13,810

Agency conducted a spacewalk outside the space station to continue outfitting hardware on

17

00:01:13,810 --> 00:01:19,140

the Nauka multipurpose laboratory module, including the installation of platforms around

18

00:01:19,140 --> 00:01:21,180

the European robotic arm.

19

00:01:21,180 --> 00:01:26,510

Nauka and the European robotic arm were launched to the station last July from the Baikonur

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00:01:26,510 --> 00:01:28,840

Cosmodrome in Kazakhstan.

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00:01:28,840 --> 00:01:33,910

NASA leaders provided an update July 20 on plans to launch the uncrewed Artemis I flight

22
00:01:33,910 --> 00:01:38,880
test around the Moon with our Space Launch System rocket and Orion spacecraft.

23
00:01:38,880 --> 00:01:44,640
While the agency has not yet committed to a formal target launch date, Aug. 29, Sept

24
00:01:44,640 --> 00:01:50,720
2, and Sept 5 are the dates currently on hold as potential launch opportunities.

25
00:01:50,720 --> 00:01:55,890
These dates help engineers manage the schedule and build mission timelines while work to

26
00:01:55,890 --> 00:02:00,840
prepare the rocket, spacecraft, and ground systems for the flight continues.

27
00:02:00,840 --> 00:02:08,000
For updates, follow along on NASA's Artemis blog at: blogs.nasa.gov/artemis.

28
00:02:08,000 --> 00:02:14,090
NASA has asked teams working to deliver our water-hunting VIPER rover to the Moon to retarget

29
00:02:14,090 --> 00:02:18,510
delivery from November 2023 to November 2024.

30
00:02:18,510 --> 00:02:24,959
The decision to pursue a 2024 delivery date stems from the agency's request to Astrobotic

31
00:02:24,959 --> 00:02:30,069
for additional ground testing of the company's Griffin lunar lander, which will deliver VIPER

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00:02:30,069 --> 00:02:35,870

to the Moon's South Pole through our Commercial Lunar Payload Services, or CLPS initiative.

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00:02:35,870 --> 00:02:40,689

The additional tests are aimed at reducing the overall risk involved with delivering

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00:02:40,689 --> 00:02:42,200

the rover to the Moon.

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00:02:42,200 --> 00:02:47,140

VIPER's mission will provide insight into the origin and distribution of water on the

36

00:02:47,140 --> 00:02:53,060

Moon and help determine how lunar resources could be harvested for future human space

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00:02:53,060 --> 00:02:54,060

exploration.

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00:02:54,060 --> 00:02:59,359

Our recently launched CAPSTONE CubeSat is targeting late July for its next trajectory

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00:02:59,359 --> 00:03:00,959

correction maneuver.

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00:03:00,959 --> 00:03:05,219

It will make several more adjustments on its four-month-long journey to the Moon.

41

00:03:05,219 --> 00:03:10,739

NASA's Eyes on the Solar System can take you on a virtual ride-along with CAPSTONE.

42

00:03:10,739 --> 00:03:16,019

This 3D interactive data visualization tool provides a simulated real-time view of our

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00:03:16,019 --> 00:03:19,170

solar system that is based on real data.

44

00:03:19,170 --> 00:03:24,500

The positions of the planets, moons, and various spacecraft – including CAPSTONE – are

45

00:03:24,500 --> 00:03:27,209

all shown where they are right now.

46

00:03:27,209 --> 00:03:32,749

It is one of several interactive web apps you can check out at eyes.nasa.gov.

47

00:03:32,749 --> 00:03:38,889

On July 20, we recognized the 53rd anniversary of the Apollo 11 Moon landing.

48

00:03:38,889 --> 00:03:44,969

On that date in 1969, NASA astronauts Neil Armstrong, Buzz Aldrin, and Michael Collins

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00:03:44,969 --> 00:03:46,680

made history.

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00:03:46,680 --> 00:03:51,379

While Collins orbited the Moon in the mission's command module, Armstrong and Aldrin safely

51

00:03:51,379 --> 00:03:56,359

landed the "Eagle" lunar module in the region of the Moon known as the Sea of Tranquility.

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00:03:56,359 --> 00:04:01,359

They later exited the lunar lander to become the first humans to set foot on the surface

53

00:04:01,359 --> 00:04:02,359

of the Moon.