

A photograph of a SpaceX Falcon Heavy rocket being mated to the Mobile Launcher Platform (MLP) on the Mobile Launcher Tower (MLT) at the Kennedy Space Center. The MLP is a large, white, cylindrical structure that houses the rocket. The MLT is a tall, metal structure that supports the MLP. The rocket is being lowered into the MLP by a crane. The background shows a blue sky with white clouds. The text "TW@N" is overlaid on the image in a large, white, sans-serif font.

TW@N

THIS WEEK @ NASA

1

00:00:01,101 --> 00:00:03,903

The next commercial crew test flight to the space station ...

2

00:00:03,903 --> 00:00:05,772

A new space station module ...

3

00:00:05,772 --> 00:00:08,508

And another astronomical discovery by Hubble ...

4

00:00:08,508 --> 00:00:10,610

a few of the stories to tell you about –

5

00:00:10,610 --> 00:00:12,379

This Week at NASA!

6

00:00:13,446 --> 00:00:16,449

NASA's Boeing Orbital Flight Test-2 mission to the

7

00:00:16,449 --> 00:00:19,386

International Space Station is the second uncrewed

8

00:00:19,386 --> 00:00:23,656

flight test of the CST-100 Starliner spacecraft

9

00:00:23,656 --> 00:00:26,026

as part of our Commercial Crew Program.

10

00:00:26,426 --> 00:00:29,462

The mission aims to demonstrate the end-to-end capabilities

11

00:00:29,462 --> 00:00:33,466

of the Starliner and the Atlas V launch vehicle and provide

12

00:00:33,466 --> 00:00:37,670

valuable data toward certifying Boeing's crew transportation system

13

00:00:37,837 --> 00:00:41,441

for regular flights with astronauts to and from the space station.

14

00:00:42,709 --> 00:00:46,212

A few hours after the Nauka Multipurpose Laboratory Module (MLM)

15

00:00:46,212 --> 00:00:50,483

docked to the International Space Station on July 29, flight controllers

16

00:00:50,483 --> 00:00:52,585

noticed the unplanned firing of the module's

17

00:00:52,585 --> 00:00:56,356

thrusters – which caused the station to move out of orientation.

18

00:00:56,723 --> 00:01:00,126

Ground teams worked to regain attitude control and stabilize

19

00:01:00,126 --> 00:01:03,029

the space station, and the crew was never in any danger.

20

00:01:03,463 --> 00:01:06,299

Nauka is the new science facility, docking port,

21

00:01:06,299 --> 00:01:09,502

and spacewalk airlock for the Russian segment of the station.

22

00:01:09,903 --> 00:01:12,872

Meanwhile, the Pirs module left the orbital outpost

23

00:01:12,872 --> 00:01:15,575

with a Progress spacecraft on July 26.

24

00:01:16,109 --> 00:01:19,612

Pirs had been the previous docking port for Russian spacecraft

25

00:01:19,612 --> 00:01:23,616

and airlock for Russian spacewalks since September 2001.

26
00:01:24,784 --> 00:01:27,787
New and archival data from NASA's Hubble Space

27
00:01:27,787 --> 00:01:31,591
Telescope have helped astronomers uncover evidence of water vapor

28
00:01:31,825 --> 00:01:35,628
in the atmosphere of Jupiter's moon Ganymede for the first time.

29
00:01:35,995 --> 00:01:38,731
This water vapor forms when ice from the surface

30
00:01:38,731 --> 00:01:42,535
of this extremely frigid moon turns from solid to gas.

31
00:01:42,869 --> 00:01:47,273
Researchers believe there is an ocean about 100 miles below Ganymede's crust

32
00:01:47,507 --> 00:01:50,410
that contains more water than all of the oceans on Earth.

33
00:01:51,744 --> 00:01:54,481
Scientists from our Jet Propulsion Laboratory

34
00:01:54,481 --> 00:01:57,617
joined international researchers to create an index

35
00:01:57,884 --> 00:02:01,855
that tracks how the world's rainforests are responding to threats

36
00:02:01,855 --> 00:02:05,358
like our planet's warming climate and human land use.

37
00:02:05,892 --> 00:02:09,462
These diverse ecosystems are home to more than half of the planet's

38
00:02:09,462 --> 00:02:12,899

life forms and act as a natural slowing mechanism

39

00:02:12,899 --> 00:02:16,302

to the increasing levels of carbon dioxide in the atmosphere.

40

00:02:16,736 --> 00:02:20,140

The index could help policy makers plan for conservation

41

00:02:20,306 --> 00:02:22,509

and forest restoration activities.

42

00:02:23,443 --> 00:02:27,680

NASA has named nine winners in the Future-Scaping our Skies challenge.

43

00:02:27,981 --> 00:02:29,349

The competition, conducted

44

00:02:29,349 --> 00:02:33,219

through our Aeronautics Research Mission Directorate, asked the public

45

00:02:33,419 --> 00:02:37,790

to help envision the future of flight, taking into account how societal,

46

00:02:37,924 --> 00:02:42,962

technological, regulatory, environmental, economic, and political changes

47

00:02:42,962 --> 00:02:47,267

over the next 30 years might impact aviation, and vice versa.

48

00:02:47,800 --> 00:02:49,068

Input from the challenge

49

00:02:49,068 --> 00:02:52,438

could help us better anticipate aviation needs in the future

50

00:02:52,572 --> 00:02:56,892

and make better decisions about technology development today.

51

00:02:57,022 --> 00:02:59,546

3, 2, 1 ...

52

00:02:59,546 --> 00:03:03,883

July 26 was the 50th anniversary of the launch of astronauts

53

00:03:03,883 --> 00:03:07,687

David Scott, Al Worden, and Jim Irwin on Apollo 15,

54

00:03:07,921 --> 00:03:10,723

the fourth NASA mission to land humans on the Moon.

55

00:03:11,291 --> 00:03:14,561

The mission was also the first to use the Lunar Roving Vehicle,

56

00:03:14,561 --> 00:03:17,096

which Scott and Irwin used during their more than

57

00:03:17,096 --> 00:03:19,899

18 hours of lunar surface exploration

58

00:03:19,899 --> 00:03:23,036

while Worden orbited overhead in the command module.

59

00:03:23,203 --> 00:03:25,572

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