



1

00:00:00,780 --> 00:00:05,399

"Here's some of the stories trending This Week at NASA!"

2

00:00:05,399 --> 00:00:09,950

Outside the International Space Station, Expedition 48 Commander Jeff Williams and Flight Engineer

3

00:00:09,950 --> 00:00:16,590

Kate Rubins of NASA conducted a spacewalk Sept. 1 to retract a thermal radiator, install

4

00:00:16,590 --> 00:00:21,270

the first of several enhanced high definition cameras on the station's truss and tighten

5

00:00:21,270 --> 00:00:25,750

bolts on a joint that enables one of the station's solar arrays to rotate.

6

00:00:25,750 --> 00:00:29,460

This was the second spacewalk for the pair in just 13 days.

7

00:00:29,460 --> 00:00:34,530

They installed the station's first international docking adapter during their previous spacewalk

8

00:00:34,530 --> 00:00:36,170

on Aug. 19.

9

00:00:36,170 --> 00:00:40,920

The adapter will provide a parking place for new U.S. commercial crew spacecraft delivering

10

00:00:40,920 --> 00:00:45,190

astronauts to the station on future missions.

11

00:00:45,190 --> 00:00:50,159

On Aug. 30, cameras outside the International Space Station captured images of three powerful

12

00:00:50,159 --> 00:00:54,800

tropical systems churning across the Pacific and Atlantic Oceans.

13

00:00:54,800 --> 00:01:00,239

Hurricane Lester was seen as it moved westward across the Pacific – packing 125 miles per

14

00:01:00,239 --> 00:01:01,629

hour winds.

15

00:01:01,629 --> 00:01:06,110

Hurricane Madeline also was seen making a westerly trek in the Pacific with wind in

16

00:01:06,110 --> 00:01:09,100

excess of 130 miles per hour.

17

00:01:09,100 --> 00:01:13,690

At the time, both storms were on a track that could threaten Hawaii.

18

00:01:13,690 --> 00:01:19,200

Station cameras also captured views of Hurricane Gaston as it churned across the open Atlantic.

19

00:01:19,200 --> 00:01:24,990

When this video was recorded, that storm had winds of 100 miles per hour.

20

00:01:24,990 --> 00:01:30,469

The next crews in line to serve aboard the International Space Station are busy preparing

21

00:01:30,469 --> 00:01:32,310

for their respective missions.

22  
00:01:32,310 --> 00:01:38,609  
The Expedition 49-50 crew, including NASA's  
Shane Kimbrough, is conducting crew qualification

23  
00:01:38,609 --> 00:01:40,750  
training in Star City, Russia.

24  
00:01:40,750 --> 00:01:46,229  
Kimbrough and cosmonauts Andrey Borisenko  
and Sergey Ryzhikov of the Russian space agency

25  
00:01:46,229 --> 00:01:52,530  
Roscosmos will launch on Sept. 23 from the  
Baikonur Cosmodrome in Kazakhstan.

26  
00:01:52,530 --> 00:01:55,689  
Following them will be Expedition 50/51.

27  
00:01:55,689 --> 00:02:00,200  
That crew, which includes NASA astronaut Peggy  
Whitson, previewed their mission during an

28  
00:02:00,200 --> 00:02:04,329  
Aug. 30 news conference at Johnson Space Center  
in Houston.

29  
00:02:04,329 --> 00:02:09,550  
Launch for Expedition 50/51 is targeted for  
November.

30  
00:02:09,550 --> 00:02:15,180  
Using data from NASA's Chandra X-ray Observatory  
and other telescopes, researchers have discovered

31  
00:02:15,180 --> 00:02:18,400  
the most distant galaxy cluster on record.

32  
00:02:18,400 --> 00:02:24,239  
This composite image shows the galaxy cluster,

known as CL J1001+0220.

33  
00:02:24,239 --> 00:02:30,790  
It's located about 11.1 billion light years  
from Earth and may have been imaged shortly

34  
00:02:30,790 --> 00:02:36,790  
after it was born – a brief, but important  
stage of cluster evolution never seen before.

35  
00:02:36,790 --> 00:02:41,019  
This cluster is remarkable because of its  
high levels of star formation in galaxies

36  
00:02:41,019 --> 00:02:42,690  
near its center.

37  
00:02:42,690 --> 00:02:48,080  
Stars are forming there at a rate equivalent  
to more than 3,000 a year.

38  
00:02:48,080 --> 00:02:54,190  
NASA's Juno spacecraft successfully completed  
the first and closest of its 36 orbital flybys

39  
00:02:54,190 --> 00:03:00,670  
of Jupiter on Aug. 27 – zipping past the  
planet about 2,600 miles above its swirling

40  
00:03:00,670 --> 00:03:01,800  
clouds.

41  
00:03:01,800 --> 00:03:06,580  
This also was the first time Juno's entire  
suite of science instruments was activated

42  
00:03:06,580 --> 00:03:13,010  
and looking at the giant planet as the spacecraft  
zoomed past – resulting in the highest-resolution

43  
00:03:13,010 --> 00:03:18,099  
views yet of the Jovian atmosphere and the  
first glimpses of Jupiter's north and south

44  
00:03:18,099 --> 00:03:19,120  
poles.

45  
00:03:19,120 --> 00:03:24,959  
Juno's mission to gather data on Jupiter's  
polar regions is targeted to last until February

46  
00:03:24,959 --> 00:03:27,720  
2018.

47  
00:03:27,720 --> 00:03:33,510  
On Aug. 31, NASA headquarters hosted a program  
titled, "New Horizons Mission to Pluto and

48  
00:03:33,510 --> 00:03:34,580  
Beyond."

49  
00:03:34,580 --> 00:03:39,220  
The event featured a presentation from Alan  
Stern – principal investigator of NASA's

50  
00:03:39,220 --> 00:03:44,470  
New Horizons mission – about the spacecraft's  
historic encounter with the Pluto system in

51  
00:03:44,470 --> 00:03:48,069  
2015 and what's planned for the extended  
mission.

52  
00:03:48,069 --> 00:03:52,159  
New Horizons currently is traveling in the  
Kuiper Belt beyond Pluto.

53  
00:03:52,159 --> 00:03:57,640  
The spacecraft is on its way to a New Year's

Day encounter in 2019 with an ancient object

54

00:03:57,640 --> 00:04:00,760

considered to be an early building block of the solar system.

55

00:04:00,760 --> 00:04:06,280

New Horizons continues to send back interesting imagery of the region – this animated series

56

00:04:06,280 --> 00:04:11,650

of images, released on Aug. 31, shows a dwarf planet called Quaoar (“Kwa-war”), which

57

00:04:11,650 --> 00:04:17,690

– at 690 miles in diameter – is roughly half the size of Pluto.

58

00:04:17,690 --> 00:04:19,739

And that’s what’s up this week @NASA ...

\h