



1  
00:00:00,170 --> 00:00:03,060  
A first aboard the space station ...

2  
00:00:03,060 --> 00:00:06,670  
Some gear well-suited for the Artemis generation  
...

3  
00:00:06,670 --> 00:00:12,820  
And ensuring astronaut safety ... a few of  
the stories to tell you about – This Week

4  
00:00:12,820 --> 00:00:15,139  
at NASA!

5  
00:00:15,139 --> 00:00:20,180  
On Oct. 18 our Christina Koch and Jessica  
Meir ventured outside the International Space

6  
00:00:20,180 --> 00:00:28,550  
Station for the station's first-ever spacewalk  
conducted by an all-woman team of spacewalkers.

7  
00:00:28,550 --> 00:00:33,120  
Our Administrator Jim Bridenstine, several  
members of Congress, and the media watched

8  
00:00:33,120 --> 00:00:36,360  
the start of the spacewalk at our headquarters  
in Washington.

9  
00:00:36,360 --> 00:00:41,539  
Not only is this historic, but it is also  
a prime example of inclusion; an important

10  
00:00:41,539 --> 00:00:47,069  
element of our Artemis program that will send  
the first woman and next man to the Moon by

11  
00:00:47,069 --> 00:00:48,069

2024.

12

00:00:48,069 --> 00:00:51,059

“This is significant for women all over the world.

13

00:00:51,059 --> 00:00:55,889

I think it’s important that young girls be able to see themselves as having all of

14

00:00:55,889 --> 00:00:59,350

the opportunities that young boys see themselves as having.”

15

00:00:59,350 --> 00:01:00,350

(:22)

16

00:01:00,350 --> 00:01:04,589

Station managers scheduled this spacewalk to replace a faulty battery charge/discharge

17

00:01:04,589 --> 00:01:09,759

unit used to regulate the amount of electrical charge put into batteries that help power

18

00:01:09,759 --> 00:01:11,030

the station.

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00:01:11,030 --> 00:01:15,820

Although the faulty unit had no impact on station operations, safety of the crew, or

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00:01:15,820 --> 00:01:21,280

the ongoing experiments, it was preventing a set of recently installed batteries from

21

00:01:21,280 --> 00:01:23,799

providing increased power.

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00:01:23,799 --> 00:01:28,259

Replacement of the unit was also necessary before resuming the series of previously scheduled

23

00:01:28,259 --> 00:01:33,110

spacewalks to outfit the station's power system with new batteries.

24

00:01:33,110 --> 00:01:37,740

Following the spacewalk – which was the 221st in support of space station assembly

25

00:01:37,740 --> 00:01:42,930

– Koch and Meir received a congratulatory call from the White House for their historic

26

00:01:42,930 --> 00:01:49,929

accomplishment.

27

00:01:49,929 --> 00:02:02,720

“So these are our spacesuits for the Artemis generation.”

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00:02:02,720 --> 00:02:07,259

We showcased a pair of spacesuits that will be worn by the first woman and next man to

29

00:02:07,259 --> 00:02:11,230

explore the Moon as part of the agency's Artemis program.

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00:02:11,230 --> 00:02:17,700

The Orion Crew Survival System suit incorporates safety technology and mobility features that

31

00:02:17,700 --> 00:02:23,420

will help protect astronauts during launch and reentry aboard our Orion spacecraft.

32

00:02:23,420 --> 00:02:29,000

The Exploration Extravehicular Mobility Unit or xEMU – is the spacesuit astronauts will

33  
00:02:29,000 --> 00:02:32,860  
wear while exploring the surface of the Moon's South Pole.

34  
00:02:32,860 --> 00:02:38,599  
The xEMU improves on suits worn during the Apollo era as well as current suits used for

35  
00:02:38,599 --> 00:02:41,120  
spacewalks outside the space station.

36  
00:02:41,120 --> 00:02:46,439  
Both suits can accommodate a broad range of astronaut sizes and feature improved fit,

37  
00:02:46,439 --> 00:02:51,340  
comfort, and range of mobility for the lunar surface.

38  
00:02:51,340 --> 00:02:57,290  
On Oct. 16 at the Redstone Test Center in Huntsville, Alabama, engineers conducted a

39  
00:02:57,290 --> 00:03:02,180  
successful hot fire test of the jettison motor for our Orion spacecraft's Launch Abort

40  
00:03:02,180 --> 00:03:03,439  
System.

41  
00:03:03,439 --> 00:03:08,250  
In the unlikely event of an emergency on the launch pad or during ascent, the Launch Abort

42  
00:03:08,250 --> 00:03:12,680  
System will safely lift Orion and its crew away from the rocket.

43  
00:03:12,680 --> 00:03:18,020  
The static test is the final in a series of three to qualify the jettison motor for human

44  
00:03:18,020 --> 00:03:23,450  
spaceflight on the Artemis II mission – the first integrated test flight of Orion and

45  
00:03:23,450 --> 00:03:31,030  
our Space Launch System or SLS rocket, with a crew of astronauts onboard.

46  
00:03:31,030 --> 00:03:36,769  
On Oct. 17, crews inside the Vehicle Assembly Building at our Kennedy Space Center in Florida

47  
00:03:36,769 --> 00:03:42,301  
practiced lifting, moving, and stacking operations that will be needed to prepare the SLS for

48  
00:03:42,301 --> 00:03:43,640  
future missions.

49  
00:03:43,640 --> 00:03:48,940  
They used a full-size mockup known as the SLS core stage pathfinder.

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00:03:48,940 --> 00:03:53,329  
The practice – expected to go on all this month – is part of preparations for our

51  
00:03:53,329 --> 00:03:56,599  
Artemis missions to the Moon.

52  
00:03:56,599 --> 00:04:01,909  
After seven years of operations, we ended our Van Allen Probes mission on Oct. 18 when

53

00:04:01,909 --> 00:04:07,120

Spacecraft A – the last of the mission's operable twin spacecraft – finally ran out

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00:04:07,120 --> 00:04:08,959

of propellant.

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00:04:08,959 --> 00:04:11,900

Operations for spacecraft B ended three months ago.

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00:04:11,900 --> 00:04:16,510

The mission - originally expected to last just two years – made major discoveries

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00:04:16,510 --> 00:04:21,920

that revolutionized how we understand our near-Earth environment, by studying the rings

58

00:04:21,920 --> 00:04:27,560

of charged particles trapped by Earth's magnetic field, known as the Van Allen belts.

59

00:04:27,560 --> 00:04:30,760

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