
NASA
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1
00:00:00,590 --> 00:00:02,979
The journey of Resilience to the space station
…

2
00:00:02,979 --> 00:00:07,380
The next ocean-observing satellite …
And an update on a critical rocket test series

3
00:00:07,380 --> 00:00:11,675
for our Artemis missions … a few of the
stories to tell you about – This Week at NASA

4
00:00:14,510 --> 00:00:19,720
On Nov. 15, NASA astronauts Mike Hopkins,
Victor Glover, Shannon Walker and Japan's

5
00:00:19,720 --> 00:00:25,300
Soichi Noguchi headed skyward from our Kennedy
Space Center, aboard the SpaceX "Resilience"

6
00:00:25,300 --> 00:00:26,500
Crew Dragon spacecraft.

7
00:00:26,500 --> 00:00:31,949
"Not even gravity contains humanity when
we explore as one for all."

8
00:00:31,949 --> 00:00:36,030
The successful launch kicked off the first
crew rotation mission to the International

9
00:00:36,030 --> 00:00:41,670
Space Station and the first of six certified
crew missions NASA and SpaceX will fly as

10
00:00:41,670 --> 00:00:43,640
a part of our Commercial Crew Program.

11
00:00:43,640 --> 00:00:48,879

“Another view from Crew Dragon, looking
at its future destination, its future home

12
00:00:48,879 --> 00:00:51,930
for the next six months, the International
Space Station.”

13
00:00:51,930 --> 00:00:56,860
The next day, Resilience and its crew closed
in on the space station, successfully docking

14
00:00:56,860 --> 00:01:00,450
to the orbiting outpost at 11:01 p.m. EST.

15
00:01:00,450 --> 00:01:02,610
“This is Resilience.

16
00:01:02,610 --> 00:01:05,779
Excellent job, right down the center.

17
00:01:05,779 --> 00:01:10,869
SpaceX and NASA, congratulations, this is
a new era of operational flights to the International

18
00:01:10,869 --> 00:01:13,030
Space Station from the Florida Coast.”

19
00:01:13,030 --> 00:01:18,249
A while later, the Expedition 64 crew aboard
the station welcomed its four newest members,

20
00:01:18,249 --> 00:01:23,429
whose arrival increases the space station’s
long-duration expedition crew size from six

21
00:01:23,429 --> 00:01:25,789
to seven crew members for the first time ever.

22
00:01:25,789 --> 00:01:30,329

They will conduct science and maintenance
during their six-month stay, which is scheduled

23
00:01:30,329 --> 00:01:35,229
to be the longest human space mission launched
from the United States.

24
00:01:35,229 --> 00:01:40,359
The Sentinel-6 Michael Freilich satellite
launched Nov. 21 from California’s Vandenberg

25
00:01:40,359 --> 00:01:41,359
Air Force Base.

26
00:01:41,359 --> 00:01:46,249
It is the first of two identical satellites
scheduled to make global sea level observations

27
00:01:46,249 --> 00:01:51,380
for at least the next decade, as part of a
U.S.-European collaboration.

28
00:01:51,380 --> 00:01:57,938
Sentinel-6 Michael Freilich's twin, Sentinel-6B,
is scheduled to launch in 2025.

29
00:01:57,938 --> 00:02:02,899
Engineers at our Stennis Space Center successfully
repaired a valve inside the core stage of

30
00:02:02,899 --> 00:02:07,549
our Space Launch System rocket and are now
preparing for a wet dress rehearsal the week

31
00:02:07,549 --> 00:02:09,080
of Dec. 7.

32
00:02:09,080 --> 00:02:13,879
The wet dress is part of the rocket’s Green
Run test series in preparation for launches

33
00:02:13,879 --> 00:02:16,000
of Artemis missions to the Moon.

34
00:02:16,000 --> 00:02:21,319
A hot fire test, where all four of the rocket's
engines will be fired to simulate a launch,

35
00:02:21,319 --> 00:02:26,727
is currently targeted to wrap up the testing
series the week of Dec. 21.

36
00:02:26,727 --> 00:02:32,400
On Nov. 18, Russian cosmonauts Sergey Ryzhikov
and Sergey Kud-Sverchkov ventured outside

37
00:02:32,400 --> 00:02:36,909
the International Space Station to prepare
for the arrival of a new Russian research

38
00:02:36,909 --> 00:02:37,909
module.

39
00:02:37,909 --> 00:02:42,400
The new module, named "Nauka," Russian
for "science," is being prepared for launch

40
00:02:42,400 --> 00:02:45,732
at the Baikonur Cosmodrome in Kazakhstan.

41
00:02:45,732 --> 00:02:51,590
NASA researchers, using computer models to
create a COVID-free 2020 scenario for comparison,

42
00:02:51,590 --> 00:02:55,720
found that since February, fewer amounts of
some pollutants have been found in Earth's

43
00:02:55,720 --> 00:02:57,299

atmosphere than usual.

44
00:02:57,299 --> 00:03:01,999
The exercise attempted to examine how much
of this was a result of changes in human activity

45
00:03:01,999 --> 00:03:04,530
due to pandemic-related restrictions.

46
00:03:04,530 --> 00:03:09,170
The diminished pollutants include a nearly
20% reduction in nitrogen dioxide, which is

47
00:03:09,170 --> 00:03:14,300
primarily produced by the burning of fossil
fuels used by industry and transportation.