
TW@N
THIS WEEK @ NASA

1
00:00:00,399 --> 00:00:02,980
Fine-tuning the James Webb Space Telescope
…

2
00:00:02,980 --> 00:00:05,120
A different view of Venus …

3
00:00:05,120 --> 00:00:09,480
And the science on an upcoming space station
resupply mission … a few of the stories

4
00:00:09,480 --> 00:00:13,840
to tell you about – This Week at NASA!

5
00:00:13,840 --> 00:00:19,000
The James Webb Space Telescope team is nearing
completion of the first phase of the months-long

6
00:00:19,000 --> 00:00:25,300
process of aligning the observatory's primary
mirror using the Near Infrared Camera or NIRCam

7
00:00:25,300 --> 00:00:26,300
instrument.

8
00:00:26,300 --> 00:00:30,900
As planned, NIRCam has detected the first
photons of starlight that traveled through

9
00:00:30,900 --> 00:00:37,020
the observatory and has identified starlight
from the same star in each of Webb's 18

10
00:00:37,020 --> 00:00:38,650
primary mirror segments.

11
00:00:38,650 --> 00:00:44,280
The result is this mosaic image release on
Feb. 11, that appears to be random dots of

12
00:00:44,280 --> 00:00:49,540
starlight – but is actually light from the
same star reflected by Webb's unaligned

13
00:00:49,540 --> 00:00:51,330
mirror segments.

14
00:00:51,330 --> 00:00:56,250
This simple image of blurry starlight now
becomes the foundation to align and focus

15
00:00:56,250 --> 00:01:01,610
the telescope so that it can deliver unprecedented
views of the universe this summer.

16
00:01:01,610 --> 00:01:08,050
During recent flybys of Venus, our Parker
Solar Probe captured its first visible light

17
00:01:08,050 --> 00:01:11,250
images of the Venusian surface taken from
space.

18
00:01:11,250 --> 00:01:15,560
Some of the images, captured in wavelengths
of the visible spectrum that human eyes can

19
00:01:15,560 --> 00:01:20,610
see, were used to create a video of the planet's
entire night side.

20
00:01:20,610 --> 00:01:25,490
In the video, light and dark surface features
can be seen, as well as glowing features in

21
00:01:25,490 --> 00:01:27,310
the planet's atmosphere.

22

00:01:27,310 --> 00:01:31,860
These images can help us learn more about
the evolution of Venus, which has been referred

23
00:01:31,860 --> 00:01:34,870
to as Earth’s twin.

24
00:01:34,870 --> 00:01:39,510
Our commercial partner Northrop Grumman is
targeting Feb. 19 for the launch of its next

25
00:01:39,510 --> 00:01:44,049
resupply mission to the International Space
Station from our Wallops Flight Facility in

26
00:01:44,049 --> 00:01:45,240
Virginia.

27
00:01:45,240 --> 00:01:50,229
More than 8,200 pounds of cargo will launch
aboard the company’s Cygnus cargo spacecraft.

28
00:01:50,229 --> 00:01:55,080
The science being delivered on the mission
includes a study to evaluate the effects of

29
00:01:55,080 --> 00:02:00,600
a drug on breast and prostate cancer cells,
an investigation that could potentially lead

30
00:02:00,600 --> 00:02:07,060
to products to protect aging skin, and a system
to test techniques for hydroponic and aeroponic

31
00:02:07,060 --> 00:02:08,470
plant growth.

32
00:02:08,470 --> 00:02:13,520
This is the company’s 17th resupply mission
to the station for NASA.

33
00:02:13,520 --> 00:02:18,389
NASA’s Investigation of Microphysics and
Precipitation for Atlantic Coast-Threatening

34
00:02:18,389 --> 00:02:24,349
Storms or IMPACTS mission is a multi-year
airborne science campaign tracking snowstorms

35
00:02:24,349 --> 00:02:30,269
across the Midwest and Eastern U.S. Data collected
by a suite of instruments on a pair of NASA

36
00:02:30,269 --> 00:02:36,650
aircraft helps researchers determine how snowstorms
develop, how much snow a storm will bring,

37
00:02:36,650 --> 00:02:38,739
and where the bulk of it will fall.

38
00:02:38,739 --> 00:02:43,349
The current campaign is the second deployment
of IMPACTS and is scheduled to wrap up at

39
00:02:43,349 --> 00:02:45,569
the end of the month.

40
00:02:45,569 --> 00:02:53,040
Engineers at our Stennis Space Center conducted
the second RS-25 engine hot fire test of 2022

41
00:02:53,040 --> 00:02:54,870
on Feb. 8.

42
00:02:54,870 --> 00:03:00,719
Four RS-25s will help power our Space Launch
System rocket on future Artemis deep-space

43
00:03:00,719 --> 00:03:05,620

missions, including this year’s uncrewed Artemis I mission around the Moon.

44
00:03:05,620 --> 00:03:10,909
This was the third overall test in the current test series which began in mid-December.

45
00:03:10,909 --> 00:03:15,329
Each test provides valuable data that can be used to help develop the engines.