

TW@N

THIS WEEK @ NASA



1

00:00:00,320 --> 00:00:05,280

■The countdown to our Artemis I Moon mission ...

A Moon-observing small satellite\h\h

2

00:00:05,280 --> 00:00:09,840

hitching a ride on Artemis I ...

And some other tiny satellites that could help\h\h

3

00:00:09,840 --> 00:00:15,920

us better prepare for space weather ... a few of the\h

stories to tell you about – This Week at NASA!

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4

00:00:16,880 --> 00:00:23,520

We are targeting Thursday, Aug. 18 for the rollout\h

of the Space Launch System or SLS rocket and Orion\h\h

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00:00:23,520 --> 00:00:30,560

spacecraft to Launch Pad 39B at our Kennedy Space\h

Center. We will provide a live stream of the move\h\h

6

00:00:30,560 --> 00:00:36,800

on the NASA Kennedy You Tube channel. The SLS and\h

Orion are targeted for a no earlier than Monday,\h\h

7

00:00:36,800 --> 00:00:42,320

Aug. 29 liftoff on the uncrewed Artemis\h

I test flight around the Moon and back.\h\h

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00:00:42,880 --> 00:00:47,760

The test flight is the first in a series\h

of increasingly complex missions to help\h\h

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00:00:47,760 --> 00:00:53,840

us establish a long-term presence on the Moon in\h

preparation for sending astronauts on to Mars.

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10

00:00:54,640 --> 00:01:00,640

NASA's Lunar IceCube, a water-scouting CubeSat,\h

is preparing to hitch a ride to the Moon as part

11

00:01:00,640 --> 00:01:06,800

of our uncrewed Artemis I mission. The small lunar-orbiting satellite will use a spectrometer

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00:01:06,800 --> 00:01:12,640

to investigate lunar ice on the surface of the Moon. Scientists are interested in the absorption

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00:01:12,640 --> 00:01:18,480

and release of water from the Moon's rocky and dusty surface – or regolith. Lunar IceCube

14

00:01:18,480 --> 00:01:24,720

will also study the exosphere — a very thin atmosphere-like volume surrounding the Moon. By

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00:01:24,720 --> 00:01:30,320

understanding the dynamics of water and other substances on the Moon, scientists will be able

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00:01:30,320 --> 00:01:36,640

to predict seasonal changes for lunar ice that could impact its use as a resource in the future.

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00:01:36,640 --> 00:01:43,040

The first of six toaster-size satellites for our Sun Radio Interferometer Space Experiment or

18

00:01:43,040 --> 00:01:49,680

SunRISE has been completed. The tiny satellites will combine to form a 6-mile-wide telescope in

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00:01:49,680 --> 00:01:56,080

space capable of detecting bursts of radio waves from the Sun's superheated atmosphere,

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00:01:56,080 --> 00:02:02,400

known as the corona. SunRISE will help scientists better understand explosive space weather events.

21

00:02:02,960 --> 00:02:07,120

These phenomena generate particle radiation that can jeopardize

22

00:02:07,120 --> 00:02:13,600

astronauts and technology in space and adversely affect communications and power grids on Earth.

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00:02:13,600 --> 00:02:19,920

SunRISE is targeted for launch in 2024. On Aug. 11, we transferred ownership and

24

00:02:19,920 --> 00:02:27,200

operational control of the Earth-observing Landsat 9 satellite to the U.S. Geological Survey or USGS.

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00:02:27,840 --> 00:02:33,920

Landsat 9 is the most recent in the Landsat series of remote-sensing satellites, which provide global

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00:02:33,920 --> 00:02:39,600

coverage of landscape changes on our home planet. The Landsat program – a joint effort

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00:02:39,600 --> 00:02:46,240

between NASA and USGS – recently marked 50 years of continuous service observing Earth from space.

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00:02:46,800 --> 00:02:52,400

Seeing Earth from space with your own eyes is a unique experience. But this recently

29

00:02:52,400 --> 00:02:59,120

released ultra-high-definition video might just be the next best thing. Imagery in the video was

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00:02:59,120 --> 00:03:06,320

captured between April and October 2021 during the
Expedition 65 crew's time aboard the International

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00:03:06,320 --> 00:03:15,120

Space Station. Check it out for yourself and
download if you like at go.nasa.gov/earthviews4k.

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00:03:15,120 --> 00:03:21,040

A quick note about an upcoming change for NASA
Television. NASA TV programming on the Galaxy

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00:03:21,040 --> 00:03:26,720

13 domestic satellite is moving from
transponder 11 to transponder 15.

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00:03:27,280 --> 00:03:33,600

Currently, both transponders are active, but
distribution of NASA TV programming on transponder

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00:03:33,600 --> 00:03:42,400

11 will end on Monday, Aug. 29. For complete
details, please visit go.nasa.gov/transponder.