TW@N

THIS WEEK @ NASA

1
00:00:00,367 --> 00:00:04,504
Ready to showcase the Webb space telescope's first full-color images …

2
00:00:04,504 --> 00:00:07,841
Back in touch with a spacecraft on an important mission to the Moon ….

3
00:00:07,841 --> 00:00:12,645
And our Artemis I Moon rocket and spacecraft move a step closer to launch …

4
00:00:12,645 --> 00:00:15,949
A few of the stories to tell you about – This Week at NASA!

5
00:00:16,349 --> 00:00:23,023
The much-anticipated release of the James Webb Space Telescope's first full-color images and spectroscopic

6
00:00:23,023 --> 00:00:31,464
is targeted for July 12 at 10:30 a.m. EDT, during a live broadcast from our Goddard Space Flight Center.

7
00:00:31,464 --> 00:00:39,372
That show will be available on NASA TV, the NASA app, the agency's website, and various social media platfo

8
00:00:39,372 --> 00:00:46,312
As each image is released, it will simultaneously be posted to social media and to our website at:

9
00:00:46,312 --> 00:00:49,616
nasa.gov/webbfirstimages.

10
00:00:49,616 --> 00:00:56,990
These first images will demonstrate Webb at its full power, ready to begin its mission to unfold the infrared univ

11
00:00:57,857 --> 00:01:03,196
After experiencing post-launch communications issues on July 4, teams for our

12
00:01:03,196 --> 00:01:10,570
Cislunar Autonomous Positioning System Technology Operations and Navigation Experiment, or CAPSTONE

13
00:01:10,570 --> 00:01:13,606

have re-established contact with the spacecraft.

14
00:01:13,606 --> 00:01:20,380
The team has determined that an improperly formatted command sent to the spacecraft's radio caused the issu

15
00:01:20,380 --> 00:01:24,417
Data received from the spacecraft indicate that it is in good health,

16
00:01:24,417 --> 00:01:28,788
and it operated safely on its own while it was out of contact with Earth.

17
00:01:28,788 --> 00:01:36,563
As originally planned, CAPSTONE is still expected to arrive to its lunar orbit later this year on Nov. 13.

18
00:01:36,563 --> 00:01:40,600
The mission will test a unique, elliptical lunar orbit for Gateway,

19
00:01:40,600 --> 00:01:44,137
a Moon-orbiting outpost that is part of our Artemis program.

20
00:01:44,871 --> 00:01:52,312
On July 2, the Space Launch System, or SLS rocket and Orion spacecraft for our uncrewed Artemis I mission

21
00:01:52,312 --> 00:01:59,285
completed the four-mile journey from launch pad 39B to the Vehicle Assembly Building at the Kennedy Space

22
00:01:59,285 --> 00:02:04,324
In the coming weeks, teams will make repairs, and perform checkouts and activities

23
00:02:04,324 --> 00:02:08,294
before returning SLS and Orion to the pad.

24
00:02:08,294 --> 00:02:14,601
Currently targeted for launch no earlier than August 2022, the Artemis I flight test to the Moon

25
00:02:14,601 --> 00:02:21,274
will allow NASA to check out rocket and spacecraft systems before astronauts fly to the Moon on Artemis II.

26
00:02:22,008 --> 00:02:26,646
Engineers recently completed the first fully integrated powered testing of the

27
00:02:26,646 --> 00:02:34,454
Tropospheric Emissions: Monitoring of Pollution, or TEMPO instrument on the Intelsat IS40e satellite.

28
00:02:34,454 --> 00:02:38,825
TEMPO is currently targeted to launch in January 2023.

29
00:02:38,825 --> 00:02:46,032
From its geostationary orbit, it will take air quality observations at an unprecedented spatial resolution.

30
00:02:46,032 --> 00:02:50,737
Its measurements will reach from Puerto Rico and Mexico to northern Canada,

31
00:02:50,737 --> 00:02:56,709
and from the Atlantic to the Pacific, encompassing the entire lower 48 states of the U.S.

32
00:02:57,443 --> 00:03:05,118
After analyzing data from the OSIRIS-REx spacecraft’s sample collection “TAG event” at asteroid Bennu in Oct

33
00:03:05,118 --> 00:03:12,192
scientists were surprised to learn that the spacecraft’s arm sank almost half a meter into the asteroid.

34
00:03:12,192 --> 00:03:18,264
This was far deeper than expected and confirmed that Bennu’s surface is incredibly weak.

35
00:03:18,264 --> 00:03:25,672
It turns out that the surface material on Bennu is so loosely packed that stepping onto the asteroid might feel a

36
00:03:25,672 --> 00:03:31,945
stepping into one of those pits filled with plastic balls that you might see at a kids’ play area.

37
00:03:31,945 --> 00:03:39,185
O-REx collected a handful of material and kicked up roughly six tons of loose rock during the TAG event.

38
00:03:39,185 --> 00:03:44,357

It will return its sample of Bennu to Earth in September 2023.

39
00:03:44,357 --> 00:03:46,392
That’s what’s up this week @NASA …