TW@N

THIS WEEK @ NASA

1
00:00:00,100 --> 00:00:02,802
The Crew-3 astronauts arrive
at the launch site …

2
00:00:02,802 --> 00:00:06,172
A critical milestone for our water-hunting lunar robot …

3
00:00:06,172 --> 00:00:09,876
And a deeper, more full view down into Jupiter's atmosphere …

4
00:00:09,876 --> 00:00:13,079
a few of the stories to tell you about – This Week at NASA!

5
00:00:14,247 --> 00:00:17,083
The astronauts of NASA's
SpaceX Crew-3 mission

6
00:00:17,083 --> 00:00:21,755
to the International Space Station arrived
at our Kennedy Space Center on Oct. 26

7
00:00:21,755 --> 00:00:23,990
for final prelaunch activities.

8
00:00:24,324 --> 00:00:27,494
NASA's Raja Chari,
Tom Marshburn, and Kayla Barron,

9
00:00:27,494 --> 00:00:31,831
along with European Space Agency
astronaut Matthias Maurer are traveling

10
00:00:31,831 --> 00:00:36,536
to the station aboard the SpaceX
Crew Dragon spacecraft that they named, "Endurance."

11
00:00:36,536 --> 00:00:38,838
"This will actually be the first rocket launch I've

12
00:00:38,838 --> 00:00:42,075
seen in person,
and I'll be in the capsule on top of it.

13
00:00:42,842 --> 00:00:46,179
So, I'm
really excited for the whole experience,

14
00:00:46,179 --> 00:00:49,516
because I'm really excited
about the next phase of things

15
00:00:49,516 --> 00:00:52,385
we're doing in the Artemis program,
and the space station

16
00:00:52,385 --> 00:00:55,221
is an excellent platform
to help us get ready for those missions."

17
00:00:55,321 --> 00:00:58,291
"We pretend to be astronauts
so often – we're always training.

18
00:00:58,291 --> 00:01:00,693
And now when we see the vehicle it's
actually the real deal,

19
00:01:00,860 --> 00:01:03,696
and the next time we see
the ISS will be the actual ISS.

20
00:01:03,696 --> 00:01:06,966
So, I think processing that is a pretty
cool thing about this week."

21
00:01:06,966 --> 00:01:11,171
Crew-3 is the third crew rotation flight
to the space station with a Crew Dragon

22
00:01:11,171 --> 00:01:15,175
through our Commercial Crew Program
and the fourth Crew Dragon flight overall

23
00:01:15,175 --> 00:01:18,812
to the station with astronauts,
including the Demo-2 test flight.

24
00:01:18,812 --> 00:01:22,382
There is more about the mission
at nasa.gov/commercialcrew.

25
00:01:23,650 --> 00:01:25,285
Our VIPER lunar mobile

26
00:01:25,285 --> 00:01:29,789
robot has passed its Critical Design
Review (CDR), a developmental milestone

27
00:01:29,789 --> 00:01:33,660
that clears the mission to move
from design to construction of the rover.

28
00:01:34,060 --> 00:01:37,030
VIPER will be delivered to the Moon
through our Commercial Lunar

29
00:01:37,030 --> 00:01:41,401
Payload Services initiative
to explore for ice and other resources

30
00:01:41,401 --> 00:01:45,171
and help inform future Artemis missions
to the Moon and beyond.

31
00:01:46,306 --> 00:01:48,608
Several scientific papers
have been published

32

00:01:48,608 --> 00:01:52,145
highlighting new findings from NASA's
Juno mission at Jupiter

33
00:01:52,145 --> 00:01:55,181
that provide a fuller picture
of how the planet's colorful

34
00:01:55,181 --> 00:01:58,351
and distinctive atmospheric features
offer clues

35
00:01:58,351 --> 00:02:02,255
to unseen processes
deeper down below the planet's cloud tops.

36
00:02:02,255 --> 00:02:05,492
Juno's
microwave radiometer (MWR) allows mission

37
00:02:05,492 --> 00:02:10,363
scientists to see beneath the cloud tops
and probe the structure of Jupiter's

38
00:02:10,363 --> 00:02:15,401
numerous vortex storms for the first time,
including the planet's Great Red Spot.

39
00:02:15,401 --> 00:02:18,638
Learn more at: nasa.gov/juno.

40
00:02:19,772 --> 00:02:21,975
NASA's Chandra X-ray Observatory

41
00:02:21,975 --> 00:02:26,679
may have detected signs of an exoplanet
transiting, or crossing in front of,

42
00:02:26,679 --> 00:02:30,617
a star outside of our Milky Way galaxy

for the first time.

43
00:02:30,617 --> 00:02:34,521
This possible exoplanet, or planet outside of our solar system,

44
00:02:34,521 --> 00:02:40,026
is in the spiral galaxy Messier 51 (M51) –
about 28 million light-years from Earth.

45
00:02:40,026 --> 00:02:44,330
That is thousands of times
farther away from us than all other known

46
00:02:44,330 --> 00:02:49,435
exoplanets and exoplanet candidates –
all of which are within the Milky Way.

47
00:02:49,435 --> 00:02:53,173
For more details, check out nasa.gov/chandra.

48
00:02:54,474 --> 00:02:58,344
Just in time for Halloween –
our newest Galaxy of Horrors posters

49
00:02:58,344 --> 00:03:03,116
feature a roasted exoplanet that orbits
so close to its sun that temperatures

50
00:03:03,116 --> 00:03:06,853
in its atmosphere soar
to about 2,000 degrees Fahrenheit,

51
00:03:06,953 --> 00:03:11,724
and the bone-chilling force known
as dark energy, which can push a galaxy

52
00:03:11,724 --> 00:03:16,996
deep into the pitch black expanse of outer
space to suffer a freezing death.

53
00:03:16,996 --> 00:03:19,933
You can download these and other posters
for free, in

54
00:03:19,933 --> 00:03:24,871
English and Spanish,
at exoplanets.nasa.gov/galaxy.

55
00:03:26,039 --> 00:03:27,707
Our Stennis Space Center is

56
00:03:27,707 --> 00:03:31,711
celebrating the 60-year
anniversary of NASA announcing plans

57
00:03:31,711 --> 00:03:37,083
to build a site in south Mississippi
to test Apollo rocket stages and engines.

58
00:03:37,083 --> 00:03:39,919
That test site became Stennis
Space Center.

59
00:03:39,919 --> 00:03:42,855
Following Apollo,
the center tested the main engines

60
00:03:42,855 --> 00:03:46,426
for every space shuttle
mission and continues its critical role

61
00:03:46,426 --> 00:03:50,163
today – testing the engines
and other hardware for the agency's

62
00:03:50,163 --> 00:03:54,500
Space Launch System rocket for our upcoming
Artemis missions to the Moon.

63

00:03:55,268 --> 00:03:57,370
That’s what’s up this week @NASA …