TW@N

THIS WEEK @ NASA

1
00:00:00,266 --> 00:00:03,703
The Webb Telescope is
closer to starting its mission of science

2
00:00:03,903 --> 00:00:06,840
… An historic
look at the center of our galaxy

3
00:00:07,073 --> 00:00:09,676
… And the Crew-3 astronauts
reflect on their mission

4
00:00:10,310 --> 00:00:13,413
… a few of the stories
to tell you about – This Week at NASA!

5
00:00:15,215 --> 00:00:17,217
Our James Webb Space Telescope

6
00:00:17,217 --> 00:00:20,820
is in the phase of its mission
known as science instrument commissioning.

7
00:00:21,054 --> 00:00:24,090
This involves
about two months of extensive calibrations

8
00:00:24,090 --> 00:00:26,993
and the last group
of required setup activities

9
00:00:27,227 --> 00:00:30,864
before the telescope begins
science observations this summer.

10
00:00:31,197 --> 00:00:32,632
A recent test image Webb

11
00:00:32,632 --> 00:00:36,936

took of a region of the Large
Magellanic Cloud was compared to an image

12
00:00:36,936 --> 00:00:40,640
our Spitzer Space Telescope
previously captured of that same region.

13
00:00:41,041 --> 00:00:42,542
The comparison demonstrates

14
00:00:42,542 --> 00:00:46,179
the improved clarity
with which Webb can see the infrared sky.

15
00:00:46,479 --> 00:00:47,647
This ability could yield

16
00:00:47,647 --> 00:00:51,584
more detailed views of the cosmos
and unprecedented discoveries.

17
00:00:51,918 --> 00:00:56,222
For more information about the Webb
mission, visit nasa.gov/webb.

18
00:00:57,891 --> 00:01:01,194
According to the Event Horizon
Telescope Collaboration,

19
00:01:01,194 --> 00:01:04,597
this is the first image
of the supermassive black hole, known

20
00:01:04,597 --> 00:01:09,536
as Sagittarius A *, located
at the center of our Milky Way galaxy.

21
00:01:10,036 --> 00:01:14,741
The Event Horizon Telescope uses data
from a worldwide network of telescopes.

22
00:01:15,241 --> 00:01:17,777
Observations from NASA’s Chandra X-ray

23
00:01:17,777 --> 00:01:21,181
Observatory, NuSTAR, and Swift Observatory

24
00:01:21,347 --> 00:01:24,818
were used to help astronomers
study Sagittarius A *.

25
00:01:26,686 --> 00:01:30,990
The astronauts of NASA’s SpaceX
Crew-3 mission reflected on their recent

26
00:01:30,990 --> 00:01:35,562
stay aboard the International Space
Station during a May 11 news conference.

27
00:01:35,895 --> 00:01:39,165
NASA’s Kayla Barron,
Raja Chari and Tom Marshburn,

28
00:01:39,332 --> 00:01:43,169
along with Matthias
Maurer of the European Space Agency, spent

29
00:01:43,169 --> 00:01:47,474
175 days aboard the station
conducting microgravity science

30
00:01:47,474 --> 00:01:50,076
research and technology demonstrations.

31
00:01:50,577 --> 00:01:55,381
It was just this awe-inspiring experience
and incredible honor

32
00:01:55,381 --> 00:01:59,686

to represent the NASA team
and family in that role, and also to have

33
00:01:59,686 --> 00:02:04,624
our relationships as a crew grow
through that expeditionary living

34
00:02:05,191 --> 00:02:08,061
and really supporting each other
so that we could get the most out

35
00:02:08,061 --> 00:02:10,530
of every single day
in terms of accomplishing our mission.

36
00:02:11,064 --> 00:02:14,467
Crew-3 splashed down
May 6 off the coast of Florida

37
00:02:14,467 --> 00:02:17,604
in SpaceX's
Crew Dragon "Endurance" spacecraft.

38
00:02:19,472 --> 00:02:21,441
Our InSight lander on Mars

39
00:02:21,441 --> 00:02:24,944
has detected the largest quake
ever observed on another planet.

40
00:02:25,378 --> 00:02:29,749
The estimated magnitude 5 quake
occurred earlier this month, on May 4.

41
00:02:30,183 --> 00:02:33,319
The largest "Marsquake"
previously recorded by InSight

42
00:02:33,520 --> 00:02:36,623
was an estimated magnitude

4.2 detected

43
00:02:36,623 --> 00:02:39,092
Aug. 25, 2021.

44
00:02:39,092 --> 00:02:42,962
A magnitude 5 quake is comparable
to a medium-size quake on Earth

45
00:02:43,196 --> 00:02:46,766
but is close to the upper limit
of what scientists hoped to see

46
00:02:46,866 --> 00:02:48,968
on Mars during InSight's mission.

47
00:02:50,970 --> 00:02:53,606
For the first time
ever, researchers have grown

48
00:02:53,606 --> 00:02:58,645
the hardy and well-studied plant
Arabidopsis thaliana in nutrient-poor

49
00:02:58,645 --> 00:03:02,849
lunar regolith samples collected
during several Apollo Moon missions.

50
00:03:03,216 --> 00:03:07,053
The plant is a relative of mustard
greens, broccoli, cauliflower,

51
00:03:07,053 --> 00:03:08,655
and Brussel sprouts.

52
00:03:08,655 --> 00:03:12,625
This NASA-funded study could help
pave the way for future astronauts

53

00:03:12,859 --> 00:03:17,797
to someday grow more nutrient-rich plants
on the Moon and elsewhere in deep space.

54
00:03:20,133 --> 00:03:23,369
Data from
NASA’s ICON mission has helped researchers

55
00:03:23,369 --> 00:03:26,172
determine that effects
from the volcanic eruption

56
00:03:26,339 --> 00:03:31,511
on the South Pacific island of Hunga
Tonga-Hunga Ha‘apai in January 2022,

57
00:03:31,778 --> 00:03:34,447
actually reached beyond Earth –
into space.

58
00:03:34,881 --> 00:03:38,785
The data show that in the hours
after the eruption, hurricane-speed

59
00:03:38,785 --> 00:03:42,956
winds and unusual electric currents
formed in the ionosphere

60
00:03:43,122 --> 00:03:46,893
– Earth’s electrified upper
atmospheric layer at the edge of space.

61
00:03:47,460 --> 00:03:50,430
ICON launched in 2019 to identify

62
00:03:50,430 --> 00:03:53,466
how Earth’s weather interacts
with weather from space.

63
00:03:54,367 --> 00:03:57,337

That’s what’s up this week
@NASA … For more on these