TW@N

THIS WEEK @ NASA

1
00:00:00,233 --> 00:00:04,704
Launching a new mission around the Moon
… Preparing the Space Launch System

2
00:00:04,704 --> 00:00:06,139
for its first flight ...

3
00:00:06,139 --> 00:00:09,943
And undocking a resupply spacecraft
from the space station …

4
00:00:09,943 --> 00:00:13,680
a few of the stories
to tell you about – This Week at NASA!

5
00:00:14,981 --> 00:00:17,350
3, 2, 1

6
00:00:20,320 --> 00:00:21,121
... and liftoff!

7
00:00:22,022 --> 00:00:26,292
On June 28, CAPSTONE launched aboard
Rocket Lab’s Electron rocket

8
00:00:26,292 --> 00:00:27,560
from New Zealand.

9
00:00:27,560 --> 00:00:30,563
After a 4-month journey,
the small spacecraft will arrive

10
00:00:30,563 --> 00:00:33,900
at its lunar orbit, where it will act
as a pathfinder for Gateway,

11
00:00:34,167 --> 00:00:35,335
a future space station

12
00:00:35,335 --> 00:00:38,905
that will orbit around the Moon
as part of our Artemis program.

13
00:00:38,905 --> 00:00:42,742
CAPSTONE’s data on this unique,
halo-shaped orbit will help reduce risk

14
00:00:42,742 --> 00:00:44,377
for future spacecraft.

15
00:00:44,377 --> 00:00:47,280
This mission, which is owned and operated
by Advanced Space

16
00:00:47,280 --> 00:00:51,051
for NASA, will also validate
innovative navigation technologies.

17
00:00:52,318 --> 00:00:55,655
NASA has completed the wet dress
rehearsal campaign for the agency's

18
00:00:55,655 --> 00:00:59,659
Space Launch System rocket
(SLS) and Orion spacecraft.

19
00:01:00,126 --> 00:01:04,064
During the final rehearsal on June
20 at our Kennedy Space Center in Florida,

20
00:01:04,364 --> 00:01:07,600
teams were able to confirm the timelines
and procedures for launch.

21
00:01:08,068 --> 00:01:11,304
Next, we’ll roll the SLS rocket
back to the Vehicle Assembly Building

22

00:01:12,005 --> 00:01:15,075
to prepare for the Artemis I flight test

23
00:01:15,375 --> 00:01:18,411
currently targeted for launch in late
August 2022.

24
00:01:19,712 --> 00:01:23,583
On June 28, Northrop Grumman's
uncrewed Cygnus spacecraft

25
00:01:23,583 --> 00:01:26,319
successfully departed
from the International Space Station

26
00:01:26,319 --> 00:01:28,922
after more than four months
at the orbiting outpost.

27
00:01:29,155 --> 00:01:30,557
After launching from our Wallops

28
00:01:30,557 --> 00:01:34,327
Flight Facility in Virginia,
Cygnus arrived at the station in February,

29
00:01:34,594 --> 00:01:38,264
delivering 8,300 pounds of supplies,
scientific

30
00:01:38,264 --> 00:01:41,568
investigations, and other cargo
to the orbiting laboratory.

31
00:01:42,068 --> 00:01:45,405
It was the company's
17th commercial resupply services mission

32
00:01:45,405 --> 00:01:47,040
to the space station for NASA.

33
00:01:48,341 --> 00:01:50,810
This spring, researchers with NASA’s
Scalable

34
00:01:50,810 --> 00:01:55,115
Traffic Management for Emergency Response
Operations (STEReO) project

35
00:01:55,381 --> 00:01:59,486
tested prototype tools with the goal
of making wildland firefighting safer.

36
00:01:59,886 --> 00:02:03,523
Both crewed aircraft
and unmanned aircraft systems, or drones,

37
00:02:03,756 --> 00:02:06,559
are regularly used to coordinate
firefighting efforts.

38
00:02:06,993 --> 00:02:09,863
STEReO’s
prototype device focuses on notifying

39
00:02:09,863 --> 00:02:12,699
these drone pilots
of the positions of crewed aircraft,

40
00:02:13,032 --> 00:02:16,236
allowing them to stay safely
out of the way.

41
00:02:16,436 --> 00:02:17,670
Commercial partner Media

42
00:02:17,670 --> 00:02:21,474
Lario has completed critical components
for NASA’s ASTHROS Mission.

43
00:02:21,941 --> 00:02:24,544
The high-altitude balloon
will carry a telescope unit

44
00:02:24,711 --> 00:02:29,816
with an 8.2-foot primary mirror
130,000 feet above Antarctica.

45
00:02:30,116 --> 00:02:33,887
The mirror will enhance ASTHROS' ability
to study stellar feedback,

46
00:02:34,154 --> 00:02:37,257
a phenomenon that halts star formation
in some galaxies.

47
00:02:37,657 --> 00:02:41,294
ASTHROS is set to launch
no earlier than December 2023.

48
00:02:42,028 --> 00:02:45,532
That's what's up this week
@NASA … For more on these