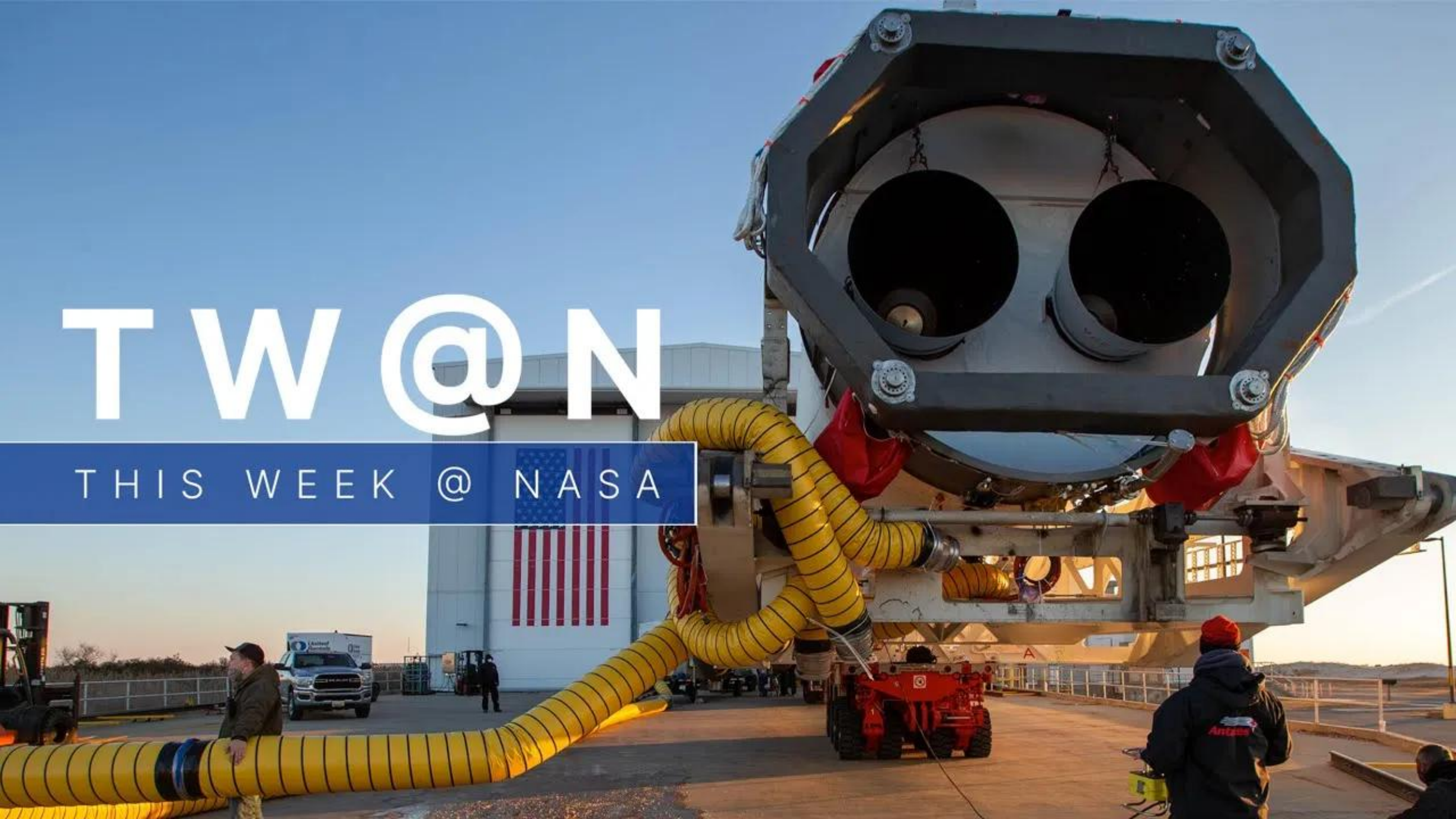
TW@N
THIS WEEK @ NASA

1
00:00:00,700 --> 00:00:03,670
The next commercial cargo mission
to the space station …

2
00:00:03,670 --> 00:00:06,639
Celebrating the first year of Perseverance on Mars ...

3
00:00:06,973 --> 00:00:10,410
And the first science images
from a recently launched mission …

4
00:00:10,410 --> 00:00:14,547
a few of the stories
to tell you about – This Week at NASA!

5
00:00:16,016 --> 00:00:19,019
Our commercial partner
Northrop Grumman’s Cygnus cargo

6
00:00:19,019 --> 00:00:22,822
spacecraft is loaded
with more than 8,300 pounds of research,

7
00:00:22,822 --> 00:00:27,027
crew supplies, and hardware for the crew
aboard the International Space Station.

8
00:00:27,527 --> 00:00:31,931
The Cygnus, named in honor of late
astronaut Piers Sellers, is targeted

9
00:00:31,931 --> 00:00:37,670
for launch on Feb. 19 from our Wallops Flight Facility
atop the company’s Antares rocket.

10
00:00:38,104 --> 00:00:43,043
This is Northrop Grumman’s 17th resupply
mission to the space station for NASA.

11

00:00:43,777 --> 00:00:45,211
[And liftoff]

12
00:00:45,211 --> 00:00:47,180
A Russian Progress spacecraft

13
00:00:47,180 --> 00:00:49,215
launched to the International Space Station

14
00:00:49,215 --> 00:00:55,880
from the Baikonur Cosmodrome in
Kazakhstan on Feb. 14 at 11:25 p.m. EST,

15
00:00:55,880 --> 00:00:59,826
loaded with almost three
tons of food, fuel and supplies.

16
00:01:00,293 --> 00:01:03,863
After 34 orbits of Earth,
the uncrewed Progress arrived

17
00:01:03,863 --> 00:01:06,633
at the orbital outpost on Feb. 17

18
00:01:06,633 --> 00:01:09,202
and linked up to the Poisk
docking compartment

19
00:01:09,202 --> 00:01:10,904
on the Russian segment of the station.

20
00:01:12,272 --> 00:01:14,374
Feb. 18 marked the one-year

21
00:01:14,374 --> 00:01:17,944
anniversary of our Perseverance rover’s
landing on Mars.

22
00:01:18,311 --> 00:01:21,181

Since then, the rover has racked up
several firsts.

23
00:01:21,581 --> 00:01:25,752
It has collected Martian rock core samples
that may one day become the first

24
00:01:25,752 --> 00:01:28,888
from another planet to be returned
to Earth on a future mission.

25
00:01:29,255 --> 00:01:33,093
The rover also has served
as a base station for the first helicopter

26
00:01:33,093 --> 00:01:37,464
on Mars, tested the first prototype
oxygen generator on the Red Planet,

27
00:01:37,697 --> 00:01:41,334
and recently broken a record
for the most distance driven by a Mars

28
00:01:41,334 --> 00:01:43,236
rover in a single day.

29
00:01:43,236 --> 00:01:46,306
The Mars 2020 Perseverance
mission is part of NASA's

30
00:01:46,306 --> 00:01:50,310
Moon to Mars exploration approach,
which includes Artemis missions

31
00:01:50,310 --> 00:01:54,114
to the Moon to help prepare for human
exploration of the Red Planet.

32
00:01:55,181 --> 00:01:57,784
The magenta color

in this image of supernova

33
00:01:57,784 --> 00:02:01,754
Cassiopeia A, represents
some of the first X-ray data

34
00:02:01,754 --> 00:02:05,658
captured by NASA's
Imaging X-ray Polarimetry Explorer

35
00:02:05,658 --> 00:02:09,496
or IXPE since completing its month-long
commissioning phase.

36
00:02:09,963 --> 00:02:13,433
The magenta color corresponds
to the intensity of X-ray light

37
00:02:13,433 --> 00:02:17,137
observed by IXPE
and is overlayed with high energy X-ray

38
00:02:17,137 --> 00:02:20,940
data, shown in blue, from NASA's
Chandra X-ray Observatory.

39
00:02:21,541 --> 00:02:23,176
All instruments are functioning

40
00:02:23,176 --> 00:02:27,313
well aboard IXPE,
which launched in December 2021 on a quest

41
00:02:27,413 --> 00:02:31,718
to study some of the most mysterious
and extreme objects in the universe.

42
00:02:33,620 --> 00:02:34,521
According to a new

43
00:02:34,521 --> 00:02:38,291
report by an interagency
sea level rise task force that includes

44
00:02:38,291 --> 00:02:42,128
NASA, the National Oceanic
and Atmospheric Administration, and other

45
00:02:42,128 --> 00:02:47,100
federal agencies, coastal flooding
will increase significantly by 2050

46
00:02:47,333 --> 00:02:50,770
due to a projected rise in sea level
in the next 30 years

47
00:02:50,970 --> 00:02:55,475
that could equal the total sea level rise
seen over the past 100 years.

48
00:02:56,075 --> 00:02:59,746
The report – used by government agencies
to help inform their plans

49
00:02:59,746 --> 00:03:02,182
to deal with the effects of sea level rise –

50
00:03:02,182 --> 00:03:05,285
concludes that sea levels along U.S. coastlines

51
00:03:05,285 --> 00:03:07,787
will rise between 10 to 12 inches

52
00:03:07,787 --> 00:03:11,024
on average above today's levels by 2050.

53
00:03:11,024 --> 00:03:16,229
For more about sea level and climate
change, check out sealevel.nasa.gov/.

54
00:03:17,330 --> 00:03:19,165
That’s what’s up this week
@NASA …