

A photograph of the Space Shuttle Columbia in orbit above Earth. The orbiter is attached to the External Tank and Solid Rocket Boosters. The orbiter's nose and windows are visible in the lower right, and the External Tank is on the left. The Earth's surface with clouds is visible in the background.

TW@N

THIS WEEK @ NASA

1
00:00:00,080 --> 00:00:03,440
A commercial mission returning
cargo from the space station ...
\h

2
00:00:03,440 --> 00:00:08,560
The first space station spacewalk of the year ...
And observing a massive volcanic eruption\h\h

3
00:00:08,560 --> 00:00:12,320
from space ... a few of the stories to\h
tell you about – This Week at NASA!
\h

4
00:00:14,080 --> 00:00:19,440
A SpaceX Dragon cargo resupply spacecraft is\h
slated to return to Earth from the International\h\h

5
00:00:19,440 --> 00:00:25,200
Space Station loaded with more than 4,900\h
pounds of cargo, including supplies and an\h\h

6
00:00:25,200 --> 00:00:31,680
array of microgravity scientific experiments.\h
The Dragon's return will cap off SpaceX's 24th\h\h

7
00:00:31,680 --> 00:00:38,320
Commercial Resupply Services mission for NASA.
On Jan. 19 two Russian cosmonauts ventured outside\h\h

8
00:00:38,320 --> 00:00:42,320
the International Space Station to conduct\h
the station's first spacewalk of the year.\h\h

9
00:00:42,880 --> 00:00:49,040
During the outing, Anton Shkaplerov and Pyotr\h
Dubrov of Roscosmos performed work to prepare\h\h

10
00:00:49,040 --> 00:00:55,360
the new Prichal docking module for future Russian\h

visiting spacecraft. The first docking to Prichal\h\h

11

00:00:55,360 --> 00:01:00,640

is targeted for March, with the arrival of\h
three cosmonauts aboard a Soyuz spacecraft.
\h

12

00:01:01,360 --> 00:01:06,720

Several Earth-observing satellites are helping\h
scientists affiliated with NASA's Disasters\h\h

13

00:01:06,720 --> 00:01:12,800

program collect and share data from the massive\h
volcanic eruption that obliterated the small,\h\h

14

00:01:12,800 --> 00:01:19,120

uninhabited South Pacific island known as Hunga\h
Tonga-Hunga Ha'apai. Damage assessments are\h\h

15

00:01:19,120 --> 00:01:24,400

ongoing, but preliminary reports indicate that\h
populated communities in the island nation of\h\h

16

00:01:24,400 --> 00:01:30,400

Tonga have taken heavy damage from volcanic\h
ash and a tsunami caused by the eruption.
\h

17

00:01:31,040 --> 00:01:36,240

Engineers at our Stennis Space Center conducted\h
the first RS-25 engine hot fire test of the\h\h

18

00:01:36,240 --> 00:01:44,000

new year on Jan. 19. Four RS-25s will help\h
power our Space Launch System or (SLS) rocket\h\h

19

00:01:44,000 --> 00:01:49,520

on future deep-space missions, including this\h
year's uncrewed Artemis I mission around the Moon.\h\h

20

00:01:49,520 --> 00:01:54,960

This was the second overall test in the current test series which began in mid-December.

21

00:01:54,960 --> 00:01:59,200

Each test provides valuable data that can be used to help develop the engines.

22

00:02:00,000 --> 00:02:05,280

The team assembling our X-59 Quiet SuperSonic Technology (QueSST) aircraft is making great

23

00:02:05,280 --> 00:02:10,320

progress with the developmental X-plane. The crew successfully added the tail,

24

00:02:10,320 --> 00:02:14,800

attached and tested out the positioning of the nose, performed a system check of the

25

00:02:14,800 --> 00:02:21,280

ejection seat, and moved the X-59's GE F414 engine to facilitate a 3D

26

00:02:21,280 --> 00:02:28,000

engine scan. This scan helps engineers better understand the F414's fit in the engine bay.

27

00:02:28,000 --> 00:02:33,520

The X-59 is being built to conduct research aimed at reducing the loudness of sonic booms

28

00:02:33,520 --> 00:02:39,120

that can occur during supersonic flight. That's what's up this week @NASA ... For more