1
00:00:00,810 --> 00:00:04,979
“Here’s some of the stories trending This
Week at NASA!”

2
00:00:04,979 --> 00:00:07,900
\h
For the first time, NASA scientists have detected

3
00:00:07,900 --> 00:00:11,220
light tied to a gravitational-wave event.

4
00:00:11,220 --> 00:00:17,689
The gravitational wave – caused by an explosive
merger of two neutron stars, about 130 million

5
00:00:17,689 --> 00:00:23,390
light-years from Earth – produced a gamma-ray
burst and a rarely seen flare-up called a

6
00:00:23,390 --> 00:00:24,390
"kilonova".

7
00:00:24,390 --> 00:00:30,060
The phenomenon was captured by our Fermi,
Swift, Hubble, Chandra and Spitzer missions,

8
00:00:30,060 --> 00:00:35,540
along with dozens of NASA-funded ground-based
observatories.

9
00:00:35,540 --> 00:00:38,110
\h
On Oct. 20, NASA’s Randy Bresnik and Joe

10
00:00:38,110 --> 00:00:44,340
Acaba completed the last of three U.S. spacewalks
outside the International Space Station.

11
00:00:44,340 --> 00:00:48,741

The spacewalkers replaced a failed camera
light on the Canadarm2 robotic arm’s new

12
00:00:48,741 --> 00:00:54,330
Latching End Effector, installed a new high
definition camera on the station’s truss,

13
00:00:54,330 --> 00:00:57,010
and completed a variety of other work.

14
00:00:57,010 --> 00:01:02,920
It was the fifth career spacewalk for Bresnik
and the third for Acaba.

15
00:01:02,920 --> 00:01:05,619
\h
New images of Saturn are among fresh findings

16
00:01:05,619 --> 00:01:10,859
from the Cassini spacecraft’s final months
orbiting between the planet and its rings.

17
00:01:10,859 --> 00:01:16,259
They include a mosaic showing the rings emerging
from behind the planet's limb, while also

18
00:01:16,259 --> 00:01:19,299
casting shadows on the planet itself.

19
00:01:19,299 --> 00:01:24,450
Another mosaic shows a panoramic view outward
across the ringscape.

20
00:01:24,450 --> 00:01:29,689
Researchers also shared a new movie of Saturn's
auroras in ultraviolet light – the final

21
00:01:29,689 --> 00:01:34,020
such view from the spacecraft's Ultraviolet
Imaging Spectrometer.

22
00:01:34,020 --> 00:01:40,110
Cassini ended its mission on Sept. 15 with
an intentional plunge into Saturn’s atmosphere,

23
00:01:40,110 --> 00:01:45,950
but analysis continues of the massive volume
of data the spacecraft sent during its long

24
00:01:45,950 --> 00:01:48,000
life.

25
00:01:48,000 --> 00:01:50,709
\h\h
On Oct. 19, engineers at NASA’s Stennis

26
00:01:50,709 --> 00:01:56,709
Space Center in Mississippi completed a hot-fire
test of an RS-25 flight engine that will help

27
00:01:56,709 --> 00:02:01,809
power the agency’s new Space Launch System
(SLS) rocket on Exploration Mission-2 (EM-2)

28
00:02:01,809 --> 00:02:04,540
– the first flight of the new rocket to
carry humans.

29
00:02:04,540 --> 00:02:10,500
Meanwhile, the four RS-25 engines that will
power SLS on Exploration Mission-1 (EM-1)

30
00:02:10,500 --> 00:02:15,709
are ready to be attached to the rocket’s
core stage for further testing.

31
00:02:15,709 --> 00:02:20,989
Exploration Mission-1 is the first integrated
flight of the SLS with our Orion spacecraft

32
00:02:20,989 --> 00:02:23,839
-- but without a crew.

33
00:02:23,839 --> 00:02:25,790
\h\h
And that’s what’s up this week @NASA …