



1
00:00:00,669 --> 00:00:05,000

“Here’s some of the stories trending This Week at NASA!”

2
00:00:05,000 --> 00:00:09,269

New observations from NASA’s Orbiting Carbon Observatory-2 (OCO-2) mission is providing

3
00:00:09,269 --> 00:00:15,530

insight into how Earth is responding to rising levels of heat-trapping gases in the atmosphere,

4
00:00:15,530 --> 00:00:17,890

and what this means for our future climate.

5
00:00:17,890 --> 00:00:22,760

Earth’s land and ocean currently absorb about half of all carbon dioxide emissions

6
00:00:22,760 --> 00:00:27,100

from the burning of fossil fuels, but it’s uncertain whether the planet can keep this

7
00:00:27,100 --> 00:00:28,449

up in the future.

8
00:00:28,449 --> 00:00:33,339

Later this month, a United Nations climate meeting in Paris will focus on setting limits

9
00:00:33,339 --> 00:00:36,429

on future levels of human-produced carbon emissions.

10
00:00:36,429 --> 00:00:43,039

OCO-2 is NASA’s first satellite dedicated to measuring carbon dioxide.

11
00:00:43,039 --> 00:00:47,979

The ongoing “waterfall of data” from the July flyby of Pluto by NASA’s New Horizons

12
00:00:47,979 --> 00:00:53,940
spacecraft has yielded more than 50 discoveries discussed at the 47th Annual Meeting of the

13
00:00:53,940 --> 00:00:59,739
American Astronomical Society’s Division for Planetary Sciences in National Harbor,

14
00:00:59,739 --> 00:01:00,739
Maryland.

15
00:01:00,739 --> 00:01:05,170
Among them - 3-D imagery indicating two of Pluto’s most distinctive mountains could

16
00:01:05,170 --> 00:01:10,740
be ice volcanoes that may have been active in the recent geological past, the lack of

17
00:01:10,740 --> 00:01:16,240
smaller surface craters on Pluto and its large moon Charon could mean objects in the nearby

18
00:01:16,240 --> 00:01:21,920
Kuiper Belt are actually “born” larger than previously thought, and interesting details

19
00:01:21,920 --> 00:01:24,050
about Pluto’s smaller moons.

20
00:01:24,050 --> 00:01:29,530
Hydra -- its most distant moon -- rotates an unprecedented 89 times during one orbit

21
00:01:29,530 --> 00:01:32,320
around Pluto.

22
00:01:32,320 --> 00:01:36,799
NASA Associate Administrator for Science,
John Grunsfeld was among the agency officials

23
00:01:36,799 --> 00:01:41,920
who participated in the recent Bay Area Science
Festival in the San Francisco Bay Area.

24
00:01:41,920 --> 00:01:46,670
The two-week event featured several NASA displays
and activities highlighting the agency's

25
00:01:46,670 --> 00:01:48,869
efforts in science and technology.

26
00:01:48,869 --> 00:01:54,119
NASA's Chief Technologist David Miller was
the featured guest of a technology podcast

27
00:01:54,119 --> 00:01:56,509
during Nerd Night at Alcatraz.

28
00:01:56,509 --> 00:02:01,840
He discussed NASA technologies being developed
to help the next generation of explorers make

29
00:02:01,840 --> 00:02:05,759
the next giant leap into deep space.

30
00:02:05,759 --> 00:02:10,649
Nov. 12 marked the one-year anniversary of
the first successful landing on a comet by

31
00:02:10,649 --> 00:02:12,129
a spacecraft.

32
00:02:12,129 --> 00:02:16,670
After sailing through space for more than
a decade, the European Space Agency's Rosetta

33
00:02:16,670 --> 00:02:24,299
spacecraft sent its Philae robotic probe to
the surface of comet 67P/Churyumov-Gerasimenko.

34
00:02:24,299 --> 00:02:28,920
NASA has three instruments on the Rosetta
spacecraft, which remains in orbit around

35
00:02:28,920 --> 00:02:29,920
the comet.

36
00:02:29,920 --> 00:02:34,740
Rosetta is expected to swoop down to within
four miles of the comet in February.

37
00:02:34,740 --> 00:02:40,170
It will be the spacecraft's closest pass
of the comet during its prime mission.

38
00:02:40,170 --> 00:02:45,400
Processing is underway at Kennedy Space Center
of an Orbital ATK Cygnus spacecraft loaded

39
00:02:45,400 --> 00:02:50,319
with cargo and research for delivery to the
International Space Station.

40
00:02:50,319 --> 00:02:55,439
Launch of the unpiloted Cygnus is targeted
for Dec. 3 aboard a United Launch Alliance

41
00:02:55,439 --> 00:02:59,549
Atlas V rocket from Cape Canaveral Air Force
Station, Florida.

42
00:02:59,549 --> 00:03:04,150
This will be Orbital ATK's fourth cargo
mission to the space station for NASA's

43

00:03:04,150 --> 00:03:06,280

Commercial Resupply Services contract.

44

00:03:06,280 --> 00:03:10,599

"Tell us about your super powers."

45

00:03:10,599 --> 00:03:12,620

"I don't have super powers."

46

00:03:12,620 --> 00:03:15,020

"Of course you do!

47

00:03:15,020 --> 00:03:18,629

You know about science and math!"

48

00:03:18,629 --> 00:03:24,450

NASA engineers Diana Trujillo and Sandra Cauffman participated in the Nov. 10 launch of a joint

49

00:03:24,450 --> 00:03:29,940

educational initiative between Sesame Workshop and Inter-American Development Bank, called

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00:03:29,940 --> 00:03:33,820

Great Explorers: Girls Rising in Math and Science.

51

00:03:33,820 --> 00:03:39,150

The program is designed to improve the educational experiences in math and science for children

52

00:03:39,150 --> 00:03:43,819

in Latin America -- with a special focus on empowering girls.

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00:03:43,819 --> 00:03:48,610

NASA encourages programs like this that help young people develop the skills needed for

54

00:03:48,610 --> 00:03:49,710

the Journey to Mars.

55

00:03:49,710 --> 00:03:53,299

And that's what's up this week @NASA ...