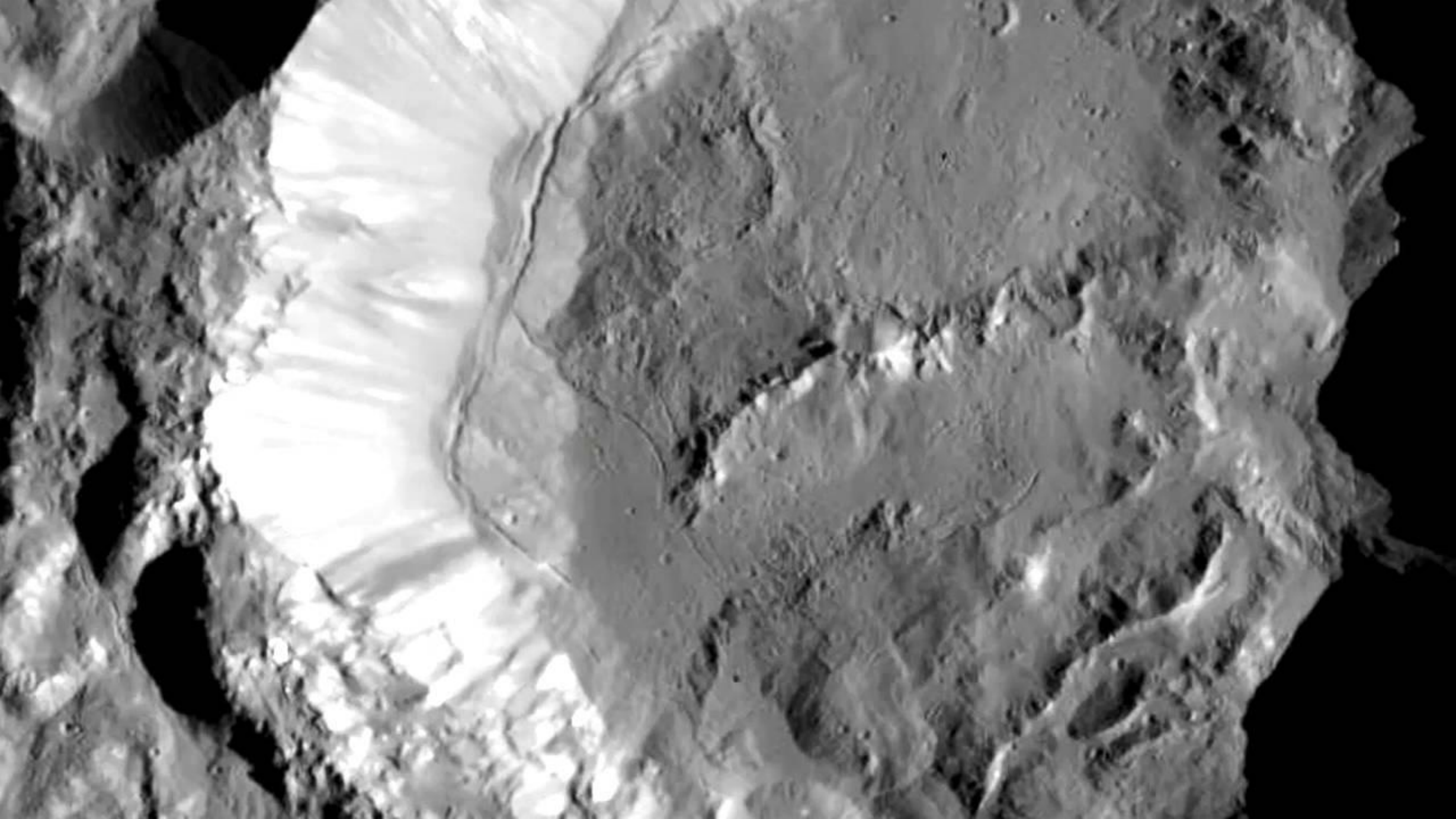

1
00:00:00,789 --> 00:00:05,120
“Here’s some of the stories trending This
Week at NASA!”

2
00:00:05,120 --> 00:00:10,500
On Jan. 14, NASA announced it has awarded
three cargo contracts to ensure the critical

3
00:00:10,500 --> 00:00:15,320
science, research and technology demonstrations
that are informing the agency’s journey

4
00:00:15,320 --> 00:00:21,470
to Mars are delivered to the International
Space Station (ISS) from 2019 through 2024.

5
00:00:21,470 --> 00:00:27,450
The agency unveiled its selection of Orbital
ATK; Sierra Nevada Corporation; and SpaceX

6
00:00:27,450 --> 00:00:33,150
to continue building on the initial resupply
partnerships with two American companies.

7
00:00:33,150 --> 00:00:38,110
These Commercial Resupply Services contracts
are designed to obtain cargo delivery services

8
00:00:38,110 --> 00:00:43,460
to the space station, disposal of unneeded
cargo, and the return of research samples

9
00:00:43,460 --> 00:00:47,150
and other cargo from the station back to NASA.

10
00:00:47,150 --> 00:00:51,350
These resupply flights will be conducted in
parallel with NASA’s Commercial Crew Program

11

00:00:51,350 --> 00:00:55,850
providers' flights that enable addition
of a seventh astronaut to the International

12
00:00:55,850 --> 00:00:57,340
Space Station.

13
00:00:57,340 --> 00:01:02,260
This will double the amount of crew time to
conduct research.

14
00:01:02,260 --> 00:01:07,890
On Jan. 15, Expedition 46 Flight Engineers
Tim Kopra of NASA and Tim Peake of the European

15
00:01:07,890 --> 00:01:12,700
Space Agency conducted a spacewalk outside
the International Space Station to replace

16
00:01:12,700 --> 00:01:17,940
a voltage regulator that failed in November,
causing a loss of power to one of the station's

17
00:01:17,940 --> 00:01:19,460
eight power channels.

18
00:01:19,460 --> 00:01:24,110
After completing that primary objective of
the spacewalk, Kopra reported a small water

19
00:01:24,110 --> 00:01:29,090
bubble had formed inside his helmet, which
prompted ground controllers to end the spacewalk

20
00:01:29,090 --> 00:01:30,140
early.

21
00:01:30,140 --> 00:01:33,000
Kopra and Peake returned to the airlock safely.

22
00:01:33,000 --> 00:01:39,110
Engineers now are assessing the situation
to determine what may have caused the problem.

23
00:01:39,110 --> 00:01:44,630
On Jan. 13, NASA's Juno mission to Jupiter
became humanity's most distant solar-powered

24
00:01:44,630 --> 00:01:50,840
emissary when it reached a spot in space about
493 million miles from our sun.

25
00:01:50,840 --> 00:01:55,750
Juno surpassed the previous record set by
the European Space Agency's Rosetta spacecraft

26
00:01:55,750 --> 00:01:57,450
during its approach to comet 67P/Churyumov-Gerasimenko.

27
00:01:57,450 --> 00:02:05,540
Juno, the first solar-powered spacecraft designed
to operate at such a great distance from the

28
00:02:05,540 --> 00:02:10,859
sun, is scheduled to arrive at Jupiter on
July 4.

29
00:02:10,859 --> 00:02:15,900
New images of the dwarf planet Ceres, taken
by NASA’s Dawn spacecraft – from its lowest-ever

30
00:02:15,900 --> 00:02:21,680
altitude at the planet – are giving scientists
a more detailed look at some of Ceres’ most

31
00:02:21,680 --> 00:02:23,529
intriguing features.

32
00:02:23,529 --> 00:02:28,560

This includes bright material on the rim of
Kupalo Crater – which could be salt.

33
00:02:28,560 --> 00:02:32,109
Researchers are looking into whether this
material is related to the "bright spots"

34
00:02:32,109 --> 00:02:35,389
of Occator Crater, also on Ceres.

35
00:02:35,389 --> 00:02:40,469
Dawn also saw a dense network of fractures
in another crater on Ceres that are similar

36
00:02:40,469 --> 00:02:43,000
to fractures seen on our own moon.

37
00:02:43,000 --> 00:02:47,529
Dawn’s prime mission is scheduled to end
in June – it will remain at its current

38
00:02:47,529 --> 00:02:51,569
altitude until then and indefinitely afterward.

39
00:02:51,569 --> 00:02:58,200
2016 has seen continued progress with development
of NASA’s Space Launch System rocket.

40
00:02:58,200 --> 00:03:02,430
Construction is underway at Marshall Space
Flight Center on a second new structural test

41
00:03:02,430 --> 00:03:03,430
stand.

42
00:03:03,430 --> 00:03:08,859
When completed in the summer of 2016, the
85-foot-tall Test Stand 4697 will be used

43

00:03:08,859 --> 00:03:15,069
to evaluate how the massive SLS core stage
handles the forces of a real launch.

44
00:03:15,069 --> 00:03:19,489
Also at Marshall – the final vertical weld
was completed recently on the bottom portion

45
00:03:19,489 --> 00:03:23,360
of the test version of the rocket's launch
vehicle stage adapter (LVSA).

46
00:03:23,360 --> 00:03:28,090
Engineers have just two more major welds to
finish the test article – which is expected

47
00:03:28,090 --> 00:03:34,079
to be tested with the other structural test
hardware in late 2016.

48
00:03:34,079 --> 00:03:39,079
An all-electric self-driving car that uses
NASA-developed technology was tested recently

49
00:03:39,079 --> 00:03:41,019
at Ames Research Center.

50
00:03:41,019 --> 00:03:47,049
The Nissan-built autonomous vehicle is equipped
with cameras, sensors, and cellular data networking

51
00:03:47,049 --> 00:03:53,219
and uses software originally developed for
the Ames K-10 and K-REX planetary rovers.

52
00:03:53,219 --> 00:03:58,989
Ames and Nissan are developing and testing
algorithms, concepts, and integrated prototypes

53
00:03:58,989 --> 00:04:03,790

for a variety of vehicular transport applications.

54
00:04:03,790 --> 00:04:05,900
And that’s what’s up this week @NASA …