1
00:00:00,690 --> 00:00:04,759
“Here’s some of the stories trending This
Week at NASA!”

2
00:00:04,759 --> 00:00:10,079
Aboard the International Space Station, Expedition
41 Flight Engineers Reid Wiseman of NASA and

3
00:00:10,079 --> 00:00:16,640
Alexander Gerst of the European Space Agency
donned U.S. spacesuits for an October 7 spacewalk

4
00:00:16,640 --> 00:00:22,200
to relocate a failed cooling pump and to install
a backup power cable device for the station’s

5
00:00:22,200 --> 00:00:23,770
rail car system.

6
00:00:23,770 --> 00:00:28,860
The failed pump was replaced with a spare
and is being temporarily stowed near the Quest

7
00:00:28,860 --> 00:00:34,170
airlock and the back-up power cables are for
the unlikely event that the Mobile Transporter

8
00:00:34,170 --> 00:00:38,420
rail car on the station’s truss loses power.

9
00:00:38,420 --> 00:00:43,960
A news briefing at NASA headquarters on October
9 outlined the space and Earth-based assets

10
00:00:43,960 --> 00:00:48,749
that will have an opportunity to study a comet’s
close flyby of Mars later this month.

11
00:00:48,749 --> 00:00:54,999

NASA’s Hubble Space Telescope, Kepler spacecraft
and others will be watching on October 19,

12
00:00:54,999 --> 00:01:02,260
when Comet C/2013 A1 Siding Spring zips by
the Red Planet – only 88,000 miles away

13
00:01:02,260 --> 00:01:03,260
from it.

14
00:01:03,260 --> 00:01:07,940
That’s less than half the distance between
us and our moon and less than one-tenth the

15
00:01:07,940 --> 00:01:10,860
distance of any known comet flyby of Earth.

16
00:01:10,860 --> 00:01:16,690
Observations of the comet could yield fresh
clues about our solar system's earliest days.

17
00:01:16,690 --> 00:01:23,780
Astronomers, using NASA's Nuclear Spectroscopic
Telescope Array, or NuSTAR have found a pulsating,

18
00:01:23,780 --> 00:01:28,340
dead star beaming with the energy of about
10 million suns.

19
00:01:28,340 --> 00:01:33,390
The pulsar – a dense stellar remnant left
over from a supernova explosion – is the

20
00:01:33,390 --> 00:01:35,310
brightest ever recorded.

21
00:01:35,310 --> 00:01:40,680
The discovery is helping astronomers better
understand mysterious sources of blinding

22
00:01:40,680 --> 00:01:45,570
X-rays, called ultraluminous X-ray sources,
which, until now, were thought to be black

23
00:01:45,570 --> 00:01:47,670
holes.

24
00:01:47,670 --> 00:01:52,170
The year’s second total lunar eclipse, in
the early morning hours on October 8, was

25
00:01:52,170 --> 00:01:55,380
visible in the Pacific Ocean and bordering
regions.

26
00:01:55,380 --> 00:01:59,830
A lunar eclipse happens when Earth blocks
sunlight that would normally reflect off the

27
00:01:59,830 --> 00:02:01,020
moon.

28
00:02:01,020 --> 00:02:04,810
This total lunar eclipse produced what’s
known as a “blood moon” because of its

29
00:02:04,810 --> 00:02:06,150
reddish color.

30
00:02:06,150 --> 00:02:12,490
The last eclipse of 2014 – a partial solar
eclipse on October 23 – will be widely visible

31
00:02:12,490 --> 00:02:18,240
from Canada and the U.S.
NASA's Lunar Atmosphere and Dust Environment

32
00:02:18,240 --> 00:02:23,280
Explorer, or LADEE, mission won Popular Mechanics’

2014 Breakthrough Award.

33
00:02:23,280 --> 00:02:28,030
The award, which recognizes innovation in
science and technology, was given for the

34
00:02:28,030 --> 00:02:32,750
spacecraft’s modular, general purpose design
– which could drastically reduce the cost

35
00:02:32,750 --> 00:02:37,450
of spacecraft development, much like assembly
line production did for automobiles.

36
00:02:37,450 --> 00:02:42,890
NASA's Ames Research Center designed and built
LADEE, which orbited the moon for 100 days

37
00:02:42,890 --> 00:02:45,870
to study the dust environment of the lunar
atmosphere.

38
00:02:45,870 --> 00:02:49,209
And that’s what’s up this week @NASA …