1
00:00:00,810 --> 00:00:05,130
“Here’s some of the stories trending This
Week at NASA!”

2
00:00:05,130 --> 00:00:07,439
\h
The hugely successful first flight test on

3
00:00:07,439 --> 00:00:13,000
Dec. 5 of NASA’s Orion spacecraft took it
farther than any spacecraft designed for astronauts

4
00:00:13,000 --> 00:00:17,750
has been in more than 40 years – with people
around the country keeping a close eye on

5
00:00:17,750 --> 00:00:21,890
its spaceflight.

6
00:00:21,890 --> 00:00:25,880
The two-orbit, 4.5 hour trip into space – designed
to test many of Orion’s systems critical

7
00:00:25,880 --> 00:00:31,119
to crew safety – concluded with the capsule’s
splash down in the Pacific Ocean about 600

8
00:00:31,119 --> 00:00:37,150
miles southwest of San Diego and recovery
by a team of NASA, U.S. Navy and Lockheed

9
00:00:37,150 --> 00:00:40,270
Martin personnel aboard the USS Anchorage.

10
00:00:40,270 --> 00:00:45,010
Final destination for NASA’s new deep space
capsule is Kennedy Space Center in Florida

11
00:00:45,010 --> 00:00:50,360

– where its first journey to space began
– so engineers can evaluate data recorded

12
00:00:50,360 --> 00:00:54,500
during the flight, by more than 1,200 onboard
sensors.

13
00:00:54,500 --> 00:00:59,990
Orion will open the space between Earth and
Mars for exploration by astronauts and testing

14
00:00:59,990 --> 00:01:05,930
of the capabilities and technologies needed
for future human missions to Mars.

15
00:01:05,930 --> 00:01:11,289
NASA announced on Dec. 8 that observations
by NASA’s Curiosity Mars rover of the lowest

16
00:01:11,289 --> 00:01:16,770
sedimentary layers of the Red Planet’s Mount
Sharp indicate the mountain was built by sediments

17
00:01:16,770 --> 00:01:21,460
deposited in a large lake bed over tens of
millions of years.

18
00:01:21,460 --> 00:01:26,289
This working interpretation implies that ancient
Mars had a climate that could have produced

19
00:01:26,289 --> 00:01:32,429
a series of long-lasting lakes at many locations
-- much larger and longer-lasting than any

20
00:01:32,429 --> 00:01:37,570
previously confirmed by close-up investigation
on Mars.

21
00:01:37,570 --> 00:01:42,289

After a voyage of nearly nine years and three billion miles —about two-thirds of which

22
00:01:42,289 --> 00:01:47,249
have been spent in hibernation – NASA's New Horizons spacecraft received a wake-up

23
00:01:47,249 --> 00:02:00,610
call on Dec. 6, to prepare for its long-awaited encounter next year with the Pluto system.

24
00:02:00,610 --> 00:02:05,139
New Horizons – which woke to the song, "Where My Heart Will Take Me", is currently more

25
00:02:05,139 --> 00:02:08,090
than 2.9 billion miles from Earth.

26
00:02:08,090 --> 00:02:12,840
Its voyage to Pluto will be the farthest any space mission has ever traveled to reach its

27
00:02:12,840 --> 00:02:15,730
primary target.

28
00:02:15,730 --> 00:02:20,129
A test article of a futuristic hybrid-wing body aircraft was unloaded Dec[1].

29
00:02:20,129 --> 00:02:23,060
11 for evaluation at Langley Research Center.

30
00:02:23,060 --> 00:02:28,610
The uniquely shaped fuselage cross-section, manufactured by Boeing, is made from a low-weight,

31
00:02:28,610 --> 00:02:33,650
damage-tolerant, stitched composite, called Pultruded Rod Stitched Efficient Unitized

32
00:02:33,650 --> 00:02:38,250
Structure, or PRSEUS – which will enable
new developments in unique aircraft shape

33
00:02:38,250 --> 00:02:39,670
and design.

34
00:02:39,670 --> 00:02:44,860
Structural testing is part of NASA's Environmentally
Responsible Aviation (ERA) project to reduce

35
00:02:44,860 --> 00:02:49,629
aircraft fuel consumption, noise levels and
emissions through revolutionary design and

36
00:02:49,629 --> 00:02:53,890
manufacture of tomorrow’s aircraft.

37
00:02:53,890 --> 00:02:58,969
And that’s what’s up this week @NASA … A
programming note – starting Dec. 19, we’ll

38
00:02:58,969 --> 00:03:04,870
air the special 2014 This Year @NASA year
in review – then we’re back on Jan. 9,

39
00:03:04,870 --> 00:03:08,599
with the first episode of This Week @ NASA
for 2015.