



1  
00:00:00,220 --> 00:00:03,430  
New Horizons spots its next flyby target ...

2  
00:00:03,430 --> 00:00:07,289  
Administrator Bridenstine visits our west coast facilities ...

3  
00:00:07,289 --> 00:00:13,070  
and using data from space to fight a life-threatening disease ... a few of the stories to tell you

4  
00:00:13,070 --> 00:00:16,379  
about – This Week at NASA!

5  
00:00:16,379 --> 00:00:21,050  
Our New Horizons spacecraft has made its first detection of the Kuiper Belt object it is

6  
00:00:21,050 --> 00:00:24,669  
scheduled to flyby on New Year's Day, 2019.

7  
00:00:24,669 --> 00:00:30,359  
The small, dim object – nicknamed Ultima Thule – was detected by the spacecraft's

8  
00:00:30,359 --> 00:00:36,050  
telescopic Long Range Reconnaissance Imager from a distance of more than 100 million miles.

9  
00:00:36,050 --> 00:00:40,820  
The flyby will be the first-ever close-up exploration of a small Kuiper Belt object

10  
00:00:40,820 --> 00:00:45,940  
and the farthest exploration of any planetary body in history, shattering the record New

11  
00:00:45,940 --> 00:00:52,160  
Horizons itself set at Pluto in July 2015

– by about 1 billion miles.

12  
00:00:52,160 --> 00:00:57,550  
The Kuiper Belt is a ring of icy objects around the Sun – that extends just beyond the orbit

13  
00:00:57,550 --> 00:01:02,090  
of Neptune and includes Pluto.

14  
00:01:02,090 --> 00:01:07,260  
On Aug. 27, our administrator, Jim Bridenstine kicked off a series of visits to our west

15  
00:01:07,260 --> 00:01:12,690  
coast centers and facilities with a stop at the Jet Propulsion Laboratory in Pasadena,

16  
00:01:12,690 --> 00:01:13,690  
California.

17  
00:01:13,690 --> 00:01:19,360  
While there, he visited labs and test beds related to the InSight Mars lander, the Mars

18  
00:01:19,360 --> 00:01:22,550  
2020 rover, and the Mars Helicopter.

19  
00:01:22,550 --> 00:01:27,530  
The next day, at our Armstrong Flight Research Center in Edwards, California, Bridenstine

20  
00:01:27,530 --> 00:01:32,590  
heard about a number of aeronautical research projects and visited Mojave Air and Space

21  
00:01:32,590 --> 00:01:33,590  
Port.

22  
00:01:33,590 --> 00:01:38,200

The administrator's final stop was Ames Research Center, in northern California.

23  
00:01:38,200 --> 00:01:43,810  
While there, he talked to the Ames workforce and saw innovative thermal protection materials

24  
00:01:43,810 --> 00:01:48,420  
being develop to support the agency's space exploration missions.

25  
00:01:48,420 --> 00:01:54,170  
He also spoke to the NASA Advisory Council about our plans to return humans to the lunar

26  
00:01:54,170 --> 00:01:55,170  
surface.

27  
00:01:55,170 --> 00:01:58,810  
"This time when we go to the moon, we're going sustainably.

28  
00:01:58,810 --> 00:02:02,190  
In other words, we're not going to do flags and footprints again.

29  
00:02:02,190 --> 00:02:06,600  
This time when we go, we're going to go to stay."

30  
00:02:06,600 --> 00:02:10,979  
For the first time ever, measurements from our Earth-observing research satellites are

31  
00:02:10,979 --> 00:02:17,200  
being used to help combat a potential outbreak of the life-threatening disease, cholera.

32  
00:02:17,200 --> 00:02:23,560  
A humanitarian effort in Yemen is targeting

areas identified by a NASA-supported project

33  
00:02:23,560 --> 00:02:29,700  
that precisely forecasts high-risk regions  
for the disease, based on environmental conditions

34  
00:02:29,700 --> 00:02:31,790  
observed from space.

35  
00:02:31,790 --> 00:02:36,670  
The forecasts are made using data from our  
Global Precipitation Measurement mission,

36  
00:02:36,670 --> 00:02:42,370  
and our Terra and Aqua satellites, as well  
as measurements of phytoplankton concentrations

37  
00:02:42,370 --> 00:02:46,790  
in nearby coastal ocean areas.

38  
00:02:46,790 --> 00:02:52,430  
Our ICESat-2 mission will use the most advanced  
laser instrument of its kind to measure – in

39  
00:02:52,430 --> 00:02:57,510  
unprecedented detail – changes in the heights  
of Earth's polar ice.

40  
00:02:57,510 --> 00:03:03,750  
The mission's Advanced Topographic Laser  
Altimeter System, or ATLAS will fire 10,000

41  
00:03:03,750 --> 00:03:08,400  
times each second – sending hundreds of  
trillions of photons to the ground in six

42  
00:03:08,400 --> 00:03:10,430  
beams of green light.

43

00:03:10,430 --> 00:03:15,270

ATLAS measures the height of objects by timing how long it takes individual light photons

44

00:03:15,270 --> 00:03:18,940

to travel from the spacecraft to Earth and back.

45

00:03:18,940 --> 00:03:24,840

ICESat-2 is scheduled to launch Sept. 15 from Vandenberg Air Force Base in California.

46

00:03:24,840 --> 00:03:28,440

That's what's up this week @NASA ...