



1

00:00:00,179 --> 00:00:04,890

Amending the budget to support humans on the Moon in 2024 ...

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00:00:04,890 --> 00:00:07,879

What may be causing possible Moonquakes ...

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00:00:07,879 --> 00:00:13,530

And a virtual flight over an area of scientific interest on Mars ... a few of the stories

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00:00:13,530 --> 00:00:17,030

to tell you about – This Week at NASA!

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00:00:17,030 --> 00:00:22,750

During an agencywide town hall at our headquarters on May 14, NASA Administrator Jim Bridenstine

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00:00:22,750 --> 00:00:28,050

and other senior agency leaders discussed the President's proposed amendment to NASA's

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00:00:28,050 --> 00:00:33,880

2020 budget – to support accelerated plans to land astronauts on the Moon by 2024.

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00:00:33,880 --> 00:00:39,890

"I think, in a very a very strong vote of confidence for this agency, the administration

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00:00:39,890 --> 00:00:43,899

decided to give us \$1.6 billion of new spending.

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00:00:43,899 --> 00:00:50,320

That is a – I think – a very strong indicator that this administration is committed to achieving

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00:00:50,320 --> 00:00:52,810

the end state in a bipartisan way."

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00:00:52,810 --> 00:00:57,680
Under the President's Space Policy Directive
-1, we are sending astronauts to the Moon

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00:00:57,680 --> 00:01:02,860
and then on to Mars, in a measured, sustainable
way – as part of an innovative program of

14
00:01:02,860 --> 00:01:08,070
exploration with commercial and international
partners, to enable human expansion across

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00:01:08,070 --> 00:01:09,630
the solar system.

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00:01:09,630 --> 00:01:16,570
For more on our Moon to Mars effort, go to
nasa.gov/moontomars.

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00:01:16,570 --> 00:01:21,710
According to a study, data from seismometers
placed on the Moon by Apollo astronauts have

18
00:01:21,710 --> 00:01:26,840
provided the first evidence that shifting
of the lunar surface, known as thrust faults,

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00:01:26,840 --> 00:01:32,549
is still active and likely producing moonquakes
– some believed to be around a magnitude

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00:01:32,549 --> 00:01:34,750
of 5 on the Richter scale.

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00:01:34,750 --> 00:01:39,200
Thrust faults – where a section of the Moon's
crust is pushed up over another – happen

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00:01:39,200 --> 00:01:45,680

because the gradual cooling of the Moon's interior is causing the Moon to shrink.

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00:01:45,680 --> 00:01:51,500

The May 17 issue of the journal Science includes the first peer-reviewed scientific results

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00:01:51,500 --> 00:01:57,869

and interpretations of the Kuiper Belt object nicknamed Ultima Thule, based on data gathered

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00:01:57,869 --> 00:02:03,729

during our New Horizons spacecraft's historic flyby on New Year's Day 2019.

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00:02:03,729 --> 00:02:09,229

The initial data summarized in Science reveal much about the object's development, geology

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00:02:09,229 --> 00:02:10,819

and composition.

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00:02:10,819 --> 00:02:15,480

In addition to being the farthest exploration of an object in history – four billion miles

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00:02:15,480 --> 00:02:20,790

from Earth – the flyby of Ultima Thule was also the first investigation by any space

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00:02:20,790 --> 00:02:28,650

mission of a well-preserved planetesimal – an ancient relic from the era of planet formation.

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00:02:28,650 --> 00:02:34,529

On May 14, Administrator Bridenstine delivered the keynote at The Humans to Mars Summit 2019

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00:02:34,529 --> 00:02:38,569

at The National Academy of Sciences Building,
in Washington, D.C.

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00:02:38,569 --> 00:02:43,599

The annual event addresses the technical,
scientific and policy challenges of making

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00:02:43,599 --> 00:02:47,129

human exploration of Mars a reality.

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00:02:47,129 --> 00:02:53,499

A new animated video shows what it would be
like to soar over Mount Sharp, which NASA's

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00:02:53,499 --> 00:02:56,540

Curiosity rover has been climbing since 2014.

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00:02:56,540 --> 00:03:02,430

The aerial tour highlights several regions
on the mountain that are intriguing to Curiosity's

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00:03:02,430 --> 00:03:07,810

scientists, because those regions could provide
more insight into why water — one of the

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00:03:07,810 --> 00:03:14,689

most critical resources for life — disappeared
from Mars billions of years ago.

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00:03:14,689 --> 00:03:20,670

Our Mars Reconnaissance Orbiter, or MRO has
circled the Red Planet 60,000 times – and

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00:03:20,670 --> 00:03:21,670

counting.

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00:03:21,670 --> 00:03:25,629

MRO completed that milestone on May 15.

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00:03:25,629 --> 00:03:30,799

Since entering orbit in March 2006, the spacecraft has been collecting daily science about the

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00:03:30,799 --> 00:03:36,199

planet that can be used to define future missions that bring humans to Mars.

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00:03:36,199 --> 00:03:41,129

In addition to sending back its own data, the spacecraft is part of a network that relays

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00:03:41,129 --> 00:03:46,239

data back to Earth from our Mars rovers and landers on the surface.

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00:03:46,239 --> 00:03:50,469

In fact, MRO is expected to reach another milestone later this month, when it will have

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00:03:50,469 --> 00:03:54,879

relayed 1 terabit of data, largely from our Curiosity rover.

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00:03:54,879 --> 00:03:58,519

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