



AMES  
ARMSTRONG  
GLENN  
GODDARD  
JOHNSON  
JPL  
KENNEDY  
LANGLEY  
Wallops Flight Facility

STATE OF MISSOURI



1

00:00:00,620 --> 00:00:04,130

"Here's some of the stories trending This Week at NASA!"

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00:00:04,130 --> 00:00:10,099

"The state of our NASA is as strong as it's ever been."

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00:00:10,099 --> 00:00:16,070

During his Feb. 9 State of NASA speech at Langley Research Center in Hampton, Va, Administrator

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00:00:16,070 --> 00:00:22,730

Charlie Bolden characterized President Obama's \$19 billion Fiscal Year 2017 budget proposal

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00:00:22,730 --> 00:00:30,050

for NASA as a vote of confidence and an indication of the agency's strength ... also saying

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00:00:30,050 --> 00:00:32,570

that NASA's strength is in its people.

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00:00:32,570 --> 00:00:38,370

"It's because of your work here at Langley ... it's because of the work of your colleagues

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00:00:38,370 --> 00:00:45,019

at our NASA Centers around the country ... the work of our contractors and our partners in

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00:00:45,019 --> 00:00:50,300

classrooms, boardrooms, laboratories and even garages across our country."

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00:00:50,300 --> 00:00:53,540

Work that, the Administrator noted, is yielding results.

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00:00:53,540 --> 00:00:58,469

From cleaner, safer and quieter air travel  
... to knowledge about other worlds in our

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00:00:58,469 --> 00:01:03,739

solar system and beyond ... from development  
of game-changing technologies, vehicles and

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00:01:03,739 --> 00:01:10,030

systems needed to send humans to an asteroid  
and eventually to Mars in the 2030s ... to

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00:01:10,030 --> 00:01:15,660

using the vantage point of space to improve  
life on Earth, as well as the health of the

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00:01:15,660 --> 00:01:16,660

planet itself.

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00:01:16,660 --> 00:01:24,590

"The investments in the President's FY2017  
budget proposal announced today will empower

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00:01:24,590 --> 00:01:30,580

the people of NASA to continue to work with  
partners both in and out of government to

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00:01:30,580 --> 00:01:36,240

develop the technologies that drive exploration;  
working on what William Shakespeare would

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00:01:36,240 --> 00:01:42,350

call, 'such stuff as dreams are made of.'"

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00:01:42,350 --> 00:01:47,110

Working toward, what the Administrator says  
he hopes will be an even stronger future in

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00:01:47,110 --> 00:01:54,000

which NASA continues reaching for new heights

for the benefit of all humankind.

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00:01:54,000 --> 00:01:58,730

Aboard the International Space Station, one-year crew members Scott Kelly of NASA and Russia's

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00:01:58,730 --> 00:02:05,200

Mikhail Kornienko remain busy – participating in immunology, vision and heart experiments

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00:02:05,200 --> 00:02:10,530

as part of research to learn how to keep humans healthy on long duration spaceflights.

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00:02:10,530 --> 00:02:15,879

Kelly and British astronaut Tim Peake also worked on replacement of a fan pump separator

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00:02:15,879 --> 00:02:18,010

in a U.S. spacesuit.

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00:02:18,010 --> 00:02:23,400

Kelly and Kornienko are scheduled to return to Earth March 1.

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00:02:23,400 --> 00:02:28,940

New measurements from NASA's GRACE satellite have allowed researchers to identify and quantify,

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00:02:28,940 --> 00:02:34,970

for the first time, how climate-driven increases of liquid water storage on land have affected

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00:02:34,970 --> 00:02:36,470

the rate of sea level rise.

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00:02:36,470 --> 00:02:42,189

A new study by scientists at the Jet Propulsion Laboratory, published in the journal Science

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00:02:42,189 --> 00:02:48,860  
Feb. 12, shows that while ice sheets and glaciers continue to melt, changes in weather and climate

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00:02:48,860 --> 00:02:54,770  
over the past decade have caused Earth's continents to soak up and store an extra 3.2

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00:02:54,770 --> 00:02:59,249  
trillion tons of water in soils, lakes and underground aquifers.

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00:02:59,249 --> 00:03:05,719  
The scientists say that is temporarily slowing the rate of sea level rise by about 20 percent.

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00:03:05,719 --> 00:03:11,120  
Globally, the water gains over land equal the volume of Lake Huron, the world's seventh

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00:03:11,120 --> 00:03:14,019  
largest lake.

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00:03:14,019 --> 00:03:18,950  
On Feb. 11, the National Science Foundation (NSF) announced that gravitational waves were

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00:03:18,950 --> 00:03:25,180  
detected by the Laser Interferometer Gravitational-Wave Observatory (LIGO), a pair of ground-based

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00:03:25,180 --> 00:03:28,840  
observatories in Washington State and Louisiana.

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00:03:28,840 --> 00:03:33,860  
One hundred years ago, Albert Einstein predicted these waves as being ripples in the fabric

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00:03:33,860 --> 00:03:40,019

of space-time, caused by massive, accelerating bodies, such as black holes orbiting each

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00:03:40,019 --> 00:03:41,019  
other.

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00:03:41,019 --> 00:03:46,500  
This discovery could lead to a whole new branch of astrophysics and a new way of understanding

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00:03:46,500 --> 00:03:48,079  
our universe.

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00:03:48,079 --> 00:03:53,419  
NASA is working closely with the European Space Agency (ESA) to develop a concept for

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00:03:53,419 --> 00:03:58,279  
a space-based gravitational wave observatory.

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00:03:58,279 --> 00:04:04,419  
A Feb. 11 Journey to Mars 101 event at the Fox Studios' Zanuck Theatre in Los Angeles

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00:04:04,419 --> 00:04:09,430  
featured astronaut Kjell Lindgren, several others from NASA, and makers of the movie

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00:04:09,430 --> 00:04:14,209  
"The Martian", discussing developments in technology that might help make future

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00:04:14,209 --> 00:04:17,020  
human travel to Mars a reality.

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00:04:17,020 --> 00:04:21,840  
Many of the technologies seen in the movie are similar to technologies NASA is currently

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00:04:21,840 --> 00:04:25,740  
developing for its Journey to Mars.

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00:04:25,740 --> 00:04:27,900  
And that's what's up this week @NASA ...  
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