



1
00:00:07,839 --> 00:00:12,000
This Week at NASA...

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00:00:12,000 --> 00:00:16,910
Administrator Charlie Bolden joined President Obama at a special White House ceremony honoring

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00:00:16,910 --> 00:00:22,310
educators from across the country for their excellence in mathematics, science teaching

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00:00:22,310 --> 00:00:27,390
and mentoring. The event was part of the President's "Educate to Innovate" campaign to boost

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00:00:27,390 --> 00:00:32,489
student achievement in STEM subjects: science, technology, engineering and math.

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00:00:32,489 --> 00:00:36,539
"I've challenged the scientific community to think of new and creative ways to engage

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00:00:36,539 --> 00:00:41,760
young people in their fields. That's why we launched the "Educate to Innovate" campaign

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00:00:41,760 --> 00:00:48,690
-- a nationwide effort by citizens, non-for-profits, universities, and companies from across America

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00:00:48,690 --> 00:00:52,760
to help us move to the top of the pack in math and science education."

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00:00:52,760 --> 00:00:57,290
President Obama lauded the honorees for their efforts and announced five new "Educate

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00:00:57,290 --> 00:01:02,850

to Innovate” partners, including NASA, who’ll help inspire American students in STEM fields

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00:01:02,850 --> 00:01:04,420

over the next five years.

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00:01:04,420 --> 00:01:09,300

“NASA will also be launching an enrichment program to bring their scientists and engineers

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00:01:09,300 --> 00:01:14,159

to students in the classroom and to bring students to NASA, so that they might experience

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00:01:14,159 --> 00:01:19,279

that same sense of wonder and excitement while maybe learning a little bit at the same time.”

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00:01:19,279 --> 00:01:26,590

More than 3,500 astronomers and students gathered in Washington for the annual meeting of the

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00:01:26,590 --> 00:01:32,229

American Astronomical Society. This year’s hot topics included the discovery of “hot

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00:01:32,229 --> 00:01:37,529

Jupiters,” five new exoplanets detected by the Kepler telescope in deep space. These

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00:01:37,529 --> 00:01:42,619

discoveries range in size from Neptune to larger than Jupiter and are known as “hot

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00:01:42,619 --> 00:01:48,859

Jupiters” because of their mass and extreme temperatures, 2,200 to 3,000 degrees Fahrenheit;

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00:01:48,859 --> 00:01:51,090

they are far too hot to sustain life.

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00:01:51,090 --> 00:01:55,919

“They’re twenty times hotter than Jupiter.

All of these five planets are so hot they

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00:01:55,919 --> 00:02:01,520

glow. They’re hotter than molten lava. So

they’re very unusual kinds of planets compared

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00:02:01,520 --> 00:02:03,779

to what we see in our solar system.”

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00:02:03,779 --> 00:02:08,369

Kepler scientists will continue searching

for smaller rocky planets like our Earth that

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00:02:08,369 --> 00:02:10,810

could support life as we know it.

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00:02:10,810 --> 00:02:15,620

Also at the Double-AS meeting, astronomers

discussed the discovery of 17 millisecond

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00:02:15,620 --> 00:02:22,230

pulsars, rapidly spinning and highly magnetized

cores left behind when massive stars explode.

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00:02:22,230 --> 00:02:28,379

These findings came from NASA’s Fermi Gamma-ray

Space Telescope which detected them by studying

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00:02:28,379 --> 00:02:34,459

unknown high energy sources. Millisecond pulsars

are nature’s most precise clocks and may

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00:02:34,459 --> 00:02:39,650

be useful as a kind of “galactic” GPS

to detect gravitational waves passing near

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00:02:39,650 --> 00:02:40,650

Earth.

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00:02:40,650 --> 00:02:44,659

To coincide with the Double-A S meeting, a new image from the Hubble Space Telescope

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00:02:44,659 --> 00:02:49,790

was unveiled, showing more than 12 billion years of cosmic history in a panoramic view

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00:02:49,790 --> 00:02:54,920

of thousands of galaxies in various stages of assembly.

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00:02:54,920 --> 00:02:59,620

NASA Administrator Charlie Bolden gave the conference's keynote speech, recapping last

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00:02:59,620 --> 00:03:04,280

year's accomplishments by the Agency and previewing upcoming missions in 2010.

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00:03:04,280 --> 00:03:09,609

"There 's\h just an incredible number of missions we are going to launch in the coming

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00:03:09,609 --> 00:03:17,700

months, beginning this month, that I think will revolutionize the way we look at our

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00:03:17,700 --> 00:03:18,700

world."

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00:03:18,700 --> 00:03:22,430

Space shuttle Endeavour moved from the Kennedy Space Center's Vehicle Assembly Building

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00:03:22,430 --> 00:03:29,670

to Launch Pad 39A, signaling the start of STS-130's upcoming mock launch countdown

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00:03:29,670 --> 00:03:35,409
activities. Endeavour's astronauts and ground crews will participate in a launch dress rehearsal,

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00:03:35,409 --> 00:03:41,530
known as the Terminal Countdown Demonstration Test, starting Jan. 19. The test provides

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00:03:41,530 --> 00:03:46,189
shuttle crews an opportunity to participate in various simulated countdown activities,

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00:03:46,189 --> 00:03:52,080
including equipment familiarization and emergency training. STS-130 is scheduled to launch to

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00:03:52,080 --> 00:03:58,569
the International Space Station on February 7 at 4:39 a.m. EST.

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00:03:58,569 --> 00:04:07,560
STS-130 will also take to the ISS a moon rock brought back from the lunar surface 40 years

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00:04:07,560 --> 00:04:13,180
ago during the historic Apollo 11 mission; it'll be accompanied back to space by a

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00:04:13,180 --> 00:04:18,060
small piece of the Earth's highest mountain. That rock was brought back from Mt. Everest

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00:04:18,060 --> 00:04:23,900
last May by former NASA astronaut Scott Parazynski, who'd carried the Apollo lunar sample on

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00:04:23,900 --> 00:04:28,080

his trek up the 29-thousand and 35-foot-high mountain.

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00:04:28,080 --> 00:04:33,120
“This is the summit of Mt. Everest. We’re just down the slope from the summit because

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00:04:33,120 --> 00:04:35,120
it was getting kind of crowded at this point.”

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00:04:35,120 --> 00:04:40,660
A special event at Space Center Houston saw Parazynski present both rocks to NASA astronaut

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00:04:40,660 --> 00:04:47,240
and STS-130 mission Commander George Zamka.

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00:04:47,240 --> 00:04:52,620
“These rocks have already done more than human beings can do a lifetime.”

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00:04:52,620 --> 00:04:57,810
The two rocks will be displayed inside the station's Tranquility module, which STS-130

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00:04:57,810 --> 00:05:01,639
will also deliver to the orbiting complex.

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00:05:01,639 --> 00:05:08,330
STS-129 Mission Specialists Leland Melvin and Bobby Satcher were among the riders of

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00:05:08,330 --> 00:05:14,460
a flower-adorned Space Odyssey float in this year’s Rose Parade in Pasadena, California.

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00:05:14,460 --> 00:05:19,340
The float sponsored by the Ronald McDonald House Charities of Southern California, included

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00:05:19,340 --> 00:05:24,960
a space shuttle created with ground white
rice, solar arrays comprised of nori seaweed

64
00:05:24,960 --> 00:05:30,810
and onion seed, and a revolving satellite
fashioned from mums, strawflower and purple

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00:05:30,810 --> 00:05:36,770
statice. Joining Melvin, Satcher and Ronald
McDonald on the float were children who've

66
00:05:36,770 --> 00:05:40,560
been helped by the Ronald McDonald House Charities.

67
00:05:40,560 --> 00:05:42,280
And that's This Week At NASA!