



1
00:00:00,760 --> 00:00:11,000
This
Week at NASA...

2
00:00:11,000 --> 00:00:15,809
The twin Gravity Recovery And Interior Laboratory
spacecraft formerly known as

3
00:00:15,809 --> 00:00:19,260
GRAIL-A and GRAIL-B, have new names.

4
00:00:19,260 --> 00:00:33,019
“Give me an E ... give me an F ... give
me a B ... give me an L ... give me a B ... give

5
00:00:33,019 --> 00:00:43,690
me an O ... give me an & ... give me a W ... what
have we got?

6
00:00:43,690 --> 00:00:44,690
Ebb & Flow ... “

7
00:00:44,690 --> 00:00:48,139
The students at Emily Dickinson elementary
in Bozeman, Montana announced the

8
00:00:48,139 --> 00:00:53,969
new names, Ebb and Flow, live on NASA TV after
winning a nationwide contest to re-

9
00:00:53,969 --> 00:00:55,590
name the spacecraft.

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00:00:55,590 --> 00:01:03,480
“Science is such an abstract study, so being
part of naming something makes it real.

11
00:01:03,480 --> 00:01:07,070
It

gives them ownership and real involvement

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00:01:07,070 --> 00:01:08,970

in space exploration.”

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00:01:08,970 --> 00:01:16,730

“They noted the fact that GRAIL is going to be studying gravity on the Moon and that

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00:01:16,730 --> 00:01:18,710

the effect of gravity on the Earth is seen every

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00:01:18,710 --> 00:01:21,900

day in terms of tides that we have on the Earth.

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00:01:21,900 --> 00:01:27,490

So, they chose “Ebb” and “Flow” because it was the daily example of how the

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00:01:27,490 --> 00:01:29,460

Moon’s gravity is working on the Earth.”

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00:01:29,460 --> 00:01:33,350

Ebb and Flow have been flying together in orbit around the moon since New Year’s

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00:01:33,350 --> 00:01:37,630

Day – collecting data designed to create a gravity map of the moon.

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00:01:37,630 --> 00:01:41,130

Their mission will enable scientists to learn more about the

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00:01:41,130 --> 00:01:46,560

moon, from crust to core, thus providing a better understanding of its origin.

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00:01:46,560 --> 00:01:56,460
“Ladies and gentlemen, introducing the future home of Space Shuttle Atlantis.”

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00:01:56,460 --> 00:02:00,900
The Kennedy Space Center Visitor Complex hosted a groundbreaking ceremony for

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00:02:00,900 --> 00:02:04,800
the facility that will feature Space Shuttle Atlantis.

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00:02:04,800 --> 00:02:09,940
Plans for the 65,000 square-foot building include treating visitors to imagery

26
00:02:09,940 --> 00:02:14,829
of the space shuttle in flight, up close views of Atlantis and details about how the

27
00:02:14,829 --> 00:02:16,860
spacecraft functioned in space.

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00:02:16,860 --> 00:02:23,390
“Atlantis’ mission in space is over, but its mission to inspire generations of potential

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00:02:23,390 --> 00:02:25,239
space travelers is just beginning.

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00:02:25,239 --> 00:02:28,280
And this facility will no doubt attract hundreds of

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00:02:28,280 --> 00:02:30,069
thousands over the coming years.”

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00:02:30,069 --> 00:02:34,840
While construction is underway on its new

home, Atlantis continues its transition and

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00:02:34,840 --> 00:02:38,650

retirement processing in a hangar at KSC.

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00:02:38,650 --> 00:02:41,560

The new Atlantis display is scheduled to open in 2013.

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00:02:41,560 --> 00:02:51,510

"Ladies and gentlemen welcome to JPL for the 14th annual Invention Challenge."

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00:02:51,510 --> 00:02:56,540

When the Invention Challenge first started 14 years ago, it was just a competition of

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00:02:56,540 --> 00:03:02,159

engineering creativity between JPLers Now, local middle schools and high schools

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00:03:02,159 --> 00:03:07,939

have joined the contest and the student teams outnumber JPL teams, 3 to 1.

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00:03:07,939 --> 00:03:13,219

"The Invention Challenge this year was to build a machine that could kick a football

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00:03:13,219 --> 00:03:16,090

over a barrier and into a can.

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00:03:16,090 --> 00:03:17,090

Simple?

42

00:03:17,090 --> 00:03:18,890

We'll see how simple it is."

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00:03:18,890 --> 00:03:24,029

Each team got 3 tries in a minute to kick a football into the trashcan.

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00:03:24,029 --> 00:03:27,260

If it made it, the team got 50 points.

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00:03:27,260 --> 00:03:32,760

30 points, if it hit the rim, 25 if it hit the side, and 10 points if it

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00:03:32,760 --> 00:03:35,809

bounced inside the circle around the can.

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00:03:35,809 --> 00:03:37,590

"Contestants ready?"

48

00:03:37,590 --> 00:03:39,379

Spotters ready?

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00:03:39,379 --> 00:03:41,169

Timers ready?

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00:03:41,169 --> 00:03:42,950

3-2-1- go!"

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00:03:42,950 --> 00:03:48,280

(Cheers)

"We were the first JPL team up.

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00:03:48,280 --> 00:03:51,909

We were a little nervous and it went in 3 times in a row.

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00:03:51,909 --> 00:03:55,620

The high school kids, I think there's about four on the board right now that have gone

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00:03:55,620 --> 00:03:56,620

three for three.

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00:03:56,620 --> 00:03:59,209

I hope we don't have to compete against them because their machines

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00:03:59,209 --> 00:04:00,919

are way better than ours."

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00:04:00,919 --> 00:04:06,379

The student team competition ended in double overtime and two sudden death

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00:04:06,379 --> 00:04:08,169

kickoffs.

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00:04:08,169 --> 00:04:11,769

"Ready, 3-2-1..."

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00:04:11,769 --> 00:04:15,060

Culver City High won with a rim shot.

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00:04:15,060 --> 00:04:18,209

"What sort of lessons are you going to take with you?"

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00:04:18,209 --> 00:04:19,390

Simple is always better.

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00:04:19,390 --> 00:04:20,390

Oh yeah!

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00:04:20,390 --> 00:04:21,390

Duct tape.

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00:04:21,390 --> 00:04:22,820

Duct tape is the best."

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00:04:22,820 --> 00:04:26,270

“Today we faced a lot of challenges.

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00:04:26,270 --> 00:04:28,910

Some of the stuff on our project broke like
the laser

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00:04:28,910 --> 00:04:34,370

level we were supposed to use and so we had
to just adapt and try to fight through it.”

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00:04:34,370 --> 00:04:39,190

“I think what we’re trying to show is
that engineering can be fun and we hope that

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00:04:39,190 --> 00:04:42,360

the
students that like this kind of an event pursue

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00:04:42,360 --> 00:04:49,280

it because we really want to produce the
next generation of engineers.”

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00:04:49,280 --> 00:04:53,030

Astronaut Cady Coleman made several appearances
in the Cleveland area, including

73

00:04:53,030 --> 00:04:56,000

the International Women’s Air & Space Museum.

74

00:04:56,000 --> 00:05:00,880

Coleman, who has logged more than
43-hundred hours in space, spoke about her

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00:05:00,880 --> 00:05:05,130

two missions aboard Space Shuttle
Columbia, as well as her six months on the

76

00:05:05,130 --> 00:05:09,140

International Space Station with the Expedition 26/27 crew.

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00:05:09,140 --> 00:05:14,820

“And I think that a museum like this where we make history become real.

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00:05:14,820 --> 00:05:18,540

We realize that history is made by real people, and in

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00:05:18,540 --> 00:05:19,780

this case, real women.

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00:05:19,780 --> 00:05:23,150

It enables us to understand that we’re part of making history

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00:05:23,150 --> 00:05:25,120

too.

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00:05:25,120 --> 00:05:29,750

Coleman was joined by astronaut Greg Johnson, now associate director for external

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00:05:29,750 --> 00:05:31,850

programs at Glenn.

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00:05:31,850 --> 00:05:35,630

Johnson piloted two missions aboard space shuttle Endeavour,

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00:05:35,630 --> 00:05:40,280

including its final flight in the spring of 2011 on STS-134.

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00:05:40,280 --> 00:05:46,992

If you’ve ever wished upon a star --- or at least, wished you could keep track of the

87
00:05:46,992 --> 00:05:52,180
shooting stars you see in the night sky – there's
now a new mobile application for just

88
00:05:52,180 --> 00:05:53,180
that.

89
00:05:53,180 --> 00:05:58,620
NASA's new Meteor Counter app for the iPhone,
iPad and iPod touch allows star

90
00:05:58,620 --> 00:06:03,770
watchers to record data about the meteors
they see – including their numbers, sky

91
00:06:03,770 --> 00:06:07,720
location, brightness and the specific time
they were spotted.

92
00:06:07,720 --> 00:06:10,620
You can even record your
comments about the sighting!

93
00:06:10,620 --> 00:06:13,670
Users can then send all the info to NASA for
use in

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00:06:13,670 --> 00:06:18,890
identifying new meteor showers, pinpointing
comet debris streams and mapping the

95
00:06:18,890 --> 00:06:24,080
asteroids orbiting Earth.

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00:06:24,080 --> 00:06:29,220
A new exhibit at New York's American Museum
of Natural History depicts the past,

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00:06:29,220 --> 00:06:32,510

present and future of space exploration.

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00:06:32,510 --> 00:06:36,710

Featured among the display of dinosaur bones and other artifacts usually displayed

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00:06:36,710 --> 00:06:41,420

in a museum of natural history, is the work of the Hubble Space Telescope.

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00:06:41,420 --> 00:06:45,600

HST has unlocked countless mysteries in space while

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00:06:45,600 --> 00:06:49,720

providing links to understanding more about the past here on Earth.

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00:06:49,720 --> 00:06:53,870

"The Hubble Space Telescope is looking at the natural history of the universe.

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00:06:53,870 --> 00:06:56,500

When we use the Hubble, we're able to look back in

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00:06:56,500 --> 00:06:58,780

history, not the few thousand years or the few

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00:06:58,780 --> 00:07:04,540

million years of what the rest of this museum talks about, but the billions of years, the

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00:07:04,540 --> 00:07:07,920

history of how the chemical elements that made the dinosaurs were created."

107

00:07:07,920 --> 00:07:10,691

"I think it's a great way for us to get

the word out about what we're doing and I

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00:07:10,691 --> 00:07:13,550

think

particularly with the space shuttle program

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00:07:13,550 --> 00:07:17,570

ending and a lot of people are thinking NASA
is not necessarily that active anymore but

110

00:07:17,570 --> 00:07:20,740

we really are.”

111

00:07:20,740 --> 00:07:27,640

On January 24, 1986, NASA's Voyager 2 spacecraft
made a successful flyby of

112

00:07:27,640 --> 00:07:36,090

Uranus, returning about 8,000 images of the
planet and its moons.

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00:07:36,090 --> 00:07:41,270

Both launched in
1977, Voyager 1 and Voyager 2 have explored

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00:07:41,270 --> 00:07:47,950

all the giant planets of our outer solar
system: Jupiter, Saturn, Uranus and Neptune;

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00:07:47,950 --> 00:07:54,060

48 of their moons; and the unique
system of rings and magnetic fields surrounding

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00:07:54,060 --> 00:07:55,060

those planets.

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00:07:55,060 --> 00:07:59,300

Decades, and many
billions of miles later, both Voyagers are

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00:07:59,300 --> 00:08:01,810

continuing their journeys to the boundaries
of

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00:08:01,810 --> 00:08:05,090

the solar system.

120

00:08:05,090 --> 00:08:10,150

January 26 is NASA's 2012 Day of Remembrance.

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00:08:10,150 --> 00:08:19,010

On this day, we honor the 17
astronauts of the Apollo 1, Challenger and

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00:08:19,010 --> 00:08:26,389

Columbia crews, as well as other members
of the NASA family, who lost their lives supporting

123

00:08:26,389 --> 00:08:29,970

the agency's mission of exploration.

124

00:08:29,970 --> 00:08:36,640

Once more, we thank them and the families
they left behind for their sacrifices in the

125

00:08:36,640 --> 00:08:39,070

service of our nation.

126

00:08:39,070 --> 00:08:42,400

And that's This Week @ NASA!