



1
00:00:07,020 --> 00:00:10,300
This Week at NASA...

2
00:00:10,300 --> 00:00:17,600
Ebb and Flow, NASA's Gravity Recovery And
Interior Laboratory, or GRAIL spacecraft,

3
00:00:17,600 --> 00:00:22,180
have officially begun collecting science data
as they orbit the moon.

4
00:00:22,180 --> 00:00:27,000
Scientists will use the information gathered
by the twin spacecraft to produce a high-resolution

5
00:00:27,000 --> 00:00:30,290
map of the lunar gravitational field.

6
00:00:30,290 --> 00:00:35,270
That should provide unprecedented detail about
the moon's internal structure and composition,

7
00:00:35,270 --> 00:00:39,680
and lead to a better understanding of how
Earth and other rocky planets in the solar

8
00:00:39,680 --> 00:00:41,460
system formed.

9
00:00:41,460 --> 00:00:47,630
Science activities are expected to continue
through May 29.

10
00:00:47,630 --> 00:00:53,110
Aboard the International Space Station, flame
tests continued for the Structure and Liftoff

11
00:00:53,110 --> 00:00:56,280
In Combustion Experiment, or SLICE.

12
00:00:56,280 --> 00:01:00,150
The experiment investigates the nature of flames in microgravity.

13
00:01:00,150 --> 00:01:04,479
I'm ready to light the flame.

14
00:01:04,479 --> 00:01:11,390
The station tests have yielded stable lifted flames, which can be simpler to model numerically.

15
00:01:11,390 --> 00:01:16,859
This research in the world's only laboratory in microgravity could lead to reduced pollution

16
00:01:16,859 --> 00:01:23,439
emissions and more efficient burning by a wide variety of industries.

17
00:01:23,439 --> 00:01:34,200
Last year, Irish-American astronaut Cady Coleman celebrated her St. Patrick's Day playing

18
00:01:34,200 --> 00:01:38,969
two Irish instruments while she orbited the Earth aboard the International Space Station.

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00:01:38,969 --> 00:01:44,609
This year, Coleman was on center stage at the Kennedy Center in Washington to return

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00:01:44,609 --> 00:01:50,049
the antique wooden flute and shiny tin whistle to its owners: internationally-acclaimed recording

21
00:01:50,049 --> 00:01:53,829
artists, Paddy Moloney and the Chieftains.

22

00:01:53,829 --> 00:01:59,189

Coleman then accepted an invitation to perform with the six-time Grammy winners the traditional

23

00:01:59,189 --> 00:02:01,609

Irish tune, "Fanny Power."

24

00:02:01,609 --> 00:02:06,109

When I got the chance to go live on the Space Station and I knew I would take my flute with

25

00:02:06,109 --> 00:02:11,620

me it occurred to me that a nice way to share our amazing experience at NASA up on the Space

26

00:02:11,620 --> 00:02:15,970

Station is to bring something of other people's that will bring them with us as well.

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00:02:15,970 --> 00:02:19,860

And here she was talking and she was showing the flute and everything was floating and

28

00:02:19,860 --> 00:02:24,920

her hair was sticking up -- it was magic I mean I couldn't believe it

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00:02:24,920 --> 00:02:29,630

The Washington, D.C. concert was part of the Chieftains' 50th anniversary tour.

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00:02:29,630 --> 00:02:33,000

So why do we need engineers.

31

00:02:33,000 --> 00:02:37,530

The things that we want to do; the technology development that we have to do to put humans

32

00:02:37,530 --> 00:02:42,250

beyond low earth orbit, which is our ultimate

goal, require people with engineering backgrounds.

33

00:02:42,250 --> 00:02:48,190

NASA Administrator Charlie Bolden was at Georgia Tech to help kick off STAY WITH IT, a new,

34

00:02:48,190 --> 00:02:52,600

White House initiative to attract more U.S. college students to engineering,

35

00:02:52,600 --> 00:03:00,370

So stay with it, stay with it, stay with it.

36

00:03:00,370 --> 00:03:06,220

Along with Intel, MTV, Google and Facebook, the online host for the announcement, the

37

00:03:06,220 --> 00:03:11,820

President's Council on Jobs and Competitiveness has forged this new public-private partnership

38

00:03:11,820 --> 00:03:17,510

through which students can learn about engineering internships, financial support and summer

39

00:03:17,510 --> 00:03:19,860

bridge programs for entering freshmen.

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00:03:19,860 --> 00:03:26,020

More than 65 companies have aligned with STAY WITH IT to double their engineering internships

41

00:03:26,020 --> 00:03:27,020

this year.

42

00:03:27,020 --> 00:03:37,760

That'll result in more than 7,000 opportunities for hands-on, technical job experience.

43

00:03:37,760 --> 00:03:42,590

Administrator Bolden has been honored with a Patriot Award for his support of employees

44

00:03:42,590 --> 00:03:45,880

serving in the National Guard and Reserve.

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00:03:45,880 --> 00:03:50,620

Guard and Reserve employees or their spouses can nominate supervisors for the Department

46

00:03:50,620 --> 00:03:51,760

of Defense honor.

47

00:03:51,760 --> 00:03:56,480

I think it's really important for us as an organization to recognize the talent that

48

00:03:56,480 --> 00:04:02,740

they bring and find a way to get them back into the workforce, if they left us to go

49

00:04:02,740 --> 00:04:07,660

off to do their reserve or their national guard time, because they bring an incredible

50

00:04:07,660 --> 00:04:11,930

wealth and breadth of talent that we're always searching for.

51

00:04:11,930 --> 00:04:17,010

Also receiving a Patriot Award but unable to attend the NASA Headquarters ceremony was

52

00:04:17,010 --> 00:04:22,600

Associate Administrator for Human Exploration and Operations, Bill Gerstenmaier.

53

00:04:22,600 --> 00:04:33,210

Accepting on his behalf was the directorate's

John Olson.

54
00:04:33,210 --> 00:04:40,969
The Center Operations Directorate is a mission support organization which provides security,

55
00:04:40,969 --> 00:04:46,629
procurement, logistical, and technical information, and external relation support to the NASA

56
00:04:46,629 --> 00:04:48,520
Glenn Research Center.

57
00:04:48,520 --> 00:04:53,340
I think NASA has been a place that has given me a wealth of opportunities.\h

58
00:04:53,340 --> 00:04:58,499
Um, I came here as a Human Resources Director, and I learned a lot about federal employment

59
00:04:58,499 --> 00:05:01,110
because I had never worked for the federal government before.\h

60
00:05:01,110 --> 00:05:06,169
Um, and then moving into the senior executive candidate development program, it's the

61
00:05:06,169 --> 00:05:11,910
first time that someone had truly invested an enormous amount in me for me to figure

62
00:05:11,910 --> 00:05:14,479
out what it is that I wanted to do.

63
00:05:14,479 --> 00:05:18,509
And so I think that opportunity in and of itself is just—spoke volumes about, you

64
00:05:18,509 --> 00:05:21,749
know, what is available to you here at NASA.

65
00:05:21,749 --> 00:05:26,529
A number of people have inspired me, and I like to believe that you know I get inspiration

66
00:05:26,529 --> 00:05:31,690
daily but most often I have to think of my grandmother and my mother who are just fabulous

67
00:05:31,690 --> 00:05:32,690
role models.\h

68
00:05:32,690 --> 00:05:36,219
But here at NASA, I've met just some phenomenal women.\h

69
00:05:36,219 --> 00:05:40,930
I had the opportunity to meet Katherine Johnson, who is referred to by many people as a human

70
00:05:40,930 --> 00:05:41,930
computer.\h

71
00:05:41,930 --> 00:05:46,490
And uh, people like Christine Darden and Crystal Johnson—people who've gone into the senior

72
00:05:46,490 --> 00:05:49,699
executive service before me and have really paved the way.\h

73
00:05:49,699 --> 00:05:53,639
So, you know, inspiration is all around me.\h

74
00:05:53,639 --> 00:05:58,150
I hope that I am inspiring the next generation of women managers.\h

75
00:05:58,150 --> 00:06:04,189
Um, but also inspiring students to be lifelong learners and realize that anything is possible

76
00:06:04,189 --> 00:06:08,659
with education and hard work.

77
00:06:08,659 --> 00:06:15,249
About 150 students from 18 schools in Mississippi and Louisiana got an inside look at the Stennis

78
00:06:15,249 --> 00:06:18,680
Space Center during a Women's History Month event.

79
00:06:18,680 --> 00:06:20,550
The outing was part of the G.E.M.S.

80
00:06:20,550 --> 00:06:24,419
program, for Girls Excited about Math and Science.

81
00:06:24,419 --> 00:06:28,939
The students were treated to activities and workshops – including a fashion show that

82
00:06:28,939 --> 00:06:35,349
featured business attire, an introduction to Information Technology, a cryogenics demonstration

83
00:06:35,349 --> 00:06:40,449
and details about college and career planning.

84
00:06:40,449 --> 00:06:44,879
Air Force Flight Test Center commander General Robert Nolan and other dignitaries recently

85
00:06:44,879 --> 00:06:50,031

dedicated a street at Edwards Air Force Base
in California to honor the late NACA test

86

00:06:50,031 --> 00:06:52,590

pilot Scott Crossfield.

87

00:06:52,590 --> 00:06:56,680

Crossfield became the first pilot to reach

Mach 2 – twice the speed of sound – in

88

00:06:56,680 --> 00:07:00,400

the Douglas Skyrocket on Nov. 20, 1953.

89

00:07:00,400 --> 00:07:05,050

And when you talk about Scott Crossfield,

think about the sacrifices and the risk that

90

00:07:05,050 --> 00:07:06,409

he took.

91

00:07:06,409 --> 00:07:13,339

Think about flying Mach 2 in the 1950s.

92

00:07:13,339 --> 00:07:18,020

And then, think about a career dedicated to

aviation.

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00:07:18,020 --> 00:07:23,300

In a related presentation, retired NASA Dryden

Flight Research Center research pilot Ed Schneider

94

00:07:23,300 --> 00:07:28,000

detailed Crossfield's contributions to the

advancement of aeronautics and flight research.

95

00:07:28,000 --> 00:07:33,180

Scott had joined NACA at a time when the United

States was fully committed to exploring the

96

00:07:33,180 --> 00:07:39,219

world of supersonic flight and pushing the speed and the altitude of manned airplanes

97

00:07:39,219 --> 00:07:44,439

to numbers that were really the stuff of fiction in 1945.

98

00:07:44,439 --> 00:07:48,610

Crossfield later helped design the cockpit of the famed X-15 rocket plane while employed

99

00:07:48,610 --> 00:07:51,349

by North American Aviation in the late 1950s.

100

00:07:51,349 --> 00:07:57,379

He flew the first 14 developmental demonstration flight tests of the craft before it was turned

101

00:07:57,379 --> 00:08:03,689

over to the Air Force and NASA for the joint X-15 hypersonic flight research program.

102

00:08:03,689 --> 00:08:09,419

He received the 1961 Harmon Trophy and the 1962 Collier Trophy, the most prestigious

103

00:08:09,419 --> 00:08:15,009

awards for advancements in aeronautics, from President John F. Kennedy in White House ceremonies.

104

00:08:15,009 --> 00:08:21,399

We pilots think of him as one of the best to ever strap on an airplane.

105

00:08:21,399 --> 00:08:28,249

And perhaps I remember him best as an American hero who always came across as an unassuming,

106

00:08:28,249 --> 00:08:29,529

well-mannered gentleman.

107

00:08:29,529 --> 00:08:33,640

It doesn't always happen that way.

108

00:08:33,640 --> 00:08:37,290

Hey programs.

109

00:08:37,290 --> 00:08:43,060

NASA employees, family members and community leaders recently gathered at the Space Coast

110

00:08:43,060 --> 00:08:46,970

Stadium in Viera, Fla., to celebrate Space Day.

111

00:08:46,970 --> 00:08:52,650

Kennedy Space Center Director Bob Cabana threw out the first pitch before a spring training

112

00:08:52,650 --> 00:08:57,340

game between the host Washington Nationals and the Houston Astros.

113

00:08:57,340 --> 00:09:02,540

NASA booths highlighted how agency research and development has contributed to sports,

114

00:09:02,540 --> 00:09:04,810

transportation and everyday life.

115

00:09:04,810 --> 00:09:09,810

The public was also treated to an up-close look at a full-scale test version of NASA's

116

00:09:09,810 --> 00:09:13,910

new Orion spacecraft.

117

00:09:13,910 --> 00:09:21,340

Eighty-six years ago, on March 16, 1926, Robert Goddard successfully launched the world's

118

00:09:21,340 --> 00:09:25,760

first liquid-fuel rocket from a field in Auburn, Massachusetts.

119

00:09:25,760 --> 00:09:30,590

Goddard continued his rocket development work throughout the remainder of his life, achieving

120

00:09:30,590 --> 00:09:35,950

numerous milestones, and helping pave the way for contemporary spaceflight.

121

00:09:35,950 --> 00:09:41,770

Established in 1959, the Goddard Space Flight Center in Greenbelt, Maryland was named in

122

00:09:41,770 --> 00:09:43,300

his memory.

123

00:09:43,300 --> 00:09:45,560

3-2-1 ignition

124

00:09:45,560 --> 00:09:53,380

And, on that same date 46 years ago, the Gemini Titan 8 launched from Cape Canaveral, Florida,

125

00:09:53,380 --> 00:09:57,960

on its way to becoming NASA's first manned docking mission.

126

00:09:57,960 --> 00:10:02,800

Astronauts Neil Armstrong and Dave Scott docked their capsule with an unmanned Agena target

127

00:10:02,800 --> 00:10:04,090

vehicle.

128

00:10:04,090 --> 00:10:09,390

While docked, a thruster malfunction caused a near-fatal tumbling of the craft.

129

00:10:09,390 --> 00:10:14,440

The crew was able to stabilize the vehicle, but used up too much fuel in the process,

130

00:10:14,440 --> 00:10:17,820

scrapping plans for a spacewalk and other activities.

131

00:10:17,820 --> 00:10:22,960

About ten hours after launch Armstrong and Scott made the first emergency landing of

132

00:10:22,960 --> 00:10:30,250

a manned U.S. spacecraft as Gemini 8 splashed safely down in the western Pacific Ocean.

133

00:10:30,250 --> 00:10:36,690

Thirty years ago, on March 22, 1982, Space Shuttle Columbia launched from the Kennedy

134

00:10:36,690 --> 00:10:38,630

Space Center on STS-3.

135

00:10:38,630 --> 00:10:43,970

NASA's third space shuttle mission was one of several test flights to qualify shuttle

136

00:10:43,970 --> 00:10:46,810

systems for operational flights.

137

00:10:46,810 --> 00:10:52,000

Commander Jack Lousma and Pilot C. Gordon Fullerton tested the Canadarm Remote Manipulator

138

00:10:52,000 --> 00:10:58,030

System and gathered data on how Columbia handled the sun's heat in various attitudes.

139

00:10:58,030 --> 00:11:04,450

STS-3 was the only shuttle mission to land at the White Sands Space Harbor near Las Cruces,

140

00:11:04,450 --> 00:11:05,550

New Mexico.

141

00:11:05,550 --> 00:11:12,530

And, 16 years ago, on March 22, 1996, space shuttle Atlantis launched from the Kennedy

142

00:11:12,530 --> 00:11:15,940

Space Center on STS-76.

143

00:11:15,940 --> 00:11:22,010

It was the first flight of the SPACEHAB pressurized module to support shuttle-Mir dockings, and

144

00:11:22,010 --> 00:11:26,750

the third linkup between the U.S. spacecraft and the Russian space station.

145

00:11:26,750 --> 00:11:31,480

The flight delivered Shannon Lucid to Mir to become the first American woman to live

146

00:11:31,480 --> 00:11:37,460

on station, and kick off a continuous, two-year U.S. presence in space.

147

00:11:37,460 --> 00:11:43,420

STS-76 was commanded by Kevin Chilton; Richard Searfoss was its pilot.

148

00:11:43,420 --> 00:11:50,090

Mission Specialists were Linda Godwin, Michael Clifford and Ronald Sega.

149

00:11:50,090 --> 00:11:52,590

And that's This Week @ NASA!

150

00:11:52,590 --> 00:11:57,910

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