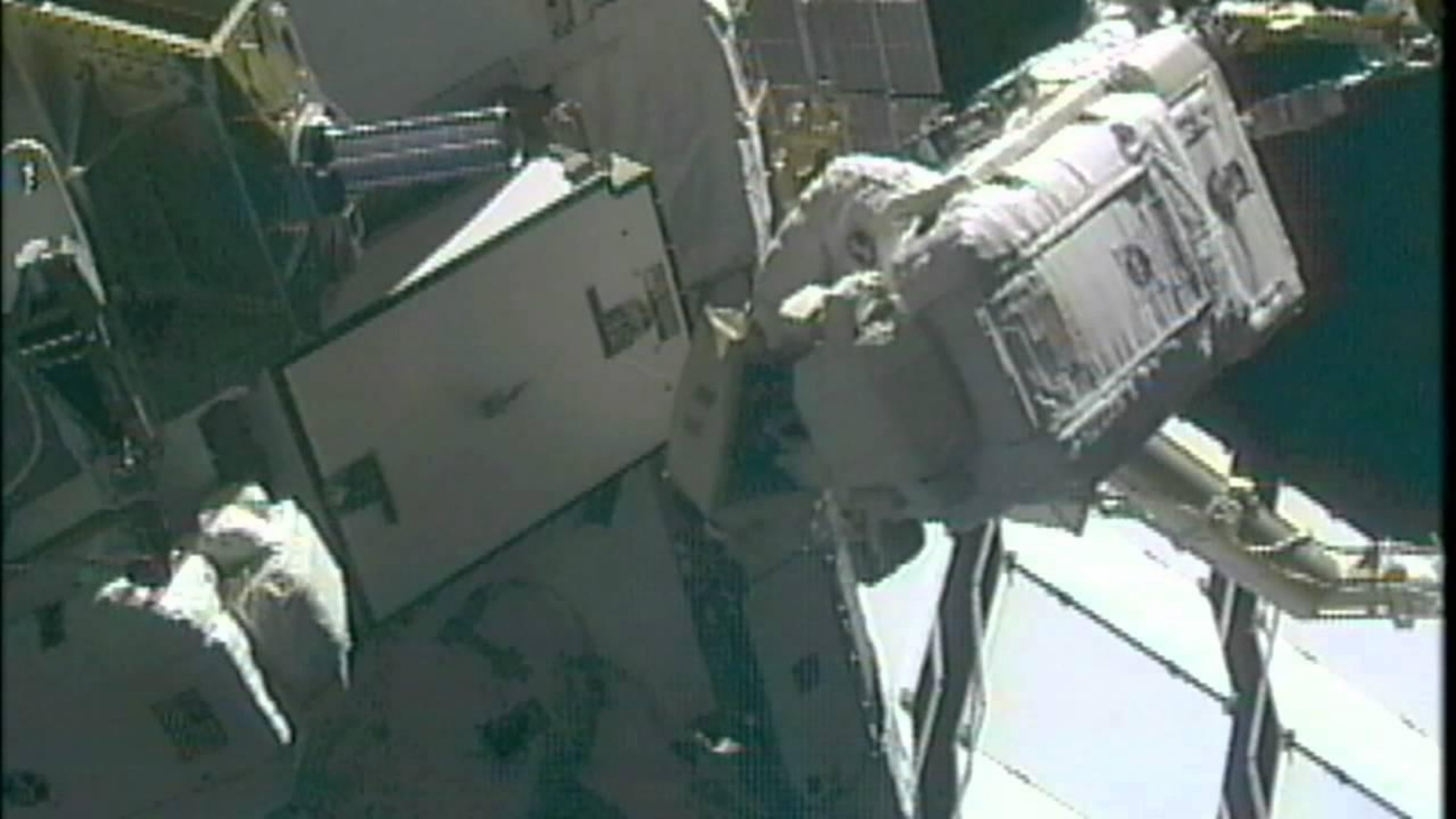

1
00:00:07,029 --> 00:00:10,889
This Week at NASA…

2
00:00:10,889 --> 00:00:15,630
The outpouring of admiration and respect continues
as people around the nation, including members

3
00:00:15,630 --> 00:00:19,220
of the NASA family, pay tribute to the late
Neil Armstrong.

4
00:00:19,220 --> 00:00:23,740
In the astronaut's hometown of Wapakoneta,
Ohio near Dayton several hundred people attended

5
00:00:23,740 --> 00:00:28,960
an event at the Armstrong Air and Space Museum
-- -- including NASA astronaut Greg Johnson

6
00:00:28,960 --> 00:00:31,710
and Glenn Research Center Director Ray Lugo.

7
00:00:31,710 --> 00:00:33,480
"Everything you hear about him.

8
00:00:33,480 --> 00:00:38,739
About, he's a humble man, he's a quite
man, he tends to be a little bit private is

9
00:00:38,739 --> 00:00:39,739
absolutely true.

10
00:00:39,739 --> 00:00:43,699
But there's not a friendlier person that
you would ever meet in your life."

11
00:00:43,699 --> 00:00:47,899
The Kennedy Space Center honored Armstrong
with an event in the Apollo-Saturn V Center

12
00:00:47,899 --> 00:00:50,899
of KSC’s Visitor Complex.

13
00:00:50,899 --> 00:00:55,510
Among the estimated 400 people in attendance
was Center Director Bob Cabana, who hailed

14
00:00:55,510 --> 00:01:00,280
Armstrong not only as a pilot and an astronaut,
but as a great teacher.

15
00:01:00,280 --> 00:01:06,930
“His step was only the beginning of a very
long journey that we must now continue as

16
00:01:06,930 --> 00:01:10,200
we prepare to move even further from our home
planet.”

17
00:01:10,200 --> 00:01:15,050
The Jet Propulsion Laboratory commemorated
Armstrong’s life and achievements with a

18
00:01:15,050 --> 00:01:20,750
special presentation of “One Giant Leap,”
an episode from an award-winning documentary

19
00:01:20,750 --> 00:01:21,750
series.

20
00:01:21,750 --> 00:01:26,740
The film’s producer, Blaine Baggett, now
the JPL director of Communication and Education,

21
00:01:26,740 --> 00:01:31,920
spoke before the screening of how Armstrong’s
accomplishment impacted the nation and the

22

00:01:31,920 --> 00:01:33,180
world.

23
00:01:33,180 --> 00:01:38,500
At the U.S. Space & Rocket Center in Huntsville,
ceremony guests gathered around a model of

24
00:01:38,500 --> 00:01:46,950
the Saturn V rocket released red, white and
blue balloons in honor of the Apollo 11 commander.

25
00:01:46,950 --> 00:01:52,250
And the NASA flag at headquarters flew at
half-staff; President Obama has ordered the

26
00:01:52,250 --> 00:01:58,689
American flag be similarly flown on the day
of Armstrong's interment; and, this Thursday,

27
00:01:58,689 --> 00:02:05,300
NASA TV will broadcast live from the National
Cathedral in Washington, DC a special "Celebration

28
00:02:05,300 --> 00:02:07,229
of the Life of Neil Armstrong."

29
00:02:07,229 --> 00:02:14,590
"We choose to go to the moon in this decade
and do the other things, not because they

30
00:02:14,590 --> 00:02:17,430
are easy, but because they are hard."

31
00:02:17,430 --> 00:02:21,980
That twenty-five word statement is perhaps
the most widely recognizable from the historic

32
00:02:21,980 --> 00:02:26,930
speech given fifty years ago by President
John F. Kennedy at Houston's Rice University

33
00:02:26,930 --> 00:02:28,879
on September 12, 1962.

34
00:02:28,879 --> 00:02:33,120
“The Rice Speech was really the Clarion
call for the Apollo Program.

35
00:02:33,120 --> 00:02:38,980
It’s one of the most articulate and moving
descriptions of civil space policy I think

36
00:02:38,980 --> 00:02:39,980
that’s ever been made.”

37
00:02:39,980 --> 00:02:40,980
But the entire twenty minute address was also
a statement -- to punctuate JFK’s belief

38
00:02:40,980 --> 00:02:41,980
that, for America the moon was a completely
achievable goal.

39
00:02:41,980 --> 00:02:49,760
“The vows of this Nation can only be fulfilled
if we in this Nation are first, and, therefore,

40
00:02:49,760 --> 00:02:53,870
we intend to be first.

41
00:02:53,870 --> 00:03:02,530
In short, our leadership in science and in
industry, our hopes for peace and security,

42
00:03:02,530 --> 00:03:08,629
our obligations to ourselves as well as others,
all require us to make this effort.”

43
00:03:08,629 --> 00:03:18,989

“Kennedy was able to combine his incredible
delivery, along with some humor and dilation

44
00:03:18,989 --> 00:03:25,569
of history to make the case that scientific
accomplishment was an important measure of

45
00:03:25,569 --> 00:03:26,569
societies.”

46
00:03:26,569 --> 00:03:35,050
“Condense, if you will, the 50,000 years
of man’s recorded history in a time span

47
00:03:35,050 --> 00:03:36,099
of but a half-century.

48
00:03:36,099 --> 00:03:45,510
Less than two months ago, during this whole
50-year span of human history, the steam engine

49
00:03:45,510 --> 00:03:47,629
provided a new source of power.

50
00:03:47,629 --> 00:03:55,769
Only last week did we develop penicillin and
television and nuclear power, and now if America's

51
00:03:55,769 --> 00:04:03,689
new spacecraft succeeds in reaching Venus,
we will have literally reached the stars before

52
00:04:03,689 --> 00:04:05,019
midnight tonight.

53
00:04:05,019 --> 00:04:08,300
“But why, some say, the moon?

54
00:04:08,300 --> 00:04:11,290

Why choose this as our goal?

55
00:04:11,290 --> 00:04:15,110
And they may well ask why climb the highest
mountain?

56
00:04:15,110 --> 00:04:19,660
Why, 35 years ago, fly the Atlantic?

57
00:04:19,660 --> 00:04:20,840
Why does Rice play Texas?

58
00:04:20,840 --> 00:04:24,160
“He’s there at Rice and he’s making
the point that, in fact Rice does play Texas

59
00:04:24,160 --> 00:04:27,130
and that, in fact sometimes Rice actually
wins.

60
00:04:27,130 --> 00:04:35,350
That was, I think a very deft maneuver on
his part to sort of lay that out there as

61
00:04:35,350 --> 00:04:37,160
a not so impossible cause.”

62
00:04:37,160 --> 00:04:38,640
(01:15:35:00)

63
00:04:38,640 --> 00:04:41,340
Hello, my name is Saina Ghandchi.

64
00:04:41,340 --> 00:04:47,710
I am a member of engineering, operations team
and this is your Curiosity Rover update.

65
00:04:47,710 --> 00:04:52,600
Couple of days ago, we performed some atmospheric

measurements with our instrument, SAM.

66
00:04:52,600 --> 00:04:56,889
Scientists are going through the data at this point and I'm very excited because since

67
00:04:56,889 --> 00:05:02,900
Viking mission, we haven't had any instruments on Mars than can tell what is the composition

68
00:05:02,900 --> 00:05:05,030
of the Martian atmosphere.

69
00:05:05,030 --> 00:05:09,150
We also received these color beautiful HiRise images.

70
00:05:09,150 --> 00:05:15,919
They show clearly the back shell, the site where the descent stage crashed.

71
00:05:15,919 --> 00:05:21,120
And also, very cool, you can clearly see the rover tracks in these images.

72
00:05:21,120 --> 00:05:25,990
Our goa1 is to get to Glenelg, which is 400 meters to the east of the landing site.

73
00:05:25,990 --> 00:05:29,500
We have been driving for several days now.

74
00:05:29,500 --> 00:05:32,479
On Sol 29, we finished another successful 30 meters.

75
00:05:32,479 --> 00:05:37,810
We are going to park here another 7 days and check out the arm and the instruments that

76
00:05:37,810 --> 00:05:39,280
are located on the arm.

77
00:05:39,280 --> 00:05:44,910
As you know, the arm is loaded with science
remote sensing instruments and also it has

78
00:05:44,910 --> 00:05:50,290
a couple of tools that will help us acquire
sample from Mars and from rock and deliver

79
00:05:50,290 --> 00:06:00,069
them to SAM and CheMin instruments.

80
00:06:00,069 --> 00:06:05,270
The Orion program successfully gauged the
maximum pressure Orion's parachutes might

81
00:06:05,270 --> 00:06:09,710
face when returning from exploration missions
into deep space.

82
00:06:09,710 --> 00:06:15,169
In the latest test in the skies high above
the U.S. Yuma Army Proving Ground in Arizona,

83
00:06:15,169 --> 00:06:21,479
a C-130 airplane dropped a dart-shaped test
vehicle with a simulated Orion parachute compartment

84
00:06:21,479 --> 00:06:24,039
from an altitude of 25,000 feet.

85
00:06:24,039 --> 00:06:29,860
Orion's drogue chutes were deployed at approximately
20,000 feet, followed by small pilot chutes,

86
00:06:29,860 --> 00:06:32,580
which then deployed the three main parachutes.

87
00:06:32,580 --> 00:06:36,930
Orion’s ‘chutes will be among the systems
tested near the conclusion of Exploration

88
00:06:36,930 --> 00:06:39,470
Flight Test-1 in 2014.

89
00:06:39,470 --> 00:06:45,600
EFT-1 will take Orion 15 times deeper into
space than the International Space Station.

90
00:06:45,600 --> 00:06:50,289
“The bolt is out … “

91
00:06:50,289 --> 00:06:55,650
Expedition 32 Flight Engineers Suni Williams
of NASA and Aki Hoshide of the Japan Aerospace

92
00:06:55,650 --> 00:07:01,740
Exploration Agency completed the installation
of a spare Main Bus Switching Unit, or MBSU

93
00:07:01,740 --> 00:07:06,870
to the truss of the International Space Station
during a 6-hour, 28 minute spacewalk.

94
00:07:06,870 --> 00:07:11,770
Problems installing the spare unit during
an initial spacewalk on August 30 necessitated

95
00:07:11,770 --> 00:07:16,180
the crew fabricate tools with which they could
complete their tasks on this latest EVA.

96
00:07:16,180 --> 00:07:22,430
The MBSU relays power from the station's solar
arrays to its systems.

97

00:07:22,430 --> 00:07:27,710
The spacewalk was the 165th in support of
space station assembly and maintenance, the

98
00:07:27,710 --> 00:07:33,590
sixth in Williams' career and the second for
Hoshide.

99
00:07:33,590 --> 00:07:39,319
The NASA Headquarters roof is now home to
an instrument that makes observations of Earth’s

100
00:07:39,319 --> 00:07:42,450
atmosphere similar to those made from space
by satellites.

101
00:07:42,450 --> 00:07:47,720
The instrument, named Pandora, helps validate
those space-based measurements.

102
00:07:47,720 --> 00:08:04,170
Among Pandora’s measurements is that of
ozone, crucial to air quality and climate.

103
00:08:04,170 --> 00:08:08,720
Data from the Headquarters roof will be compared
with measurements by Pandora instruments elsewhere

104
00:08:08,720 --> 00:08:20,320
in the Washington, DC area to better understand
variations across the region.

105
00:08:20,320 --> 00:08:25,470
Operations have wrapped up for The 2012 Research
and Technology Studies, or RATS test at the

106
00:08:25,470 --> 00:08:27,220
Johnson Space Center.

107
00:08:27,220 --> 00:08:32,510

The 10-day asteroid exploration simulation conducted at JSC’s Space Vehicle Mockup

108
00:08:32,510 --> 00:08:36,560
Facility helps NASA prepare for future exploration missions.

109
00:08:36,560 --> 00:08:41,970
During the exercise, the RATS team used several technologies to mimic life and work on the

110
00:08:41,970 --> 00:08:44,370
surface of an asteroid.

111
00:08:44,370 --> 00:08:51,210
As NASA makes plans to send humans to asteroids by 2025, such simulations provide the agency

112
00:08:51,210 --> 00:08:55,700
with a way to test new operations, concepts and techniques.

113
00:08:55,700 --> 00:09:03,440
At the Langley Research Center, NASA Associate Administrator for Education Leland Melvin,

114
00:09:03,440 --> 00:09:08,760
and Grammy Award-winning producer, Pharrell Williams, talked about the importance of science,

115
00:09:08,760 --> 00:09:12,940
technology, engineering and math, or STEM, during the Center’s Summer of Innovation

116
00:09:12,940 --> 00:09:14,411
graduation and awards ceremony.

117
00:09:14,411 --> 00:09:19,810
“And the number one tool that will lead you out of any and everything is education.”

118
00:09:19,810 --> 00:09:24,580
The event honored Virginia Beach middle school
students for their hard work over their summer

119
00:09:24,580 --> 00:09:25,580
vacations.

120
00:09:25,580 --> 00:09:30,310
Summer of Innovation, part of the President's
Educate to Innovate campaign, is a collaboration

121
00:09:30,310 --> 00:09:35,760
between Langley and Pharrell's From One
Hand To Another foundation to encourage students

122
00:09:35,760 --> 00:09:39,650
to follow their dreams and pursue a STEM education.

123
00:09:39,650 --> 00:09:45,000
Two space shuttle solid rocket booster casings
arrived at the Dryden Flight Research Center

124
00:09:45,000 --> 00:09:46,930
from Kennedy Space Center.

125
00:09:46,930 --> 00:09:51,930
The inert boosters, now owned by the California
Science Center in Los Angeles, will remain

126
00:09:51,930 --> 00:09:56,910
in storage at Dryden until the science center's
exhibit to house space shuttle Endeavour is

127
00:09:56,910 --> 00:09:57,910
built.

128
00:09:57,910 --> 00:10:02,510
The boosters will be mounted vertically alongside

Endeavour, similar to how they would've

129
00:10:02,510 --> 00:10:03,510
looked at launch.

130
00:10:03,510 --> 00:10:07,940
Endeavour is scheduled to be transported by
ferry flight from KSC to Los Angeles later

131
00:10:07,940 --> 00:10:10,740
this month.

132
00:10:10,740 --> 00:10:15,960
The Jet Propulsion Laboratory held a party
to celebrate the 35th birthday of the iconic

133
00:10:15,960 --> 00:10:18,030
Voyager spacecraft.

134
00:10:18,030 --> 00:10:23,390
On hand for the festivities was astronaut
Stephanie Wilson, a former JPLer.

135
00:10:23,390 --> 00:10:26,450
Students at the event talked to scientists
and engineers.

136
00:10:26,450 --> 00:10:33,460
There were also activities, speeches from
local representatives and live music.

137
00:10:33,460 --> 00:10:39,650
Launched in 1977 Voyager 1 and 2 are currently
providing data about the "Heliosheath,"

138
00:10:39,650 --> 00:10:47,100
the outermost region of our solar system,
as they make their way deeper into space.

139

00:10:47,100 --> 00:10:53,330
“3-2-1-zero and liftoff of the Delta two
rocket with Grail on a journey to the center

140
00:10:53,330 --> 00:10:54,330
of the moon.”

141
00:10:54,330 --> 00:10:58,890
September 12 marks the one-year anniversary
of the launch of a Delta II rocket from Cape

142
00:10:58,890 --> 00:11:04,330
Canaveral Air Force Station carrying the twin
GRAIL spacecraft to the moon.

143
00:11:04,330 --> 00:11:05,571
Since named Ebb and Flow.

144
00:11:05,571 --> 00:11:08,920
“Ebb and Flow !!”

145
00:11:08,920 --> 00:11:14,340
The two spacecraft have been flying in tandem
around the moon since January 2012 to measure

146
00:11:14,340 --> 00:11:19,230
the moon’s gravity field from crust to core
in unprecedented detail.

147
00:11:19,230 --> 00:11:23,700
The mission is providing scientists with a
better understanding of how Earth and other

148
00:11:23,700 --> 00:11:28,330
rocky planets in the solar system formed.

149
00:11:28,330 --> 00:11:33,550
Twenty years ago on September 12, 1992 Space
Shuttle Endeavour carried a seven- person

150
00:11:33,550 --> 00:11:36,680
crew to orbit on STS-47.

151
00:11:36,680 --> 00:11:41,880
This Spacelab mission included Mission Specialist
Mae Jemison, the first African-American woman

152
00:11:41,880 --> 00:11:48,140
in space, Payload specialist Mamoru Mohri,
the first Japanese astronaut to fly on a shuttle

153
00:11:48,140 --> 00:11:53,800
and Mission Specialists Mark Lee and Jan Davis,
the first married couple in space.

154
00:11:53,800 --> 00:11:58,610
Commander “Hoot” Gibson, Pilot Curtis
Brown and Mission Specialist Jay Apt rounded

155
00:11:58,610 --> 00:12:03,250
out the crew – which spent almost eight
days conducting microgravity investigations

156
00:12:03,250 --> 00:12:06,440
in materials and life sciences.

157
00:12:06,440 --> 00:12:08,360
And that’s This Week @NASA.