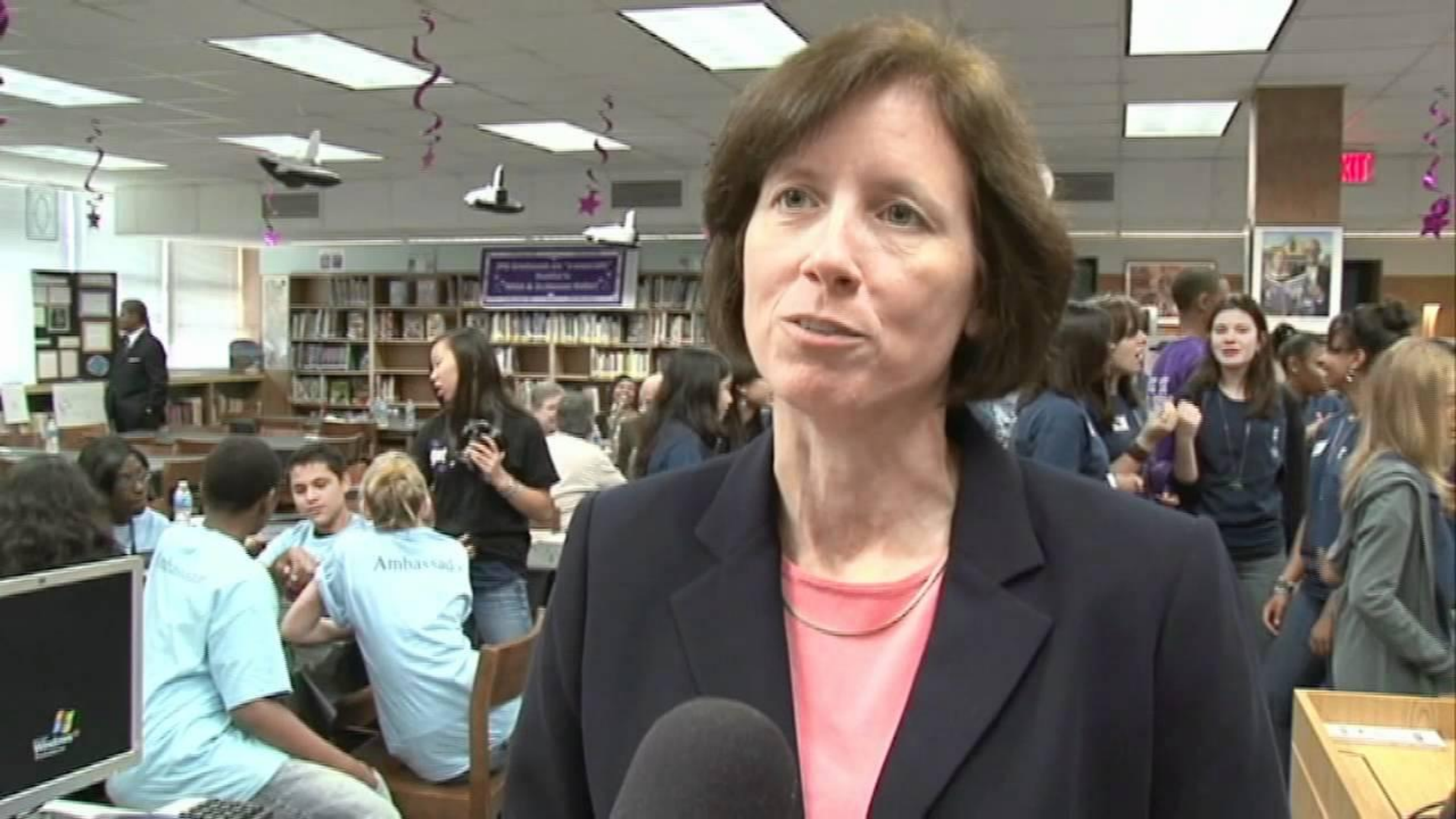

1
00:00:14,390 --> 00:00:11,509
this week at NASA scientists from

2
00:00:17,000 --> 00:00:14,400
Argentina Brazil Canada France and Italy

3
00:00:19,160 --> 00:00:17,010
were at NASA headquarters in Washington

4
00:00:21,260 --> 00:00:19,170
for a news briefing about their upcoming

5
00:00:25,070 --> 00:00:21,270
international spacecraft mission

6
00:00:27,589 --> 00:00:25,080
Aquarius sakdi it is by far the most

7
00:00:29,120 --> 00:00:27,599
complex and challenging mission ever

8
00:00:31,250 --> 00:00:29,130
attempted through a partnership between

9
00:00:34,280 --> 00:00:31,260
the United States and Argentina and has

10
00:00:35,810 --> 00:00:34,290
capability as comparable to any earth

11
00:00:38,270 --> 00:00:35,820
science mission that NASA has flown

12
00:00:40,220 --> 00:00:38,280
scheduled to launch jun 9th the

13
00:00:42,110 --> 00:00:40,230

spacecraft's primary instrument will

14
00:00:44,350 --> 00:00:42,120
make the agency's first space-based

15
00:00:47,150 --> 00:00:44,360
global measurements of salinity or

16
00:00:49,970 --> 00:00:47,160
concentration of salt at the surface of

17
00:00:52,189 --> 00:00:49,980
the world's oceans salinity influences

18
00:00:55,189 --> 00:00:52,199
ocean circulation and the global balance

19
00:00:57,529 --> 00:00:55,199
of fresh water and climate until now it

20
00:01:00,080 --> 00:00:57,539
has remained unmeasured by existing

21
00:01:01,910 --> 00:01:00,090
Earth observing satellites seven other

22
00:01:04,219 --> 00:01:01,920
sakdi instruments will collect

23
00:01:06,440 --> 00:01:04,229
environmental data for a wide range of

24
00:01:09,020 --> 00:01:06,450
applications including studies of

25
00:01:13,789 --> 00:01:09,030
natural hazards air quality land

26
00:01:16,310 --> 00:01:13,799
processes and epidemiology space shuttle

27
00:01:18,109 --> 00:01:16,320
Atlantis has made its final roll over

28
00:01:20,060 --> 00:01:18,119
from the processing hangar to the

29
00:01:23,149 --> 00:01:20,070
Vehicle Assembly Building at the Kennedy

30
00:01:25,399 --> 00:01:23,159
Space Center in Florida inside the VA be

31
00:01:27,800 --> 00:01:25,409
Atlantis was attached to its external

32
00:01:30,380 --> 00:01:27,810
fuel tank and twin solid rocket boosters

33
00:01:34,190 --> 00:01:30,390
already perched on a mobile launcher

34
00:01:35,660 --> 00:01:34,200
platform during sts-135 the final

35
00:01:37,940 --> 00:01:35,670
mission for Atlantis and the space

36
00:01:39,920 --> 00:01:37,950
shuttle program the orbiter and its four

37
00:01:42,410 --> 00:01:39,930
member crew will carry the raffaello

38
00:01:44,539 --> 00:01:42,420

multi-purpose Logistics Module filled

39
00:01:46,940 --> 00:01:44,549
with supplies and spare parts to the

40
00:01:49,550 --> 00:01:46,950
International Space Station among other

41
00:01:51,920 --> 00:01:49,560
tasks the mission will also fly a system

42
00:01:55,429 --> 00:01:51,930
to investigate the viability of robotic

43
00:01:58,010 --> 00:01:55,439
ly refueling existing space craft space

44
00:02:00,380 --> 00:01:58,020
shuttle Atlantis was delivered to KSC in

45
00:02:03,109 --> 00:02:00,390
april of nineteen eighty five and made

46
00:02:05,420 --> 00:02:03,119
its maiden voyage on mission 51 j on

47
00:02:08,389 --> 00:02:05,430
october third subsequent flights

48
00:02:11,780 --> 00:02:08,399
included STS 34 and the launch of the

49
00:02:13,350 --> 00:02:11,790
Galileo probe to Jupiter in 1989 and in

50
00:02:16,230 --> 00:02:13,360
1991 st

51
00:02:20,910 --> 00:02:16,240
37 with the gamma ray observatory gr 0

52
00:02:23,100 --> 00:02:20,920
as its primary payload NASA

53
00:02:25,500 --> 00:02:23,110
Administrator Charles Bolden toward the

54
00:02:27,510 --> 00:02:25,510
Astro tech payload processing facility

55
00:02:29,660 --> 00:02:27,520
near the Kennedy Space Center for a

56
00:02:32,550 --> 00:02:29,670
close-up look at the Juno spacecraft

57
00:02:34,800 --> 00:02:32,560
accompanied by his wife Jackie bold and

58
00:02:37,410 --> 00:02:34,810
tour junos test control center and talk

59
00:02:39,180 --> 00:02:37,420
with members of the Juno test team the

60
00:02:41,610 --> 00:02:39,190
solar-powered spacecraft will head for

61
00:02:44,940 --> 00:02:41,620
Jupiter on August fifth where it will

62
00:02:46,860 --> 00:02:44,950
orbit the gas giants poles 33 times to

63
00:02:51,050 --> 00:02:46,870

learn more about the planets origins

64
00:02:53,550 --> 00:02:51,060
structure atmosphere and magnetosphere

65
00:02:55,949 --> 00:02:53,560
the Ames Research Center recently

66
00:02:57,990 --> 00:02:55,959
completed a series of tests that may

67
00:03:00,300 --> 00:02:58,000
help take some of the loudness out of

68
00:03:03,780 --> 00:03:00,310
sonic booms and allow supersonic

69
00:03:06,360 --> 00:03:03,790
aircraft to fly over land inside Ames

70
00:03:09,390 --> 00:03:06,370
nine foot by seven foot supersonic wind

71
00:03:11,760 --> 00:03:09,400
tunnel fans or compressors moved air

72
00:03:15,979 --> 00:03:11,770
over a sleek new aircraft design at

73
00:03:18,840 --> 00:03:15,989
speeds replicating flying conditions a

74
00:03:21,570 --> 00:03:18,850
sonic boom occurs when an aircraft flies

75
00:03:24,690 --> 00:03:21,580
faster than the speed of sound typically

76
00:03:27,930 --> 00:03:24,700
around 660 miles per hour at the cruise

77
00:03:30,060 --> 00:03:27,940
altitude of most airplanes tests like

78
00:03:32,550 --> 00:03:30,070
these help researchers understand the

79
00:03:34,920 --> 00:03:32,560
forces acting on a real aircraft and its

80
00:03:37,350 --> 00:03:34,930
impact like the creation of a sonic boom

81
00:03:39,060 --> 00:03:37,360
on the surrounding atmosphere we're

82
00:03:41,310 --> 00:03:39,070
measuring the sonic booms from these

83
00:03:42,870 --> 00:03:41,320
models in the tunnel we do that with

84
00:03:45,020 --> 00:03:42,880
sophisticated pressure measurement

85
00:03:46,790 --> 00:03:45,030
apparatus

86
00:03:48,770 --> 00:03:46,800
and we take those measurements and run

87
00:03:50,510 --> 00:03:48,780
them through the computer codes and then

88
00:03:52,309 --> 00:03:50,520

we can predict how loud the sonic boom

89
00:03:53,990 --> 00:03:52,319
is going to be on the ground data

90
00:03:57,050 --> 00:03:54,000
gleaned from this research will

91
00:03:59,180 --> 00:03:57,060
literally help shape a new generation of

92
00:04:01,729 --> 00:03:59,190
quieter environmentally friendly

93
00:04:09,070 --> 00:04:01,739
supersonic aircraft that may fly twice

94
00:04:13,699 --> 00:04:11,120
investigating how best to prepare for

95
00:04:17,120 --> 00:04:13,709
possible future space missions NASA

96
00:04:19,789 --> 00:04:17,130
astronauts become aquanauts each autumn

97
00:04:23,060 --> 00:04:19,799
to dive into a series of undersea

98
00:04:24,940 --> 00:04:23,070
experiments preparations are underway at

99
00:04:27,260 --> 00:04:24,950
the National Oceanic and Atmospheric

100
00:04:30,530 --> 00:04:27,270
Administration's Aquarius underwater

101
00:04:32,840 --> 00:04:30,540
laboratory off Key Largo Florida that's

102
00:04:34,730 --> 00:04:32,850
where this year's participants in nemo

103
00:04:37,760 --> 00:04:34,740
NASA's extreme environment mission

104
00:04:39,800 --> 00:04:37,770
operations will live for nine days under

105
00:04:42,830 --> 00:04:39,810
the Atlantic to explore the challenges

106
00:04:45,560 --> 00:04:42,840
of a trip to an asteroid the ocean beds

107
00:04:48,980 --> 00:04:45,570
buoyancy and topography will serve as a

108
00:04:51,140 --> 00:04:48,990
good stand-in unlike the Moon or Mars an

109
00:04:53,719 --> 00:04:51,150
asteroid has little gravity to hold

110
00:04:56,210 --> 00:04:53,729
astronauts or vehicles so knowing how

111
00:04:58,730 --> 00:04:56,220
and where to place multiple anchors will

112
00:05:02,420 --> 00:04:58,740
be the focus of this year's event the

113
00:05:07,219 --> 00:05:02,430

15th annual Nemo the undersea tests are

114
00:05:09,740 --> 00:05:07,229
scheduled for October astronaut Shannon

115
00:05:11,840 --> 00:05:09,750
Walker the first native houstonian in

116
00:05:14,330 --> 00:05:11,850
space mingled and took pictures with

117
00:05:16,790 --> 00:05:14,340
students at her hometown alma mater the

118
00:05:18,740 --> 00:05:16,800
Johnston middle school Walker was

119
00:05:20,840 --> 00:05:18,750
attending a breakfast in her honor it's

120
00:05:22,999 --> 00:05:20,850
possible do big things no matter who you

121
00:05:25,700 --> 00:05:23,009
are i went to the score at least

122
00:05:26,779 --> 00:05:25,710
around here so just about anybody could

123
00:05:28,879 --> 00:05:26,789
do anything they put their mind to

124
00:05:31,399 --> 00:05:28,889
during her stay she gave her

125
00:05:33,409 --> 00:05:31,409
presentation about her extended stay on

126
00:05:34,999 --> 00:05:33,419
the International Space Station you can

127
00:05:37,339 --> 00:05:35,009
do all kinds of things that you cannot

128
00:05:39,499 --> 00:05:37,349
do on the ground when you're in space in

129
00:05:42,290 --> 00:05:39,509
this case Tracy and I are moving this

130
00:05:44,239 --> 00:05:42,300
giant rat from the ceiling to the floor

131
00:05:46,399 --> 00:05:44,249
the ground needed us to move it so we

132
00:05:49,249 --> 00:05:46,409
moved it for my particular space flight

133
00:05:51,200 --> 00:05:49,259
I trained for three years and think

134
00:05:53,540 --> 00:05:51,210
about that and an appreciation of her

135
00:05:55,610 --> 00:05:53,550
many accomplishments the school renamed

136
00:06:03,739 --> 00:05:55,620
their science wing the Shannon Walker

137
00:06:06,019 --> 00:06:03,749
science satellite Walker served on

138
00:06:07,999 --> 00:06:06,029

expeditions 24 and 25 to the

139
00:06:10,429 --> 00:06:08,009
International Space Station last year

140
00:06:12,529 --> 00:06:10,439
she and her crewmates launched on jun

141
00:06:16,339 --> 00:06:12,539
10th aboard a Russian Soyuz spacecraft

142
00:06:19,010 --> 00:06:16,349
tma 19 while aboard the station Walker

143
00:06:23,260 --> 00:06:19,020
and crew mate does Wheelock participated

144
00:06:28,429 --> 00:06:23,270
in a downlink with Johnston students and

145
00:06:30,799 --> 00:06:28,439
now centerpieces for a group of

146
00:06:32,899 --> 00:06:30,809
engineers from NASA Langley experiencing

147
00:06:35,029 --> 00:06:32,909
endeavours final flight Cape Canaveral

148
00:06:37,540 --> 00:06:35,039
was more than just a launch it was a

149
00:06:40,459 --> 00:06:37,550
moment they wouldn't forget during the

150
00:06:42,079 --> 00:06:40,469
sts-134 mission astronauts will test out

151
00:06:44,509 --> 00:06:42,089
a new state-of-the-art docking a

152
00:06:47,299 --> 00:06:44,519
navigation system developed in part by

153
00:06:50,899 --> 00:06:47,309
NASA Langley the new technology called

154
00:06:53,420 --> 00:06:50,909
storm or sensor test for Orion relative

155
00:06:55,610 --> 00:06:53,430
navigation risk mitigation will make it

156
00:06:58,029 --> 00:06:55,620
easier and safer for astronauts to dock

157
00:07:00,649 --> 00:06:58,039
to the International Space Station it's

158
00:07:02,360 --> 00:07:00,659
really nice to build something and be

159
00:07:04,969 --> 00:07:02,370
able to see it and be able to see it

160
00:07:07,399 --> 00:07:04,979
work and be able to touch it and it's

161
00:07:09,350 --> 00:07:07,409
very gratifying to know that you're

162
00:07:11,809 --> 00:07:09,360
going to be helping future space flights

163
00:07:13,929 --> 00:07:11,819

NASA Langley worked with Johnson Space

164
00:07:16,579 --> 00:07:13,939
Center and industry partners on storm

165
00:07:18,829 --> 00:07:16,589
Langley's role in the project included

166
00:07:20,689 --> 00:07:18,839
engineering management design and build

167
00:07:22,489 --> 00:07:20,699
of the avionics shallow computer

168
00:07:24,619 --> 00:07:22,499
hardware and the reflective elements

169
00:07:26,869 --> 00:07:24,629
they were also responsible for the

170
00:07:29,389 --> 00:07:26,879
integration testing and certification of

171
00:07:31,699 --> 00:07:29,399
those components one engineer avionics

172
00:07:33,980 --> 00:07:31,709
lead Tom Johnson even trained astronaut

173
00:07:35,209 --> 00:07:33,990
drew Feustel on the flight software it

174
00:07:37,819 --> 00:07:35,219
was a lot of fun getting to work with

175
00:07:40,399 --> 00:07:37,829
Drew and really kind of showing him the

176
00:07:42,559 --> 00:07:40,409
hardware that we put together and in the

177
00:07:44,449 --> 00:07:42,569
software the NASA Langley Storm Team

178
00:07:45,709 --> 00:07:44,459
braved the crowds in the media to

179
00:07:47,779 --> 00:07:45,719
represent the state of the art

180
00:07:49,639 --> 00:07:47,789
technology during the launch to finally

181
00:07:50,839 --> 00:07:49,649
get the hard word up and tested to

182
00:07:56,110 --> 00:07:50,849
validate everything that we've worked

183
00:08:00,739 --> 00:07:56,120
for all the sacrifices that's huge heats

184
00:08:02,209 --> 00:08:00,749
treats and astronaut green NASA welcome

185
00:08:06,249 --> 00:08:02,219
the public to the Goddard Space Flight

186
00:08:11,480 --> 00:08:09,079
explore at NASA Goddard was the theme

187
00:08:14,659 --> 00:08:11,490
for today's event the public had unique

188
00:08:16,699 --> 00:08:14,669

access to explore learn and enjoy the

189
00:08:19,449 --> 00:08:16,709
energetic atmosphere of the Space

190
00:08:21,619 --> 00:08:19,459
Agency's largest research facility

191
00:08:23,689 --> 00:08:21,629
scientists talked about our planet and

192
00:08:26,179 --> 00:08:23,699
brought the wonders of the universe down

193
00:08:28,069 --> 00:08:26,189
to earth for all to see all engineers

194
00:08:30,860 --> 00:08:28,079
discuss new missions and their future

195
00:08:33,139 --> 00:08:30,870
discoveries at the mad science tent

196
00:08:35,980 --> 00:08:33,149
visitors were amazed by incredible

197
00:08:38,990 --> 00:08:35,990
chemistry others perform their own moon

198
00:08:41,839 --> 00:08:39,000
even Darth Vader stopped by looking for

199
00:08:44,840 --> 00:08:41,849
some new recruits each location was a

200
00:08:47,620 --> 00:08:44,850
technological treasure trove as guests

201
00:08:49,910 --> 00:08:47,630
toward many of the seldom seen facility

202
00:08:51,829 --> 00:08:49,920
thousands of visitors toward the solar

203
00:08:56,059 --> 00:08:51,839
system and beyond all without leaving

204
00:09:00,860 --> 00:08:56,069
Greenbelt but at NASA Goddard that's

205
00:09:04,069 --> 00:09:00,870
just a normal day time for a great new

206
00:09:05,110 --> 00:09:04,079
American Enterprise time for this nation

207
00:09:08,140 --> 00:09:05,120
to take a

208
00:09:10,660 --> 00:09:08,150
barely leading role in space achievement

209
00:09:13,450 --> 00:09:10,670
50 years ago on May twenty-fifth

210
00:09:15,490 --> 00:09:13,460
nineteen sixty one president john f

211
00:09:18,100 --> 00:09:15,500
kennedy in a speech before a special

212
00:09:20,019 --> 00:09:18,110
joint session of Congress challenged the

213
00:09:22,690 --> 00:09:20,029

nation to set its sights on sending an

214
00:09:24,820 --> 00:09:22,700
american to the moon so directed NASA

215
00:09:26,800 --> 00:09:24,830
ramped up its human spaceflight effort

216
00:09:29,460 --> 00:09:26,810
starting with Project Mercury and

217
00:09:41,410 --> 00:09:29,470
continuing on through Gemini and Apollo

218
00:09:44,079 --> 00:09:41,420
10 50 men 15 feet in July 1969 Kennedy's

219
00:09:46,300 --> 00:09:44,089
goal was realized when Apollo 11s Neil

220
00:09:49,380 --> 00:09:46,310
Armstrong Buzz Aldrin and Michael

221
00:09:53,140 --> 00:09:49,390
Collins made their safe return home and