1
00:00:07,120 --> 00:00:10,790
this week at nasa

2
00:00:16,790 --> 00:00:14,070
we have the promise academy

3
00:00:19,269 --> 00:00:16,800
oh wow wow the excitement and

4
00:00:21,349 --> 00:00:19,279
inspiration of space exploration was the

5
00:00:24,230 --> 00:00:21,359
subject of a special forum held in new

6
00:00:27,189 --> 00:00:24,240
york to celebrate women's history month

7
00:00:29,269 --> 00:00:27,199
nasa's deputy administrator lori garver

8
00:00:31,349 --> 00:00:29,279
an associate administrator for education

9
00:00:33,590 --> 00:00:31,359
and former astronaut leland melvin

10
00:00:35,910 --> 00:00:33,600
attended the event at the stephen y

11
00:00:37,910 --> 00:00:35,920
studio in greenwich village to meet with

12
00:00:40,389 --> 00:00:37,920
200 young women from middle and high

13
00:00:41,830 --> 00:00:40,399

schools in the city nasa is a wonderful

14
00:00:44,229 --> 00:00:41,840
wonderful place that is making a

15
00:00:46,549 --> 00:00:44,239
difference in people's lives every day

16
00:00:48,310 --> 00:00:46,559
our satellites look back on the planet

17
00:00:50,229 --> 00:00:48,320
to help us learn what's happening with

18
00:00:53,189 --> 00:00:50,239
our own planet so that we can have a

19
00:00:56,069 --> 00:00:53,199
more secure future and we are looking

20
00:00:58,549 --> 00:00:56,079
out into uh the solar system and beyond

21
00:00:59,910 --> 00:00:58,559
how many of you dream out here got some

22
00:01:03,029 --> 00:00:59,920
dreamers

23
00:01:05,429 --> 00:01:03,039
well i want you to take those dreams

24
00:01:06,870 --> 00:01:05,439
and talk to these trailblazers and

25
00:01:09,030 --> 00:01:06,880
figure out how to make those dreams

26
00:01:11,190 --> 00:01:09,040
become a reality co-sponsored by fashion

27
00:01:13,350 --> 00:01:11,200
designer donna karen's urban zen

28
00:01:15,670 --> 00:01:13,360
foundation and the foundation for

29
00:01:18,469 --> 00:01:15,680
advancing women now founded by singer

30
00:01:20,630 --> 00:01:18,479
mary j blige the event encouraged the

31
00:01:23,670 --> 00:01:20,640
students to consider careers in the stem

32
00:01:24,950 --> 00:01:23,680
fields of science technology engineering

33
00:01:27,429 --> 00:01:24,960
and math

34
00:01:30,230 --> 00:01:27,439
the students also uplink their questions

35
00:01:32,630 --> 00:01:30,240
to nasa astronaut katie coleman orbiting

36
00:01:34,630 --> 00:01:32,640
220 miles above the earth on the

37
00:01:36,710 --> 00:01:34,640
international space station what is your

38
00:01:39,590 --> 00:01:36,720

normal daily routine while in space

39
00:01:41,429 --> 00:01:39,600
i float out of my cabin and i start

40
00:01:43,109 --> 00:01:41,439
reading right away on the computer about

41
00:01:44,550 --> 00:01:43,119
what we're going to do that day i'll

42
00:01:46,230 --> 00:01:44,560
have already seen the plan from the day

43
00:01:48,069 --> 00:01:46,240
before and studied the things that i

44
00:01:50,389 --> 00:01:48,079
need to study for that day but we always

45
00:01:53,190 --> 00:01:50,399
look for last minute updates this earth

46
00:01:55,109 --> 00:01:53,200
to space exchange was one in a series

47
00:01:57,830 --> 00:01:55,119
held in conjunction with educational

48
00:02:00,230 --> 00:01:57,840
organizations worldwide and is an

49
00:02:02,950 --> 00:02:00,240
integral part of nasa's teaching from

50
00:02:05,270 --> 00:02:02,960
space program tony it is so much fun up

51
00:02:07,030 --> 00:02:05,280
here

52
00:02:09,190 --> 00:02:07,040
with the date of their scheduled launch

53
00:02:12,309 --> 00:02:09,200
to the international space station fast

54
00:02:15,350 --> 00:02:12,319
approaching the three expedition 27 crew

55
00:02:17,510 --> 00:02:15,360
members not yet in space were honored as

56
00:02:20,150 --> 00:02:17,520
they departed the gagarin cosmonaut

57
00:02:23,030 --> 00:02:20,160
training center in star city russia

58
00:02:26,150 --> 00:02:23,040
nasa astronaut ron garan and rus cosmos

59
00:02:28,309 --> 00:02:26,160
cosmonauts andre borisenko and alexander

60
00:02:30,309 --> 00:02:28,319
samacuccia will conduct a series of

61
00:02:33,030 --> 00:02:30,319
pre-launch activities at the baikonur

62
00:02:35,990 --> 00:02:33,040
cosmodrome in kazakhstan before lifting

63
00:02:38,790 --> 00:02:36,000

off in their soyuz tma-21 spacecraft for

64
00:02:41,270 --> 00:02:38,800
the iss on april 4.

65
00:02:44,070 --> 00:02:41,280
two days later they'll join expedition

66
00:02:46,309 --> 00:02:44,080
27 commander dmitry kondratyev and

67
00:02:52,790 --> 00:02:46,319
flight engineers katie coleman and paolo

68
00:02:56,470 --> 00:02:54,790
the cargo that space shuttle endeavour

69
00:02:58,869 --> 00:02:56,480
will carry to the international space

70
00:03:01,750 --> 00:02:58,879
station join the orbiter at the kennedy

71
00:03:05,110 --> 00:03:01,760
space center's launch pad 39a

72
00:03:07,270 --> 00:03:05,120
endeavour's final mission sts-134

73
00:03:08,790 --> 00:03:07,280
will be to deliver the alpha magnetic

74
00:03:11,509 --> 00:03:08,800
spectrometer 2

75
00:03:12,869 --> 00:03:11,519
and the express logistics carrier 3 to

76
00:03:15,589 --> 00:03:12,879
the iss

77
00:03:17,910 --> 00:03:15,599
the ams is a particle physics detector

78
00:03:19,910 --> 00:03:17,920
designed to operate from the station and

79
00:03:20,790 --> 00:03:19,920
search for various types of unusual

80
00:03:22,790 --> 00:03:20,800
manner

81
00:03:26,509 --> 00:03:22,800
while the carrier is a platform filled

82
00:03:29,910 --> 00:03:26,519
with spare parts for station operation

83
00:03:32,470 --> 00:03:29,920
sts-134uf6 will be the 134th mission for

84
00:03:34,550 --> 00:03:32,480
the space shuttle program will be the

85
00:03:36,949 --> 00:03:34,560
35th shuttle flight to the international

86
00:03:39,910 --> 00:03:36,959
space station and will be the 25th and

87
00:03:42,390 --> 00:03:39,920
final flight of endeavour commanding sts

88
00:03:44,070 --> 00:03:42,400

134 is mark kelly

89
00:03:45,030 --> 00:03:44,080
highlighting endeavour will be greg

90
00:03:47,350 --> 00:03:45,040
johnson

91
00:03:50,789 --> 00:03:47,360
serving as mission specialists are mike

92
00:03:53,030 --> 00:03:50,799
fink drew feustel greg shamitak

93
00:03:55,670 --> 00:03:53,040
and european space agency astronaut

94
00:03:57,910 --> 00:03:55,680
roberto vittori the shuttle for me is

95
00:04:00,309 --> 00:03:57,920
nothing else than the

96
00:04:02,710 --> 00:04:00,319
the father of anything that will fly in

97
00:04:05,030 --> 00:04:02,720
the future at hypersonic speed and will

98
00:04:07,509 --> 00:04:05,040
make our world much smaller it's a

99
00:04:10,789 --> 00:04:07,519
bittersweet privilege to be taking

100
00:04:13,270 --> 00:04:10,799
endeavor on its last flight delivering

101
00:04:15,110 --> 00:04:13,280
the last major piece to the iss

102
00:04:20,150 --> 00:04:15,120
endeavour is targeted for launch on

103
00:04:24,070 --> 00:04:22,230
nasa administrator charles bolden was

104
00:04:26,230 --> 00:04:24,080
the guest speaker at the marshall space

105
00:04:27,270 --> 00:04:26,240
flight center's small business alliance

106
00:04:28,870 --> 00:04:27,280
meeting

107
00:04:30,950 --> 00:04:28,880
bolden joined with marshall center

108
00:04:33,350 --> 00:04:30,960
director robert lightfoot and glenn

109
00:04:35,590 --> 00:04:33,360
delgado associate administrator of

110
00:04:38,629 --> 00:04:35,600
nasa's office of small business programs

111
00:04:41,110 --> 00:04:38,639
in washington to welcome more than 400

112
00:04:43,749 --> 00:04:41,120
local regional and national business

113
00:04:45,749 --> 00:04:43,759

owners and managers to this semi-annual

114
00:04:48,629 --> 00:04:45,759
event small business as everybody has

115
00:04:50,790 --> 00:04:48,639
said so far is is not only crucial to

116
00:04:52,390 --> 00:04:50,800
nasa but it's crucial to the nation

117
00:04:54,950 --> 00:04:52,400
federal procurement opportunities for

118
00:04:56,469 --> 00:04:54,960
women-owned minority-owned veteran-done

119
00:04:58,390 --> 00:04:56,479
and small businesses

120
00:05:00,550 --> 00:04:58,400
are critical to this economy into

121
00:05:02,710 --> 00:05:00,560
sustaining economic development bolden

122
00:05:04,950 --> 00:05:02,720
also met with young space campers at the

123
00:05:07,189 --> 00:05:04,960
u.s space and rocket center to promote

124
00:05:11,590 --> 00:05:07,199
education and careers in science

125
00:05:15,590 --> 00:05:11,600
technology engineering and math

126
00:05:20,150 --> 00:05:17,430
so many people on both the government

127
00:05:22,550 --> 00:05:20,160
and industry teams work so very hard to

128
00:05:24,390 --> 00:05:22,560
build this wonderful high-tech facility

129
00:05:26,550 --> 00:05:24,400
administrator charles bolden was joined

130
00:05:28,469 --> 00:05:26,560
by senator barbara mikulski of maryland

131
00:05:30,310 --> 00:05:28,479
and other dignitaries for the unveiling

132
00:05:32,469 --> 00:05:30,320
of the wallops flight facility's new

133
00:05:35,670 --> 00:05:32,479
horizontal rocket integration facility

134
00:05:38,870 --> 00:05:35,680
or hip the genius of the private sector

135
00:05:42,310 --> 00:05:38,880
working with government is going to

136
00:05:46,230 --> 00:05:42,320
lead the way in commercial spacecraft to

137
00:05:48,629 --> 00:05:46,240
take cargo to the space station so the

138
00:05:51,670 --> 00:05:48,639

space station can continue the

139
00:05:54,710 --> 00:05:51,680
innovation in discovery be the national

140
00:05:56,710 --> 00:05:54,720
laboratory in the sky hiff will support

141
00:05:58,550 --> 00:05:56,720
the launch of medium class missions the

142
00:06:00,710 --> 00:05:58,560
first commercial customer scheduled to

143
00:06:03,110 --> 00:06:00,720
utilize this new addition is orbital

144
00:06:05,510 --> 00:06:03,120
sciences corporation of dulles virginia

145
00:06:06,550 --> 00:06:05,520
as we look ahead we now anticipate

146
00:06:08,309 --> 00:06:06,560
regular

147
00:06:10,790 --> 00:06:08,319
cargo launches

148
00:06:14,309 --> 00:06:10,800
to the iss from wallops

149
00:06:16,710 --> 00:06:14,319
providing a source of high quality jobs

150
00:06:18,950 --> 00:06:16,720
for this region and a new draw for

151
00:06:21,110 --> 00:06:18,960
visitors here orbital has moved its

152
00:06:22,950 --> 00:06:21,120
torus 2 vehicle into the facility this

153
00:06:23,749 --> 00:06:22,960
month for its planned launch later this

154
00:06:25,510 --> 00:06:23,759
year

155
00:06:27,189 --> 00:06:25,520
the company's partnership with nasa

156
00:06:29,189 --> 00:06:27,199
comes under the agency's commercial

157
00:06:34,710 --> 00:06:29,199
orbital transportation service project

158
00:06:40,309 --> 00:06:37,189
assembly of the first j2x dubbed engine

159
00:06:43,270 --> 00:06:40,319
1001 is in full swing at nasa's stennis

160
00:06:45,270 --> 00:06:43,280
space center the j2x is designed to be a

161
00:06:47,510 --> 00:06:45,280
highly efficient and versatile rocket

162
00:06:49,909 --> 00:06:47,520
engine and has the ideal performance

163
00:06:52,550 --> 00:06:49,919

characteristics to power the upper stage

164
00:06:54,230 --> 00:06:52,560
of a heavy lift launch vehicle j2x

165
00:06:55,990 --> 00:06:54,240
engine assembly as you can see behind me

166
00:06:57,029 --> 00:06:56,000
is in full swing

167
00:06:58,870 --> 00:06:57,039
parts are

168
00:07:00,629 --> 00:06:58,880
rolling in from the desoto campus where

169
00:07:02,629 --> 00:07:00,639
they're being manufactured and final

170
00:07:04,309 --> 00:07:02,639
machined engine assembly started with

171
00:07:05,749 --> 00:07:04,319
the main combustion chamber because

172
00:07:08,390 --> 00:07:05,759
basically the rest of the engine hangs

173
00:07:10,710 --> 00:07:08,400
on that the turbo machinery is next the

174
00:07:12,550 --> 00:07:10,720
oxidizer and fuel turbo machinery and

175
00:07:14,870 --> 00:07:12,560
those have now been installed the inlet

176
00:07:16,870 --> 00:07:14,880
ducts went on soon after that and that's

177
00:07:18,629 --> 00:07:16,880
kind of the state of where we are now

178
00:07:20,230 --> 00:07:18,639
well with the original design we figured

179
00:07:22,070 --> 00:07:20,240
exactly how the engine should go

180
00:07:23,589 --> 00:07:22,080
together but of course this is our first

181
00:07:25,589 --> 00:07:23,599
time building the engine and so we're

182
00:07:27,189 --> 00:07:25,599
going to learn things as we go

183
00:07:29,029 --> 00:07:27,199
in addition we've used delmia

184
00:07:31,589 --> 00:07:29,039
simulations where we can actually take

185
00:07:33,830 --> 00:07:31,599
the 3d model and put a human in there to

186
00:07:35,909 --> 00:07:33,840
tell exactly how to assemble the engine

187
00:07:37,990 --> 00:07:35,919
and take different parts off and and put

188
00:07:40,629 --> 00:07:38,000

different parts on has been really

189
00:07:42,469 --> 00:07:40,639
helpful well we spent the last 10 months

190
00:07:43,830 --> 00:07:42,479
working on the a2 test stand to convert

191
00:07:46,550 --> 00:07:43,840
it from space shuttle main engine

192
00:07:48,230 --> 00:07:46,560
testing to j2x engine testing some of

193
00:07:49,909 --> 00:07:48,240
the modifications were on the plumbing

194
00:07:51,430 --> 00:07:49,919
systems for the cryogenic propellants

195
00:07:53,029 --> 00:07:51,440
and the gases and some structural

196
00:07:54,790 --> 00:07:53,039
modifications to accommodate the

197
00:07:57,430 --> 00:07:54,800
different access requirements and

198
00:07:59,189 --> 00:07:57,440
mounting for the engine and also the

199
00:08:01,909 --> 00:07:59,199
electrical system upgrades involving the

200
00:08:04,150 --> 00:08:01,919
control system the j2x is designed and

201
00:08:06,390 --> 00:08:04,160
built by pratt and whitney rocketdyne of

202
00:08:08,629 --> 00:08:06,400
canoga park california for the nasa

203
00:08:11,830 --> 00:08:08,639
marshall space flight center hot fire

204
00:08:18,790 --> 00:08:11,840
testing of engine 1001 is targeted for

205
00:08:23,270 --> 00:08:20,790
the bayou regional first robotics

206
00:08:25,510 --> 00:08:23,280
competition held in the new orleans area

207
00:08:27,990 --> 00:08:25,520
brought together teams from 38 high

208
00:08:30,070 --> 00:08:28,000
schools in seven states for a weekend of

209
00:08:32,230 --> 00:08:30,080
competition that immerses students in

210
00:08:34,550 --> 00:08:32,240
the world of engineering while teaching

211
00:08:37,029 --> 00:08:34,560
them the benefits of teamwork

212
00:08:39,350 --> 00:08:37,039
first for inspiration and recognition of

213
00:08:41,509 --> 00:08:39,360

science and technology is one of many

214
00:08:43,670 --> 00:08:41,519
programs nasa supports to engage

215
00:08:46,310 --> 00:08:43,680
students in the fields of science

216
00:08:48,790 --> 00:08:46,320
technology engineering and math you

217
00:08:51,110 --> 00:08:48,800
might not know but nasa is the largest

218
00:08:53,190 --> 00:08:51,120
single sponsor of first robotics we have

219
00:08:55,910 --> 00:08:53,200
the nasa education team and many other

220
00:08:59,269 --> 00:08:55,920
stennis employees served as coaches

221
00:09:02,310 --> 00:08:59,279
mentors judges referees and machine shop

222
00:09:03,910 --> 00:09:02,320
volunteers for this exciting competition

223
00:09:05,509 --> 00:09:03,920
it doesn't end here at all matter of

224
00:09:09,910 --> 00:09:05,519
fact for all of you this really has the

225
00:09:16,710 --> 00:09:11,829
the first championship is scheduled for

226
00:09:22,150 --> 00:09:19,829
and that's this week at nasa for more on