1
00:00:07,200 --> 00:00:10,870
this week at nasa

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

3
00:00:19,349 --> 00:00:16,800
oh wow wow the excitement and

4
00:00:21,429 --> 00:00:19,359
inspiration of space exploration was the

5
00:00:24,310 --> 00:00:21,439
subject of a special forum held in new

6
00:00:27,189 --> 00:00:24,320
york to celebrate women's history month

7
00:00:29,349 --> 00:00:27,199
nasa's deputy administrator lori garver

8
00:00:31,429 --> 00:00:29,359
an associate administrator for education

9
00:00:33,670 --> 00:00:31,439
and former astronaut leland melvin

10
00:00:35,990 --> 00:00:33,680
attended the event at the stephen y

11
00:00:37,990 --> 00:00:36,000
studio in greenwich village to meet with

12
00:00:40,470 --> 00:00:38,000
200 young women from middle and high

13
00:00:41,910 --> 00:00:40,480

schools in the city nasa is a wonderful

14
00:00:44,229 --> 00:00:41,920
wonderful place that is making a

15
00:00:46,630 --> 00:00:44,239
difference in people's lives every day

16
00:00:48,389 --> 00:00:46,640
our satellites look back on the planet

17
00:00:50,310 --> 00:00:48,399
to help us learn what's happening with

18
00:00:53,270 --> 00:00:50,320
our own planet so that we can have a

19
00:00:56,229 --> 00:00:53,280
more secure future and we are looking

20
00:00:58,630 --> 00:00:56,239
out into the solar system and beyond how

21
00:00:59,990 --> 00:00:58,640
many of you dream out here got some

22
00:01:03,110 --> 00:01:00,000
dreamers

23
00:01:05,509 --> 00:01:03,120
well i want you to take those dreams

24
00:01:06,950 --> 00:01:05,519
and talk to these trailblazers and

25
00:01:09,109 --> 00:01:06,960
figure out how to make those dreams

26
00:01:11,190 --> 00:01:09,119
become a reality co-sponsored by fashion

27
00:01:13,429 --> 00:01:11,200
designer donna karen's urban zen

28
00:01:15,749 --> 00:01:13,439
foundation and the foundation for

29
00:01:18,550 --> 00:01:15,759
advancing women now founded by singer

30
00:01:20,710 --> 00:01:18,560
mary j blige the event encouraged the

31
00:01:23,749 --> 00:01:20,720
students to consider careers in the stem

32
00:01:25,030 --> 00:01:23,759
fields of science technology engineering

33
00:01:27,510 --> 00:01:25,040
and math

34
00:01:30,310 --> 00:01:27,520
the students also uplink their questions

35
00:01:32,710 --> 00:01:30,320
to nasa astronaut katie coleman orbiting

36
00:01:34,710 --> 00:01:32,720
220 miles above the earth on the

37
00:01:36,789 --> 00:01:34,720
international space station what is your

38
00:01:39,670 --> 00:01:36,799

normal daily routine while in space

39
00:01:41,510 --> 00:01:39,680
i float out of my cabin and i start

40
00:01:43,190 --> 00:01:41,520
reading right away on the computer about

41
00:01:44,630 --> 00:01:43,200
what we're going to do that day i'll

42
00:01:46,310 --> 00:01:44,640
have already seen the plan from the day

43
00:01:48,149 --> 00:01:46,320
before and studied the things that i

44
00:01:50,469 --> 00:01:48,159
need to study for that day but we always

45
00:01:53,270 --> 00:01:50,479
look for last minute updates this earth

46
00:01:55,190 --> 00:01:53,280
to space exchange was one in a series

47
00:01:57,190 --> 00:01:55,200
held in conjunction with educational

48
00:01:59,590 --> 00:01:57,200
organizations worldwide

49
00:02:01,830 --> 00:01:59,600
and is an integral part of nasa's

50
00:02:05,270 --> 00:02:01,840
teaching from space program tony it is

51
00:02:07,109 --> 00:02:05,280
so much fun up here

52
00:02:09,270 --> 00:02:07,119
with the date of their scheduled launch

53
00:02:12,390 --> 00:02:09,280
to the international space station fast

54
00:02:15,430 --> 00:02:12,400
approaching the three expedition 27 crew

55
00:02:17,589 --> 00:02:15,440
members not yet in space were honored as

56
00:02:20,229 --> 00:02:17,599
they departed the gagarin cosmonaut

57
00:02:23,110 --> 00:02:20,239
training center in star city russia

58
00:02:26,229 --> 00:02:23,120
nasa astronaut ron garan and roscosmos

59
00:02:28,309 --> 00:02:26,239
cosmonauts andre borisenko and alexander

60
00:02:30,390 --> 00:02:28,319
samacuccia will conduct a series of

61
00:02:33,110 --> 00:02:30,400
pre-launch activities at the baikonur

62
00:02:36,070 --> 00:02:33,120
cosmodrome in kazakhstan before lifting

63
00:02:38,869 --> 00:02:36,080

off in their soyuz tma-21 spacecraft for

64
00:02:41,350 --> 00:02:38,879
the iss on april 4.

65
00:02:44,150 --> 00:02:41,360
two days later they'll join expedition

66
00:02:46,390 --> 00:02:44,160
27 commander dmitry kondratyev and

67
00:02:52,869 --> 00:02:46,400
flight engineers katie coleman and paolo

68
00:02:56,550 --> 00:02:54,790
the cargo that space shuttle endeavour

69
00:02:58,949 --> 00:02:56,560
will carry to the international space

70
00:03:01,830 --> 00:02:58,959
station join the orbiter at the kennedy

71
00:03:05,190 --> 00:03:01,840
space center's launch pad 39a

72
00:03:07,350 --> 00:03:05,200
endeavour's final mission sts-134

73
00:03:08,869 --> 00:03:07,360
will be to deliver the alpha magnetic

74
00:03:11,589 --> 00:03:08,879
spectrometer 2

75
00:03:12,949 --> 00:03:11,599
and the express logistics carrier 3 to

76
00:03:15,589 --> 00:03:12,959
the iss

77
00:03:17,990 --> 00:03:15,599
the ams is a particle physics detector

78
00:03:19,990 --> 00:03:18,000
designed to operate from the station and

79
00:03:20,869 --> 00:03:20,000
search for various types of unusual

80
00:03:22,869 --> 00:03:20,879
manner

81
00:03:25,509 --> 00:03:22,879
while the carrier is a platform filled

82
00:03:26,509 --> 00:03:25,519
with spare parts for station operation

83
00:03:29,030 --> 00:03:26,519
commanding

84
00:03:31,750 --> 00:03:29,040
sts-134 is mark kelly

85
00:03:33,990 --> 00:03:31,760
piloting endeavour will be greg johnson

86
00:03:37,509 --> 00:03:34,000
serving as mission specialists are mike

87
00:03:39,750 --> 00:03:37,519
fink drew feustel greg shamitak

88
00:03:42,390 --> 00:03:39,760

and european space agency astronaut

89
00:03:45,830 --> 00:03:42,400
roberto vittori the shadow for me is

90
00:03:47,750 --> 00:03:45,840
nothing else than the the father of

91
00:03:50,550 --> 00:03:47,760
anything that will fly in the future at

92
00:03:52,710 --> 00:03:50,560
hypersonic speed and will make our world

93
00:03:56,070 --> 00:03:52,720
much smaller it's a bittersweet

94
00:03:58,470 --> 00:03:56,080
privilege to be taking endeavor on its

95
00:04:01,030 --> 00:03:58,480
last flight delivering the last major

96
00:04:04,390 --> 00:04:01,040
piece to the iss endeavour is targeted

97
00:04:06,869 --> 00:04:04,400
for launch on april 19th at 7 48 pm

98
00:04:10,710 --> 00:04:08,949
nasa administrator charles bolden was

99
00:04:12,869 --> 00:04:10,720
the guest speaker at the marshall space

100
00:04:15,350 --> 00:04:12,879
flight center's small business alliance

101
00:04:17,349 --> 00:04:15,360
meeting bolden joined with marshall

102
00:04:20,069 --> 00:04:17,359
center director robert lightfoot and

103
00:04:22,310 --> 00:04:20,079
glenn delgado associate administrator of

104
00:04:25,350 --> 00:04:22,320
nasa's office of small business programs

105
00:04:27,830 --> 00:04:25,360
in washington to welcome more than 400

106
00:04:30,469 --> 00:04:27,840
local regional and national business

107
00:04:32,469 --> 00:04:30,479
owners and managers to this semi-annual

108
00:04:35,350 --> 00:04:32,479
event small business as everybody has

109
00:04:37,510 --> 00:04:35,360
said so far is is not only crucial to

110
00:04:39,110 --> 00:04:37,520
nasa but it's crucial to the nation

111
00:04:41,670 --> 00:04:39,120
federal procurement opportunities for

112
00:04:43,909 --> 00:04:41,680
women-owned minority-owned veteran-done

113
00:04:46,070 --> 00:04:43,919

and small businesses are critical to

114
00:04:48,390 --> 00:04:46,080
this economy and to sustaining economic

115
00:04:50,310 --> 00:04:48,400
development bolden also met with young

116
00:04:52,469 --> 00:04:50,320
space campers at the u.s space and

117
00:04:54,790 --> 00:04:52,479
rocket center to promote education and

118
00:04:58,310 --> 00:04:54,800
careers in science technology

119
00:04:58,320 --> 00:05:02,310
and now centerpieces

120
00:05:06,870 --> 00:05:04,070
so many people on both the government

121
00:05:09,189 --> 00:05:06,880
and industry teams work so very hard to

122
00:05:11,110 --> 00:05:09,199
build this wonderful high-tech facility

123
00:05:13,270 --> 00:05:11,120
administrator charles bolden was joined

124
00:05:15,189 --> 00:05:13,280
by senator barbara mikulski of maryland

125
00:05:16,950 --> 00:05:15,199
and other dignitaries for the unveiling

126
00:05:19,189 --> 00:05:16,960
of the wallops flight facility's new

127
00:05:22,390 --> 00:05:19,199
horizontal rocket integration facility

128
00:05:25,590 --> 00:05:22,400
or hip the genius of the private sector

129
00:05:29,029 --> 00:05:25,600
working with government is going to

130
00:05:32,950 --> 00:05:29,039
lead the way in commercial spacecraft to

131
00:05:35,270 --> 00:05:32,960
take cargo to the space station so the

132
00:05:38,390 --> 00:05:35,280
space station can continue the

133
00:05:41,430 --> 00:05:38,400
innovation and discovery be the national

134
00:05:43,430 --> 00:05:41,440
laboratory in the sky hiff will support

135
00:05:45,270 --> 00:05:43,440
the launch of medium class missions the

136
00:05:47,430 --> 00:05:45,280
first commercial customer scheduled to

137
00:05:49,830 --> 00:05:47,440
utilize this new addition is orbital

138
00:05:52,310 --> 00:05:49,840

sciences corporation of dulles virginia

139
00:05:55,029 --> 00:05:52,320
as we look ahead we now anticipate

140
00:05:57,510 --> 00:05:55,039
regular cargo launches

141
00:06:01,029 --> 00:05:57,520
to the iss from wallops

142
00:06:03,430 --> 00:06:01,039
providing a source of high quality jobs

143
00:06:05,670 --> 00:06:03,440
for this region and a new draw for

144
00:06:07,830 --> 00:06:05,680
visitors here orbital has moved its

145
00:06:09,590 --> 00:06:07,840
torus 2 vehicle into the facility this

146
00:06:10,469 --> 00:06:09,600
month for its planned launch later this

147
00:06:12,150 --> 00:06:10,479
year

148
00:06:13,909 --> 00:06:12,160
the company's partnership with nasa

149
00:06:15,909 --> 00:06:13,919
comes under the agency's commercial

150
00:06:21,350 --> 00:06:15,919
orbital transportation service project

151
00:06:27,029 --> 00:06:23,909
assembly of the first j2x dubbed engine

152
00:06:29,990 --> 00:06:27,039
1001 is in full swing at nasa's stennis

153
00:06:31,990 --> 00:06:30,000
space center the j2x is designed to be a

154
00:06:34,150 --> 00:06:32,000
highly efficient and versatile rocket

155
00:06:36,629 --> 00:06:34,160
engine and has the ideal performance

156
00:06:39,270 --> 00:06:36,639
characteristics to power the upper stage

157
00:06:40,950 --> 00:06:39,280
of a heavy lift launch vehicle j2x

158
00:06:43,749 --> 00:06:40,960
engine assembly as you can see behind me

159
00:06:45,510 --> 00:06:43,759
is in full swing uh parts are

160
00:06:47,350 --> 00:06:45,520
rolling in from the desoto campus where

161
00:06:49,350 --> 00:06:47,360
they're being manufactured and final

162
00:06:51,029 --> 00:06:49,360
machined engine assembly started with

163
00:06:52,469 --> 00:06:51,039

the main combustion chamber because

164
00:06:55,110 --> 00:06:52,479
basically the rest of the engine hangs

165
00:06:57,430 --> 00:06:55,120
on that the turbo machinery is next the

166
00:06:59,270 --> 00:06:57,440
oxidizer and fuel turbo machinery and

167
00:07:01,589 --> 00:06:59,280
those have now been installed the inlet

168
00:07:03,589 --> 00:07:01,599
ducts went on soon after that and that's

169
00:07:05,350 --> 00:07:03,599
kind of the state of where we are now

170
00:07:06,950 --> 00:07:05,360
well with the original design we figured

171
00:07:08,790 --> 00:07:06,960
exactly how the engine should go

172
00:07:10,309 --> 00:07:08,800
together but of course this is our first

173
00:07:12,230 --> 00:07:10,319
time building the engine and so we're

174
00:07:13,909 --> 00:07:12,240
going to learn things as we go

175
00:07:15,749 --> 00:07:13,919
in addition we've used delmia

176
00:07:18,309 --> 00:07:15,759
simulations where we can actually take

177
00:07:20,550 --> 00:07:18,319
the 3d model and put a human in there to

178
00:07:22,550 --> 00:07:20,560
tell exactly how to assemble the engine

179
00:07:24,710 --> 00:07:22,560
and take different parts off and and put

180
00:07:27,350 --> 00:07:24,720
different parts on has been really

181
00:07:29,189 --> 00:07:27,360
helpful well we spent the last 10 months

182
00:07:30,550 --> 00:07:29,199
working on the a2 test stand to convert

183
00:07:33,270 --> 00:07:30,560
it from space shuttle main engine

184
00:07:34,950 --> 00:07:33,280
testing to j2x engine testing some of

185
00:07:36,629 --> 00:07:34,960
the modifications were on the plumbing

186
00:07:38,150 --> 00:07:36,639
systems for the cryogenic propellants

187
00:07:39,749 --> 00:07:38,160
and the gases and some structural

188
00:07:41,510 --> 00:07:39,759

modifications to accommodate the

189
00:07:44,150 --> 00:07:41,520
different access requirements and

190
00:07:45,909 --> 00:07:44,160
mounting for the engine and also the

191
00:07:48,629 --> 00:07:45,919
electrical system upgrades involving the

192
00:07:50,869 --> 00:07:48,639
control system the j2x is designed and

193
00:07:53,110 --> 00:07:50,879
built by pratt whitney rocketdyne of

194
00:07:55,350 --> 00:07:53,120
canoga park california for the nasa

195
00:07:58,550 --> 00:07:55,360
marshall space flight center hot fire

196
00:08:05,510 --> 00:07:58,560
testing of engine 1001 is targeted for

197
00:08:09,909 --> 00:08:07,510
the bayou regional first robotics

198
00:08:12,150 --> 00:08:09,919
competition held in the new orleans area

199
00:08:14,710 --> 00:08:12,160
brought together teams from 38 high

200
00:08:16,790 --> 00:08:14,720
schools in seven states for a weekend of

201
00:08:18,950 --> 00:08:16,800
competition that immerses students in

202
00:08:21,270 --> 00:08:18,960
the world of engineering while teaching

203
00:08:23,749 --> 00:08:21,280
them the benefits of teamwork

204
00:08:26,070 --> 00:08:23,759
first for inspiration and recognition of

205
00:08:28,230 --> 00:08:26,080
science and technology is one of many

206
00:08:30,309 --> 00:08:28,240
programs nasa supports to engage

207
00:08:33,029 --> 00:08:30,319
students in the fields of science

208
00:08:35,509 --> 00:08:33,039
technology engineering and math you

209
00:08:37,829 --> 00:08:35,519
might not know but nasa is the largest

210
00:08:39,909 --> 00:08:37,839
single sponsor of first robotics we have

211
00:08:42,630 --> 00:08:39,919
the nasa education team and many other

212
00:08:45,990 --> 00:08:42,640
stennis employees served as coaches

213
00:08:49,030 --> 00:08:46,000

mentors judges referees and machine shop

214
00:08:50,550 --> 00:08:49,040
volunteers for this exciting competition

215
00:08:52,230 --> 00:08:50,560
it doesn't end here at all matter of

216
00:08:56,550 --> 00:08:52,240
fact for all of you this really has the

217
00:09:03,350 --> 00:08:58,550
the first championship is scheduled for

218
00:09:08,870 --> 00:09:06,470
and that's this week at nasa for more on