
READY
FOR
LAUNCH!

1
00:00:35,240 --> 00:00:32,610
[Music]

2
00:00:48,950 --> 00:00:35,250
t-minus one minute

3
00:01:15,770 --> 00:01:02,630
[Music]

4
00:01:26,750 --> 00:01:18,100
we are go for launch

5
00:01:35,090 --> 00:01:26,760
[Music]

6
00:01:37,340 --> 00:01:35,100
welcome back to the NASA social for the

7
00:02:10,520 --> 00:01:37,350
crew dragon mission as we prepare to

8
00:02:10,530 --> 00:02:19,600
[Music]

9
00:02:24,710 --> 00:02:21,830
welcome back once again to the beautiful

10
00:02:25,970 --> 00:02:24,720
home of space shuttle Atlantis I am

11
00:02:27,350 --> 00:02:25,980
Joshua Santoro and that's the

12
00:02:29,510 --> 00:02:27,360
communication coming to you live from

13
00:02:31,220 --> 00:02:29,520

the Kennedy Space Center excited for you

14
00:02:32,840 --> 00:02:31,230
to rejoin us hopefully speaking

15
00:02:34,460 --> 00:02:32,850
specifically to educators and students

16
00:02:37,030 --> 00:02:34,470
but a lot to learn for anybody today as

17
00:02:39,320 --> 00:02:37,040
we talk about some stem engagement

18
00:02:42,020 --> 00:02:39,330
resources and activities available to

19
00:02:43,280 --> 00:02:42,030
students a lot going on today

20
00:02:45,500 --> 00:02:43,290
obviously we're getting ready for launch

21
00:02:48,440 --> 00:02:45,510
tomorrow of as you saw in the intro the

22
00:02:50,150 --> 00:02:48,450
crew Dragon mission demo - this is with

23
00:02:53,210 --> 00:02:50,160
NASA and SpaceX working together

24
00:02:56,090 --> 00:02:53,220
targeting a 433 p.m. Eastern Time

25
00:02:57,980 --> 00:02:56,100
liftoff tomorrow afternoon so super

26
00:03:00,050 --> 00:02:57,990
excited for that and without further ado

27
00:03:02,240 --> 00:03:00,060
I'm gonna jump right in and introduce my

28
00:03:04,850 --> 00:03:02,250
guest today coming to us virtually as

29
00:03:08,210 --> 00:03:04,860
you all as our viewers are is Rachel

30
00:03:09,860 --> 00:03:08,220
Power Rachel how're you doing I'm doing

31
00:03:12,470 --> 00:03:09,870
great Joshua thank you so much for

32
00:03:14,150 --> 00:03:12,480
inviting me to join you today Rachel

33
00:03:16,250 --> 00:03:14,160
always a pleasure so Rachel and I go

34
00:03:18,020 --> 00:03:16,260
back probably close to 11 years working

35
00:03:20,150 --> 00:03:18,030
out here and our paths seem to always

36
00:03:21,980 --> 00:03:20,160
cross even when we're not working

37
00:03:23,630 --> 00:03:21,990
together for a while we always seem to

38
00:03:25,880 --> 00:03:23,640

work together again at some point so

39
00:03:26,990 --> 00:03:25,890
always a pleasure I want to give you a

40
00:03:28,130 --> 00:03:27,000
chance to introduce yourself a little

41
00:03:31,820 --> 00:03:28,140
bit Rachel tell us about your background

42
00:03:35,810 --> 00:03:31,830
how you got to being a NASA educator and

43
00:03:39,410 --> 00:03:35,820
what's you're up to these days sure so I

44
00:03:41,300 --> 00:03:39,420
am a trained in in teaching I was

45
00:03:43,010 --> 00:03:41,310
actually a classroom educator for about

46
00:03:45,190 --> 00:03:43,020
nine years before coming to NASA I

47
00:03:48,410 --> 00:03:45,200
taught high school math and physics and

48
00:03:50,150 --> 00:03:48,420
just happened upon a really cool summer

49
00:03:52,580 --> 00:03:50,160
opportunity at Kennedy Space Center

50
00:03:55,010 --> 00:03:52,590
jumped on it just kind of enriched

51
00:03:57,560 --> 00:03:55,020
myself as an educator and just haven't

52
00:03:59,660 --> 00:03:57,570
left now it's been probably about ten

53
00:04:01,730 --> 00:03:59,670
years later eleven years later I'm still

54
00:04:03,140 --> 00:04:01,740
here and I've worked on a number of

55
00:04:05,540 --> 00:04:03,150
different projects but the one I'm

56
00:04:09,260 --> 00:04:05,550
working on right now is called next-gen

57
00:04:11,600 --> 00:04:09,270
stem and this falls under NASA's office

58
00:04:13,550 --> 00:04:11,610
of some engagement which we work with

59
00:04:16,130 --> 00:04:13,560
educators and students from kindergarten

60
00:04:17,810 --> 00:04:16,140
through high school yeah and want to

61
00:04:20,450 --> 00:04:17,820
kind of point out for those that are

62
00:04:22,039 --> 00:04:20,460
longtime nasa followers the office of

63
00:04:24,020 --> 00:04:22,049

stem engagement is formerly the office

64
00:04:26,060 --> 00:04:24,030
of education so those are really

65
00:04:28,100 --> 00:04:26,070
one in the same and excited again to

66
00:04:29,960 --> 00:04:28,110
have you with us I know that you have

67
00:04:31,640 --> 00:04:29,970
been working on for the past few years I

68
00:04:34,879 --> 00:04:31,650
think I'm not sure the exact timeline

69
00:04:36,170 --> 00:04:34,889
this next-gen stem project specifically

70
00:04:38,930 --> 00:04:36,180
there are some Commercial Crew program

71
00:04:40,250 --> 00:04:38,940
components can you tell us about the

72
00:04:41,390 --> 00:04:40,260
Commercial Crew components and we'll

73
00:04:43,580 --> 00:04:41,400
talk about the other ones in a little

74
00:04:47,030 --> 00:04:43,590
bit sure

75
00:04:50,390 --> 00:04:47,040
so next-gen stem has a whole toolkit of

76
00:04:52,700 --> 00:04:50,400
resources that a group of educators here

77
00:04:54,680 --> 00:04:52,710
at NASA's office of some engagement put

78
00:04:56,540 --> 00:04:54,690
together and these are to engage

79
00:04:58,400 --> 00:04:56,550
students in NASA's missions and in this

80
00:05:00,020 --> 00:04:58,410
case in the missions related to

81
00:05:02,270 --> 00:05:00,030
Commercial Crew program so the

82
00:05:05,480 --> 00:05:02,280
partnerships with both Boeing and SpaceX

83
00:05:07,220 --> 00:05:05,490
and we have developed activities that

84
00:05:08,810 --> 00:05:07,230
can be done in a classroom setting or

85
00:05:11,620 --> 00:05:08,820
they can even be done outside of a

86
00:05:13,790 --> 00:05:11,630
classroom setting or informal educators

87
00:05:16,070 --> 00:05:13,800
museums at Science Center's or even

88
00:05:18,050 --> 00:05:16,080

parents who want to work with their with

89
00:05:20,150 --> 00:05:18,060
their kids at home and teach them a

90
00:05:22,760 --> 00:05:20,160
little bit more about the activities

91
00:05:24,710 --> 00:05:22,770
that are happening at NASA right now but

92
00:05:26,830 --> 00:05:24,720
also how it connects to the science

93
00:05:29,600 --> 00:05:26,840
technology engineering and mathematics

94
00:05:33,140 --> 00:05:29,610
curriculum that they are learning at

95
00:05:34,580 --> 00:05:33,150
school and I know you brought along some

96
00:05:36,530 --> 00:05:34,590
slides with you I want to take a minute

97
00:05:38,659 --> 00:05:36,540
now to actually check those out

98
00:05:40,460 --> 00:05:38,669
so what talked us through these again

99
00:05:42,770 --> 00:05:40,470
kind of looking at that full picture of

100
00:05:44,779 --> 00:05:42,780
what you guys are using and developing

101
00:05:46,100 --> 00:05:44,789
obviously tomorrow we wanted to have

102
00:05:47,090 --> 00:05:46,110
this conversation today because I know

103
00:05:48,680 --> 00:05:47,100
there's some things that they can

104
00:05:50,900 --> 00:05:48,690
hopefully use tomorrow if they're

105
00:05:54,200 --> 00:05:50,910
watching right now so you want to walk

106
00:05:56,390 --> 00:05:54,210
us through these slides yes so next-gen

107
00:05:58,640 --> 00:05:56,400
stem is composed of actually five

108
00:06:01,310 --> 00:05:58,650
different activities not just commercial

109
00:06:04,100 --> 00:06:01,320
crews so there there is a component that

110
00:06:06,440 --> 00:06:04,110
looks at the human exploration missions

111
00:06:09,440 --> 00:06:06,450
that go beyond low-earth orbit so

112
00:06:12,680 --> 00:06:09,450
exploring the moon and beyond one day

113
00:06:14,650 --> 00:06:12,690

and to explore Mars so again there's all

114
00:06:16,790 --> 00:06:14,660
kinds of activities and hands-on

115
00:06:20,060 --> 00:06:16,800
resources for students to learn more

116
00:06:22,040 --> 00:06:20,070
about these missions the small steps of

117
00:06:24,380 --> 00:06:22,050
giant leaps explores the future of

118
00:06:27,740 --> 00:06:24,390
flight and the innovations that NASA is

119
00:06:29,600 --> 00:06:27,750
doing with aeronautics NASA's educator

120
00:06:31,909 --> 00:06:29,610
professional development collaborative

121
00:06:34,760 --> 00:06:31,919
is a part of next-gen stem and they have

122
00:06:37,600 --> 00:06:34,770
a whole host of resources for educators

123
00:06:40,179 --> 00:06:37,610
and students including web

124
00:06:42,070 --> 00:06:40,189
that there they're hosting they have

125
00:06:45,070 --> 00:06:42,080
digital badging for students and

126
00:06:48,550 --> 00:06:45,080
educators and finally stem on station

127
00:06:50,469 --> 00:06:48,560
this is a group that focuses on the

128
00:06:52,990 --> 00:06:50,479
science the technology engineering and

129
00:06:54,999 --> 00:06:53,000
mathematics experiments that are

130
00:06:57,850 --> 00:06:55,009
happening on board space station right

131
00:06:59,860 --> 00:06:57,860
now and this year they're celebrating 20

132
00:07:03,429 --> 00:06:59,870
years on the international space station

133
00:07:05,679 --> 00:07:03,439
with a lot of great activities and I'll

134
00:07:08,320 --> 00:07:05,689
talk a little bit more about this on

135
00:07:09,969 --> 00:07:08,330
another slide but one of the things I

136
00:07:12,219 --> 00:07:09,979
wanted to share with you is how you can

137
00:07:14,800 --> 00:07:12,229
actually learn more about the next-gen

138
00:07:17,469 --> 00:07:14,810

STEM resources so if we go to the next

139
00:07:19,659 --> 00:07:17,479
slide you'll see there's a website link

140
00:07:21,879 --> 00:07:19,669
at the bottom it's pretty simple to find

141
00:07:24,249 --> 00:07:21,889
you can probably even just search NASA

142
00:07:27,730 --> 00:07:24,259
next-gen stem using your favorite

143
00:07:30,490 --> 00:07:27,740
browser but if you go to WWE save

144
00:07:32,800 --> 00:07:30,500
forward slash stem forward slash

145
00:07:35,290 --> 00:07:32,810
next-gen stem you can find all of the

146
00:07:38,379 --> 00:07:35,300
resources available there for all five

147
00:07:40,360 --> 00:07:38,389
of the next-gen stem activities but

148
00:07:43,180 --> 00:07:40,370
today I really want to focus on the

149
00:07:44,890 --> 00:07:43,190
Commercial Crew aspect and share with

150
00:07:47,260 --> 00:07:44,900
you all of the different resources and

151
00:07:50,829 --> 00:07:47,270
the whole tool kit that is available

152
00:07:53,050 --> 00:07:50,839
there so on our next slide we have a

153
00:07:55,119 --> 00:07:53,060
list of some of the different types of

154
00:07:57,279 --> 00:07:55,129
things you would find on the CCP or

155
00:07:59,709 --> 00:07:57,289
Commercial Crew program next-gen some

156
00:08:03,430 --> 00:07:59,719
site this includes digital learning

157
00:08:07,629 --> 00:08:03,440
activities such as the ride to station

158
00:08:10,629 --> 00:08:07,639
app we've got a series of webinars that

159
00:08:13,749 --> 00:08:10,639
we're hosting with stem experts this is

160
00:08:17,350 --> 00:08:13,759
called NASA stem stars and you get to

161
00:08:20,350 --> 00:08:17,360
meet each week a new stem professional

162
00:08:22,510 --> 00:08:20,360
at NASA find out how they got to NASA

163
00:08:24,159 --> 00:08:22,520

what their journey was all about and the

164
00:08:26,529 --> 00:08:24,169
kind of work that they're doing here at

165
00:08:29,350 --> 00:08:26,539
NASA right now our next episode is

166
00:08:31,540 --> 00:08:29,360
actually on the 28th of this month so

167
00:08:34,659 --> 00:08:31,550
May 28th at 2:00 p.m. Eastern Daylight

168
00:08:36,759 --> 00:08:34,669
Time and you can learn more about how

169
00:08:38,290 --> 00:08:36,769
water is filtered on the International

170
00:08:41,680 --> 00:08:38,300
Space Station so it's all about water

171
00:08:44,439 --> 00:08:41,690
filtration Joshua you and I actually did

172
00:08:47,110 --> 00:08:44,449
these these virtual tours so we'll be

173
00:08:48,939 --> 00:08:47,120
talking about these a bit tomorrow if

174
00:08:50,920 --> 00:08:48,949
you guys tune in for the some of the

175
00:08:52,990 --> 00:08:50,930
NASA virtual social engage

176
00:08:56,040 --> 00:08:53,000
opportunities tomorrow and these are

177
00:08:59,860 --> 00:08:56,050
really cool behind-the-scenes looks at

178
00:09:01,690 --> 00:08:59,870
what how NASA trains astronauts what our

179
00:09:05,829 --> 00:09:01,700
commercial partners are doing in terms

180
00:09:07,329 --> 00:09:05,839
of developing new rockets in the space

181
00:09:09,220 --> 00:09:07,339
craft that our astronauts are going to

182
00:09:12,400 --> 00:09:09,230
be using to get to the International

183
00:09:14,410 --> 00:09:12,410
Space Station so 360 video is like the

184
00:09:18,400 --> 00:09:14,420
next best thing to actually being there

185
00:09:19,810 --> 00:09:18,410
you can see what it looks like feel like

186
00:09:24,639 --> 00:09:19,820
you're actually there it's like you're

187
00:09:25,900 --> 00:09:24,649
immersed in the scene Rachel a plug for

188
00:09:27,490 --> 00:09:25,910

tomorrow's show

189
00:09:29,800 --> 00:09:27,500
like you mentioned we both got to do

190
00:09:31,180 --> 00:09:29,810
that and in the videos the the tours

191
00:09:32,860 --> 00:09:31,190
that we put together we actually take

192
00:09:36,090 --> 00:09:32,870
you to a few spots that even we couldn't

193
00:09:38,470 --> 00:09:36,100
go so kind of a fun experience for you

194
00:09:40,030 --> 00:09:38,480
it's one thing to be there but the vr is

195
00:09:41,500 --> 00:09:40,040
really really special to get to be

196
00:09:43,300 --> 00:09:41,510
immersed in that environment the other

197
00:09:44,590 --> 00:09:43,310
thing just to kind of key back for a

198
00:09:45,730 --> 00:09:44,600
second you made this comment and I want

199
00:09:48,160 --> 00:09:45,740
to kind of poke at it because it's

200
00:09:50,829 --> 00:09:48,170
really important is that for anybody

201
00:09:53,980 --> 00:09:50,839
that is 19 years or younger there has

202
00:09:55,150 --> 00:09:53,990
always been a human living in space so

203
00:09:56,980 --> 00:09:55,160
let that sink in for a second if you're

204
00:09:59,590 --> 00:09:56,990
19 years or younger there's always been

205
00:10:01,090 --> 00:09:59,600
a human in space so pretty spectacular I

206
00:10:03,430 --> 00:10:01,100
think it's November of this year we

207
00:10:04,630 --> 00:10:03,440
celebrate the 20th anniversary so I'm

208
00:10:05,769 --> 00:10:04,640
super special I'll let you take back

209
00:10:09,370 --> 00:10:05,779
over Rachel but I wanted to kind of just

210
00:10:11,890 --> 00:10:09,380
plug a couple facts there for you yeah

211
00:10:14,140 --> 00:10:11,900
definitely and there are so many cool

212
00:10:15,490 --> 00:10:14,150
things happening at NASA all the time

213
00:10:17,470 --> 00:10:15,500

and that's what's great about next gen

214
00:10:20,320 --> 00:10:17,480
stem is it kind of helps you stay

215
00:10:22,210 --> 00:10:20,330
connected but in an educational way so

216
00:10:24,340 --> 00:10:22,220
you're learning not just about what the

217
00:10:27,910 --> 00:10:24,350
missions are but how they how you can

218
00:10:29,800 --> 00:10:27,920
actually sort of grow into a stem

219
00:10:31,600 --> 00:10:29,810
professional one day yourself and see if

220
00:10:33,640 --> 00:10:31,610
maybe one day you could have a job here

221
00:10:36,579 --> 00:10:33,650
at NASA there's so many different types

222
00:10:38,550 --> 00:10:36,589
of careers to to look into so these

223
00:10:41,410 --> 00:10:38,560
activities are a fun way to explore that

224
00:10:45,100 --> 00:10:41,420
so we do also have a whole host of

225
00:10:46,660 --> 00:10:45,110
hands-on activities from a an

226
00:10:47,650 --> 00:10:46,670
engineering design challenge where you

227
00:10:51,000 --> 00:10:47,660
have designed to build your own

228
00:10:53,680 --> 00:10:51,010
parachute to safely land your extra knot

229
00:10:55,990 --> 00:10:53,690
we have some coding activities where you

230
00:10:58,780 --> 00:10:56,000
can learn how to program and make a

231
00:11:01,630 --> 00:10:58,790
simulation of a spacecraft docking with

232
00:11:03,910 --> 00:11:01,640
the space station and in addition we

233
00:11:04,720 --> 00:11:03,920
have some elementary activities where

234
00:11:08,040 --> 00:11:04,730
you where kid

235
00:11:11,379 --> 00:11:08,050
learn more about the the different

236
00:11:15,370 --> 00:11:11,389
vocabulary terms that go along with with

237
00:11:17,139 --> 00:11:15,380
a space exploration and explore sound

238
00:11:18,730 --> 00:11:17,149

there's just so many really cool

239
00:11:21,129 --> 00:11:18,740
activities Josh I can't even name them

240
00:11:23,230 --> 00:11:21,139
all but the website is the best place to

241
00:11:25,240 --> 00:11:23,240
go in terms of finding getting access to

242
00:11:27,490 --> 00:11:25,250
all of those but one of the racial

243
00:11:29,170 --> 00:11:27,500
classroom we had a question come back

244
00:11:31,329 --> 00:11:29,180
and I think that I think you're kind of

245
00:11:33,100 --> 00:11:31,339
floating around this this this I want to

246
00:11:34,030 --> 00:11:33,110
go ahead and eat this one with students

247
00:11:35,889 --> 00:11:34,040
still at home and many teachers

248
00:11:38,710 --> 00:11:35,899
struggling to keep science accessible

249
00:11:40,060 --> 00:11:38,720
what's the best ways what's the best way

250
00:11:41,889 --> 00:11:40,070
for teachers to both make this launch

251
00:11:43,569 --> 00:11:41,899
accessible to their students while

252
00:11:45,939 --> 00:11:43,579
simultaneously creating a meaningful

253
00:11:47,379 --> 00:11:45,949
learning experience and I think you said

254
00:11:49,150 --> 00:11:47,389
all those resources you just mentioned

255
00:11:51,850 --> 00:11:49,160
can be found at that website nasa.gov

256
00:11:54,280 --> 00:11:51,860
slash stem slash next gen stem there you

257
00:11:56,530 --> 00:11:54,290
see on screen is that correct that is

258
00:11:59,410 --> 00:11:56,540
correct that is the that's the best way

259
00:12:02,019 --> 00:11:59,420
to get access to those and just to let

260
00:12:04,750 --> 00:12:02,029
you know there the activities generally

261
00:12:06,430 --> 00:12:04,760
you can use just regular household items

262
00:12:09,069 --> 00:12:06,440
so this is nothing where you have to go

263
00:12:11,410 --> 00:12:09,079

out and buy anything very like technical

264
00:12:12,970 --> 00:12:11,420
or you wouldn't have these components

265
00:12:14,949 --> 00:12:12,980
these are things that you can build and

266
00:12:16,809 --> 00:12:14,959
do in your own household so that's one

267
00:12:18,550 --> 00:12:16,819
of the great things about these all of

268
00:12:20,860 --> 00:12:18,560
these activities let's go ahead and jump

269
00:12:21,840 --> 00:12:20,870
in now before we go too far and we'll

270
00:12:23,920 --> 00:12:21,850
come out of this and take some questions

271
00:12:25,480 --> 00:12:23,930
but we have a video that you brought

272
00:12:27,430 --> 00:12:25,490
along this is available online as well

273
00:12:29,350 --> 00:12:27,440
and this is a great place to start with

274
00:12:31,750 --> 00:12:29,360
your students or your kids is this is

275
00:12:33,370 --> 00:12:31,760
kind of a really fun kid-friendly

276
00:12:41,140 --> 00:12:33,380
explainer for what the Commercial Crew

277
00:12:46,700 --> 00:12:44,690
ready for launch did you know the last

278
00:12:50,090 --> 00:12:46,710
time we launched astronauts from America

279
00:12:52,250 --> 00:12:50,100
was in 2011 NASA is working with

280
00:12:53,630 --> 00:12:52,260
companies Boeing and SpaceX to take

281
00:12:55,910 --> 00:12:53,640
astronauts to the International Space

282
00:12:59,300 --> 00:12:55,920
Station from America once again

283
00:13:00,980 --> 00:12:59,310
let's look at how this will happen look

284
00:13:04,400 --> 00:13:00,990
at the spacecraft on top of the rocket

285
00:13:05,840 --> 00:13:04,410
this is where humans will be sitting the

286
00:13:08,150 --> 00:13:05,850
astronauts will be buckled into a

287
00:13:10,760 --> 00:13:08,160
spacecraft stacked on top of the rocket

288
00:13:12,920 --> 00:13:10,770

as it is launched into space the rocket

289
00:13:15,530 --> 00:13:12,930
holds all of the fuel needed to get to

290
00:13:17,570 --> 00:13:15,540
space it takes a lot of energy to lift

291
00:13:19,880 --> 00:13:17,580
the rocket off the ground with gravity

292
00:13:21,470 --> 00:13:19,890
constantly pulling it down which is why

293
00:13:23,870 --> 00:13:21,480
most of the rocket is filled with fuel

294
00:13:25,519 --> 00:13:23,880
during the Rockets climb to space it

295
00:13:28,400 --> 00:13:25,529
will increase in speed you see which

296
00:13:29,990 --> 00:13:28,410
means its energy will also increase once

297
00:13:32,750 --> 00:13:30,000
the rocket has made it past Earth's

298
00:13:35,030 --> 00:13:32,760
atmosphere the engine will finally cut

299
00:13:36,620 --> 00:13:35,040
off the rock and the spacecraft will

300
00:13:38,630 --> 00:13:36,630
separate and the astronauts will make

301
00:13:40,190 --> 00:13:38,640
their way toward the station where they

302
00:13:42,440 --> 00:13:40,200
will be working on science experiments

303
00:13:44,060 --> 00:13:42,450
and engineering projects what do you

304
00:13:45,920 --> 00:13:44,070
think will happen when the spacecraft

305
00:13:49,100 --> 00:13:45,930
travels back to earth

306
00:13:51,050 --> 00:13:49,110
vine has made the Starliner cst-100 to

307
00:13:52,490 --> 00:13:51,060
keep astronauts safe as they travel to

308
00:13:54,830 --> 00:13:52,500
and from the station

309
00:13:57,100 --> 00:13:54,840
it's designed to touch down safely on

310
00:13:59,930 --> 00:13:57,110
land in the western United States

311
00:14:01,370 --> 00:13:59,940
Steiner has parachutes you will use as

312
00:14:03,320 --> 00:14:01,380
it prepares for landing

313
00:14:05,120 --> 00:14:03,330

but will also have large air bags

314
00:14:06,920 --> 00:14:05,130
expanding under the spacecraft to

315
00:14:08,710 --> 00:14:06,930
cushion the landing for the astronauts

316
00:14:11,210 --> 00:14:08,720
before stopping completely

317
00:14:12,950 --> 00:14:11,220
SpaceX's crewed dragon was also created

318
00:14:15,530 --> 00:14:12,960
to send astronauts to him from the space

319
00:14:16,820 --> 00:14:15,540
station as the spacecraft comes back to

320
00:14:18,290 --> 00:14:16,830
earth the outside will experience

321
00:14:20,840 --> 00:14:18,300
temperatures over 3,000 degrees

322
00:14:22,400 --> 00:14:20,850
Fahrenheit the crew dragon has been

323
00:14:24,140 --> 00:14:22,410
designed to keep the astronauts inside

324
00:14:25,880 --> 00:14:24,150
comfortable during the ride home to

325
00:14:27,470 --> 00:14:25,890
earth once they are back in the

326
00:14:29,600 --> 00:14:27,480
atmosphere the spacecraft will release

327
00:14:31,610 --> 00:14:29,610
four main parachutes to slow down the

328
00:14:33,860 --> 00:14:31,620
speed and energy of the vehicle before

329
00:14:36,580 --> 00:14:33,870
it splashes down in the Atlantic Ocean

330
00:14:38,830 --> 00:14:36,590
or Gulf of Mexico

331
00:14:41,110 --> 00:14:38,840
these spacecraft are exciting sneak

332
00:14:44,640 --> 00:14:41,120
peeks at the future of space travel and

333
00:14:55,490 --> 00:14:47,980
why my mouth space travel check out this

334
00:14:55,500 --> 00:15:07,660
[Music]

335
00:15:12,010 --> 00:15:10,240
so a super-fun piece there to kind of

336
00:15:13,840 --> 00:15:12,020
explain the Commercial Crew program at

337
00:15:15,250 --> 00:15:13,850
its most basic level that idea of safely

338
00:15:17,320 --> 00:15:15,260

getting humans to and from the space

339
00:15:18,220 --> 00:15:17,330
station with Boeing in space exit break

340
00:15:19,960 --> 00:15:18,230
so I want to throw a couple questions

341
00:15:22,270 --> 00:15:19,970
your way before I let you kind of row

342
00:15:24,340 --> 00:15:22,280
through the rest of your slides question

343
00:15:25,540 --> 00:15:24,350
came in on college students I know you

344
00:15:28,810 --> 00:15:25,550
mentioned that your work is focusing on

345
00:15:30,460 --> 00:15:28,820
K through 12 but the question was

346
00:15:32,410 --> 00:15:30,470
somebody said that I participate in end

347
00:15:33,820 --> 00:15:32,420
cast program and loved it are there any

348
00:15:37,690 --> 00:15:33,830
other opportunities or programs you can

349
00:15:40,120 --> 00:15:37,700
recommend for college students yeah so

350
00:15:42,240 --> 00:15:40,130
actually one of my next slides focuses a

351
00:15:44,590 --> 00:15:42,250
little bit more on the stem on station

352
00:15:48,250 --> 00:15:44,600
component of next gen stem and they do

353
00:15:50,740 --> 00:15:48,260
have an A student payload opportunity

354
00:15:52,900 --> 00:15:50,750
with students the citizen science is

355
00:15:55,630 --> 00:15:52,910
called Spock's and this is an

356
00:15:58,480 --> 00:15:55,640
opportunity for university students so

357
00:16:00,670 --> 00:15:58,490
you know after after you graduate and

358
00:16:03,610 --> 00:16:00,680
you're in college program you could

359
00:16:05,770 --> 00:16:03,620
participate in this and in the spots

360
00:16:07,360 --> 00:16:05,780
program you get to actually design your

361
00:16:09,820 --> 00:16:07,370
own payload that would go up to the

362
00:16:11,740 --> 00:16:09,830
International Space Station there's a

363
00:16:14,200 --> 00:16:11,750

little bit of information currently on

364
00:16:17,110 --> 00:16:14,210
the stem on station page about Spock's

365
00:16:18,580 --> 00:16:17,120
but you can you can learn more this fall

366
00:16:20,560 --> 00:16:18,590
they'll be coming out with more specific

367
00:16:23,260 --> 00:16:20,570
details about how you can participate

368
00:16:25,030 --> 00:16:23,270
and and when and where to sign up but

369
00:16:26,800 --> 00:16:25,040
that's just one example and I know

370
00:16:29,200 --> 00:16:26,810
Joshua you actually have some experience

371
00:16:31,090 --> 00:16:29,210
too I believe you worked with NASA when

372
00:16:32,530 --> 00:16:31,100
you were in college so can you tell them

373
00:16:34,060 --> 00:16:32,540
a little bit about how you actually got

374
00:16:35,470 --> 00:16:34,070
involved yeah I'll become the

375
00:16:38,260 --> 00:16:35,480
interviewee for a second appreciate that

376
00:16:39,970 --> 00:16:38,270
so I started out as an intern through a

377
00:16:43,060 --> 00:16:39,980
contract out here so people may not know

378
00:16:44,470 --> 00:16:43,070
that there's roughly across the agency a

379
00:16:46,570 --> 00:16:44,480
tenth of the employees I think that's

380
00:16:48,430 --> 00:16:46,580
the number a tenth are actually federal

381
00:16:50,440 --> 00:16:48,440
employees and the other ninety percent

382
00:16:52,150 --> 00:16:50,450
or so are contractors which means that

383
00:16:54,580 --> 00:16:52,160
they're employed by another company that

384
00:16:56,770 --> 00:16:54,590
that holds a NASA contract and so I was

385
00:16:58,570 --> 00:16:56,780
in an intern with a contract for a

386
00:17:00,940 --> 00:16:58,580
semester and then got what was at the

387
00:17:03,400 --> 00:17:00,950
time co-op program now it's called the

388
00:17:06,040 --> 00:17:03,410

pathways program which is actually kind

389
00:17:07,870 --> 00:17:06,050
of like an ongoing internship program

390
00:17:09,580 --> 00:17:07,880
where you're essentially the the

391
00:17:10,780 --> 00:17:09,590
standard historically has been that you

392
00:17:12,310 --> 00:17:10,790
go to school for a semester and then

393
00:17:13,600 --> 00:17:12,320
work for a semester and you keep

394
00:17:16,210 --> 00:17:13,610
alternating until you finish your degree

395
00:17:17,560 --> 00:17:16,220
and then some some of those students

396
00:17:18,910 --> 00:17:17,570
have the opportunity to be hired on and

397
00:17:21,240 --> 00:17:18,920
I was fortunate to be one of those so

398
00:17:23,370 --> 00:17:21,250
started in college like you mentioned

399
00:17:25,110 --> 00:17:23,380
got hired out of college which was a so

400
00:17:27,179 --> 00:17:25,120
grateful for that it's been a really fun

401
00:17:29,580 --> 00:17:27,189
11 years or so working here getting to

402
00:17:31,260 --> 00:17:29,590
work with amazing people like Rachel and

403
00:17:33,150 --> 00:17:31,270
I'll throw back another question your

404
00:17:34,440 --> 00:17:33,160
way before we get moving here

405
00:17:37,350 --> 00:17:34,450
the question was what subjects are

406
00:17:39,000 --> 00:17:37,360
fields most students pursue who aspire

407
00:17:40,950 --> 00:17:39,010
to work in NASA and so that's really

408
00:17:44,670 --> 00:17:40,960
kind of a careers question is there any

409
00:17:46,530 --> 00:17:44,680
limit to the careers that we hire it

410
00:17:48,900 --> 00:17:46,540
doesn't really feel that way because as

411
00:17:50,700 --> 00:17:48,910
we have been filming these NASA stem

412
00:17:52,920 --> 00:17:50,710
stars and of course our focus has been

413
00:17:54,720 --> 00:17:52,930

on stem professionals so that that means

414
00:17:56,580 --> 00:17:54,730
of course where we're focusing on those

415
00:17:59,640 --> 00:17:56,590
who have technical degrees and science

416
00:18:02,460 --> 00:17:59,650
or engineering or mathematics but really

417
00:18:03,690 --> 00:18:02,470
that's not the limit I mean if we went

418
00:18:05,640 --> 00:18:03,700
around Center and started interviewing

419
00:18:07,500 --> 00:18:05,650
people and asking them you know what's

420
00:18:10,140 --> 00:18:07,510
your background what did you how did you

421
00:18:13,050 --> 00:18:10,150
get here we have such a wide variety we

422
00:18:16,800 --> 00:18:13,060
have we have accountants we have artists

423
00:18:19,350 --> 00:18:16,810
we have I mean pretty much you name it

424
00:18:20,430 --> 00:18:19,360
lawyers yeah journalists you know like

425
00:18:24,030 --> 00:18:20,440
you could you could work in

426
00:18:25,290 --> 00:18:24,040
communications or such a variety so it's

427
00:18:26,550 --> 00:18:25,300
really just depends on what your

428
00:18:29,370 --> 00:18:26,560
interests are yeah you could be an

429
00:18:31,500 --> 00:18:29,380
educator and end up working at NASA so I

430
00:18:34,170 --> 00:18:31,510
would just say follow you know whatever

431
00:18:36,330 --> 00:18:34,180
your passion is and if space is part of

432
00:18:38,580 --> 00:18:36,340
that there still could be a place for

433
00:18:40,320 --> 00:18:38,590
you again whether you're interested in

434
00:18:42,800 --> 00:18:40,330
in a stem field or whether you're

435
00:18:46,680 --> 00:18:42,810
interested in kind of more of a and art

436
00:18:49,710 --> 00:18:46,690
communications or business degree yeah

437
00:18:51,060 --> 00:18:49,720
it's a fun challenge I think thus far at

438
00:18:52,740 --> 00:18:51,070

one point I think that we had found a

439
00:18:54,630 --> 00:18:52,750
couple but I think I've since learned

440
00:18:57,810 --> 00:18:54,640
that those bring corrective is there a

441
00:19:00,120 --> 00:18:57,820
career that NASA hasn't paid someone

442
00:19:02,310 --> 00:19:00,130
from that career field to do a job for

443
00:19:04,290 --> 00:19:02,320
NASA and I think that at this point I

444
00:19:05,250 --> 00:19:04,300
know of none so it's a fun challenge to

445
00:19:08,970 --> 00:19:05,260
think about that is there something we

446
00:19:11,970 --> 00:19:08,980
haven't paid to do work hey your actual

447
00:19:13,770 --> 00:19:11,980
so in the NASA hierarchy up at the

448
00:19:15,570 --> 00:19:13,780
headquarters level there's a there's the

449
00:19:17,310 --> 00:19:15,580
associate administrator for stem

450
00:19:18,450 --> 00:19:17,320
engagement that's the head of stem

451
00:19:19,980 --> 00:19:18,460
engagement for the agency his name's

452
00:19:21,330 --> 00:19:19,990
Mike Kincaid and he actually sent along

453
00:19:23,820 --> 00:19:21,340
a video he was hoping to be here in

454
00:19:25,170 --> 00:19:23,830
person with us but with travel

455
00:19:27,480 --> 00:19:25,180
restrictions and safety and health

456
00:19:29,250 --> 00:19:27,490
concerns he decided to send this video

457
00:19:30,090 --> 00:19:29,260
along instead just to say hello and tell

458
00:19:31,320 --> 00:19:30,100
you about some of the great work that

459
00:19:33,020 --> 00:19:31,330
stem engagement is up to let's take a

460
00:19:35,000 --> 00:19:33,030
look at that

461
00:19:37,820 --> 00:19:35,010
hi everyone thanks for joining us today

462
00:19:39,650 --> 00:19:37,830
as we celebrate launch America my name

463
00:19:41,450 --> 00:19:39,660

is Mike Kincaid I'm the associate

464
00:19:44,360 --> 00:19:41,460
administrator for NASA's office systemic

465
00:19:46,940 --> 00:19:44,370
agent arguably for me but over thirty

466
00:19:48,800 --> 00:19:46,950
years ago I was an intern just started

467
00:19:51,110 --> 00:19:48,810
the Johnson Space Center and today our

468
00:19:53,120 --> 00:19:51,120
team is involving the next generation

469
00:19:54,950 --> 00:19:53,130
explorers and NASA's current missions

470
00:19:56,870 --> 00:19:54,960
it's exciting time to be part of it

471
00:19:59,450 --> 00:19:56,880
there are tons of new ventures on her

472
00:20:01,130 --> 00:19:59,460
ice including this historic launch to

473
00:20:03,440 --> 00:20:01,140
the International Space Station from the

474
00:20:05,480 --> 00:20:03,450
Kennedy Space Center but that's not all

475
00:20:06,770 --> 00:20:05,490
there's plenty of other ways for you and

476
00:20:08,240 --> 00:20:06,780
the students that you'd know to be

477
00:20:11,180 --> 00:20:08,250
involved in the work that we do at NASA

478
00:20:13,460 --> 00:20:11,190
they can help us revolutionize domestic

479
00:20:15,320 --> 00:20:13,470
air travel in this country they can help

480
00:20:17,450 --> 00:20:15,330
us to prepare to launch a helicopter

481
00:20:19,790 --> 00:20:17,460
this summer to conduct operations on the

482
00:20:22,760 --> 00:20:19,800
surface of Mars they can help us study

483
00:20:24,230 --> 00:20:22,770
our home planet and my personal favorite

484
00:20:26,510 --> 00:20:24,240
that can help us system the first woman

485
00:20:28,580 --> 00:20:26,520
and the next man to the surface of the

486
00:20:31,160 --> 00:20:28,590
Moon there's never been a more exciting

487
00:20:33,380 --> 00:20:31,170
time to be part of NASA and our efforts

488
00:20:36,260 --> 00:20:33,390

with science technology engineering and

489
00:20:38,090 --> 00:20:36,270
math for up Teno college to have them

490
00:20:39,650 --> 00:20:38,100
learn more about internships in fact

491
00:20:42,050 --> 00:20:39,660
this summer we'll have over a thousand

492
00:20:44,570 --> 00:20:42,060
interns participating with us from their

493
00:20:46,100 --> 00:20:44,580
own homes it's virtual insurance or

494
00:20:47,270 --> 00:20:46,110
enough maybe no other college students

495
00:20:48,770 --> 00:20:47,280
who'd like to be part of the Artemis

496
00:20:51,440 --> 00:20:48,780
student challenges thinking that was

497
00:20:54,380 --> 00:20:51,450
designed Rovers a mining robot or help

498
00:20:55,520 --> 00:20:54,390
us to to best use the spacesuits there's

499
00:20:58,130 --> 00:20:55,530
lots of ways that they can help

500
00:20:59,540 --> 00:20:58,140
contribute to NASA's work we'd love for

501
00:21:02,450 --> 00:20:59,550
you to continue follow us on social

502
00:21:04,100 --> 00:21:02,460
media or sign up for mass express every

503
00:21:05,690 --> 00:21:04,110
Thursday we'll send you an email with

504
00:21:07,250 --> 00:21:05,700
ways that you and the people that he

505
00:21:09,170 --> 00:21:07,260
know can get involved NASA and our

506
00:21:11,120 --> 00:21:09,180
missions we would love for you to help

507
00:21:13,340 --> 00:21:11,130
us build this next generation of

508
00:21:14,870 --> 00:21:13,350
explorers we'd love for you to share

509
00:21:16,820 --> 00:21:14,880
with your network so that other students

510
00:21:18,530 --> 00:21:16,830
can participate and be part of the

511
00:21:20,270 --> 00:21:18,540
future as we do all these exciting

512
00:21:21,620 --> 00:21:20,280
things together thanks for your time

513
00:21:25,700 --> 00:21:21,630

today and thanks for being part of this

514
00:21:27,110 --> 00:21:25,710
necessary so there you go even my

515
00:21:29,750 --> 00:21:27,120
Kincaid the head of stem engagement for

516
00:21:31,760 --> 00:21:29,760
the agency started as an intern so it's

517
00:21:33,260 --> 00:21:31,770
it certainly is a very common story to

518
00:21:34,610 --> 00:21:33,270
be told right so we're running out of

519
00:21:36,410 --> 00:21:34,620
time here so let me let you power

520
00:21:38,000 --> 00:21:36,420
through these last few slides we'll take

521
00:21:39,500 --> 00:21:38,010
one or two more questions and then we

522
00:21:41,560 --> 00:21:39,510
will wish everyone well for today so go

523
00:21:45,200 --> 00:21:41,570
ahead and wrap up here with these slides

524
00:21:46,560 --> 00:21:45,210
thanks Joshua yeah so I think we hit a

525
00:21:48,659 --> 00:21:46,570
little bit already on the stem on

526
00:21:51,029 --> 00:21:48,669
but this just allows you to stay

527
00:21:52,139 --> 00:21:51,039
connected even after the crew gets on

528
00:21:54,090 --> 00:21:52,149
orbit if you want to know what's

529
00:21:56,370 --> 00:21:54,100
happening there's opportunities to learn

530
00:21:57,870 --> 00:21:56,380
more about doing an in-flight education

531
00:22:00,419 --> 00:21:57,880
downlink where you can connect directly

532
00:22:02,580 --> 00:22:00,429
with astronauts onboard station there's

533
00:22:05,519 --> 00:22:02,590
the there's a texas instrument coding

534
00:22:08,730 --> 00:22:05,529
challenge but I would be remiss if I

535
00:22:11,490 --> 00:22:08,740
didn't mention our demo to launch kit

536
00:22:13,560 --> 00:22:11,500
which we put together specifically for

537
00:22:17,070 --> 00:22:13,570
this purpose to help you get connected

538
00:22:19,379 --> 00:22:17,080

and learn more about the Commercial Crew

539
00:22:21,180 --> 00:22:19,389
program and how you as educators and

540
00:22:23,159 --> 00:22:21,190
students and parents at home can

541
00:22:24,810 --> 00:22:23,169
constraint connected so one of the

542
00:22:26,249 --> 00:22:24,820
things that we're doing is our educator

543
00:22:29,129 --> 00:22:26,259
professional development collaborative

544
00:22:32,070 --> 00:22:29,139
has put on a series of webinars the next

545
00:22:35,460 --> 00:22:32,080
one is actually today from 4:30 to 5:30

546
00:22:37,200 --> 00:22:35,470
p.m. Eastern Daylight Time and this one

547
00:22:38,759 --> 00:22:37,210
will be on crew training and flight

548
00:22:40,740 --> 00:22:38,769
readiness and talking a little bit about

549
00:22:44,279 --> 00:22:40,750
how simulation is used for training

550
00:22:46,919 --> 00:22:44,289
astronauts the next one will be after

551
00:22:48,560 --> 00:22:46,929
that will be on the 28th from 4:30 to

552
00:22:51,330 --> 00:22:48,570
5:30 Eastern Daylight Time

553
00:22:53,789 --> 00:22:51,340
to talk about the future implications of

554
00:22:55,769 --> 00:22:53,799
commercial spaceflight and the

555
00:22:57,330 --> 00:22:55,779
partnerships with NASA so we've been

556
00:22:59,220 --> 00:22:57,340
doing these webinars we have this

557
00:23:01,860 --> 00:22:59,230
virtual NASA social which we're part of

558
00:23:03,869 --> 00:23:01,870
right now but the launch kit itself is

559
00:23:06,690 --> 00:23:03,879
available online you can check it out

560
00:23:08,610 --> 00:23:06,700
there's activities for K through 12

561
00:23:11,970 --> 00:23:08,620
including the ones I mentioned already

562
00:23:14,820 --> 00:23:11,980
there are principles which are bookmarks

563
00:23:17,850 --> 00:23:14,830

and poster or astronaut training cards

564
00:23:21,480 --> 00:23:17,860
if you want to download those and print

565
00:23:23,190 --> 00:23:21,490
them out the there's presentations if

566
00:23:25,230 --> 00:23:23,200
you would like to use them in a

567
00:23:27,990 --> 00:23:25,240
classroom setting or with your children

568
00:23:29,159 --> 00:23:28,000
at home to learn more about just kind of

569
00:23:32,279 --> 00:23:29,169
what is the Commercial Crew

570
00:23:35,159 --> 00:23:32,289
there's even a launch day play-by-play

571
00:23:37,590 --> 00:23:35,169
so you can understand what is happening

572
00:23:41,279 --> 00:23:37,600
with the astronauts throughout the day

573
00:23:43,049 --> 00:23:41,289
tomorrow so that is a really cool tool

574
00:23:44,730 --> 00:23:43,059
to use is to just stay connected and

575
00:23:47,879 --> 00:23:44,740
understand but finally there are

576
00:23:50,430 --> 00:23:47,889
multimedia resources videos like the one

577
00:23:53,009 --> 00:23:50,440
we showed you earlier as well as the

578
00:23:55,470 --> 00:23:53,019
virtual reality or 360 videos that

579
00:23:58,619 --> 00:23:55,480
Joshua and I filmed so you can take a VR

580
00:24:00,210 --> 00:23:58,629
field trip to learn more about SpaceX

581
00:24:02,190 --> 00:24:00,220
and learn more about the astronaut

582
00:24:04,320 --> 00:24:02,200
training to get prepared for this

583
00:24:07,169 --> 00:24:04,330
mission today so if you want to stay

584
00:24:09,360 --> 00:24:07,179
connected there is a social media cheat

585
00:24:11,130 --> 00:24:09,370
sheet where you can learn how to stay

586
00:24:13,770 --> 00:24:11,140
connected not only with NASA stem but

587
00:24:15,180 --> 00:24:13,780
also with the Commercial Crew program so

588
00:24:16,680 --> 00:24:15,190

Josh I think that pretty much covers

589
00:24:18,210 --> 00:24:16,690
everything in the launch that they

590
00:24:19,590 --> 00:24:18,220
really just need to go explore it but

591
00:24:21,779 --> 00:24:19,600
it's a great resource

592
00:24:25,409 --> 00:24:21,789
yeah remind us that's at the nasa.gov

593
00:24:27,990 --> 00:24:25,419
slash stem slash next gen stem Kratts

594
00:24:30,539 --> 00:24:28,000
perfect yeah so check that out again as

595
00:24:32,460 --> 00:24:30,549
Rachel mentioned great resources good

596
00:24:33,810 --> 00:24:32,470
material and all really relevant for

597
00:24:35,970 --> 00:24:33,820
today and tomorrow as we get ready to

598
00:24:37,890 --> 00:24:35,980
launch America so I think we're gonna

599
00:24:41,909 --> 00:24:37,900
take one last question for you and then

600
00:24:45,060 --> 00:24:41,919
we'll sign off for now the question was

601
00:24:48,419 --> 00:24:45,070
I've lost it oh it was the is there a

602
00:24:50,250 --> 00:24:48,429
one-stop shop location for materials and

603
00:24:52,230 --> 00:24:50,260
resources obviously the next gen stem is

604
00:24:53,850 --> 00:24:52,240
pretty focused in that area is there

605
00:24:57,000 --> 00:24:53,860
kind of a broader page is that nasa.gov

606
00:24:58,620 --> 00:24:57,010
slash stem a good spot yes that's an

607
00:25:01,260 --> 00:24:58,630
excellent place to go because you'll

608
00:25:04,680 --> 00:25:01,270
link to the next gen sub site as well as

609
00:25:07,919 --> 00:25:04,690
other resources so nasa.gov ford slash

610
00:25:10,260 --> 00:25:07,929
stem is your one-stop shop for all nasa

611
00:25:13,140 --> 00:25:10,270
stem activities including next gen stem

612
00:25:15,180 --> 00:25:13,150
the launch cadet more yeah and it's it's

613
00:25:17,520 --> 00:25:15,190

pretty expansive so don't be intimidated

614
00:25:18,990 --> 00:25:17,530
take some time hunt around play around

615
00:25:20,399 --> 00:25:19,000
there's lots of good stuff in there and

616
00:25:22,710 --> 00:25:20,409
you can always visit the next gen stem

617
00:25:25,770 --> 00:25:22,720
section of that page for the details

618
00:25:27,500 --> 00:25:25,780
alright so for us Rachel I'm gonna go

619
00:25:29,850 --> 00:25:27,510
ahead and say thank you and have you

620
00:25:31,169 --> 00:25:29,860
wish you well I will actually see you

621
00:25:32,580 --> 00:25:31,179
tomorrow morning and our guests will see

622
00:25:35,100 --> 00:25:32,590
you tomorrow we're gonna take a closer

623
00:25:36,840 --> 00:25:35,110
look at those 360p our videos we wanted

624
00:25:39,149 --> 00:25:36,850
to share some more about those they're

625
00:25:41,159 --> 00:25:39,159
really special and fun you don't have to

626
00:25:43,049 --> 00:25:41,169
have VR glasses or goggles to enjoy

627
00:25:44,760 --> 00:25:43,059
those they're enjoyable for anybody that

628
00:25:46,470 --> 00:25:44,770
can access them online which is easy

629
00:25:48,240 --> 00:25:46,480
they're on youtube on our NASA Kennedy

630
00:25:50,850 --> 00:25:48,250
Channel so Rachel I'll see you in the

631
00:25:52,560 --> 00:25:50,860
morning alright see you then Joshua

632
00:25:54,029 --> 00:25:52,570
thank you thanks and from here at the

633
00:25:55,799 --> 00:25:54,039
Kennedy Space Center with the beauty

634
00:25:57,779 --> 00:25:55,809
Atlantis that's gonna be all for this

635
00:25:59,909 --> 00:25:57,789
show tune in in just a little bit here

636
00:26:02,039 --> 00:25:59,919
the next up is we have deputy

637
00:26:03,960 --> 00:26:02,049
administrator for the agency this is the

638
00:26:05,669 --> 00:26:03,970

number-two guy in the entire agency Jim

639
00:26:08,190 --> 00:26:05,679
Moore heart he'll be here at 2 o'clock

640
00:26:08,610 --> 00:26:08,200
Eastern time today so we will see you

641
00:26:13,020 --> 00:26:08,620
shortly