
BOEING

1
00:00:09,440 --> 00:00:12,580
do

2
00:00:28,950 --> 00:00:19,700
[Music]

3
00:00:33,270 --> 00:00:31,029
well good morning everybody and welcome

4
00:00:35,430 --> 00:00:33,280
to our live coverage of boeing's pad

5
00:00:37,110 --> 00:00:35,440
abort test we are coming to you live

6
00:00:39,590 --> 00:00:37,120
from the desert out at the white sands

7
00:00:41,270 --> 00:00:39,600
missile range in new mexico i'm nasa's

8
00:00:43,190 --> 00:00:41,280
dan hewitt and i have the privilege

9
00:00:44,630 --> 00:00:43,200
today to be joined by jessica landa with

10
00:00:46,709 --> 00:00:44,640
boeing for what's going to be a very

11
00:00:48,229 --> 00:00:46,719
exciting and dynamic morning that's

12
00:00:50,389 --> 00:00:48,239
right janet it's an absolute pleasure to

13
00:00:52,310 --> 00:00:50,399

be out here with you i mean it is such a

14
00:00:53,670 --> 00:00:52,320
beautiful morning today on the out of

15
00:00:55,510 --> 00:00:53,680
the desert and it could be a little

16
00:00:56,950 --> 00:00:55,520
warmer it could definitely be a little

17
00:00:59,110 --> 00:00:56,960
warmer we were struggling a couple of

18
00:01:01,590 --> 00:00:59,120
days ago weren't we but we just could

19
00:01:04,229 --> 00:01:01,600
not ask for a more beautiful morning for

20
00:01:06,469 --> 00:01:04,239
starliner's very first flight test pad

21
00:01:08,469 --> 00:01:06,479
abort which is really one of the last

22
00:01:09,830 --> 00:01:08,479
major milestones ahead of crew flight

23
00:01:11,830 --> 00:01:09,840
and there's going to be a lot of stuff

24
00:01:13,750 --> 00:01:11,840
happening really quickly and again it's

25
00:01:15,270 --> 00:01:13,760
going to be a really dynamic test so

26
00:01:17,030 --> 00:01:15,280
let's kind of paint a picture for what

27
00:01:19,030 --> 00:01:17,040
people are going to see today yeah so at

28
00:01:22,550 --> 00:01:19,040
this point we're about nine minutes away

29
00:01:23,270 --> 00:01:22,560
from liftoff and uh dan and i here we

30
00:01:26,630 --> 00:01:23,280
are

31
00:01:28,950 --> 00:01:26,640
about five miles west of the test stand

32
00:01:29,910 --> 00:01:28,960
and the mission director center is

33
00:01:33,030 --> 00:01:29,920
another

34
00:01:35,270 --> 00:01:33,040
500 feet or so west of us so we did our

35
00:01:38,469 --> 00:01:35,280
launch minus 30 pole about

36
00:01:40,789 --> 00:01:38,479
was it 20 minutes ago all good

37
00:01:42,389 --> 00:01:40,799
all goes across the board the wind at

38
00:01:44,469 --> 00:01:42,399

this point that wind sock over there

39
00:01:45,910 --> 00:01:44,479
behind us is really barely moving winds

40
00:01:48,469 --> 00:01:45,920
slightly out of the east so we are

41
00:01:49,990 --> 00:01:48,479
looking really good and there's just uh

42
00:01:52,069 --> 00:01:50,000
there's a couple of key objectives that

43
00:01:53,510 --> 00:01:52,079
we're going to be looking for today what

44
00:01:55,030 --> 00:01:53,520
are we really because obviously we're

45
00:01:56,550 --> 00:01:55,040
going to see those launch abort engines

46
00:01:57,830 --> 00:01:56,560
fire that's going to be the first that's

47
00:02:00,069 --> 00:01:57,840
going to kick off a really quick

48
00:02:02,550 --> 00:02:00,079
sequence of this paddleboard yeah so

49
00:02:04,310 --> 00:02:02,560
absolutely so pad abort test is really

50
00:02:06,469 --> 00:02:04,320
a test of starliner's end-to-end

51
00:02:08,070 --> 00:02:06,479
functionality of our abort system so you

52
00:02:09,990 --> 00:02:08,080
know we have to make sure that we can

53
00:02:11,270 --> 00:02:10,000
keep the crew safe in the unlikely event

54
00:02:12,949 --> 00:02:11,280
that there's an emergency and

55
00:02:14,309 --> 00:02:12,959
starliner's abort system is really

56
00:02:15,990 --> 00:02:14,319
designed to be able to successfully

57
00:02:17,430 --> 00:02:16,000
abort in all phases of flight so not

58
00:02:19,910 --> 00:02:17,440
just on the pad but all the way up the

59
00:02:21,589 --> 00:02:19,920
ascent profile and you know we've tested

60
00:02:23,830 --> 00:02:21,599
the system at the component level we've

61
00:02:25,430 --> 00:02:23,840
tested at the you know subsystem level

62
00:02:27,350 --> 00:02:25,440
and now we're testing at the integrated

63
00:02:28,790 --> 00:02:27,360

system performance level so we really

64
00:02:31,030 --> 00:02:28,800
want to make sure that all these systems

65
00:02:32,630 --> 00:02:31,040
are going to work together um so that we

66
00:02:34,390 --> 00:02:32,640
can keep our crews safe so some of the

67
00:02:36,550 --> 00:02:34,400
things that you really want to keep

68
00:02:38,309 --> 00:02:36,560
in mind is we really want those launch

69
00:02:42,070 --> 00:02:38,319
abort engines to be able to propel that

70
00:02:43,830 --> 00:02:42,080
spacecraft um away from the the launch

71
00:02:46,470 --> 00:02:43,840
vehicle adapter that's actually right

72
00:02:48,229 --> 00:02:46,480
there at the pad uh today's filling in

73
00:02:50,470 --> 00:02:48,239
for united launch alliance's atlas v

74
00:02:52,630 --> 00:02:50,480
rocket so we've got four major launch

75
00:02:55,270 --> 00:02:52,640
board engines 40 000 pounds of thrust

76
00:02:57,030 --> 00:02:55,280
each and we've got um about a dozen or

77
00:02:59,430 --> 00:02:57,040
so omacs which are orbital maneuvering

78
00:03:01,030 --> 00:02:59,440
and attitude control thrusters 1500

79
00:03:04,149 --> 00:03:01,040
pounds each so we really want to see

80
00:03:05,990 --> 00:03:04,159
them propel that spacecraft safely away

81
00:03:07,030 --> 00:03:06,000
in the unlikely event of an emergency

82
00:03:09,030 --> 00:03:07,040
you know the next thing you want to

83
00:03:10,390 --> 00:03:09,040
really look out for is is guidance

84
00:03:11,670 --> 00:03:10,400
navigation and control you know we

85
00:03:13,030 --> 00:03:11,680
really have to be in control of that

86
00:03:14,710 --> 00:03:13,040
spacecraft the whole time and it's got

87
00:03:17,030 --> 00:03:14,720
to go in the general direction that we

88
00:03:19,110 --> 00:03:17,040

need it to go right especially on on

89
00:03:20,630 --> 00:03:19,120
launch day if this were the real thing

90
00:03:22,630 --> 00:03:20,640
we've got to be able to make it over to

91
00:03:24,309 --> 00:03:22,640
the atlantic ocean

92
00:03:25,910 --> 00:03:24,319
and then you know all of our separation

93
00:03:28,149 --> 00:03:25,920
events have to work properly you got to

94
00:03:31,190 --> 00:03:28,159
see the parachute sequence

95
00:03:33,030 --> 00:03:31,200
you know jettison and and initiate

96
00:03:34,869 --> 00:03:33,040
correctly and then really one of the

97
00:03:36,550 --> 00:03:34,879
other main separation events that i just

98
00:03:38,309 --> 00:03:36,560
want to mention for you is you're going

99
00:03:40,470 --> 00:03:38,319
to see the service module separate from

100
00:03:42,309 --> 00:03:40,480
the crew module and that's a really

101
00:03:43,910 --> 00:03:42,319
critical separation event and i'm going

102
00:03:45,830 --> 00:03:43,920
to walk you through an animation here in

103
00:03:47,509 --> 00:03:45,840
just a minute but before i do that just

104
00:03:48,949 --> 00:03:47,519
keep in mind that service module is

105
00:03:50,949 --> 00:03:48,959
going to separate from the crew module

106
00:03:53,429 --> 00:03:50,959
it's going to free fall to the ground

107
00:03:55,589 --> 00:03:53,439
and some residual propellant that's left

108
00:03:57,190 --> 00:03:55,599
over in that vehicle may actually ignite

109
00:03:59,429 --> 00:03:57,200
and it may flame a little bit you might

110
00:04:01,429 --> 00:03:59,439
actually see some a colored smoke trail

111
00:04:03,350 --> 00:04:01,439
uh but that is exactly what we expect to

112
00:04:04,949 --> 00:04:03,360
happen uh keep in mind if this were the

113
00:04:06,550 --> 00:04:04,959

real thing it'd be landing in the ocean

114
00:04:08,470 --> 00:04:06,560
but today it's landing on the desert so

115
00:04:10,309 --> 00:04:08,480
if we see some extra fireworks today it

116
00:04:12,149 --> 00:04:10,319
is expected and that's that's you'll be

117
00:04:13,509 --> 00:04:12,159
seeing what we expect yeah so why don't

118
00:04:15,190 --> 00:04:13,519
we go through the animation yeah it's

119
00:04:16,949 --> 00:04:15,200
absolutely expected i mean this is going

120
00:04:18,789 --> 00:04:16,959
to be a really dynamic couple of minutes

121
00:04:20,550 --> 00:04:18,799
let me take you through it here

122
00:04:22,629 --> 00:04:20,560
so you're going to have those launch

123
00:04:24,629 --> 00:04:22,639
abort engines ignite those leds are

124
00:04:26,230 --> 00:04:24,639
going to fire for about five seconds

125
00:04:27,990 --> 00:04:26,240
those omacs are going to continue to

126
00:04:30,390 --> 00:04:28,000
fire intermittently for another five

127
00:04:33,189 --> 00:04:30,400
seconds that just gets the spacecraft in

128
00:04:34,870 --> 00:04:33,199
the right trajectory um and then just

129
00:04:36,629 --> 00:04:34,880
this is all going to go pretty fast

130
00:04:38,150 --> 00:04:36,639
before you know it the spacecraft is

131
00:04:40,310 --> 00:04:38,160
going to start to do its pitch around

132
00:04:42,150 --> 00:04:40,320
maneuver which gets itself in the proper

133
00:04:43,909 --> 00:04:42,160
orientation of land you're going to see

134
00:04:45,830 --> 00:04:43,919
that ascent cover and that forward heat

135
00:04:49,030 --> 00:04:45,840
shield jettison together followed by the

136
00:04:50,629 --> 00:04:49,040
parachute sequence two drogue parachutes

137
00:04:52,469 --> 00:04:50,639
followed by three pilot parachutes

138
00:04:53,749 --> 00:04:52,479

that's jobs are really just to bring out

139
00:04:55,350 --> 00:04:53,759
the mains

140
00:04:57,749 --> 00:04:55,360
and then you're going to see three main

141
00:04:59,430 --> 00:04:57,759
parachutes deploy and really you know

142
00:05:01,110 --> 00:04:59,440
parachutes are really pulling double

143
00:05:02,870 --> 00:05:01,120
duty here because not only are they

144
00:05:04,790 --> 00:05:02,880
designed to bring the crew module safely

145
00:05:06,790 --> 00:05:04,800
and slowly back down to the ground but

146
00:05:08,950 --> 00:05:06,800
they're also being jettisoned at the

147
00:05:11,430 --> 00:05:08,960
proper time are deployed at the proper

148
00:05:13,189 --> 00:05:11,440
time to to make sure the spacecraft is

149
00:05:14,790 --> 00:05:13,199
in the proper orientation to properly

150
00:05:16,710 --> 00:05:14,800
separate that service module from the

151
00:05:18,150 --> 00:05:16,720
crew module but like i said you want to

152
00:05:19,670 --> 00:05:18,160
keep your eyes on that crew module

153
00:05:21,270 --> 00:05:19,680
because that's where our of course our

154
00:05:23,510 --> 00:05:21,280
precious cargo is

155
00:05:25,110 --> 00:05:23,520
about 60 seconds into flight that base

156
00:05:27,350 --> 00:05:25,120
heat shield is going to jettison and

157
00:05:29,590 --> 00:05:27,360
that allows for those gorgeous landing

158
00:05:31,270 --> 00:05:29,600
airbags to deploy you know keep in mind

159
00:05:33,430 --> 00:05:31,280
here starliner is going to be the very

160
00:05:35,350 --> 00:05:33,440
first american-made orbital crew capsule

161
00:05:38,710 --> 00:05:35,360
to land on land and you're going to get

162
00:05:40,150 --> 00:05:38,720
a bit of a preview of that today

163
00:05:41,749 --> 00:05:40,160

that's right and we've been out here a

164
00:05:43,830 --> 00:05:41,759
couple of times doing those landing

165
00:05:45,670 --> 00:05:43,840
tests one of the prime landing zones for

166
00:05:47,749 --> 00:05:45,680
style starliner is going to be here at

167
00:05:49,590 --> 00:05:47,759
the whitestone space harbor actually

168
00:05:51,430 --> 00:05:49,600
right by an old runway that the shuttle

169
00:05:54,230 --> 00:05:51,440
landed on one time in its program on

170
00:05:56,230 --> 00:05:54,240
sts-3 so a lot of exciting stuff

171
00:05:57,749 --> 00:05:56,240
happening today it is important to note

172
00:05:59,350 --> 00:05:57,759
i mean this is this is a challenging

173
00:06:00,790 --> 00:05:59,360
test we're really putting the vehicle in

174
00:06:02,710 --> 00:06:00,800
kind of one of the most dynamic

175
00:06:04,230 --> 00:06:02,720
situations it could possibly be in

176
00:06:05,350 --> 00:06:04,240
europe you're simulating getting the

177
00:06:07,749 --> 00:06:05,360
crew out of

178
00:06:09,830 --> 00:06:07,759
an extremely dangerous situation and at

179
00:06:11,430 --> 00:06:09,840
nasa we have some pretty recent history

180
00:06:13,990 --> 00:06:11,440
with just how important systems like

181
00:06:15,830 --> 00:06:14,000
these are our astronaut nick hague

182
00:06:18,790 --> 00:06:15,840
just last year in october was on a

183
00:06:20,390 --> 00:06:18,800
russian soyuz spacecraft and

184
00:06:22,790 --> 00:06:20,400
it aborted while he was on his way

185
00:06:25,189 --> 00:06:22,800
uphill but he was able to land

186
00:06:28,150 --> 00:06:25,199
successfully thanks to an abort system

187
00:06:30,150 --> 00:06:28,160
along with his crewmate alexei of china

188
00:06:32,150 --> 00:06:30,160

so really important tests here today a

189
00:06:33,990 --> 00:06:32,160
really important system but it just

190
00:06:35,670 --> 00:06:34,000
feeds into what we need to do to make

191
00:06:37,350 --> 00:06:35,680
sure when we're ready to go put crew on

192
00:06:39,189 --> 00:06:37,360
one of these spacecraft they're going to

193
00:06:40,550 --> 00:06:39,199
be in a safe place oh absolutely you

194
00:06:42,070 --> 00:06:40,560
know i think the boeing team thinks

195
00:06:44,550 --> 00:06:42,080
about that all the time you know we are

196
00:06:46,309 --> 00:06:44,560
constantly thinking about safety and how

197
00:06:47,510 --> 00:06:46,319
we can absolutely make sure that our

198
00:06:49,029 --> 00:06:47,520
crew is

199
00:06:50,950 --> 00:06:49,039
in the safest vehicle that we could

200
00:06:53,670 --> 00:06:50,960
possibly make you know i just want to

201
00:06:55,749 --> 00:06:53,680
you know show you some video actually uh

202
00:06:58,629 --> 00:06:55,759
from the starliner production factory in

203
00:07:01,670 --> 00:06:58,639
florida uh when back when they were

204
00:07:03,350 --> 00:07:01,680
signing the spacecraft um you know this

205
00:07:04,950 --> 00:07:03,360
the gentleman you see signing it here

206
00:07:07,749 --> 00:07:04,960
his name is kevin and he's one of our

207
00:07:09,350 --> 00:07:07,759
lead technicians he's told me before you

208
00:07:11,350 --> 00:07:09,360
know hey jess if something's not right

209
00:07:12,710 --> 00:07:11,360
i'm not going to sleep tonight i'm going

210
00:07:14,830 --> 00:07:12,720
to come in the next day and we're going

211
00:07:18,230 --> 00:07:14,840
to get it we're going to get it right

212
00:07:19,670 --> 00:07:18,240
um and you know you see here you've got

213
00:07:21,990 --> 00:07:19,680

our boeing

214
00:07:25,589 --> 00:07:22,000
president and ceo of boeing defense

215
00:07:27,270 --> 00:07:25,599
space and security leanne corette who is

216
00:07:28,629 --> 00:07:27,280
signing the spacecraft now you can see

217
00:07:30,390 --> 00:07:28,639
her signing

218
00:07:32,710 --> 00:07:30,400
a little note to her father who actually

219
00:07:34,309 --> 00:07:32,720
worked on the apollo program

220
00:07:35,830 --> 00:07:34,319
so um

221
00:07:38,790 --> 00:07:35,840
leanne was actually born on the space

222
00:07:40,629 --> 00:07:38,800
coast so space heritage is is in her

223
00:07:41,830 --> 00:07:40,639
family and you know the entire boeing

224
00:07:43,909 --> 00:07:41,840
team

225
00:07:46,390 --> 00:07:43,919
is behind space in this particular

226
00:07:47,990 --> 00:07:46,400
program yep and we're actually hearing

227
00:07:49,350 --> 00:07:48,000
on on our loops right now that they are

228
00:07:50,710 --> 00:07:49,360
going to be in a hold for a second we're

229
00:07:51,909 --> 00:07:50,720
going to take a few moments and figure

230
00:07:54,390 --> 00:07:51,919
out what's happening but we're still

231
00:07:55,510 --> 00:07:54,400
getting some great views of starliner on

232
00:07:57,670 --> 00:07:55,520
its pad

233
00:07:59,350 --> 00:07:57,680
with that service module so stay with us

234
00:08:01,029 --> 00:07:59,360
for just a couple of moments we'll get a

235
00:09:39,829 --> 00:08:01,039
new updated time on what our countdown

236
00:09:43,910 --> 00:09:41,670
yeah and again we are currently in a

237
00:09:45,269 --> 00:09:43,920
hold we're just still standing by to see

238
00:09:47,509 --> 00:09:45,279

what issue the teams are working we'll

239
00:09:48,949 --> 00:09:47,519
get a new t-zero time to you hopefully

240
00:09:51,269 --> 00:09:48,959
in just a little bit but we do have a

241
00:09:52,790 --> 00:09:51,279
three hour window today so seven o'clock

242
00:09:54,470 --> 00:09:52,800
mountain was right at the start of our

243
00:09:56,310 --> 00:09:54,480
window so there is plenty of time for

244
00:09:58,070 --> 00:09:56,320
the teams to you know take it slowly

245
00:10:00,150 --> 00:09:58,080
make sure they're not working any issues

246
00:10:01,509 --> 00:10:00,160
before we see starliner take to the air

247
00:10:03,590 --> 00:10:01,519
that's right and you know let's go ahead

248
00:10:05,269 --> 00:10:03,600
and talk a little bit about that team

249
00:10:07,030 --> 00:10:05,279
our flight director for today is

250
00:10:09,910 --> 00:10:07,040
actually alicia evans

251
00:10:11,829 --> 00:10:09,920
alicia led the team through starliner's

252
00:10:14,150 --> 00:10:11,839
environmental qualification

253
00:10:16,470 --> 00:10:14,160
testing a campaign that you know we

254
00:10:18,470 --> 00:10:16,480
really passed with flying colors so we

255
00:10:21,110 --> 00:10:18,480
are incredibly proud of alicia

256
00:10:23,430 --> 00:10:21,120
excited to hear her on the flight loop

257
00:10:25,030 --> 00:10:23,440
today um and then you'll also be hearing

258
00:10:26,630 --> 00:10:25,040
from jim harder he is our flight

259
00:10:28,389 --> 00:10:26,640
dynamics officer

260
00:10:30,389 --> 00:10:28,399
you're going to hear him coming up here

261
00:10:32,949 --> 00:10:30,399
in just a little bit go ahead and and

262
00:10:35,190 --> 00:10:32,959
give us all of the milestones as they

263
00:10:36,470 --> 00:10:35,200

happen during the test uh you know but

264
00:10:38,550 --> 00:10:36,480
you know why we wait i actually want to

265
00:10:40,710 --> 00:10:38,560
take us back and roll some video here of

266
00:10:43,430 --> 00:10:40,720
of the team rolling out the spacecraft

267
00:10:44,550 --> 00:10:43,440
in preparation for launch

268
00:10:46,710 --> 00:10:44,560
uh so

269
00:10:48,710 --> 00:10:46,720
this was actually and we'll kind of give

270
00:10:51,030 --> 00:10:48,720
our our production team a second here to

271
00:10:53,190 --> 00:10:51,040
to kind of get that video ready to go

272
00:10:55,110 --> 00:10:53,200
but you know one what was really

273
00:10:56,790 --> 00:10:55,120
incredible about this operation is it's

274
00:10:58,230 --> 00:10:56,800
one of the most hazardous and

275
00:11:00,230 --> 00:10:58,240
complicated operations that the team

276
00:11:02,710 --> 00:11:00,240
will do you see the spacecraft here

277
00:11:05,430 --> 00:11:02,720
coming out of the uh

278
00:11:08,230 --> 00:11:05,440
the fittiff which is our test facility

279
00:11:10,710 --> 00:11:08,240
here on site at launch complex 32 and

280
00:11:12,630 --> 00:11:10,720
you see it roll out

281
00:11:13,829 --> 00:11:12,640
of that of that building now this entire

282
00:11:15,750 --> 00:11:13,839
operation

283
00:11:17,509 --> 00:11:15,760
took they started about five o'clock in

284
00:11:19,670 --> 00:11:17,519
the morning it took them until about 10

285
00:11:21,430 --> 00:11:19,680
o'clock to kind of get it up into place

286
00:11:23,670 --> 00:11:21,440
but just think about it this is a fully

287
00:11:25,910 --> 00:11:23,680
fueled vehicle that they're rolling out

288
00:11:27,509 --> 00:11:25,920

here and i believe it was a hundred ton

289
00:11:28,870 --> 00:11:27,519
crane that they used to get it up onto

290
00:11:30,550 --> 00:11:28,880
the gantry

291
00:11:34,870 --> 00:11:30,560
and then you know they had to hand

292
00:11:37,590 --> 00:11:34,880
torque 278 bolts to get it in place uh

293
00:11:39,030 --> 00:11:37,600
so really really proud of the team there

294
00:11:42,230 --> 00:11:39,040
you know they had practiced for a couple

295
00:11:44,550 --> 00:11:42,240
of weeks jeff bertelsen who was our

296
00:11:46,949 --> 00:11:44,560
recovery lead for this test was telling

297
00:11:48,949 --> 00:11:46,959
us about it the other day and you know

298
00:11:50,470 --> 00:11:48,959
they practiced with some of what we call

299
00:11:53,030 --> 00:11:50,480
our boilerplate

300
00:11:55,430 --> 00:11:53,040
vehicles which are what we use to to

301
00:11:57,030 --> 00:11:55,440
practice our landing airbags and our

302
00:11:59,269 --> 00:11:57,040
parachutes with

303
00:12:01,269 --> 00:11:59,279
so just really proud of them and and

304
00:12:02,870 --> 00:12:01,279
they really got the job done yeah the

305
00:12:04,870 --> 00:12:02,880
rest of the team they've been on

306
00:12:06,550 --> 00:12:04,880
consoles since at least 10 o'clock of

307
00:12:08,069 --> 00:12:06,560
last night so they've been working

308
00:12:09,829 --> 00:12:08,079
through the overnight hours to get

309
00:12:11,269 --> 00:12:09,839
everything ready for our test today

310
00:12:13,430 --> 00:12:11,279
again we have a three hour window it

311
00:12:15,430 --> 00:12:13,440
just opened at seven teams if you're

312
00:12:17,190 --> 00:12:15,440
just now joining they are taking a look

313
00:12:19,670 --> 00:12:17,200

at a couple of things on the spacecraft

314
00:12:21,110 --> 00:12:19,680
so we're waiting on a t z t minus zero

315
00:12:23,110 --> 00:12:21,120
but as soon as we hear it we will be

316
00:12:24,629 --> 00:12:23,120
letting you know but still grading

317
00:12:27,269 --> 00:12:24,639
getting some great views we're going to

318
00:12:29,430 --> 00:12:27,279
have views via some tracking cameras

319
00:12:31,750 --> 00:12:29,440
from the white sands folks here at

320
00:12:33,350 --> 00:12:31,760
wismer they do a lot of missile testing

321
00:12:34,710 --> 00:12:33,360
and things like that so they have things

322
00:12:36,470 --> 00:12:34,720
they have these cameras that can track

323
00:12:38,949 --> 00:12:36,480
things going very fast through the air

324
00:12:40,230 --> 00:12:38,959
so it's perfect for a test like today

325
00:12:42,870 --> 00:12:40,240
and this is also going to be one of the

326
00:12:44,710 --> 00:12:42,880
prime landing sites if not the prime for

327
00:12:46,949 --> 00:12:44,720
starliner once it's flying you know i

328
00:12:48,870 --> 00:12:46,959
gotta say the white sands missile range

329
00:12:50,949 --> 00:12:48,880
and white sands they're just incredible

330
00:12:52,550 --> 00:12:50,959
partners of ours the united states army

331
00:12:54,790 --> 00:12:52,560
we really could not do it without them

332
00:12:56,629 --> 00:12:54,800
you know they're so such an integral an

333
00:12:58,629 --> 00:12:56,639
integral part of the starliner team you

334
00:13:00,710 --> 00:12:58,639
know like you said we've got two landing

335
00:13:02,310 --> 00:13:00,720
zones here at white sands

336
00:13:04,470 --> 00:13:02,320
this is also

337
00:13:05,670 --> 00:13:04,480
where we we do our parachute testing

338
00:13:06,550 --> 00:13:05,680

right on the other side of the mountain

339
00:13:10,550 --> 00:13:06,560
here

340
00:13:12,710 --> 00:13:10,560
our service module hot fire test and of

341
00:13:15,030 --> 00:13:12,720
course our paddle board test today so we

342
00:13:17,509 --> 00:13:15,040
could not do it without the the us army

343
00:13:19,350 --> 00:13:17,519
and white sands uh their incredible

344
00:13:21,829 --> 00:13:19,360
partners of ours and from what i

345
00:13:23,829 --> 00:13:21,839
understand you uh you're pretty familiar

346
00:13:25,829 --> 00:13:23,839
with white sands as well are you not

347
00:13:28,069 --> 00:13:25,839
yeah we actually used the exact same

348
00:13:29,990 --> 00:13:28,079
stand for our orion spacecraft's

349
00:13:31,670 --> 00:13:30,000
paddleboard a few years ago

350
00:13:33,269 --> 00:13:31,680
and i've had the opportunity to come out

351
00:13:35,829 --> 00:13:33,279
with the boeing teams a couple of times

352
00:13:37,910 --> 00:13:35,839
now to do these practices for landing

353
00:13:39,750 --> 00:13:37,920
and recovery it's really exciting i've

354
00:13:41,990 --> 00:13:39,760
got some experience doing it over in

355
00:13:43,829 --> 00:13:42,000
kazakhstan with the russian soyuz this

356
00:13:45,110 --> 00:13:43,839
is completely different completely

357
00:13:46,389 --> 00:13:45,120
different environment completely

358
00:13:48,629 --> 00:13:46,399
different team

359
00:13:49,990 --> 00:13:48,639
but it's really exciting it's usually a

360
00:13:52,310 --> 00:13:50,000
little bit warmer when we're out here i

361
00:13:53,590 --> 00:13:52,320
think it usually gets up around 100

362
00:13:55,110 --> 00:13:53,600
during the summer because we've been out

363
00:13:57,189 --> 00:13:55,120

here in july and august it's a little

364
00:13:58,470 --> 00:13:57,199
cooler this morning but it's not too bad

365
00:14:00,790 --> 00:13:58,480
and we haven't had any weather

366
00:14:01,750 --> 00:14:00,800
constraints as we heard earlier no we

367
00:14:03,670 --> 00:14:01,760
have not

368
00:14:05,189 --> 00:14:03,680
you know i think um you know it did get

369
00:14:06,790 --> 00:14:05,199
a little cold so i know the team was

370
00:14:08,870 --> 00:14:06,800
looking at our helium tanks you know

371
00:14:10,949 --> 00:14:08,880
wanting to make sure that they stay at

372
00:14:13,110 --> 00:14:10,959
the right temperature uh overnight and

373
00:14:15,509 --> 00:14:13,120
you know we do have a little bit of a of

374
00:14:16,790 --> 00:14:15,519
a wind constraints 15 knots but that's

375
00:14:19,590 --> 00:14:16,800
really just that we can get the gantry

376
00:14:22,389 --> 00:14:19,600
rolled back um so you know this the

377
00:14:25,350 --> 00:14:22,399
weather has been has been fine and and

378
00:14:27,829 --> 00:14:25,360
um you know it's i'm really excited to

379
00:14:30,310 --> 00:14:27,839
watch this test happen because you know

380
00:14:32,150 --> 00:14:30,320
we're going to go about what 650 miles

381
00:14:33,750 --> 00:14:32,160
an hour and probably about five seconds

382
00:14:35,189 --> 00:14:33,760
there's going to be so many dynamic

383
00:14:36,550 --> 00:14:35,199
events happening that we're going to get

384
00:14:38,629 --> 00:14:36,560
data on

385
00:14:40,310 --> 00:14:38,639
during this two-minute test

386
00:14:42,069 --> 00:14:40,320
and i know this is one in particular

387
00:14:44,870 --> 00:14:42,079
that the team's really excited to see

388
00:14:46,310 --> 00:14:44,880

happen

389
00:14:48,069 --> 00:14:46,320
that's right and again if you're just

390
00:14:50,230 --> 00:14:48,079
joining us we are waiting on a new

391
00:14:52,150 --> 00:14:50,240
t-minus zero so new launch time for the

392
00:14:53,750 --> 00:14:52,160
pad abort does sound like we're getting

393
00:14:55,670 --> 00:14:53,760
close we're gonna just pause for a

394
00:14:57,509 --> 00:14:55,680
moment listen in and then we should be

395
00:17:11,510 --> 00:14:57,519
able to get you that new launch time in

396
00:17:31,350 --> 00:17:27,909
all right

397
00:17:33,190 --> 00:17:31,360
new t-minus zero time we're now looking

398
00:17:35,190 --> 00:17:33,200
at 715 mountain

399
00:17:36,789 --> 00:17:35,200
9 15.

400
00:17:38,870 --> 00:17:36,799
yep it looks like the team was just

401
00:17:41,110 --> 00:17:38,880
taking another look at uh propellant

402
00:17:42,549 --> 00:17:41,120
pressurization when i take another look

403
00:17:44,070 --> 00:17:42,559
at what they saw on screen and they say

404
00:17:45,590 --> 00:17:44,080
hey you know we're we're still doing

405
00:17:48,470 --> 00:17:45,600
okay so we're going to go ahead and just

406
00:17:51,830 --> 00:17:48,480
uh reset to 7 15

407
00:17:52,789 --> 00:17:51,840
and that is taking a look at the clock

408
00:17:57,190 --> 00:17:52,799
here

409
00:17:58,390 --> 00:17:57,200
that is not too far away at all is it um

410
00:18:03,029 --> 00:17:58,400
yeah we should

411
00:18:07,270 --> 00:18:04,870
and again if you're just joining our

412
00:18:10,150 --> 00:18:07,280
original t zero was seven worked a quick

413
00:18:11,510 --> 00:18:10,160

prop issue now we're good to go at 7 15.

414
00:18:13,750 --> 00:18:11,520
if you want why don't we show them again

415
00:18:15,669 --> 00:18:13,760
because this is going to be a really

416
00:18:18,230 --> 00:18:15,679
dynamic a really quick test as jessica

417
00:18:19,669 --> 00:18:18,240
said 650 miles an hour in just five

418
00:18:21,990 --> 00:18:19,679
seconds so that thing's going to shoot

419
00:18:23,510 --> 00:18:22,000
off that pad really quickly yeah and why

420
00:18:25,590 --> 00:18:23,520
don't you walk us through again one more

421
00:18:26,870 --> 00:18:25,600
absolutely so and that's exactly what we

422
00:18:28,789 --> 00:18:26,880
want to see right we want to see all

423
00:18:30,549 --> 00:18:28,799
those launch board engines fire with

424
00:18:32,549 --> 00:18:30,559
those omax and we want to see that

425
00:18:33,430 --> 00:18:32,559
spacecraft really shoot off that launch

426
00:18:35,590 --> 00:18:33,440
pad

427
00:18:36,950 --> 00:18:35,600
like you said 650 miles an hour in about

428
00:18:38,470 --> 00:18:36,960
five seconds

429
00:18:40,789 --> 00:18:38,480
we're going to hit apogee here pretty

430
00:18:42,390 --> 00:18:40,799
quickly i think we hit it in about 19

431
00:18:44,150 --> 00:18:42,400
seconds we're going to start to make

432
00:18:45,750 --> 00:18:44,160
that pitch around maneuver that just

433
00:18:47,669 --> 00:18:45,760
gets the spacecraft in the right

434
00:18:48,789 --> 00:18:47,679
orientation to open up that landing

435
00:18:51,029 --> 00:18:48,799
sequence

436
00:18:52,549 --> 00:18:51,039
and that's initiated really by when once

437
00:18:54,710 --> 00:18:52,559
you see that ascent cover and forward

438
00:18:56,789 --> 00:18:54,720

heat shield come off that really allows

439
00:18:59,350 --> 00:18:56,799
the parachute sequence to begin you're

440
00:19:00,950 --> 00:18:59,360
going to see two drogue parachutes

441
00:19:02,870 --> 00:19:00,960
followed by three

442
00:19:04,549 --> 00:19:02,880
pilot shoots and

443
00:19:06,789 --> 00:19:04,559
that really just bring out the mains

444
00:19:08,549 --> 00:19:06,799
there and again those those parachutes

445
00:19:10,630 --> 00:19:08,559
they're really pulling double duty here

446
00:19:12,150 --> 00:19:10,640
for this test not only do they have

447
00:19:14,710 --> 00:19:12,160
extra weight of the service module

448
00:19:15,990 --> 00:19:14,720
attached right and their their main job

449
00:19:18,390 --> 00:19:16,000
is really to make sure that they bring

450
00:19:19,750 --> 00:19:18,400
that crew module down slowly and safely

451
00:19:22,390 --> 00:19:19,760
but in addition to that they're

452
00:19:24,390 --> 00:19:22,400
deploying at a certain time that kind of

453
00:19:26,710 --> 00:19:24,400
pulls the spacecraft back and gets it in

454
00:19:28,870 --> 00:19:26,720
a proper orientation to safely uh

455
00:19:30,150 --> 00:19:28,880
release that service module and then

456
00:19:32,870 --> 00:19:30,160
you're gonna see you know that bucket

457
00:19:34,870 --> 00:19:32,880
handle release like you just saw uh

458
00:19:37,110 --> 00:19:34,880
that's uh that's also pretty critical

459
00:19:39,430 --> 00:19:37,120
that allows us to you know come down

460
00:19:41,990 --> 00:19:39,440
nicely in a stable one which is just

461
00:19:43,909 --> 00:19:42,000
right on the top of our airbags um and

462
00:19:45,590 --> 00:19:43,919
then you you would see that base heat

463
00:19:48,390 --> 00:19:45,600

shield jettison which allows those

464
00:19:50,230 --> 00:19:48,400
landing airbags to deploy uh and i gotta

465
00:19:52,549 --> 00:19:50,240
tell you i'm really really looking

466
00:19:54,630 --> 00:19:52,559
forward to seeing that today you know

467
00:19:57,350 --> 00:19:54,640
our team has worked so hard to make sure

468
00:19:59,830 --> 00:19:57,360
we can design a system that is safe and

469
00:20:01,750 --> 00:19:59,840
is also one that's reusable and landing

470
00:20:04,630 --> 00:20:01,760
on land you know these starliner crew

471
00:20:06,310 --> 00:20:04,640
modules are reusable spacecraft

472
00:20:09,510 --> 00:20:06,320
and one of the ways that we're able to

473
00:20:12,070 --> 00:20:09,520
do that is because we land on land

474
00:20:14,070 --> 00:20:12,080
yeah and important to

475
00:20:15,590 --> 00:20:14,080
add again for people the service module

476
00:20:17,510 --> 00:20:15,600
is going to come off and it is going to

477
00:20:19,430 --> 00:20:17,520
impact the ground and there will be some

478
00:20:21,430 --> 00:20:19,440
residual fuel on board that may ignite

479
00:20:23,669 --> 00:20:21,440
so if you see that it is totally

480
00:20:24,950 --> 00:20:23,679
expected and as we talked about they're

481
00:20:25,990 --> 00:20:24,960
going to land on land for the real thing

482
00:20:28,470 --> 00:20:26,000
but if we were in a paddle board

483
00:20:29,909 --> 00:20:28,480
scenario on a real day they have the

484
00:20:31,430 --> 00:20:29,919
atlantic ocean that they'd be going over

485
00:20:33,510 --> 00:20:31,440
so that service module will be dropping

486
00:20:35,510 --> 00:20:33,520
in the water followed shortly after by

487
00:20:37,510 --> 00:20:35,520
the crew capsule under the parachutes

488
00:20:39,510 --> 00:20:37,520

that's correct and you know we can talk

489
00:20:41,830 --> 00:20:39,520
just a little bit too about how uh the

490
00:20:44,149 --> 00:20:41,840
team plans to do some of the recovery

491
00:20:46,549 --> 00:20:44,159
after today's test is complete

492
00:20:48,470 --> 00:20:46,559
so the the crew module of course will be

493
00:20:51,510 --> 00:20:48,480
recovered taken back to launch complex

494
00:20:53,350 --> 00:20:51,520
32 for evaluation and analysis and we

495
00:20:55,990 --> 00:20:53,360
really want to make sure

496
00:20:58,149 --> 00:20:56,000
that we get all the data back off that

497
00:21:01,190 --> 00:20:58,159
that crew module we do we are flying an

498
00:21:03,110 --> 00:21:01,200
anthropomorphic test dummy in there and

499
00:21:05,510 --> 00:21:03,120
so we want to get all the data back from

500
00:21:06,950 --> 00:21:05,520
from our atd as well and that data is

501
00:21:08,070 --> 00:21:06,960
really critical so we're going to go out

502
00:21:09,830 --> 00:21:08,080
we're going to recover it we'll bring it

503
00:21:11,430 --> 00:21:09,840
back to the launch site for for

504
00:21:13,669 --> 00:21:11,440
evaluation and analysis now the service

505
00:21:17,029 --> 00:21:13,679
module's a little different uh and a

506
00:21:19,110 --> 00:21:17,039
combined team of boeing uh the u.s army

507
00:21:21,270 --> 00:21:19,120
and an environmental and industrial

508
00:21:22,470 --> 00:21:21,280
services company called clean arbors is

509
00:21:23,909 --> 00:21:22,480
actually going to go out we're going to

510
00:21:25,669 --> 00:21:23,919
save the vehicle

511
00:21:27,510 --> 00:21:25,679
and then properly dispose of it and i

512
00:21:29,669 --> 00:21:27,520
think that is going to be a process that

513
00:21:31,430 --> 00:21:29,679

will take probably uh two or three days

514
00:21:33,510 --> 00:21:31,440
you know we do have some data that we're

515
00:21:35,669 --> 00:21:33,520
hoping to get off the service module too

516
00:21:37,750 --> 00:21:35,679
uh but i guess that'll depend on the

517
00:21:39,750 --> 00:21:37,760
state that it's in yeah but

518
00:21:41,430 --> 00:21:39,760
we're less than five minutes away again

519
00:21:45,430 --> 00:21:41,440
that launch time right now is set for

520
00:21:46,789 --> 00:21:45,440
715 mountain 915 eastern time in just a

521
00:21:49,350 --> 00:21:46,799
couple of minutes we're going to bring

522
00:21:50,789 --> 00:21:49,360
up the the actual launch control loop

523
00:21:51,909 --> 00:21:50,799
where you're going to be able to hear

524
00:21:52,950 --> 00:21:51,919
the flight director and some of the

525
00:21:54,470 --> 00:21:52,960
other folks

526
00:21:56,070 --> 00:21:54,480
again walk us through who's who are we

527
00:21:57,750 --> 00:21:56,080
going to be hearing on these loops this

528
00:22:00,149 --> 00:21:57,760
morning yeah so once again you're going

529
00:22:02,549 --> 00:22:00,159
to be hearing from alicia evans she is

530
00:22:03,830 --> 00:22:02,559
our flight director today and alicia

531
00:22:05,430 --> 00:22:03,840
like i said before a letter

532
00:22:07,909 --> 00:22:05,440
environmental qualification test

533
00:22:09,590 --> 00:22:07,919
campaign and that was a really critical

534
00:22:11,430 --> 00:22:09,600
uh test campaign for us because what we

535
00:22:12,470 --> 00:22:11,440
do is we go ahead and we build a full

536
00:22:14,310 --> 00:22:12,480
spacecraft

537
00:22:17,110 --> 00:22:14,320
and then we send it off to california

538
00:22:19,510 --> 00:22:17,120

our folks at el segundo out there

539
00:22:21,750 --> 00:22:19,520
they were just amazing as for our

540
00:22:24,070 --> 00:22:21,760
environmental qualification campaign and

541
00:22:25,669 --> 00:22:24,080
what we do is we shake it and bake it as

542
00:22:27,510 --> 00:22:25,679
kind of what we say in the spacecraft

543
00:22:28,950 --> 00:22:27,520
world where we make sure that we put it

544
00:22:31,110 --> 00:22:28,960
through the exact same conditions that

545
00:22:33,590 --> 00:22:31,120
it's going to see on orbit we make sure

546
00:22:36,390 --> 00:22:33,600
that you know it can handle the you know

547
00:22:38,390 --> 00:22:36,400
the swings and temperature you know the

548
00:22:40,230 --> 00:22:38,400
you know radiation and all of those

549
00:22:41,909 --> 00:22:40,240
types of things and like i said past

550
00:22:44,630 --> 00:22:41,919
with flying colors alicia led that

551
00:22:46,710 --> 00:22:44,640
campaign she is now leading starliner's

552
00:22:48,630 --> 00:22:46,720
very first flight test

553
00:22:50,310 --> 00:22:48,640
we could not be more proud of her and

554
00:22:52,149 --> 00:22:50,320
then once again you're also going to

555
00:22:54,230 --> 00:22:52,159
hear from jim harder he is our flight

556
00:22:56,310 --> 00:22:54,240
dynamics officer today so you'll hear

557
00:22:57,669 --> 00:22:56,320
the liftoff line coming from alicia and

558
00:22:59,190 --> 00:22:57,679
then the rest of the events in this

559
00:22:59,990 --> 00:22:59,200
sequence you're going to hear from jim

560
00:23:02,870 --> 00:23:00,000
so

561
00:23:04,789 --> 00:23:02,880
at this point we are t minus two minutes

562
00:23:06,310 --> 00:23:04,799
and proceeding to launch so dan and i

563
00:23:07,510 --> 00:23:06,320

are gonna go on ahead and listen right

564
00:23:25,270 --> 00:23:07,520
on in with you

565
00:23:30,870 --> 00:23:26,870
light is slick

566
00:23:35,350 --> 00:23:34,070
copy that flick standby for final abort

567
00:23:55,430 --> 00:23:35,360
command

568
00:23:55,440 --> 00:24:05,669
l minus one minute and counting

569
00:24:05,679 --> 00:24:15,909
50 seconds

570
00:24:15,919 --> 00:24:25,669
40.

571
00:24:25,679 --> 00:24:35,990
30 seconds and counting

572
00:24:36,000 --> 00:24:46,630
20 seconds and counting

573
00:24:48,470 --> 00:24:47,590
nine

574
00:24:49,510 --> 00:24:48,480
eight

575
00:24:50,549 --> 00:24:49,520
seven

576
00:24:51,590 --> 00:24:50,559
six

577
00:24:52,390 --> 00:24:51,600
five

578
00:24:53,510 --> 00:24:52,400
four

579
00:24:54,470 --> 00:24:53,520
three

580
00:24:55,350 --> 00:24:54,480
two

581
00:25:01,029 --> 00:24:55,360
one

582
00:25:01,039 --> 00:25:04,549
lift off

583
00:25:09,990 --> 00:25:05,830
road complete

584
00:25:10,000 --> 00:25:13,110
on track

585
00:25:19,190 --> 00:25:15,830
oh man cut off

586
00:25:19,200 --> 00:25:34,149
40 kill parachute

587
00:25:34,159 --> 00:25:57,909
sm says

588
00:26:04,710 --> 00:26:01,190

two mains fully distribute

589
00:26:04,720 --> 00:26:17,510
airbags inflating

590
00:26:17,520 --> 00:26:33,190
cm touchdown

591
00:26:39,029 --> 00:26:36,470
all right well we have starliner taking

592
00:26:40,950 --> 00:26:39,039
to flight for the very first time and

593
00:26:43,029 --> 00:26:40,960
touch touching down safely and

594
00:26:44,950 --> 00:26:43,039
beautifully on the desert floor

595
00:26:46,390 --> 00:26:44,960
that was just incredible dan it's kind

596
00:26:48,870 --> 00:26:46,400
of hard not to get a little bit

597
00:26:51,269 --> 00:26:48,880
emotional over here just watching it but

598
00:26:52,950 --> 00:26:51,279
that was that was phenomenal initial

599
00:26:55,269 --> 00:26:52,960
indication is that we've had a very

600
00:26:57,830 --> 00:26:55,279
successful paddleboard test today

601
00:26:59,029 --> 00:26:57,840
that's right it it went off it lit off

602
00:27:00,470 --> 00:26:59,039
and i mean when you're standing here

603
00:27:02,310 --> 00:27:00,480
watching it in person that thing's

604
00:27:04,070 --> 00:27:02,320
really moving when you see it get up off

605
00:27:06,310 --> 00:27:04,080
the pad and then the sound hits you

606
00:27:08,870 --> 00:27:06,320
about five or six seconds later you just

607
00:27:10,390 --> 00:27:08,880
get that rumble across the desert floor

608
00:27:12,710 --> 00:27:10,400
as starliner is already streaking

609
00:27:14,549 --> 00:27:12,720
through the sky absolutely and to see it

610
00:27:17,190 --> 00:27:14,559
touch down like that now you did see

611
00:27:19,110 --> 00:27:17,200
touchdown under two good mains um which

612
00:27:20,950 --> 00:27:19,120
is is certainly within the bounds of the

613
00:27:22,789 --> 00:27:20,960

acceptable uh

614
00:27:24,789 --> 00:27:22,799
acceptable bounds for this particular

615
00:27:26,950 --> 00:27:24,799
test we have tested with two good mains

616
00:27:29,110 --> 00:27:26,960
and qualification and that is acceptable

617
00:27:30,630 --> 00:27:29,120
for our landing sequence

618
00:27:32,789 --> 00:27:30,640
so this was just incredible it was

619
00:27:34,870 --> 00:27:32,799
incredible to watch this test

620
00:27:36,950 --> 00:27:34,880
and it was just absolutely unbelievable

621
00:27:39,590 --> 00:27:36,960
just a little look at a replay here

622
00:27:42,710 --> 00:27:39,600
again i hope you didn't blink uh because

623
00:27:44,470 --> 00:27:42,720
650 miles an hour in five seconds uh

624
00:27:45,830 --> 00:27:44,480
that thing sure did shoot off a test

625
00:27:48,149 --> 00:27:45,840
stand didn't it

626
00:27:51,029 --> 00:27:48,159
um you have those the launch abort

627
00:27:53,190 --> 00:27:51,039
engines firing uh those four launch port

628
00:27:56,630 --> 00:27:53,200
engines 40 000 pounds of thrust off the

629
00:27:58,870 --> 00:27:56,640
stand omax uh another 1500 pounds of

630
00:28:02,470 --> 00:27:58,880
thrust each on those those continue to

631
00:28:04,549 --> 00:28:02,480
continue to fire you saw them

632
00:28:05,909 --> 00:28:04,559
the pilot parachutes pulling out the

633
00:28:08,950 --> 00:28:05,919
mains there after that pitch around

634
00:28:10,710 --> 00:28:08,960
maneuver um and and then of course you

635
00:28:13,269 --> 00:28:10,720
saw the service module at some point

636
00:28:18,470 --> 00:28:14,070
and

637
00:28:20,710 --> 00:28:18,480
beautiful site parachutes really do

638
00:28:22,310 --> 00:28:20,720

doing their job here in terms of making

639
00:28:24,230 --> 00:28:22,320
sure that they they can get the

640
00:28:26,149 --> 00:28:24,240
spacecraft in the right orientation to

641
00:28:28,389 --> 00:28:26,159
safely release that service module down

642
00:28:30,950 --> 00:28:28,399
to the ground um and of course you know

643
00:28:32,630 --> 00:28:30,960
we want to keep our eyes on on

644
00:28:34,710 --> 00:28:32,640
that that crew module you know i think

645
00:28:36,950 --> 00:28:34,720
our our folks uh back in florida are

646
00:28:39,029 --> 00:28:36,960
going to be really interested uh to see

647
00:28:39,990 --> 00:28:39,039
the data come out of this test today for

648
00:28:41,830 --> 00:28:40,000
sure

649
00:28:43,350 --> 00:28:41,840
and again we saw two two out of three

650
00:28:46,070 --> 00:28:43,360
parachutes but that is a stable

651
00:28:47,590 --> 00:28:46,080
condition and that's just kind of goes

652
00:28:49,190 --> 00:28:47,600
into what we have in space flight

653
00:28:50,789 --> 00:28:49,200
redundancy yeah if you've ever

654
00:28:52,389 --> 00:28:50,799
absolutely been around anyone from nasa

655
00:28:54,389 --> 00:28:52,399
or boeing or any of the space companies

656
00:28:55,830 --> 00:28:54,399
redundancy redundancy we have backups

657
00:28:57,909 --> 00:28:55,840
for our backups that whole thing and

658
00:28:59,990 --> 00:28:57,919
that's just really a great example of

659
00:29:02,389 --> 00:29:00,000
how you're able to work even when things

660
00:29:04,789 --> 00:29:02,399
don't go exactly as their design yep and

661
00:29:06,470 --> 00:29:04,799
actually we could have we um

662
00:29:09,029 --> 00:29:06,480
you know our fault tolerance on that is

663
00:29:11,750 --> 00:29:09,039

really you know one one drove out as

664
00:29:14,149 --> 00:29:11,760
well as is one main out so we do have

665
00:29:16,310 --> 00:29:14,159
redundancy like you said built in

666
00:29:17,990 --> 00:29:16,320
and it's just again i it's just so

667
00:29:20,549 --> 00:29:18,000
incredible to see

668
00:29:22,389 --> 00:29:20,559
those landing airbags uh on our

669
00:29:23,830 --> 00:29:22,399
spacecraft touchdown

670
00:29:26,710 --> 00:29:23,840
you know it's going to be incredible to

671
00:29:28,070 --> 00:29:26,720
watch it on a return to mission um here

672
00:29:30,230 --> 00:29:28,080
coming up

673
00:29:33,350 --> 00:29:30,240
right around the corner december

674
00:29:35,350 --> 00:29:33,360
17th yep absolutely you know

675
00:29:37,590 --> 00:29:35,360
to i know i just want to give a quick

676
00:29:39,350 --> 00:29:37,600
shout out to our folks

677
00:29:40,870 --> 00:29:39,360
at the starliner production factory in

678
00:29:43,029 --> 00:29:40,880
florida that i know are watching right

679
00:29:44,389 --> 00:29:43,039
now also our folks in houston that are

680
00:29:45,669 --> 00:29:44,399
watching and our folks all around the

681
00:29:47,830 --> 00:29:45,679
country

682
00:29:50,310 --> 00:29:47,840
you know they have worked so incredibly

683
00:29:53,750 --> 00:29:50,320
hard for this moment today

684
00:29:55,990 --> 00:29:53,760
and to see a spacecraft that they built

685
00:29:58,630 --> 00:29:56,000
on it on a launch pad for the very first

686
00:30:00,630 --> 00:29:58,640
time just means so incredibly much and

687
00:30:02,630 --> 00:30:00,640
and i'll tell you what you guys was just

688
00:30:04,149 --> 00:30:02,640

as beautiful in person as you would as

689
00:30:06,070 --> 00:30:04,159
as you would imagine

690
00:30:07,909 --> 00:30:06,080
yeah but i mean

691
00:30:09,750 --> 00:30:07,919
there it sits we'll we'll continue

692
00:30:11,029 --> 00:30:09,760
giving some of these giving you some of

693
00:30:12,630 --> 00:30:11,039
these great views and maybe even a

694
00:30:14,310 --> 00:30:12,640
couple of replays we're going to hang

695
00:30:15,830 --> 00:30:14,320
out for a little bit we know that a

696
00:30:17,909 --> 00:30:15,840
couple of people were here watching

697
00:30:19,830 --> 00:30:17,919
including our first starliner crew

698
00:30:22,310 --> 00:30:19,840
that's right so we're hoping to get them

699
00:30:23,510 --> 00:30:22,320
over here in just a couple of minutes

700
00:30:25,190 --> 00:30:23,520
absolutely

701
00:30:26,630 --> 00:30:25,200
yeah and you know let me just again you

702
00:30:28,710 --> 00:30:26,640
know remind folks how we're going to be

703
00:30:30,389 --> 00:30:28,720
recovering the spacecraft today that

704
00:30:32,310 --> 00:30:30,399
crew module that you see there that's

705
00:30:34,230 --> 00:30:32,320
going to be recovered brought back to

706
00:30:36,149 --> 00:30:34,240
launch complex 32 for evaluation

707
00:30:37,430 --> 00:30:36,159
analysis again you know we want to make

708
00:30:39,510 --> 00:30:37,440
sure we get all the data off that

709
00:30:41,110 --> 00:30:39,520
spacecraft of course the initial

710
00:30:43,510 --> 00:30:41,120
indication here is that we've had a

711
00:30:45,909 --> 00:30:43,520
successful test but you know we really

712
00:30:47,990 --> 00:30:45,919
want to take a hard look at all the data

713
00:30:49,590 --> 00:30:48,000

and and hand that over to nasa and of

714
00:30:52,230 --> 00:30:49,600
course make sure that

715
00:30:56,789 --> 00:30:52,240
everything worked as well as it appeared

716
00:30:58,549 --> 00:30:56,799
to look to us and the the service module

717
00:31:00,149 --> 00:30:58,559
um is another

718
00:31:02,070 --> 00:31:00,159
going to be recovered slightly different

719
00:31:03,509 --> 00:31:02,080
like i said that we're going to get a

720
00:31:05,029 --> 00:31:03,519
little bit of data off that service

721
00:31:06,549 --> 00:31:05,039
module if we can depending on the

722
00:31:10,389 --> 00:31:06,559
condition that it's in

723
00:31:12,549 --> 00:31:10,399
but um a combined team of boeing the u.s

724
00:31:14,389 --> 00:31:12,559
army and an environmental and industrial

725
00:31:15,909 --> 00:31:14,399
services company called clean arbors

726
00:31:18,470 --> 00:31:15,919
they're going to go out we're going to

727
00:31:20,389 --> 00:31:18,480
safe that that vehicle and we're going

728
00:31:21,509 --> 00:31:20,399
to go ahead and properly dispose of it

729
00:31:23,110 --> 00:31:21,519
so

730
00:31:25,269 --> 00:31:23,120
really exciting the crew module of

731
00:31:27,590 --> 00:31:25,279
course we're going to keep around

732
00:31:29,669 --> 00:31:27,600
possible reuse you know there's

733
00:31:31,509 --> 00:31:29,679
of course flight hardware on there that

734
00:31:32,549 --> 00:31:31,519
we could potentially reuse if we needed

735
00:31:34,710 --> 00:31:32,559
to

736
00:31:37,110 --> 00:31:34,720
but you know once again the the key here

737
00:31:38,310 --> 00:31:37,120
is uh those crew modules are reusable

738
00:31:41,110 --> 00:31:38,320

vehicles

739
00:31:43,350 --> 00:31:41,120
uh you know we have uh two uh additional

740
00:31:45,830 --> 00:31:43,360
spacecraft back at our uh production

741
00:31:47,750 --> 00:31:45,840
facility in florida of course the the

742
00:31:49,590 --> 00:31:47,760
starliner that's going to be

743
00:31:51,509 --> 00:31:49,600
launching here in december

744
00:31:53,750 --> 00:31:51,519
for our first uncrewed orbital flight

745
00:31:55,909 --> 00:31:53,760
test to the international space station

746
00:31:58,149 --> 00:31:55,919
and then we have the spacecraft uh that

747
00:31:59,990 --> 00:31:58,159
is going to launch crew it was actually

748
00:32:01,990 --> 00:32:00,000
the very first spacecraft that we built

749
00:32:05,990 --> 00:32:02,000
sent out for environmental qualification

750
00:32:07,350 --> 00:32:06,000
testing that alicia was a part of and um

751
00:32:08,950 --> 00:32:07,360
and we've got that spacecraft in the

752
00:32:12,950 --> 00:32:08,960
factory as well in fact you might have

753
00:32:16,630 --> 00:32:12,960
seen uh some photo of uh

754
00:32:19,350 --> 00:32:16,640
of our orbital flight test vehicle

755
00:32:21,350 --> 00:32:19,360
complete and fully fully built and

756
00:32:23,110 --> 00:32:21,360
actually rolling into one of our

757
00:32:25,909 --> 00:32:23,120
hazardous

758
00:32:28,149 --> 00:32:25,919
processing areas for fueling getting

759
00:32:30,789 --> 00:32:28,159
ready to roll out to the pad every

760
00:32:32,230 --> 00:32:30,799
everything's on track for starliner's

761
00:32:34,389 --> 00:32:32,240
first flight two space into the

762
00:32:35,909 --> 00:32:34,399
international space station we've

763
00:32:38,389 --> 00:32:35,919

already put out some news on that right

764
00:32:39,590 --> 00:32:38,399
now we're targeting december 17th so if

765
00:32:41,750 --> 00:32:39,600
you're going to be on the space coast

766
00:32:43,509 --> 00:32:41,760
around the holidays might be a good idea

767
00:32:46,310 --> 00:32:43,519
to come out for a rocket launch yep and

768
00:32:49,430 --> 00:32:46,320
hey i'll tell you this starliner is the

769
00:32:54,070 --> 00:32:51,830
human spacecraft both built and launched

770
00:32:55,750 --> 00:32:54,080
right in florida so if you live on the

771
00:32:57,430 --> 00:32:55,760
space coast we really hope to see you

772
00:32:59,029 --> 00:32:57,440
come on out and support your hometown

773
00:33:00,070 --> 00:32:59,039
girl and watch her fly

774
00:33:01,750 --> 00:33:00,080
because that's going to be really

775
00:33:03,350 --> 00:33:01,760
incredible yeah there's a couple of

776
00:33:05,190 --> 00:33:03,360
things just coming up over the next

777
00:33:07,750 --> 00:33:05,200
several weeks starliner itself is going

778
00:33:09,350 --> 00:33:07,760
to get fueled up in that c3pf that

779
00:33:11,110 --> 00:33:09,360
correct production facility where the

780
00:33:13,430 --> 00:33:11,120
starliner is being built following that

781
00:33:15,509 --> 00:33:13,440
it's going to get rolled over to the ula

782
00:33:17,350 --> 00:33:15,519
vertical integration facility i'm trying

783
00:33:19,830 --> 00:33:17,360
to get all my acronyms right hey you're

784
00:33:22,149 --> 00:33:19,840
doing a good job uh ula actually

785
00:33:23,750 --> 00:33:22,159
stacking the rocket today so getting it

786
00:33:26,389 --> 00:33:23,760
ready again we're targeting december

787
00:33:28,389 --> 00:33:26,399
17th for that launch it'll be a flight

788
00:33:29,909 --> 00:33:28,399

up to the space station it'll get there

789
00:33:32,070 --> 00:33:29,919
in just about a day i think is the

790
00:33:34,149 --> 00:33:32,080
latest dynamics that can change

791
00:33:36,630 --> 00:33:34,159
depending on what where the station's

792
00:33:39,029 --> 00:33:36,640
altitude is over time it'll be about a

793
00:33:40,630 --> 00:33:39,039
day up there it'll dock

794
00:33:42,389 --> 00:33:40,640
it'll be the first successful docking of

795
00:33:43,750 --> 00:33:42,399
starliner you'll have it there for a

796
00:33:45,750 --> 00:33:43,760
couple of days and then we'll meet it

797
00:33:48,710 --> 00:33:45,760
right back here just a couple of days

798
00:33:50,470 --> 00:33:48,720
after yeah absolutely uh you know it's

799
00:33:52,389 --> 00:33:50,480
it's really incredible taking another

800
00:33:54,470 --> 00:33:52,399
look here at this crew module on the on

801
00:33:57,430 --> 00:33:54,480
the desert floor you know very first

802
00:34:00,230 --> 00:33:57,440
time starliner takes flight uh just with

803
00:34:03,669 --> 00:34:00,240
i mean it i gotta say you know to to see

804
00:34:05,110 --> 00:34:03,679
it come down uh and touch down on on the

805
00:34:07,350 --> 00:34:05,120
on the desert there under those landing

806
00:34:08,950 --> 00:34:07,360
airbags it just is it we're going to be

807
00:34:11,270 --> 00:34:08,960
making history when it does that on a

808
00:34:13,349 --> 00:34:11,280
return to space mission uh here coming

809
00:34:15,829 --> 00:34:13,359
up in december like you said uh but to

810
00:34:17,349 --> 00:34:15,839
see it today it's it's hard not to get a

811
00:34:19,190 --> 00:34:17,359
little bit emotional just knowing the

812
00:34:21,669 --> 00:34:19,200
folks back at home who have just put

813
00:34:23,270 --> 00:34:21,679

their hearts and souls into this uh you

814
00:34:25,030 --> 00:34:23,280
know it's funny because we i showed a

815
00:34:27,270 --> 00:34:25,040
little bit of footage of the spacecraft

816
00:34:28,869 --> 00:34:27,280
being signed in florida uh before and

817
00:34:30,310 --> 00:34:28,879
and i you know i talked a little bit

818
00:34:33,109 --> 00:34:30,320
about kevin i don't think i mentioned

819
00:34:35,430 --> 00:34:33,119
jonna who was also in that uh that that

820
00:34:37,430 --> 00:34:35,440
file footage and here's a really funny

821
00:34:38,950 --> 00:34:37,440
uh fact about her you know her her

822
00:34:41,669 --> 00:34:38,960
daughter actually says that the

823
00:34:44,710 --> 00:34:41,679
spacecraft is her younger brother

824
00:34:46,790 --> 00:34:44,720
because her mom just spends you know so

825
00:34:47,589 --> 00:34:46,800
much time the dedication that she's put

826
00:34:50,310 --> 00:34:47,599
into

827
00:34:52,629 --> 00:34:50,320
the spacecraft as one of our lead wiring

828
00:34:54,550 --> 00:34:52,639
technicians and you know it's just the

829
00:34:56,389 --> 00:34:54,560
the starlight and production factory

830
00:34:58,230 --> 00:34:56,399
folks in florida folks in houston and

831
00:35:00,150 --> 00:34:58,240
all across the country who've helped us

832
00:35:03,030 --> 00:35:00,160
out and have just put their hearts and

833
00:35:06,710 --> 00:35:03,040
souls into this program um are full of

834
00:35:08,470 --> 00:35:06,720
folks like kevin and jonna and you know

835
00:35:09,510 --> 00:35:08,480
really hoping that they are

836
00:35:11,430 --> 00:35:09,520
just

837
00:35:13,430 --> 00:35:11,440
grinning from ear to ear this morning

838
00:35:15,349 --> 00:35:13,440

and getting ready to celebrate

839
00:35:17,589 --> 00:35:15,359
and again if you're just now tuning in

840
00:35:19,589 --> 00:35:17,599
you are looking at starliner it's on the

841
00:35:21,910 --> 00:35:19,599
desert floor that paddleboard was done

842
00:35:25,349 --> 00:35:21,920
successfully our t-zero's our launch

843
00:35:27,349 --> 00:35:25,359
time was 7 15 a.m mountain 9 15 a.m

844
00:35:29,510 --> 00:35:27,359
eastern if you didn't catch it we'll

845
00:35:31,430 --> 00:35:29,520
have some more replays coming up for you

846
00:35:33,270 --> 00:35:31,440
because it was over in a flash i think

847
00:35:35,910 --> 00:35:33,280
it was from start to finish it's only

848
00:35:38,550 --> 00:35:35,920
about a 95 second test or so so it's

849
00:35:40,470 --> 00:35:38,560
over quick but we got to see all of the

850
00:35:42,390 --> 00:35:40,480
events happen in sequence those four

851
00:35:44,390 --> 00:35:42,400
launch abort engines firing throwing

852
00:35:45,270 --> 00:35:44,400
starliner up in the air away from the

853
00:35:46,630 --> 00:35:45,280
pad

854
00:35:48,630 --> 00:35:46,640
and then getting in the right

855
00:35:50,710 --> 00:35:48,640
orientation pitching around using those

856
00:35:52,550 --> 00:35:50,720
thrusters on the side getting good

857
00:35:54,790 --> 00:35:52,560
shoots there are good drugs out the

858
00:35:56,630 --> 00:35:54,800
service modules separating correct

859
00:35:58,790 --> 00:35:56,640
everything looked fantastic this morning

860
00:36:00,950 --> 00:35:58,800
two good mains so still in a stable

861
00:36:03,190 --> 00:36:00,960
configuration yep their bags inflating

862
00:36:05,910 --> 00:36:03,200
and touching right down on the desert

863
00:36:07,030 --> 00:36:05,920

floor and like we said those uh two good

864
00:36:08,710 --> 00:36:07,040
mains are

865
00:36:10,470 --> 00:36:08,720
certainly within the acceptable bounds

866
00:36:13,030 --> 00:36:10,480
of this test here here we go gonna

867
00:36:15,430 --> 00:36:13,040
replay it again here

868
00:36:16,790 --> 00:36:15,440
for you so just in case you're just now

869
00:36:17,670 --> 00:36:16,800
tuning in

870
00:36:19,190 --> 00:36:17,680
um

871
00:36:21,430 --> 00:36:19,200
you know that this point you know you

872
00:36:22,390 --> 00:36:21,440
see that pitch around maneuver happen

873
00:36:23,670 --> 00:36:22,400
um

874
00:36:29,589 --> 00:36:23,680
and

875
00:36:32,470 --> 00:36:29,599
parachute sequence

876
00:36:34,790 --> 00:36:32,480
um you saw those uh look to be those two

877
00:36:36,150 --> 00:36:34,800
drugs followed by those three pilots

878
00:36:38,150 --> 00:36:36,160
here come

879
00:36:41,030 --> 00:36:38,160
the mains

880
00:36:44,230 --> 00:36:41,040
and uh as we

881
00:36:47,030 --> 00:36:44,240
um continue to to replay that here i'm

882
00:36:50,150 --> 00:36:47,040
just gonna go ahead and get folks uh

883
00:36:52,790 --> 00:36:50,160
excited here getting ready to welcome

884
00:36:55,510 --> 00:36:52,800
the crew flight test crew

885
00:36:56,870 --> 00:36:55,520
boeing and starliner astronauts they've

886
00:36:58,630 --> 00:36:56,880
just pulled up we're going to go ahead

887
00:37:01,670 --> 00:36:58,640
and talk to them

888
00:37:04,150 --> 00:37:01,680

go ahead and get them

889
00:37:06,310 --> 00:37:04,160
hey come on in guys come on over

890
00:37:08,860 --> 00:37:06,320
yeah we're going to get everybody

891
00:37:11,670 --> 00:37:08,870
come on over

892
00:37:13,349 --> 00:37:11,680
[Music]

893
00:37:15,349 --> 00:37:13,359
okay come on over mikey come on over

894
00:37:18,069 --> 00:37:15,359
here with me nicole go ahead and get in

895
00:37:19,750 --> 00:37:18,079
the middle of these guys

896
00:37:24,630 --> 00:37:19,760
um

897
00:37:27,829 --> 00:37:24,640
dan and i were out here i know you guys

898
00:37:30,550 --> 00:37:27,839
were watching uh the test nearby um this

899
00:37:32,790 --> 00:37:30,560
of course is the boeing starliner crew

900
00:37:35,030 --> 00:37:32,800
flight test crew

901
00:37:37,510 --> 00:37:35,040
we've got boeing's astronaut chris

902
00:37:39,190 --> 00:37:37,520
ferguson nasa astronaut nicole mann and

903
00:37:40,870 --> 00:37:39,200
and mike fink and let me just start with

904
00:37:44,470 --> 00:37:40,880
this guy because this is really this

905
00:37:47,589 --> 00:37:44,480
here is space flight legend uh mike fink

906
00:37:49,589 --> 00:37:47,599
this will be his his fourth time up to

907
00:37:51,670 --> 00:37:49,599
space on starliner here coming up on our

908
00:37:54,310 --> 00:37:51,680
crew flight test but in addition to that

909
00:37:56,470 --> 00:37:54,320
this is actually going to be your third

910
00:37:58,470 --> 00:37:56,480
vehicle so as rare as it is to be an

911
00:38:00,870 --> 00:37:58,480
astronaut it's even more rare to fly on

912
00:38:03,910 --> 00:38:00,880
your third vehicle so what were your

913
00:38:05,990 --> 00:38:03,920

impressions today of today's test well

914
00:38:07,990 --> 00:38:06,000
today was really amazing we hope we

915
00:38:10,470 --> 00:38:08,000
never need to use this system but in

916
00:38:13,190 --> 00:38:10,480
case we ever have any trouble aboard the

917
00:38:15,030 --> 00:38:13,200
the beautiful atlas 5 on the launch pad

918
00:38:16,870 --> 00:38:15,040
we note after today's test that we'll be

919
00:38:19,030 --> 00:38:16,880
able to get off safely and then come

920
00:38:21,190 --> 00:38:19,040
back and try again a different day so

921
00:38:23,430 --> 00:38:21,200
this uh shows that boeing is committed

922
00:38:26,230 --> 00:38:23,440
to safety and that we are really looking

923
00:38:27,910 --> 00:38:26,240
forward uh to flying on a safe

924
00:38:29,829 --> 00:38:27,920
spacecraft and today she really showed

925
00:38:32,470 --> 00:38:29,839
it is beautiful so how's it going to

926
00:38:34,550 --> 00:38:32,480
feel for nasa to have a crew transport

927
00:38:36,230 --> 00:38:34,560
system once again well it's been a long

928
00:38:38,310 --> 00:38:36,240
time since we've launched out of the

929
00:38:40,710 --> 00:38:38,320
united states we really appreciate our

930
00:38:42,470 --> 00:38:40,720
our friends in in russia for having the

931
00:38:44,550 --> 00:38:42,480
launch vehicle on the soyuz i flew on it

932
00:38:46,870 --> 00:38:44,560
twice it's a great launch vehicle great

933
00:38:48,630 --> 00:38:46,880
spacecraft and uh but it's uh it's time

934
00:38:50,950 --> 00:38:48,640
to have more options and uh the

935
00:38:52,790 --> 00:38:50,960
commercial crew program is opening up a

936
00:38:54,630 --> 00:38:52,800
new industry for the united states and

937
00:38:56,470 --> 00:38:54,640
it's it's exciting time yeah you know

938
00:38:58,390 --> 00:38:56,480

i'll tell you i just i know we were

939
00:39:00,150 --> 00:38:58,400
together over in florida well you guys

940
00:39:02,230 --> 00:39:00,160
were there getting in the starliner

941
00:39:05,190 --> 00:39:02,240
vehicle and there was a moment where you

942
00:39:06,710 --> 00:39:05,200
were in the in the seat uh and you were

943
00:39:09,030 --> 00:39:06,720
kind of taking a look at the paneling

944
00:39:11,430 --> 00:39:09,040
and you know our human uh factor systems

945
00:39:12,790 --> 00:39:11,440
engineer uh selena doe part was there

946
00:39:13,589 --> 00:39:12,800
and you kind of turned to her and you

947
00:39:15,270 --> 00:39:13,599
said

948
00:39:16,950 --> 00:39:15,280
i see what you guys are doing here and

949
00:39:19,589 --> 00:39:16,960
it and it looks good with the paneling

950
00:39:21,589 --> 00:39:19,599
and i know she kind of was really moved

951
00:39:23,910 --> 00:39:21,599
by that comment i was in there i got a

952
00:39:25,349 --> 00:39:23,920
little choked up over it um it's just

953
00:39:27,349 --> 00:39:25,359
incredible to have you here and be a

954
00:39:29,510 --> 00:39:27,359
part of the team well thank you i am i'm

955
00:39:32,390 --> 00:39:29,520
glad to be part of the team also and so

956
00:39:34,390 --> 00:39:32,400
of course uh nasa astronaut nicole mann

957
00:39:38,390 --> 00:39:34,400
uh this will actually be her first time

958
00:39:40,069 --> 00:39:38,400
to space uh marine uh fighter pilot uh

959
00:39:42,870 --> 00:39:40,079
so at this point like i said you were

960
00:39:45,430 --> 00:39:42,880
you were just out to our recovery zone

961
00:39:47,349 --> 00:39:45,440
for mission dress rehearsal we saw you

962
00:39:48,870 --> 00:39:47,359
in florida is it starting to feel like

963
00:39:49,829 --> 00:39:48,880

uh launches around the corner at this

964
00:39:51,589 --> 00:39:49,839
point

965
00:39:53,349 --> 00:39:51,599
it's starting to feel really close it's

966
00:39:55,270 --> 00:39:53,359
amazing especially being here for the

967
00:39:57,270 --> 00:39:55,280
test we've had a chance to be in the

968
00:39:59,270 --> 00:39:57,280
vehicle quite a few times but down at

969
00:40:01,670 --> 00:39:59,280
the cape last week we were in the

970
00:40:04,069 --> 00:40:01,680
spacecraft and it was all finished out

971
00:40:05,990 --> 00:40:04,079
and all the final paneling was on and it

972
00:40:07,670 --> 00:40:06,000
looks a lot like our trainers and so

973
00:40:08,630 --> 00:40:07,680
it's that's that's good news we've been

974
00:40:10,230 --> 00:40:08,640
going through a lot of the training so

975
00:40:12,150 --> 00:40:10,240
it's nice to see the final products

976
00:40:13,829 --> 00:40:12,160
coming online and big milestones like

977
00:40:15,829 --> 00:40:13,839
the test today are just showing that

978
00:40:18,390 --> 00:40:15,839
we're getting a lot closer

979
00:40:20,069 --> 00:40:18,400
and then chris for you real quick so

980
00:40:22,470 --> 00:40:20,079
you closed out the shuttle program and

981
00:40:24,069 --> 00:40:22,480
then you came to boeing shortly after

982
00:40:25,829 --> 00:40:24,079
and i mean this program has been kind of

983
00:40:28,230 --> 00:40:25,839
your life for the last couple of years

984
00:40:29,990 --> 00:40:28,240
what's it like to now be standing here

985
00:40:31,349 --> 00:40:30,000
after starliner just took to the air for

986
00:40:33,910 --> 00:40:31,359
the first time

987
00:40:35,510 --> 00:40:33,920
um so i have i've envisioned what this

988
00:40:37,430 --> 00:40:35,520

day would look like

989
00:40:38,870 --> 00:40:37,440
you know i had this trajectory of what

990
00:40:41,750 --> 00:40:38,880
this pad abort would look like for a

991
00:40:44,870 --> 00:40:41,760
long time uh and to actually see it uh

992
00:40:46,790 --> 00:40:44,880
happen was just fantastic and it and it

993
00:40:49,829 --> 00:40:46,800
worked uh pretty much the way i had

994
00:40:52,069 --> 00:40:49,839
always envisioned uh and i really have

995
00:40:54,069 --> 00:40:52,079
to uh i gotta i gotta get take my hats

996
00:40:56,150 --> 00:40:54,079
off to the boeing team um

997
00:40:59,030 --> 00:40:56,160
you know as we speak uh of course we

998
00:41:00,790 --> 00:40:59,040
have this huge test going on uh today uh

999
00:41:03,430 --> 00:41:00,800
on the east coast we're fueling our

1000
00:41:05,349 --> 00:41:03,440
vehicle for the pad uh for the uh the

1001
00:41:06,790 --> 00:41:05,359
orbital flight test that will take place

1002
00:41:08,950 --> 00:41:06,800
in december

1003
00:41:11,510 --> 00:41:08,960
so on both coasts we have major

1004
00:41:13,109 --> 00:41:11,520
operations taking place to uh to restore

1005
00:41:14,710 --> 00:41:13,119
human space flight from uh from the

1006
00:41:16,069 --> 00:41:14,720
united states of america it's a very

1007
00:41:17,910 --> 00:41:16,079
proud moment for me should be a very

1008
00:41:20,230 --> 00:41:17,920
proud moment for the entire boeing team

1009
00:41:22,630 --> 00:41:20,240
who have made that made this happen and

1010
00:41:25,109 --> 00:41:22,640
uh you know hopefully our nasa customers

1011
00:41:27,349 --> 00:41:25,119
uh uh are equally happy with the

1012
00:41:28,470 --> 00:41:27,359
progress that we've made and uh it's you

1013
00:41:31,109 --> 00:41:28,480

know it's a great day for united states

1014
00:41:32,470 --> 00:41:31,119
of america that's right yeah as a nasa

1015
00:41:34,710 --> 00:41:32,480
guy it was great to be out here with the

1016
00:41:37,030 --> 00:41:34,720
boeing team i know we're all super

1017
00:41:39,670 --> 00:41:37,040
excited too our nasa astronauts the

1018
00:41:41,109 --> 00:41:39,680
boeing team really a fantastic day we

1019
00:41:43,030 --> 00:41:41,119
don't we don't want to hold you guys up

1020
00:41:44,630 --> 00:41:43,040
too long i'm sure everybody wants to

1021
00:41:46,470 --> 00:41:44,640
start celebrating this is a really

1022
00:41:47,990 --> 00:41:46,480
successful day so thanks for running

1023
00:41:49,430 --> 00:41:48,000
over real quick and having a couple of

1024
00:41:50,790 --> 00:41:49,440
minutes with us really appreciate it

1025
00:41:53,030 --> 00:41:50,800
thank you really thank you thanks

1026
00:41:55,430 --> 00:41:53,040
excited to be here all right absolutely

1027
00:41:56,950 --> 00:41:55,440
thank you thank you so much you guys so

1028
00:41:59,349 --> 00:41:56,960
that's a tv

1029
00:42:01,750 --> 00:41:59,359
that's right so at this point you know

1030
00:42:04,150 --> 00:42:01,760
it's what's up next for starliner our

1031
00:42:06,470 --> 00:42:04,160
uncrewed uh flight test to the

1032
00:42:08,710 --> 00:42:06,480
international space station slated for

1033
00:42:10,870 --> 00:42:08,720
december 17th can't wait for that so

1034
00:42:12,390 --> 00:42:10,880
excited i hope you all tune in

1035
00:42:13,910 --> 00:42:12,400
and watch us and like we said if you're

1036
00:42:15,510 --> 00:42:13,920
on the space coast you better come on

1037
00:42:17,430 --> 00:42:15,520
out and support your hometown girl

1038
00:42:19,109 --> 00:42:17,440

that's right and as we said there's a

1039
00:42:21,270 --> 00:42:19,119
couple of milestones leading up to that

1040
00:42:23,430 --> 00:42:21,280
spacecraft's being fueled pretty soon

1041
00:42:25,829 --> 00:42:23,440
it's going to be rolling out to ula's

1042
00:42:27,349 --> 00:42:25,839
law vehicle integration facility and

1043
00:42:28,550 --> 00:42:27,359
it'll actually get stacked on top of the

1044
00:42:30,630 --> 00:42:28,560
rocket we're looking for that in the

1045
00:42:32,710 --> 00:42:30,640
next couple of weeks so stay tuned again

1046
00:42:34,630 --> 00:42:32,720
you can follow boeing on social media at

1047
00:42:37,109 --> 00:42:34,640
owingspace.boeing.com

1048
00:42:39,750 --> 00:42:37,119
and then nasa nasa.gov and our various

1049
00:42:42,710 --> 00:42:39,760
social media sites including commercial

1050
00:42:45,109 --> 00:42:42,720
crew on twitter facebook instagram we're

1051
00:42:47,349 --> 00:42:45,119
everywhere so continue following along

1052
00:42:50,390 --> 00:42:47,359
thanks for waking up and watching this

1053
00:42:51,990 --> 00:42:50,400
today starliner's first flight test its

1054
00:42:54,150 --> 00:42:52,000
first time taking to the skies the

1055
00:42:55,990 --> 00:42:54,160
successful paddleboard this morning hey