
NASA

1
00:00:06,550 --> 00:00:04,870
good morning thank you for joining us

2
00:00:09,190 --> 00:00:06,560
here at nasa's kennedy space center in

3
00:00:11,789 --> 00:00:09,200
florida for today's sts-133

4
00:00:13,990 --> 00:00:11,799
pre-countdown status briefing for the

5
00:00:15,749 --> 00:00:14,000
sts-133 launch

6
00:00:17,990 --> 00:00:15,759
to the international space station

7
00:00:19,269 --> 00:00:18,000
joining me today is jeff spalding nasa

8
00:00:21,109 --> 00:00:19,279
test director

9
00:00:22,630 --> 00:00:21,119
good morning

10
00:00:26,470 --> 00:00:22,640
and kathy winters shuttle weather

11
00:00:29,269 --> 00:00:27,750
we'll hear from our panelists and then

12
00:00:31,669 --> 00:00:29,279
take questions jeff

13
00:00:33,910 --> 00:00:31,679

thank you and good morning everyone

14
00:00:36,870 --> 00:00:33,920
and i'm here today to provide you some

15
00:00:38,150 --> 00:00:36,880
status on where we are on from yesterday

16
00:00:40,150 --> 00:00:38,160
as you remember we've briefed a

17
00:00:41,830 --> 00:00:40,160
preliminary plan on some repairs we

18
00:00:44,709 --> 00:00:41,840
needed to do to try to get into our

19
00:00:46,790 --> 00:00:44,719
launch countdown today

20
00:00:48,869 --> 00:00:46,800
the plan as we knew it yesterday was to

21
00:00:51,350 --> 00:00:48,879
vent down our tank and and remove and

22
00:00:55,189 --> 00:00:51,360
replace some some parts that we thought

23
00:00:57,750 --> 00:00:55,199
were faulty on air half coupling on our

24
00:00:58,869 --> 00:00:57,760
right hand ohms maneuvering system

25
00:01:00,709 --> 00:00:58,879
pod

26
00:01:01,990 --> 00:01:00,719
and then do some leak checks and as we

27
00:01:03,510 --> 00:01:02,000
went through the day yesterday we

28
00:01:05,109 --> 00:01:03,520
learned that there was some additional

29
00:01:06,230 --> 00:01:05,119
work that we needed to do is sometimes

30
00:01:08,070 --> 00:01:06,240
when you get into the job you get a

31
00:01:09,910 --> 00:01:08,080
little bit smarter and and we did and

32
00:01:10,950 --> 00:01:09,920
there were some things that we

33
00:01:12,070 --> 00:01:10,960
because those meetings were actually

34
00:01:13,510 --> 00:01:12,080
still going on when we were talking

35
00:01:14,789 --> 00:01:13,520
yesterday there was quite a bit more

36
00:01:16,469 --> 00:01:14,799
work it turned out that we needed to do

37
00:01:17,830 --> 00:01:16,479
from a leak check perspective and and

38
00:01:18,870 --> 00:01:17,840

some of the venting operations that need

39
00:01:20,630 --> 00:01:18,880
to be done

40
00:01:21,990 --> 00:01:20,640
as a result of that we're we're a little

41
00:01:24,630 --> 00:01:22,000
bit down on our timelines that we had

42
00:01:25,910 --> 00:01:24,640
briefed yesterday and so um the ability

43
00:01:27,910 --> 00:01:25,920
for us to get in to call the stations

44
00:01:31,190 --> 00:01:27,920
today for launch countdown is no longer

45
00:01:32,870 --> 00:01:31,200
available to us so our plan today

46
00:01:35,510 --> 00:01:32,880
is to go ahead and continue the work

47
00:01:36,710 --> 00:01:35,520
that we need to do on the the repair and

48
00:01:40,310 --> 00:01:36,720
then getting back into flight

49
00:01:41,670 --> 00:01:40,320
configuration on the ohms pod and then

50
00:01:44,069 --> 00:01:41,680
right now we're going to target a call

51
00:01:46,230 --> 00:01:44,079
to stations for tomorrow

52
00:01:47,670 --> 00:01:46,240
for sunday at 1 30 in the afternoon

53
00:01:52,310 --> 00:01:47,680
which would move our launch date out an

54
00:01:55,990 --> 00:01:54,069
some of the things that we learned as we

55
00:01:58,230 --> 00:01:56,000
went along yesterday that that changed

56
00:02:00,469 --> 00:01:58,240
our plan we found that uh there were

57
00:02:01,830 --> 00:02:00,479
some we plan on venting down the tank

58
00:02:03,749 --> 00:02:01,840
and as part of that operation there was

59
00:02:05,030 --> 00:02:03,759
a some additional venting that had to be

60
00:02:06,870 --> 00:02:05,040
completed that required some

61
00:02:08,869 --> 00:02:06,880
configuration of valving

62
00:02:10,150 --> 00:02:08,879
that caused some uh that needed that we

63
00:02:11,990 --> 00:02:10,160

needed to get in and actually remove a

64
00:02:14,550 --> 00:02:12,000
door and a panel and change the

65
00:02:16,070 --> 00:02:14,560
configuration on some of our valving and

66
00:02:18,070 --> 00:02:16,080
so as a result of that and some

67
00:02:19,830 --> 00:02:18,080
additional leak checks

68
00:02:20,949 --> 00:02:19,840
uh that needed to be done

69
00:02:22,390 --> 00:02:20,959
some intermediate ones and some

70
00:02:24,550 --> 00:02:22,400
intermediate pressurizations that we

71
00:02:25,510 --> 00:02:24,560
hadn't accounted for in our preliminary

72
00:02:26,710 --> 00:02:25,520
plans

73
00:02:29,190 --> 00:02:26,720
that just essentially drove our

74
00:02:30,869 --> 00:02:29,200
timelines out

75
00:02:32,070 --> 00:02:30,879
thus far we've

76
00:02:33,670 --> 00:02:32,080
vented down the tanks that we talked

77
00:02:36,150 --> 00:02:33,680
about yesterday

78
00:02:37,270 --> 00:02:36,160
both the the intermediate and the final

79
00:02:39,589 --> 00:02:37,280
ventings

80
00:02:40,710 --> 00:02:39,599
we've removed the doors and have done

81
00:02:42,869 --> 00:02:40,720
all of the things that we needed to to

82
00:02:45,030 --> 00:02:42,879
get into the repair we did remove and

83
00:02:46,229 --> 00:02:45,040
replace our air half coupling and the

84
00:02:47,990 --> 00:02:46,239
ground half coupling that we talked

85
00:02:49,430 --> 00:02:48,000
about yesterday the parts that were

86
00:02:51,190 --> 00:02:49,440
faulty

87
00:02:53,110 --> 00:02:51,200
on the tank and we've done some initial

88
00:02:54,949 --> 00:02:53,120

leak checks on those and also some

89
00:02:56,070 --> 00:02:54,959
moisture samples and all of those came

90
00:02:58,070 --> 00:02:56,080
back

91
00:02:59,589 --> 00:02:58,080
good at this point the initial ones

92
00:03:01,830 --> 00:02:59,599
i have with me a sort of a

93
00:03:02,869 --> 00:03:01,840
representation this is

94
00:03:05,589 --> 00:03:02,879
actually a

95
00:03:08,229 --> 00:03:05,599
propellant um air half coupling

96
00:03:09,750 --> 00:03:08,239
and uh but it is very similar to the the

97
00:03:11,830 --> 00:03:09,760
helium one that we had to repair on the

98
00:03:13,990 --> 00:03:11,840
vehicle to give sort of a representative

99
00:03:15,509 --> 00:03:14,000
size and and shape to what what it looks

100
00:03:17,350 --> 00:03:15,519
like this

101
00:03:19,350 --> 00:03:17,360
uh front part here or the head of it

102
00:03:21,110 --> 00:03:19,360
where the cage is would represent the

103
00:03:22,790 --> 00:03:21,120
part that sticks out from the panel the

104
00:03:24,390 --> 00:03:22,800
servicing panel itself

105
00:03:26,229 --> 00:03:24,400
that represents the area in which we

106
00:03:28,149 --> 00:03:26,239
would hook up a ground side

107
00:03:30,390 --> 00:03:28,159
quick disconnect to it there's a poppet

108
00:03:32,390 --> 00:03:30,400
inside of here that actually depresses

109
00:03:34,309 --> 00:03:32,400
when the two are mated and the ground

110
00:03:35,910 --> 00:03:34,319
hand side would have a device that

111
00:03:37,990 --> 00:03:35,920
actually goes inside of there to be able

112
00:03:40,149 --> 00:03:38,000
to push that and depress it and then

113
00:03:41,589 --> 00:03:40,159

allows the gases or fluids to transfer

114
00:03:43,750 --> 00:03:41,599
between it as i mentioned this is a

115
00:03:45,030 --> 00:03:43,760
propellant one and not the helium one

116
00:03:47,030 --> 00:03:45,040
but again they're very similar in

117
00:03:48,710 --> 00:03:47,040
function and in what they look like i

118
00:03:50,390 --> 00:03:48,720
think we also have a couple of slides

119
00:03:51,990 --> 00:03:50,400
that we can go ahead and show you too to

120
00:03:54,229 --> 00:03:52,000
give a sort of a representation of where

121
00:03:56,390 --> 00:03:54,239
they are on the vehicle and orient you

122
00:03:58,390 --> 00:03:56,400
to to how that looks

123
00:04:00,710 --> 00:03:58,400
this is the location of where the panel

124
00:04:02,550 --> 00:04:00,720
is where the air half coupling is that

125
00:04:04,309 --> 00:04:02,560
we removed and replaced it's on the very

126
00:04:06,869 --> 00:04:04,319
back of the ohms pod on the right hand

127
00:04:08,710 --> 00:04:06,879
side down towards the bottom next to the

128
00:04:11,990 --> 00:04:08,720
nozzle area there and i think we have a

129
00:04:13,110 --> 00:04:12,000
little closer one up on the next slide

130
00:04:15,110 --> 00:04:13,120
and that gives a little bit better

131
00:04:17,430 --> 00:04:15,120
perspective and you can see it's kind of

132
00:04:18,949 --> 00:04:17,440
up and underneath so um it is above the

133
00:04:21,110 --> 00:04:18,959
folks heads that are that would have to

134
00:04:22,790 --> 00:04:21,120
work on that operation uh normally we

135
00:04:23,990 --> 00:04:22,800
would have um access panels and those

136
00:04:25,350 --> 00:04:24,000
types of things that are not shown in

137
00:04:27,270 --> 00:04:25,360
this picture to give us plenty of

138
00:04:28,870 --> 00:04:27,280

ability to get in there and do that work

139
00:04:31,110 --> 00:04:28,880
but that's where the panel is located

140
00:04:33,830 --> 00:04:31,120
and on the next slide that's the panel

141
00:04:35,909 --> 00:04:33,840
itself and you can see some of the other

142
00:04:38,870 --> 00:04:35,919
air half couplings that are sticking out

143
00:04:40,870 --> 00:04:38,880
on there on the lower left-hand side

144
00:04:42,629 --> 00:04:40,880
is where the the one that we had to

145
00:04:44,310 --> 00:04:42,639
change out on the helium system that was

146
00:04:45,670 --> 00:04:44,320
the the one giving us the problems in

147
00:04:47,270 --> 00:04:45,680
our inability to to finish the

148
00:04:49,110 --> 00:04:47,280
operations we needed to do to get into

149
00:04:51,590 --> 00:04:49,120
launch and then we did also take the

150
00:04:53,990 --> 00:04:51,600
opportunity here overnight uh to remove

151
00:04:56,390 --> 00:04:54,000
and replace one that was leaking on our

152
00:04:58,550 --> 00:04:56,400
nitrogen side that was on the upper uh

153
00:05:01,029 --> 00:04:58,560
right hand side there and we removed and

154
00:05:04,310 --> 00:05:01,039
replaced that air half coupling as well

155
00:05:06,790 --> 00:05:04,320
so those operations are actually done

156
00:05:08,310 --> 00:05:06,800
and let's see is there another slide

157
00:05:09,909 --> 00:05:08,320
that's sort of a schematic right there

158
00:05:11,670 --> 00:05:09,919
that shows you the uh the air half

159
00:05:14,790 --> 00:05:11,680
coupling that i was showing you in my

160
00:05:16,790 --> 00:05:14,800
hand and and beneath the uh the cage

161
00:05:19,029 --> 00:05:16,800
part which is the top head

162
00:05:21,270 --> 00:05:19,039
there's um the poppet itself there's a

163
00:05:23,270 --> 00:05:21,280

spring there's two seals and also a

164
00:05:26,230 --> 00:05:23,280
filter that's inside of there

165
00:05:27,430 --> 00:05:26,240
that and all of the interior of that

166
00:05:30,070 --> 00:05:27,440
poppet

167
00:05:31,830 --> 00:05:30,080
is removed the cage and the exterior

168
00:05:32,950 --> 00:05:31,840
portions that you see there all stay in

169
00:05:35,350 --> 00:05:32,960
place on the vehicle those are not

170
00:05:36,550 --> 00:05:35,360
removed but the interior part unscrews

171
00:05:38,870 --> 00:05:36,560
and all those

172
00:05:39,990 --> 00:05:38,880
interior pieces come out and those are

173
00:05:42,469 --> 00:05:40,000
the things that were removed and

174
00:05:44,150 --> 00:05:42,479
replaced overnight so as i mentioned

175
00:05:46,150 --> 00:05:44,160
that works all done and behind us and

176
00:05:47,909 --> 00:05:46,160
the preliminary leak checks look good

177
00:05:49,830 --> 00:05:47,919
but we do still have some additional

178
00:05:51,670 --> 00:05:49,840
ones once we get up to flight pressure

179
00:05:54,950 --> 00:05:51,680
which will give us further confidence

180
00:05:57,110 --> 00:05:54,960
that that we've got a good repair

181
00:05:59,270 --> 00:05:57,120
right now we're in the process of doing

182
00:06:00,950 --> 00:05:59,280
a pressurization this is a an initial

183
00:06:03,510 --> 00:06:00,960
pressurization of the tanks it's called

184
00:06:04,870 --> 00:06:03,520
a cheat load and as part of that we will

185
00:06:07,029 --> 00:06:04,880
bring the pressure up and do some

186
00:06:08,550 --> 00:06:07,039
additional leak checks

187
00:06:09,270 --> 00:06:08,560
this is something we hadn't accounted

188
00:06:10,870 --> 00:06:09,280

for

189
00:06:11,830 --> 00:06:10,880
yesterday when i was speaking with you

190
00:06:13,029 --> 00:06:11,840
and that we

191
00:06:15,189 --> 00:06:13,039
talked about they had discussions

192
00:06:17,029 --> 00:06:15,199
throughout the day and

193
00:06:18,469 --> 00:06:17,039
learned again that we needed to do this

194
00:06:20,870 --> 00:06:18,479
normally when we're in configuration to

195
00:06:22,390 --> 00:06:20,880
go do our final press to flight mass

196
00:06:23,909 --> 00:06:22,400
we're at a higher pressure than we were

197
00:06:25,189 --> 00:06:23,919
as a result of this repair since we've

198
00:06:27,029 --> 00:06:25,199
entered the tanks all the way down to

199
00:06:28,150 --> 00:06:27,039
ambient we had to come back in and now

200
00:06:29,909 --> 00:06:28,160
we have to get them up to an

201
00:06:32,070 --> 00:06:29,919
intermediate pressure before we can go

202
00:06:33,909 --> 00:06:32,080
and pressurize again to our flight mass

203
00:06:35,830 --> 00:06:33,919
so that's what we're doing this morning

204
00:06:37,029 --> 00:06:35,840
and that just started and we'll take

205
00:06:38,870 --> 00:06:37,039
several hours to get us into the early

206
00:06:41,510 --> 00:06:38,880
afternoon hours

207
00:06:43,350 --> 00:06:41,520
at that point we have a couple of uh

208
00:06:45,350 --> 00:06:43,360
lines that we need to reconnect and then

209
00:06:47,189 --> 00:06:45,360
go ahead and we'll start begin to the

210
00:06:49,670 --> 00:06:47,199
rest of our operation which is the 16

211
00:06:51,830 --> 00:06:49,680
hour portion of the pressurization to

212
00:06:53,830 --> 00:06:51,840
flight mass and and we'll get into that

213
00:06:55,270 --> 00:06:53,840

hopefully later this afternoon or early

214
00:06:57,189 --> 00:06:55,280
evening and that'll take us through

215
00:06:58,629 --> 00:06:57,199
tomorrow morning and get us in good

216
00:07:00,309 --> 00:06:58,639
shape to get pick up the countdown

217
00:07:01,990 --> 00:07:00,319
tomorrow afternoon at 1 30 as i

218
00:07:03,749 --> 00:07:02,000
mentioned so right now we look like

219
00:07:05,510 --> 00:07:03,759
we're on a good path to get there uh

220
00:07:07,670 --> 00:07:05,520
we'll continue to track and monitor that

221
00:07:09,909 --> 00:07:07,680
work throughout the day and the night

222
00:07:10,710 --> 00:07:09,919
to make sure that we can get there and

223
00:07:14,070 --> 00:07:10,720
we'll

224
00:07:15,270 --> 00:07:14,080
changes to that

225
00:07:18,790 --> 00:07:15,280
as i mentioned our call stations is

226
00:07:20,790 --> 00:07:18,800
tomorrow at 1 30. uh the

227
00:07:22,790 --> 00:07:20,800
the earliest hanking time would be at 6

228
00:07:24,950 --> 00:07:22,800
27 on wednesday morning

229
00:07:27,110 --> 00:07:24,960
as that would put us to a new t0 time on

230
00:07:29,029 --> 00:07:27,120
wednesday of 3 47 in the afternoon for a

231
00:07:30,790 --> 00:07:29,039
window open and then of course

232
00:07:33,589 --> 00:07:30,800
about five minutes after that at 352

233
00:07:35,270 --> 00:07:33,599
would be our targeted t0 time

234
00:07:37,589 --> 00:07:35,280
we do have both flight day 3 and 4

235
00:07:39,110 --> 00:07:37,599
capabilities off and on every other day

236
00:07:40,230 --> 00:07:39,120
throughout the window as we mentioned

237
00:07:41,909 --> 00:07:40,240
yesterday

238
00:07:43,830 --> 00:07:41,919

wednesday is a day that has both flight

239
00:07:45,189 --> 00:07:43,840
day 3 and 4 capability which means

240
00:07:46,950 --> 00:07:45,199
instead of a 10 minute window we have

241
00:07:48,550 --> 00:07:46,960
about 3 extra minutes of window in there

242
00:07:49,990 --> 00:07:48,560
for that so it does give us a little bit

243
00:07:52,390 --> 00:07:50,000
more margin to get off the ground if we

244
00:07:54,309 --> 00:07:52,400
would need it on launch day

245
00:07:55,510 --> 00:07:54,319
right now then launching on wednesday we

246
00:07:57,670 --> 00:07:55,520
still have up through and including

247
00:07:58,790 --> 00:07:57,680
sunday so it gives us five days of

248
00:08:00,070 --> 00:07:58,800
attempts

249
00:08:02,390 --> 00:08:00,080
to get off the ground and that would

250
00:08:04,390 --> 00:08:02,400
give us our normal four in five day

251
00:08:06,070 --> 00:08:04,400
capability that we like to preserve that

252
00:08:07,670 --> 00:08:06,080
gives us the maximum chance to get off

253
00:08:09,510 --> 00:08:07,680
the ground on any of our launches so

254
00:08:11,110 --> 00:08:09,520
that that does still preserve that

255
00:08:14,070 --> 00:08:11,120
ability and gives us lots of flexibility

256
00:08:15,830 --> 00:08:14,080
and lots of margin to get off the ground

257
00:08:17,270 --> 00:08:15,840
um and with that i

258
00:08:19,830 --> 00:08:17,280
i think we're really confident the team

259
00:08:21,350 --> 00:08:19,840
has done an excellent job overnight it's

260
00:08:22,629 --> 00:08:21,360
been a lot of hard work they've they've

261
00:08:24,150 --> 00:08:22,639
addressed all of the

262
00:08:25,430 --> 00:08:24,160
issues as they've occurred throughout

263
00:08:26,790 --> 00:08:25,440

the time as you can imagine there's a

264
00:08:28,309 --> 00:08:26,800
lot of work that goes into these types

265
00:08:29,909 --> 00:08:28,319
of things

266
00:08:30,869 --> 00:08:29,919
and i think we've done a great job and

267
00:08:32,630 --> 00:08:30,879
we're looking forward to getting into

268
00:08:35,509 --> 00:08:32,640
the cold stations tomorrow that's it

269
00:08:37,430 --> 00:08:35,519
thanks thank you jeff kathy

270
00:08:39,670 --> 00:08:37,440
well it does look like that we are going

271
00:08:42,709 --> 00:08:39,680
to be having a front come down into the

272
00:08:44,310 --> 00:08:42,719
southeastern u.s on our new launch day

273
00:08:45,990 --> 00:08:44,320
with that and also an upper level trough

274
00:08:47,829 --> 00:08:46,000
that's dipping down in texas we should

275
00:08:48,870 --> 00:08:47,839
pull in some moisture into florida on

276
00:08:51,110 --> 00:08:48,880
that day

277
00:08:53,110 --> 00:08:51,120
causing just some concern for a low

278
00:08:54,790 --> 00:08:53,120
cloud ceiling and also some isolated

279
00:08:57,030 --> 00:08:54,800
showers in the area we are going with a

280
00:08:58,949 --> 00:08:57,040
30 chance of ksc weather prohibiting

281
00:09:00,230 --> 00:08:58,959
launch due to that overall it doesn't

282
00:09:01,750 --> 00:09:00,240
look like it's going to be any

283
00:09:03,350 --> 00:09:01,760
widespread phenomenon it just seems that

284
00:09:05,990 --> 00:09:03,360
it could give us a chance of some kind

285
00:09:08,070 --> 00:09:06,000
of isolated showers or even possible

286
00:09:10,230 --> 00:09:08,080
ceiling in the area another thing we're

287
00:09:11,670 --> 00:09:10,240
watching is tropical storm tomas which

288
00:09:12,949 --> 00:09:11,680

is down in the caribbean if we go and

289
00:09:15,509 --> 00:09:12,959
look at the satellite picture you can

290
00:09:17,430 --> 00:09:15,519
see tomas is going to be is marching

291
00:09:18,150 --> 00:09:17,440
towards west northwest you see it down

292
00:09:20,070 --> 00:09:18,160
there

293
00:09:21,990 --> 00:09:20,080
entering the area the lesser antilles

294
00:09:23,269 --> 00:09:22,000
and it's marching northwest and going to

295
00:09:24,870 --> 00:09:23,279
be heading into the caribbean for the

296
00:09:26,150 --> 00:09:24,880
next five days by launch day we're

297
00:09:27,829 --> 00:09:26,160
expecting it's

298
00:09:30,389 --> 00:09:27,839
the hurricane center is forecasting uh

299
00:09:32,389 --> 00:09:30,399
tomas to be a category

300
00:09:35,190 --> 00:09:32,399
two transitioning to three around that

301
00:09:36,389 --> 00:09:35,200
time period south of hispaniola so that

302
00:09:38,470 --> 00:09:36,399
will definitely be something we'll just

303
00:09:39,670 --> 00:09:38,480
keep an eye on of course not an

304
00:09:41,590 --> 00:09:39,680
immediate threat to launch but we'll

305
00:09:43,430 --> 00:09:41,600
watch it in case it's going to be an

306
00:09:44,949 --> 00:09:43,440
issue for the srb recovery folks as they

307
00:09:48,790 --> 00:09:44,959
spend a couple more days

308
00:09:50,150 --> 00:09:48,800
recovering the srvs after launch day

309
00:09:51,910 --> 00:09:50,160
and um go ahead and show you the

310
00:09:53,670 --> 00:09:51,920
forecast from the hurricane center

311
00:09:55,590 --> 00:09:53,680
tracking the storm um off to the

312
00:09:57,910 --> 00:09:55,600
northwest if we have that slide there we

313
00:09:59,190 --> 00:09:57,920

go and you can see that that how it will

314
00:10:03,670 --> 00:09:59,200
be

315
00:10:06,310 --> 00:10:03,680
just south of hispaniola by the time we

316
00:10:08,069 --> 00:10:06,320
get to launch and again a category three

317
00:10:10,069 --> 00:10:08,079
hurricane it's expected to be by that

318
00:10:12,310 --> 00:10:10,079
time it was almost a hurricane this

319
00:10:13,829 --> 00:10:12,320
morning on the latest update so possibly

320
00:10:14,949 --> 00:10:13,839
in this next update that we'll see in an

321
00:10:17,590 --> 00:10:14,959
hour from the hurricane center may

322
00:10:19,750 --> 00:10:17,600
already be a hurricane

323
00:10:21,269 --> 00:10:19,760
going into our forecast for launch

324
00:10:22,710 --> 00:10:21,279
looking at our tanking forecast weather

325
00:10:24,710 --> 00:10:22,720
looks pretty good overall for tanking

326
00:10:26,150 --> 00:10:24,720
just a little bit breezy we're expecting

327
00:10:28,069 --> 00:10:26,160
a little bit windier conditions on

328
00:10:29,750 --> 00:10:28,079
tuesday than we were when we were

329
00:10:31,990 --> 00:10:29,760
talking yesterday so

330
00:10:33,590 --> 00:10:32,000
and even northeast winds so it's kind of

331
00:10:34,630 --> 00:10:33,600
nice that we delayed one day in a way

332
00:10:36,230 --> 00:10:34,640
because crosswinds were actually

333
00:10:37,509 --> 00:10:36,240
starting to become a concern for tuesday

334
00:10:39,990 --> 00:10:37,519
but for wednesday the winds are going to

335
00:10:42,949 --> 00:10:40,000
be decreasing and discussing up to 15

336
00:10:44,630 --> 00:10:42,959
knots for tanking just a 5 chance of

337
00:10:46,630 --> 00:10:44,640
violating tanking constraints just in

338
00:10:48,550 --> 00:10:46,640

case we do happen to get an isolated

339
00:10:50,870 --> 00:10:48,560
thunderstorm form over the gulf stream

340
00:10:52,630 --> 00:10:50,880
but unlikely to occur

341
00:10:53,990 --> 00:10:52,640
going into our launch forecast we are

342
00:10:55,430 --> 00:10:54,000
again just concerned about low cloud

343
00:10:57,190 --> 00:10:55,440
ceilings and isolated showers in the

344
00:10:59,350 --> 00:10:57,200
area not a big chance for this but we

345
00:11:02,470 --> 00:10:59,360
dig with a 30 percent chance of ksc

346
00:11:05,190 --> 00:11:02,480
weather prohibiting launch

347
00:11:06,470 --> 00:11:05,200
and for srb recovery it was because

348
00:11:07,990 --> 00:11:06,480
we're expecting some windy conditions

349
00:11:09,750 --> 00:11:08,000
tuesday so seas are going to be picking

350
00:11:11,829 --> 00:11:09,760
up out there and so by launch they were

351
00:11:13,910 --> 00:11:11,839
still expecting five to six foot seas

352
00:11:16,870 --> 00:11:13,920
out in the srv recovery area but that's

353
00:11:18,710 --> 00:11:16,880
well within constraints

354
00:11:20,389 --> 00:11:18,720
for spaceflight meteorology groups

355
00:11:21,910 --> 00:11:20,399
forecast for our board landing sites in

356
00:11:23,829 --> 00:11:21,920
the u.s we are expecting very good

357
00:11:25,670 --> 00:11:23,839
conditions for both edwards and northrop

358
00:11:27,350 --> 00:11:25,680
not expecting any concerns

359
00:11:30,870 --> 00:11:27,360
and also for the taos sites weather

360
00:11:33,269 --> 00:11:30,880
looks very good on launch day as well

361
00:11:35,750 --> 00:11:33,279
if we do happen to delay 24 hours we

362
00:11:37,430 --> 00:11:35,760
start to have that front to move down

363
00:11:38,870 --> 00:11:37,440

through florida on this day we're not

364
00:11:40,310 --> 00:11:38,880
expecting a lot of weather with this

365
00:11:42,150 --> 00:11:40,320
front but there could be some isolated

366
00:11:44,150 --> 00:11:42,160
showers in the area and also again a

367
00:11:45,910 --> 00:11:44,160
concern for low cloud ceilings

368
00:11:47,829 --> 00:11:45,920
so with that we do have that slight

369
00:11:51,829 --> 00:11:47,839
concern for showers and a 30 percent

370
00:11:53,269 --> 00:11:51,839
chance of ksc weather prohibiting launch

371
00:11:54,310 --> 00:11:53,279
for the abort landing sites in the u.s

372
00:11:56,389 --> 00:11:54,320
space flight meteorology group is

373
00:11:58,069 --> 00:11:56,399
forecasting good weather again and they

374
00:12:01,269 --> 00:11:58,079
are also forecasting good weather for

375
00:12:03,509 --> 00:12:01,279
all three tile sites on day two

376
00:12:05,590 --> 00:12:03,519
if we happen to delay 48 hours the front

377
00:12:06,870 --> 00:12:05,600
should move through florida by this time

378
00:12:08,949 --> 00:12:06,880
we do expect the winds to get kind of

379
00:12:10,550 --> 00:12:08,959
breezy behind the front the direction

380
00:12:13,430 --> 00:12:10,560
isn't too bad for us so from zero one

381
00:12:15,750 --> 00:12:13,440
zero um the launch twin constraints um

382
00:12:17,509 --> 00:12:15,760
begin around 20 they range from 23 knots

383
00:12:18,710 --> 00:12:17,519
to 34 knots depending on the direction

384
00:12:20,150 --> 00:12:18,720
from that direction we would get

385
00:12:23,190 --> 00:12:20,160
concerned if it starts gusting up around

386
00:12:25,030 --> 00:12:23,200
23 to 24 knots um so with that we do

387
00:12:27,350 --> 00:12:25,040
have a 20 chance of ksu weather

388
00:12:28,710 --> 00:12:27,360

prohibiting launch

389
00:12:30,790 --> 00:12:28,720
and again the abort landing sites are

390
00:12:32,550 --> 00:12:30,800
good on day three and the tower sites

391
00:12:34,550 --> 00:12:32,560
are only concern on

392
00:12:35,990 --> 00:12:34,560
day three oh actually we have good tile

393
00:12:38,389 --> 00:12:36,000
sites all three days on day three as

394
00:12:41,110 --> 00:12:38,399
well

395
00:12:42,629 --> 00:12:41,120
so overall the weather is just a just

396
00:12:44,629 --> 00:12:42,639
have a little bit of a concern on launch

397
00:12:45,910 --> 00:12:44,639
day for showers and ceilings in the area

398
00:12:48,470 --> 00:12:45,920
overall it's not going to be a washout

399
00:12:50,829 --> 00:12:48,480
but we do have that 30 chance of ksc

400
00:12:53,509 --> 00:12:50,839
weather paving launch due to those

401
00:12:55,269 --> 00:12:53,519
concerns thank you kathy well no take

402
00:12:57,110 --> 00:12:55,279
questions when the microphone comes your

403
00:12:58,069 --> 00:12:57,120
way please state your name affiliation

404
00:12:59,670 --> 00:12:58,079
and to whom you're addressing your

405
00:13:02,310 --> 00:12:59,680
question i will start over in the corner

406
00:13:06,389 --> 00:13:04,629
bill harwood cbs for jeff

407
00:13:08,710 --> 00:13:06,399
with the timeline as it's laid out right

408
00:13:10,230 --> 00:13:08,720
now is it tight or is it

409
00:13:11,829 --> 00:13:10,240
have you got margin in there to get to

410
00:13:13,910 --> 00:13:11,839
windsteer is there still a challenge out

411
00:13:15,350 --> 00:13:13,920
in front of you we still have margin in

412
00:13:17,509 --> 00:13:15,360
that timeline we got several hours of

413
00:13:18,710 --> 00:13:17,519

margin i believe and so as a result of

414
00:13:19,910 --> 00:13:18,720
that we feel pretty good about getting

415
00:13:25,590 --> 00:13:19,920
back into

416
00:13:32,310 --> 00:13:29,670
um chris

417
00:13:34,870 --> 00:13:32,320
nasaspacefight.com i do have an

418
00:13:37,990 --> 00:13:34,880
estimated time for um tank repress

419
00:13:40,150 --> 00:13:38,000
completion tomorrow morning

420
00:13:41,990 --> 00:13:40,160
we expect or hope that it would be done

421
00:13:44,069 --> 00:13:42,000
somewhere between six and eight tomorrow

422
00:13:47,670 --> 00:13:44,079
morning is our is our

423
00:13:49,110 --> 00:13:47,680
goal at this point to try to get to that

424
00:13:52,949 --> 00:13:49,120
marcia

425
00:13:54,550 --> 00:13:52,959
questions um

426
00:13:56,790 --> 00:13:54,560
given that you have a flight day for

427
00:13:58,389 --> 00:13:56,800
opportunity for wednesday if you go to

428
00:14:00,230 --> 00:13:58,399
wednesday try to launch would you

429
00:14:03,750 --> 00:14:00,240
definitely try for that flight day for a

430
00:14:06,389 --> 00:14:03,760
rendezvous if you need to yes yes

431
00:14:09,030 --> 00:14:06,399
and is there any sense of even slight

432
00:14:10,550 --> 00:14:09,040
sense of uh secondary relief that you

433
00:14:13,829 --> 00:14:10,560
didn't have to deal with the election

434
00:14:16,230 --> 00:14:13,839
day uh complications

435
00:14:18,150 --> 00:14:16,240
um i i wouldn't say that that there's

436
00:14:19,350 --> 00:14:18,160
relief certainly um i think it gives us

437
00:14:20,629 --> 00:14:19,360
a little bit more breathing room for a

438
00:14:22,949 --> 00:14:20,639

lot of the folks and maybe some other

439
00:14:24,949 --> 00:14:22,959
opportunities um

440
00:14:27,030 --> 00:14:24,959
we always want to make it uh as

441
00:14:28,710 --> 00:14:27,040
uncomplicated as possible for our team

442
00:14:30,310 --> 00:14:28,720
and be able to get them

443
00:14:31,910 --> 00:14:30,320
home in between launches which is what

444
00:14:33,350 --> 00:14:31,920
was our biggest concern and get them the

445
00:14:35,990 --> 00:14:33,360
rest that they need so they can get back

446
00:14:37,829 --> 00:14:36,000
to work so if that

447
00:14:40,710 --> 00:14:37,839
move helps that in any way certainly

448
00:14:42,150 --> 00:14:40,720
that's a that's a good thing

449
00:14:45,110 --> 00:14:42,160
ken

450
00:14:47,110 --> 00:14:45,120
jeff please

451
00:14:49,590 --> 00:14:47,120
um i'd like to know this this additional

452
00:14:51,829 --> 00:14:49,600
work you did was this more invasive into

453
00:14:53,670 --> 00:14:51,839
the ohm's pot than you initially

454
00:14:55,030 --> 00:14:53,680
envisioned and and what is the

455
00:14:57,389 --> 00:14:55,040
difference between this initial

456
00:14:59,750 --> 00:14:57,399
pressurization and the 16 hour

457
00:15:01,829 --> 00:14:59,760
repressurization please the work itself

458
00:15:04,629 --> 00:15:01,839
was not more invasive it was just more

459
00:15:06,150 --> 00:15:04,639
of the work that we needed to do

460
00:15:07,269 --> 00:15:06,160
as i did mention yesterday there was a

461
00:15:09,590 --> 00:15:07,279
there were meetings still going on

462
00:15:11,110 --> 00:15:09,600
developing our plans we had some initial

463
00:15:13,189 --> 00:15:11,120

plans in place that's what we thought

464
00:15:15,030 --> 00:15:13,199
was the scope of the work and we hadn't

465
00:15:16,870 --> 00:15:15,040
fully obviously defined all of that at

466
00:15:18,069 --> 00:15:16,880
that particular point in time we thought

467
00:15:19,670 --> 00:15:18,079
we had our arms around the big nuggets

468
00:15:20,949 --> 00:15:19,680
but there were some substantial things

469
00:15:23,990 --> 00:15:20,959
that we still needed to do that were

470
00:15:25,750 --> 00:15:24,000
defined after our discussion yesterday

471
00:15:27,829 --> 00:15:25,760
the additional pressurization that we're

472
00:15:29,030 --> 00:15:27,839
doing this morning was as i mentioned

473
00:15:31,110 --> 00:15:29,040
because the tanks were vented all the

474
00:15:32,790 --> 00:15:31,120
way down in order to do the repair

475
00:15:34,550 --> 00:15:32,800
um we weren't starting at a normal place

476
00:15:36,389 --> 00:15:34,560
where we would to get into that pressure

477
00:15:38,790 --> 00:15:36,399
that final 16 hour pressurization so we

478
00:15:41,030 --> 00:15:38,800
have to get ourselves up to a point in

479
00:15:42,790 --> 00:15:41,040
time where we can get to

480
00:15:44,710 --> 00:15:42,800
the ability to press to that final 16

481
00:15:46,550 --> 00:15:44,720
hour thing later this afternoon so

482
00:15:48,629 --> 00:15:46,560
that's why it took us a little bit there

483
00:15:50,230 --> 00:15:48,639
was more work involved from yesterday

484
00:15:51,509 --> 00:15:50,240
today and it was one of the things that

485
00:15:52,829 --> 00:15:51,519
came out

486
00:15:56,710 --> 00:15:52,839
actually probably while we were talking

487
00:15:59,350 --> 00:15:56,720
yesterday we discovered

488
00:16:01,990 --> 00:16:00,310

um

489
00:16:04,069 --> 00:16:02,000
chris scott part with nasaspacefight.com

490
00:16:05,749 --> 00:16:04,079
for a question for kathy um you

491
00:16:07,350 --> 00:16:05,759
mentioned the um watching the sea states

492
00:16:08,870 --> 00:16:07,360
and the winds out at the srb recovery

493
00:16:10,949 --> 00:16:08,880
zone is that a i'm a little confused is

494
00:16:12,629 --> 00:16:10,959
that a result of tomas or the frontal

495
00:16:14,790 --> 00:16:12,639
system that'll be moving through for

496
00:16:16,550 --> 00:16:14,800
launch day it's not a can it's not the

497
00:16:18,629 --> 00:16:16,560
storm it's it's the gradient ones that

498
00:16:21,110 --> 00:16:18,639
occur the day before and that's what

499
00:16:23,670 --> 00:16:21,120
would cause the seas to to

500
00:16:25,030 --> 00:16:23,680
be up a little bit just six feet i mean

501
00:16:26,629 --> 00:16:25,040
they can certainly work in those

502
00:16:28,230 --> 00:16:26,639
conditions really they start getting

503
00:16:29,269 --> 00:16:28,240
more concerned we get over eight feet

504
00:16:30,629 --> 00:16:29,279
out there and then they start looking at

505
00:16:32,629 --> 00:16:30,639
the wave period

506
00:16:34,069 --> 00:16:32,639
and direction and then if it's over ten

507
00:16:36,470 --> 00:16:34,079
feet they usually will just spot the

508
00:16:37,990 --> 00:16:36,480
srbs and hold off

509
00:16:42,550 --> 00:16:38,000
mark

510
00:16:44,710 --> 00:16:42,560
can you just clarify uh since you

511
00:16:46,629 --> 00:16:44,720
already did the pressurization

512
00:16:47,829 --> 00:16:46,639
prior to the initial

513
00:16:49,509 --> 00:16:47,839

what we thought was going to be called

514
00:16:51,749 --> 00:16:49,519
stations

515
00:16:53,910 --> 00:16:51,759
for this you only depressurize the the

516
00:16:55,749 --> 00:16:53,920
ohms i'm sorry the right ohms helium and

517
00:16:57,430 --> 00:16:55,759
nitrogen tanks right so those are the

518
00:16:59,110 --> 00:16:57,440
only two tanks that you have to re-press

519
00:17:00,629 --> 00:16:59,120
today is that correct

520
00:17:02,230 --> 00:17:00,639
well yes there's there's multiple tanks

521
00:17:03,910 --> 00:17:02,240
within the almost pod but yes it's on

522
00:17:05,750 --> 00:17:03,920
the right-hand side it's those tanks on

523
00:17:07,189 --> 00:17:05,760
the helium side and on the nitrogen side

524
00:17:09,990 --> 00:17:07,199
as well that we had to go back in and

525
00:17:12,230 --> 00:17:10,000
repair and as a result depressurized

526
00:17:13,750 --> 00:17:12,240
and can you refresh me on i think we're

527
00:17:16,390 --> 00:17:13,760
you're talking ultimately flight mass is

528
00:17:17,510 --> 00:17:16,400
close to like 4000 psi uh what that and

529
00:17:19,750 --> 00:17:17,520
what the difference is between that

530
00:17:22,150 --> 00:17:19,760
initial level your start at and how you

531
00:17:24,069 --> 00:17:22,160
you get up what the final number is i

532
00:17:25,909 --> 00:17:24,079
don't know the actual difference between

533
00:17:27,270 --> 00:17:25,919
the two and where we end up finally on

534
00:17:30,310 --> 00:17:27,280
that so we can get that data for you

535
00:17:33,510 --> 00:17:31,750
james

536
00:17:35,590 --> 00:17:33,520
dean with florida today um jeff

537
00:17:37,750 --> 00:17:35,600
hopefully you won't be getting down to

538
00:17:40,310 --> 00:17:37,760

that last attempt on the seventh but

539
00:17:41,990 --> 00:17:40,320
that that does still uh cost you a plus

540
00:17:44,470 --> 00:17:42,000
one day if you get there right you just

541
00:17:46,070 --> 00:17:44,480
talk about um

542
00:17:47,909 --> 00:17:46,080
what that would do to your mission uh

543
00:17:50,470 --> 00:17:47,919
potentially to to not have a plus one

544
00:17:51,830 --> 00:17:50,480
day is it is there any loss of

545
00:17:53,110 --> 00:17:51,840
you know work that you would do or is it

546
00:17:55,029 --> 00:17:53,120
just something where

547
00:17:56,789 --> 00:17:55,039
if something came up you would deal with

548
00:17:59,990 --> 00:17:56,799
it mid mission or just what does it mean

549
00:18:01,909 --> 00:18:00,000
to to not have that when you launch the

550
00:18:03,350 --> 00:18:01,919
plus one at this point's contingency

551
00:18:04,950 --> 00:18:03,360
only all the work is still planned and

552
00:18:07,029 --> 00:18:04,960
defined within the other two evas that

553
00:18:08,789 --> 00:18:07,039
we've scheduled for this mission and you

554
00:18:10,470 --> 00:18:08,799
know of course we feel good about that

555
00:18:11,990 --> 00:18:10,480
on orbit things can happen and change

556
00:18:14,870 --> 00:18:12,000
that's why we we often like to protect

557
00:18:17,110 --> 00:18:14,880
for a contingency day downstream but um

558
00:18:18,950 --> 00:18:17,120
i'm certain that they'd be able to

559
00:18:20,390 --> 00:18:18,960
rework the the schedules to to get the

560
00:18:22,630 --> 00:18:20,400
maximum amount of things and done on

561
00:18:24,150 --> 00:18:22,640
orbit

562
00:18:25,430 --> 00:18:24,160
i also just wondered if you could talk a

563
00:18:27,510 --> 00:18:25,440

little bit about what the crew is doing

564
00:18:29,510 --> 00:18:27,520
with this extra couple days

565
00:18:30,870 --> 00:18:29,520
that they'll spend here um

566
00:18:32,950 --> 00:18:30,880
you know i'm sure they're

567
00:18:34,230 --> 00:18:32,960
doing some more stas and whatnot

568
00:18:34,950 --> 00:18:34,240
what what what else is going on with the

569
00:18:36,710 --> 00:18:34,960
crew

570
00:18:38,070 --> 00:18:36,720
normally it's more additional training

571
00:18:39,990 --> 00:18:38,080
just like you said and they have more

572
00:18:41,990 --> 00:18:40,000
opportunity to do some of those things

573
00:18:43,990 --> 00:18:42,000
um often there's a little bit more uh

574
00:18:44,710 --> 00:18:44,000
relaxation time in there as well i don't

575
00:18:48,950 --> 00:18:44,720
have

576
00:18:50,950 --> 00:18:48,960
but they generally they they do like to

577
00:18:52,230 --> 00:18:50,960
have some of that extra time too just to

578
00:18:53,510 --> 00:18:52,240
review all of the different things that

579
00:18:54,950 --> 00:18:53,520
they need to for these flights and these

580
00:18:55,990 --> 00:18:54,960
missions that's because they're so

581
00:18:57,669 --> 00:18:56,000
critical and there's so much that they

582
00:18:59,669 --> 00:18:57,679
often have to do and it does give them

583
00:19:02,070 --> 00:18:59,679
some extra room time to do that so

584
00:19:04,630 --> 00:19:02,080
sometimes that does actually um add some

585
00:19:05,510 --> 00:19:04,640
benefit to them as well

586
00:19:06,230 --> 00:19:05,520
bill

587
00:19:09,750 --> 00:19:06,240
just

588
00:19:11,750 --> 00:19:09,760

strategy would be try to stand down and

589
00:19:13,029 --> 00:19:11,760
then try two more that's exactly you got

590
00:19:15,190 --> 00:19:13,039
four attempts out of the rest of the

591
00:19:16,630 --> 00:19:15,200
window right we have our standard plan

592
00:19:17,750 --> 00:19:16,640
would be to do that four in five days

593
00:19:19,350 --> 00:19:17,760
and then of course

594
00:19:22,470 --> 00:19:19,360
whatever happened along the way would

595
00:19:25,590 --> 00:19:22,480
dictate you know how that worked out

596
00:19:27,909 --> 00:19:25,600
are there any further questions

597
00:19:31,750 --> 00:19:29,990
hi ken kramer for uh space flight

598
00:19:33,990 --> 00:19:31,760
magazine for kathy is there any chance

599
00:19:36,470 --> 00:19:34,000
that hurricane is going to be coming up

600
00:19:39,430 --> 00:19:36,480
here if that uh whether if the launch

601
00:19:40,870 --> 00:19:39,440
does get delayed well um the models and

602
00:19:42,870 --> 00:19:40,880
i you know i was looking pretty far out

603
00:19:44,630 --> 00:19:42,880
and there was a northeast turn at the

604
00:19:46,310 --> 00:19:44,640
end of some of the models not towards

605
00:19:47,430 --> 00:19:46,320
florida so much actually more off to the

606
00:19:49,510 --> 00:19:47,440
east

607
00:19:50,950 --> 00:19:49,520
so it's always a possibility it will

608
00:19:52,390 --> 00:19:50,960
depend on the timing when that comes

609
00:19:54,549 --> 00:19:52,400
into the caribbean and the timing of the

610
00:19:56,470 --> 00:19:54,559
trough and if the trough puts more shear

611
00:19:58,470 --> 00:19:56,480
on it before it actually would make a

612
00:20:00,230 --> 00:19:58,480
move to the northeast so it's something

613
00:20:01,830 --> 00:20:00,240

we'll watch it's pretty far out right

614
00:20:04,470 --> 00:20:01,840
now this far out a lot of things can

615
00:20:06,630 --> 00:20:04,480
happen and so we just we just monitor it

616
00:20:08,870 --> 00:20:06,640
and as the time comes we'll we'll deal

617
00:20:10,549 --> 00:20:08,880
with it if we need to and i'll watch it

618
00:20:11,830 --> 00:20:10,559
for the srb recovery area for the two

619
00:20:14,070 --> 00:20:11,840
days following launch while they're

620
00:20:15,190 --> 00:20:14,080
still out there working

621
00:20:18,549 --> 00:20:15,200
thanks

622
00:20:24,470 --> 00:20:21,350
that will conclude today's sts-133

623
00:20:26,710 --> 00:20:24,480
pre-countdown briefing

624
00:20:28,390 --> 00:20:26,720
events and milestines for the countdown

625
00:20:31,029 --> 00:20:28,400
will be posted on our webpage at

626
00:20:33,789 --> 00:20:31,039
www.nasa.gov

627
00:20:35,909 --> 00:20:33,799
shuttle just to recap the launch for

628
00:20:39,029 --> 00:20:35,919
sts-133 to the international space

629
00:20:42,789 --> 00:20:39,039
station now is planned for wednesday

630
00:20:45,110 --> 00:20:42,799
november 3rd at 3 52 pm with a 1 30 call

631
00:20:46,470 --> 00:20:45,120
to stations tomorrow afternoon

632
00:20:48,390 --> 00:20:46,480
which means the countdown clock would

633
00:20:50,549 --> 00:20:48,400
begin ticking down at 2 pm

634
00:20:53,350 --> 00:20:50,559
please join us live on nasa television

635
00:20:54,870 --> 00:20:53,360
today at noon eastern time for the brock

636
00:20:58,230 --> 00:20:54,880
progress docking at the international

637
00:21:00,710 --> 00:20:58,240
space station followed by a 2 pm launch