
27
NASA
JAXA
ESA

1
00:00:06,470 --> 00:00:03,270
good afternoon thank you for joining us

2
00:00:08,549 --> 00:00:06,480
for this sts-134 post mmt briefing

3
00:00:10,709 --> 00:00:08,559
joining us is leroy kane the chairman of

4
00:00:11,830 --> 00:00:10,719
the mmt and deputy for the space shuttle

5
00:00:13,990 --> 00:00:11,840
programming

6
00:00:16,550 --> 00:00:14,000
leroy thank you nicole good afternoon

7
00:00:19,109 --> 00:00:16,560
it's good to be back with you today um i

8
00:00:22,870 --> 00:00:19,119
think most of you i'm sure have have

9
00:00:25,269 --> 00:00:22,880
heard about ams the fact that it's

10
00:00:27,429 --> 00:00:25,279
been installed and activated and i

11
00:00:29,429 --> 00:00:27,439
believe dr tang was over to talk about

12
00:00:31,589 --> 00:00:29,439
some of the science that the

13
00:00:32,790 --> 00:00:31,599

that the uh experiments are already

14
00:00:34,790 --> 00:00:32,800
producing so

15
00:00:36,549 --> 00:00:34,800
um just uh

16
00:00:37,910 --> 00:00:36,559
fantastic news there a lot of folks are

17
00:00:39,590 --> 00:00:37,920
very excited about that and of course

18
00:00:41,510 --> 00:00:39,600
that's what what this is all about so

19
00:00:42,470 --> 00:00:41,520
we're all very happy about that

20
00:00:45,190 --> 00:00:42,480
um

21
00:00:47,670 --> 00:00:45,200
on board uh the crews had another really

22
00:00:49,750 --> 00:00:47,680
great day um their uh

23
00:00:50,950 --> 00:00:49,760
we have our ev crew members are camping

24
00:00:51,910 --> 00:00:50,960
out tonight

25
00:00:53,590 --> 00:00:51,920
um

26
00:00:55,430 --> 00:00:53,600
and uh the other crew members were

27
00:00:56,470 --> 00:00:55,440
working on eva prep toward the end of

28
00:00:57,830 --> 00:00:56,480
the day and of course we have our

29
00:01:00,470 --> 00:00:57,840
spacewalk tomorrow that we're looking

30
00:01:01,590 --> 00:01:00,480
forward to so all things going very well

31
00:01:03,430 --> 00:01:01,600
in that regard in terms of that

32
00:01:05,830 --> 00:01:03,440
preparation

33
00:01:07,109 --> 00:01:05,840
in the in the mmt today we talked about

34
00:01:09,109 --> 00:01:07,119
several items

35
00:01:10,710 --> 00:01:09,119
i'll touch on a few of them here

36
00:01:12,550 --> 00:01:10,720
we did get some

37
00:01:14,630 --> 00:01:12,560
some of our imagery data from the srb

38
00:01:16,469 --> 00:01:14,640

videos

39
00:01:18,310 --> 00:01:16,479
and the srb

40
00:01:19,749 --> 00:01:18,320
open assessment is actually ongoing but

41
00:01:21,350 --> 00:01:19,759
we do have some of the video available

42
00:01:23,910 --> 00:01:21,360
now and was put out there in the servers

43
00:01:24,789 --> 00:01:23,920
for our analysts to look at

44
00:01:26,550 --> 00:01:24,799
and

45
00:01:28,950 --> 00:01:26,560
we were able to see in some of the some

46
00:01:31,670 --> 00:01:28,960
of the views that they showed us

47
00:01:33,910 --> 00:01:31,680
that it looks like we have some you know

48
00:01:36,710 --> 00:01:33,920
likelihood ice coming off some of the uh

49
00:01:39,109 --> 00:01:36,720
the locks feed line brackets

50
00:01:41,350 --> 00:01:39,119
one specific bracket the the bracket at

51
00:01:42,230 --> 00:01:41,360
the 1377 location

52
00:01:44,550 --> 00:01:42,240
um

53
00:01:45,510 --> 00:01:44,560
looks like it generated some debris and

54
00:01:46,950 --> 00:01:45,520
again

55
00:01:49,030 --> 00:01:46,960
we believe it's probably ice but we'll

56
00:01:51,109 --> 00:01:49,040
go look at it

57
00:01:52,310 --> 00:01:51,119
and it was at about 70 seconds into the

58
00:01:53,270 --> 00:01:52,320
flight

59
00:01:56,310 --> 00:01:53,280
and

60
00:01:59,109 --> 00:01:56,320
in one case uh the uh the debris

61
00:02:01,350 --> 00:01:59,119
impacted one of the af struts

62
00:02:03,590 --> 00:02:01,360
um and broke into several smaller pieces

63
00:02:06,310 --> 00:02:03,600

in another case we saw a debris impact

64
00:02:09,109 --> 00:02:06,320
the starboard landing gear door and so

65
00:02:10,710 --> 00:02:09,119
we think that maps well into

66
00:02:12,229 --> 00:02:10,720
one of the damage sites that i showed

67
00:02:14,630 --> 00:02:12,239
you yesterday in the graphic and we'll

68
00:02:16,390 --> 00:02:14,640
look at that again today when we get to

69
00:02:17,990 --> 00:02:16,400
that graphic in a minute so we are

70
00:02:19,910 --> 00:02:18,000
beginning to get some of that video and

71
00:02:21,670 --> 00:02:19,920
and that will help us

72
00:02:23,190 --> 00:02:21,680
complete the puzzle in terms of

73
00:02:25,350 --> 00:02:23,200
determining

74
00:02:27,190 --> 00:02:25,360
to the best that we are able to to

75
00:02:28,710 --> 00:02:27,200
determine

76
00:02:31,670 --> 00:02:28,720
what generated some of these damage

77
00:02:34,229 --> 00:02:31,680
sites on the bottom of the orbiter

78
00:02:38,630 --> 00:02:35,350
the

79
00:02:39,910 --> 00:02:38,640
and we were able to just look at a

80
00:02:41,430 --> 00:02:39,920
couple of those shots today in the

81
00:02:44,470 --> 00:02:41,440
mission management team

82
00:02:46,869 --> 00:02:44,480
um the srb team also reported that uh

83
00:02:49,030 --> 00:02:46,879
apparently one of the um one of the

84
00:02:50,470 --> 00:02:49,040
solid rocket booster parachutes was had

85
00:02:51,830 --> 00:02:50,480
a tear in it

86
00:02:55,030 --> 00:02:51,840
we don't know when that happened during

87
00:02:58,149 --> 00:02:56,710
anything more than it was

88
00:03:00,309 --> 00:02:58,159

apparently torn and so there'll be some

89
00:03:03,350 --> 00:03:00,319
post-flight assessment of that

90
00:03:05,670 --> 00:03:03,360
as well going forward

91
00:03:06,949 --> 00:03:05,680
in the major item that we talked about

92
00:03:09,589 --> 00:03:06,959
today and spent the most time on

93
00:03:11,509 --> 00:03:09,599
probably is our dat team assessment

94
00:03:13,670 --> 00:03:11,519
and when i was here yesterday i told you

95
00:03:15,190 --> 00:03:13,680
that we had seven areas on the underside

96
00:03:16,550 --> 00:03:15,200
of the vehicle on the tiles that we were

97
00:03:17,509 --> 00:03:16,560
still assessing

98
00:03:18,470 --> 00:03:17,519
um

99
00:03:20,070 --> 00:03:18,480
and

100
00:03:21,350 --> 00:03:20,080
of those areas we've been able to clear

101
00:03:23,190 --> 00:03:21,360
several of them and we still have a

102
00:03:25,830 --> 00:03:23,200
couple that are open so

103
00:03:27,190 --> 00:03:25,840
if we can go to the first graphic i

104
00:03:28,630 --> 00:03:27,200
think i can show that to you you'll

105
00:03:31,589 --> 00:03:28,640
recall this graphic i showed you

106
00:03:36,309 --> 00:03:34,710
and we have seven areas on there the the

107
00:03:37,509 --> 00:03:36,319
seven red dots

108
00:03:42,550 --> 00:03:37,519
um

109
00:03:43,990 --> 00:03:42,560
have the yellow boxes associated with

110
00:03:45,750 --> 00:03:44,000
them are two areas that i'll talk a

111
00:03:47,589 --> 00:03:45,760
little bit more about that are still

112
00:03:50,070 --> 00:03:47,599
remain open as far as our assessment we

113
00:03:52,070 --> 00:03:50,080

have not cleared those areas

114
00:03:53,990 --> 00:03:52,080
the red dots that have the green boxes

115
00:03:55,270 --> 00:03:54,000
associated with them

116
00:03:57,350 --> 00:03:55,280
the team has

117
00:03:59,190 --> 00:03:57,360
successfully cleared those areas

118
00:04:01,270 --> 00:03:59,200
and there's no more work that we need to

119
00:04:03,589 --> 00:04:01,280
do

120
00:04:05,030 --> 00:04:03,599
on those on those damaged sites those

121
00:04:06,949 --> 00:04:05,040
ones are good to go

122
00:04:09,910 --> 00:04:06,959
and so we do have two of them that

123
00:04:12,149 --> 00:04:09,920
remain open one of them

124
00:04:14,309 --> 00:04:12,159
is a is kind of in the middle of the

125
00:04:17,189 --> 00:04:14,319
cluster there it's the yellow box

126
00:04:19,110 --> 00:04:17,199
labeled 2-0-1

127
00:04:20,229 --> 00:04:19,120
and so i think the next graphic will

128
00:04:22,069 --> 00:04:20,239
show up

129
00:04:23,430 --> 00:04:22,079
a picture of that one

130
00:04:25,590 --> 00:04:23,440
i actually showed you this picture

131
00:04:27,830 --> 00:04:25,600
yesterday

132
00:04:29,590 --> 00:04:27,840
so this is the site that that the team

133
00:04:31,030 --> 00:04:29,600
is spending most of the time on in terms

134
00:04:32,469 --> 00:04:31,040
of the one that's got our interests the

135
00:04:34,070 --> 00:04:32,479
most uh

136
00:04:35,830 --> 00:04:34,080
primarily because of the dimensions of

137
00:04:36,629 --> 00:04:35,840
it to include the depth

138
00:04:38,230 --> 00:04:36,639

and

139
00:04:42,390 --> 00:04:38,240
so there's some more work that that's

140
00:04:44,790 --> 00:04:42,400
ongoing in terms of looking at this site

141
00:04:49,350 --> 00:04:47,270
what i wanted to do was was uh

142
00:04:51,990 --> 00:04:49,360
was to show you some other data that we

143
00:04:53,510 --> 00:04:52,000
looked at the in the mmt today

144
00:04:57,110 --> 00:04:53,520
to include

145
00:04:59,270 --> 00:04:57,120
a damaged site that we had on on sts-118

146
00:05:05,430 --> 00:04:59,280
before i do that if we can go back to

147
00:05:11,749 --> 00:05:08,469
can we go back to the first slide there

148
00:05:15,430 --> 00:05:11,759
you see the first slide you see this box

149
00:05:17,430 --> 00:05:15,440
the green box labeled 2-003

150
00:05:19,510 --> 00:05:17,440
where we have a tile that was damaged

151
00:05:21,029 --> 00:05:19,520
here

152
00:05:23,350 --> 00:05:21,039
that location

153
00:05:25,189 --> 00:05:23,360
is the same location

154
00:05:27,350 --> 00:05:25,199
where we had the tile damaged on the

155
00:05:29,510 --> 00:05:27,360
sts-118 mission

156
00:05:32,390 --> 00:05:29,520
that i'm about to show you a slide on

157
00:05:35,749 --> 00:05:32,400
and what i want to point out is uh

158
00:05:37,749 --> 00:05:35,759
is the relative vicinity of that damaged

159
00:05:42,710 --> 00:05:37,759
site compared to

160
00:05:43,990 --> 00:05:42,720
the damage site in the yellow box 2-001

161
00:05:47,749 --> 00:05:44,000
so

162
00:05:50,469 --> 00:05:47,759
the damage on this flight

163
00:05:54,629 --> 00:05:50,479

the 2-001 the one that we're we're

164
00:05:58,150 --> 00:05:54,639
interested in looking at in more detail

165
00:06:00,469 --> 00:05:58,160
is approximately 14 inches forward

166
00:06:03,270 --> 00:06:00,479
and 11 inches in board

167
00:06:04,870 --> 00:06:03,280
of the site where we had damaged tile on

168
00:06:07,430 --> 00:06:04,880
sts-118

169
00:06:13,110 --> 00:06:07,440
so if you can keep that in mind

170
00:06:17,830 --> 00:06:15,670
this is a picture of the

171
00:06:18,790 --> 00:06:17,840
the damage that we had on the sts-118

172
00:06:21,990 --> 00:06:18,800
mission

173
00:06:23,909 --> 00:06:22,000
um again as i pointed out to you on the

174
00:06:25,670 --> 00:06:23,919
previous chart this you have an idea now

175
00:06:26,950 --> 00:06:25,680
where this damage site is relative to

176
00:06:28,150 --> 00:06:26,960
the damage that we have on the vehicle

177
00:06:31,189 --> 00:06:28,160
on orbit

178
00:06:32,710 --> 00:06:31,199
um this this is the imagery that we got

179
00:06:35,830 --> 00:06:32,720
during the focused inspection that we

180
00:06:38,070 --> 00:06:35,840
did on that mission

181
00:06:39,909 --> 00:06:38,080
the picture on the left with the red box

182
00:06:42,629 --> 00:06:39,919
around it again shows you the location

183
00:06:45,990 --> 00:06:42,639
of where this damage was

184
00:06:48,150 --> 00:06:46,000
in the in the tile that was uh damaged

185
00:06:50,790 --> 00:06:48,160
and then the two boxes at the bottom is

186
00:06:51,589 --> 00:06:50,800
a is a comparison of

187
00:06:54,230 --> 00:06:51,599
um

188
00:06:55,909 --> 00:06:54,240

on sts-118 the dimensions

189
00:06:57,510 --> 00:06:55,919
of the damage to include the length

190
00:06:59,270 --> 00:06:57,520
width and the depth

191
00:07:02,150 --> 00:06:59,280
um the x

192
00:07:04,790 --> 00:07:02,160
and y and z coordinates

193
00:07:07,670 --> 00:07:04,800
and then the tile thickness

194
00:07:09,589 --> 00:07:07,680
and then sts-134

195
00:07:11,589 --> 00:07:09,599
you can see the the

196
00:07:13,350 --> 00:07:11,599
our best estimate our current best

197
00:07:14,230 --> 00:07:13,360
estimate of what the damage

198
00:07:16,150 --> 00:07:14,240
is

199
00:07:18,469 --> 00:07:16,160
and then the same thing that the tile

200
00:07:19,670 --> 00:07:18,479
coordinates and then the tile thickness

201
00:07:21,749 --> 00:07:19,680
so um

202
00:07:23,270 --> 00:07:21,759
we looked at this for purposes of

203
00:07:24,790 --> 00:07:23,280
comparing

204
00:07:26,790 --> 00:07:24,800
obviously the damage we had on the

205
00:07:30,309 --> 00:07:26,800
previous mission to what we what we see

206
00:07:34,070 --> 00:07:31,749
and so

207
00:07:35,270 --> 00:07:34,080
relatively close in terms of position on

208
00:07:37,670 --> 00:07:35,280
the vehicle

209
00:07:39,909 --> 00:07:37,680
very close in terms of

210
00:07:41,990 --> 00:07:39,919
dimensions

211
00:07:43,270 --> 00:07:42,000
and volume of damage

212
00:07:45,510 --> 00:07:43,280
potentially

213
00:07:47,749 --> 00:07:45,520

pretty similar

214
00:07:49,350 --> 00:07:47,759
and then i wanted to show you one more

215
00:07:51,510 --> 00:07:49,360
chart

216
00:07:54,390 --> 00:07:51,520
and this is the

217
00:07:56,390 --> 00:07:54,400
sts-118 damage

218
00:07:58,950 --> 00:07:56,400
it's comparing the on-orbit focused

219
00:08:01,029 --> 00:07:58,960
inspection imagery that we had

220
00:08:03,029 --> 00:08:01,039
to uh to the to the picture that we took

221
00:08:04,150 --> 00:08:03,039
post landing on the runway

222
00:08:05,350 --> 00:08:04,160
um

223
00:08:07,270 --> 00:08:05,360
and so

224
00:08:08,629 --> 00:08:07,280
it's it's kind of hard to tell them

225
00:08:10,309 --> 00:08:08,639
apart you can see a little bit more

226
00:08:12,309 --> 00:08:10,319
detail in the in the one on the right

227
00:08:13,430 --> 00:08:12,319
post uh post flight on the runway

228
00:08:15,110 --> 00:08:13,440
because

229
00:08:16,550 --> 00:08:15,120
it's a picture that's on the ground with

230
00:08:18,309 --> 00:08:16,560
a pretty good camera and it's obviously

231
00:08:21,990 --> 00:08:18,319
got some more color

232
00:08:24,950 --> 00:08:22,000
capability than what we have on orbit

233
00:08:26,950 --> 00:08:24,960
but just to give you an idea

234
00:08:29,589 --> 00:08:26,960
of the

235
00:08:32,870 --> 00:08:29,599
of how we fared on sts-118 with with

236
00:08:34,310 --> 00:08:32,880
some pretty similar um kind of damage

237
00:08:35,110 --> 00:08:34,320
um

238
00:08:37,829 --> 00:08:35,120

so

239
00:08:43,269 --> 00:08:37,839
we can go back to

240
00:08:46,790 --> 00:08:45,110
tile site damage

241
00:08:51,030 --> 00:08:46,800
it's the one that's

242
00:08:55,910 --> 00:08:53,269
so this is this is the one that we're

243
00:08:57,430 --> 00:08:55,920
we're looking the most at um

244
00:08:59,910 --> 00:08:57,440
and um

245
00:09:02,230 --> 00:08:59,920
the team has not completed our our

246
00:09:03,110 --> 00:09:02,240
assessments on this site

247
00:09:05,350 --> 00:09:03,120
um

248
00:09:08,550 --> 00:09:05,360
but the work we've done so far

249
00:09:11,030 --> 00:09:08,560
um that we believe that we we may need

250
00:09:12,470 --> 00:09:11,040
to do a focus inspection in order to get

251
00:09:14,790 --> 00:09:12,480
some more fidelity you can tell the

252
00:09:17,110 --> 00:09:14,800
picture is kind of fuzzy

253
00:09:19,509 --> 00:09:17,120
um the photo lab folks have tried to do

254
00:09:21,190 --> 00:09:19,519
some enhancements on it but um to the

255
00:09:22,710 --> 00:09:21,200
best of our ability the team is is

256
00:09:25,190 --> 00:09:22,720
trying to understand that from a

257
00:09:26,710 --> 00:09:25,200
dimensional analysis standpoint

258
00:09:29,110 --> 00:09:26,720
um and then they can go do the

259
00:09:33,590 --> 00:09:29,120
structural thermal and aerothermal

260
00:09:38,389 --> 00:09:34,949
so those were the slides i wanted to

261
00:09:42,310 --> 00:09:39,670
and so

262
00:09:44,310 --> 00:09:42,320
with respect to that site as i said the

263
00:09:46,150 --> 00:09:44,320

work is ongoing

264
00:09:48,710 --> 00:09:46,160
the site

265
00:09:50,790 --> 00:09:48,720
that is the other yellow box that's on

266
00:09:52,710 --> 00:09:50,800
the elevon

267
00:09:55,990 --> 00:09:52,720
that was not cleared as the as of the

268
00:09:57,509 --> 00:09:56,000
time of the of the mmt discussion today

269
00:09:58,949 --> 00:09:57,519
but the team was pretty confident that

270
00:10:00,710 --> 00:09:58,959
they were going to be able to clear it

271
00:10:02,630 --> 00:10:00,720
this afternoon

272
00:10:04,790 --> 00:10:02,640
so i anticipate that site will probably

273
00:10:06,710 --> 00:10:04,800
be cleared however

274
00:10:08,949 --> 00:10:06,720
the plan that we have going forward out

275
00:10:10,790 --> 00:10:08,959
of the mmt today is

276
00:10:13,990 --> 00:10:10,800
i've directed the team to go ahead and

277
00:10:15,990 --> 00:10:14,000
put the focus inspection

278
00:10:18,069 --> 00:10:16,000
plan into work

279
00:10:19,509 --> 00:10:18,079
as you know we have the over

280
00:10:21,910 --> 00:10:19,519
on the cruise

281
00:10:23,590 --> 00:10:21,920
flight flight plan timeline for saturday

282
00:10:24,710 --> 00:10:23,600
on flight day six

283
00:10:27,350 --> 00:10:24,720
and so

284
00:10:29,430 --> 00:10:27,360
the operations team has gone and done

285
00:10:31,110 --> 00:10:29,440
the next level of assessment they have

286
00:10:32,710 --> 00:10:31,120
to do the robotics assessment once they

287
00:10:33,990 --> 00:10:32,720
find out the exact damage sites they

288
00:10:36,230 --> 00:10:34,000

have to go do all the robotics and

289
00:10:37,750 --> 00:10:36,240
robotic trajectory analysis

290
00:10:40,710 --> 00:10:37,760
and and they've done all that work and

291
00:10:42,870 --> 00:10:40,720
they're building those procedures

292
00:10:43,990 --> 00:10:42,880
and so that's the plan that we'll uplink

293
00:10:46,710 --> 00:10:44,000
to the crew

294
00:10:48,230 --> 00:10:46,720
at the end of their crew day tomorrow

295
00:10:51,430 --> 00:10:48,240
and it'll be a plan that will do focus

296
00:10:54,310 --> 00:10:51,440
inspection on those two locations

297
00:10:56,710 --> 00:10:54,320
now i think in all likelihood we will uh

298
00:10:58,949 --> 00:10:56,720
download to a second plan that we have

299
00:11:00,790 --> 00:10:58,959
which is to do the inspection on only

300
00:11:03,269 --> 00:11:00,800
the one site

301
00:11:04,790 --> 00:11:03,279
the site that's labeled the 2-01 and the

302
00:11:06,949 --> 00:11:04,800
yellow box the one that i've spent some

303
00:11:08,310 --> 00:11:06,959
time on here today

304
00:11:11,350 --> 00:11:08,320
because as i said i think we'll clear

305
00:11:15,590 --> 00:11:13,269
there's also a possibility that between

306
00:11:18,230 --> 00:11:15,600
now and the early hours of the morning

307
00:11:21,110 --> 00:11:18,240
that the debt team will in fact clear

308
00:11:24,470 --> 00:11:21,120
even this this site

309
00:11:26,150 --> 00:11:24,480
the 2-001 tile damage site

310
00:11:27,670 --> 00:11:26,160
they had less confidence that they would

311
00:11:29,910 --> 00:11:27,680
be able to do that based on what they

312
00:11:31,030 --> 00:11:29,920
knew coming into the mmt today

313
00:11:32,310 --> 00:11:31,040

but they did not rule out the

314
00:11:35,350 --> 00:11:32,320
possibility that they would be able to

315
00:11:37,590 --> 00:11:35,360
clear that site as well so

316
00:11:39,750 --> 00:11:37,600
in summary we have some more work to do

317
00:11:41,190 --> 00:11:39,760
on a couple of these sites

318
00:11:42,790 --> 00:11:41,200
pretty common pretty high confidence

319
00:11:44,069 --> 00:11:42,800
we're going to clear one of them some

320
00:11:46,470 --> 00:11:44,079
possibility that we're going to clear

321
00:11:48,470 --> 00:11:46,480
the other one we have procedures built

322
00:11:49,910 --> 00:11:48,480
and timelines built

323
00:11:51,110 --> 00:11:49,920
and ready to go to the crew tomorrow

324
00:11:53,670 --> 00:11:51,120
morning

325
00:11:56,069 --> 00:11:53,680
whatever the scenario might be

326
00:11:57,269 --> 00:11:56,079
for one or both of the sites or neither

327
00:11:58,710 --> 00:11:57,279
of them

328
00:12:01,430 --> 00:11:58,720
and if neither of course then we won't

329
00:12:03,990 --> 00:12:01,440
be doing focus inspection

330
00:12:05,269 --> 00:12:04,000
so it was really a good update

331
00:12:06,629 --> 00:12:05,279
from the team today that they're

332
00:12:07,590 --> 00:12:06,639
continuing to work very hard on the

333
00:12:08,550 --> 00:12:07,600
problem

334
00:12:12,150 --> 00:12:08,560
and

335
00:12:14,230 --> 00:12:12,160
to be in this process

336
00:12:15,829 --> 00:12:14,240
um and uh

337
00:12:17,990 --> 00:12:15,839
we'll move forward from here and and

338
00:12:19,509 --> 00:12:18,000

tomorrow we'll have uh we'll have some

339
00:12:21,269 --> 00:12:19,519
more information and we'll report that

340
00:12:22,310 --> 00:12:21,279
as we get it

341
00:12:24,710 --> 00:12:22,320
um

342
00:12:26,629 --> 00:12:24,720
the other item of discussion that we had

343
00:12:30,310 --> 00:12:26,639
today in the mmt was

344
00:12:31,670 --> 00:12:30,320
the soyuz 25s undock plan

345
00:12:33,430 --> 00:12:31,680
as you know when we

346
00:12:35,670 --> 00:12:33,440
when we decided that

347
00:12:37,670 --> 00:12:35,680
we could launch on may 16th

348
00:12:39,269 --> 00:12:37,680
we did that with an understanding that

349
00:12:41,750 --> 00:12:39,279
there would be a soyuz undock occurring

350
00:12:43,829 --> 00:12:41,760
while the shuttle was docked

351
00:12:46,550 --> 00:12:43,839
we've done a lot of work with with what

352
00:12:47,829 --> 00:12:46,560
we call ddo or dual docked operations

353
00:12:49,750 --> 00:12:47,839
which is to say

354
00:12:52,310 --> 00:12:49,760
another vehicle is

355
00:12:54,629 --> 00:12:52,320
departing the station in an undock and

356
00:12:55,910 --> 00:12:54,639
separation fashion while the shuttle is

357
00:12:57,829 --> 00:12:55,920
docked there

358
00:12:59,829 --> 00:12:57,839
and so we've done a lot of work on that

359
00:13:01,670 --> 00:12:59,839
for a couple years

360
00:13:03,190 --> 00:13:01,680
in this case we had done even more work

361
00:13:05,590 --> 00:13:03,200
for the specific

362
00:13:07,910 --> 00:13:05,600
kind of scenario with the soyuz coming

363
00:13:10,069 --> 00:13:07,920

off of the mrm1 port

364
00:13:12,870 --> 00:13:10,079
as we were preparing to do this

365
00:13:15,350 --> 00:13:12,880
undock and fly around on sts-133

366
00:13:16,629 --> 00:13:15,360
which we ultimately did not do

367
00:13:19,990 --> 00:13:16,639
in this case

368
00:13:22,230 --> 00:13:20,000
it's a soyuz undock from mrm1 port but

369
00:13:26,150 --> 00:13:22,240
it is not a fly around or even a fly

370
00:13:28,230 --> 00:13:26,160
about as we spoke about on sts-133

371
00:13:30,870 --> 00:13:28,240
it's really an undock

372
00:13:32,069 --> 00:13:30,880
with a station attitude maneuver

373
00:13:35,509 --> 00:13:32,079
and then

374
00:13:37,509 --> 00:13:35,519
some photography ops from the soyuz and

375
00:13:39,509 --> 00:13:37,519
so from a shuttle standpoint

376
00:13:41,430 --> 00:13:39,519
uh most of the work that we needed to do

377
00:13:42,310 --> 00:13:41,440
to be prepared to go do

378
00:13:44,550 --> 00:13:42,320
um

379
00:13:47,110 --> 00:13:44,560
for the station to go do the 25s undock

380
00:13:49,189 --> 00:13:47,120
during this this shuttle dock mission

381
00:13:51,430 --> 00:13:49,199
we've already done

382
00:13:53,750 --> 00:13:51,440
and so most of our work was going back

383
00:13:54,870 --> 00:13:53,760
and verifying and re-verifying

384
00:13:57,750 --> 00:13:54,880
that

385
00:13:59,829 --> 00:13:57,760
based on the 25s

386
00:14:03,430 --> 00:13:59,839
departure corridor

387
00:14:05,430 --> 00:14:03,440
the trajectory the the plumes um all of

388
00:14:07,350 --> 00:14:05,440

those kind of things that we analyze as

389
00:14:09,189 --> 00:14:07,360
a matter of course for for all of the

390
00:14:10,790 --> 00:14:09,199
ddo work that we've been doing

391
00:14:12,870 --> 00:14:10,800
we went back and re-verified for this

392
00:14:13,990 --> 00:14:12,880
exact case that that we're okay and

393
00:14:15,750 --> 00:14:14,000
we're safe

394
00:14:16,629 --> 00:14:15,760
and we have the margins that we need to

395
00:14:19,110 --> 00:14:16,639
have

396
00:14:21,829 --> 00:14:19,120
um and so the team came in and presented

397
00:14:24,870 --> 00:14:21,839
that plan today uh in addition to an

398
00:14:26,069 --> 00:14:24,880
overview of of the profile uh for the

399
00:14:27,829 --> 00:14:26,079
undock

400
00:14:29,350 --> 00:14:27,839
and the the station attitude maneuver

401
00:14:31,350 --> 00:14:29,360
and the photography operations that are

402
00:14:32,790 --> 00:14:31,360
going to take place

403
00:14:35,910 --> 00:14:32,800
to include which crew members are going

404
00:14:38,069 --> 00:14:35,920
to do what on shuttle and station

405
00:14:41,670 --> 00:14:38,079
and and and what the soyuz crew is going

406
00:14:43,829 --> 00:14:41,680
to be doing now this happens on monday

407
00:14:45,269 --> 00:14:43,839
it happens at approximately 4 30 the

408
00:14:47,750 --> 00:14:45,279
undock time is about 4 30 in the

409
00:14:49,670 --> 00:14:47,760
afternoon central time

410
00:14:50,949 --> 00:14:49,680
so the shuttle crew the sts crew will

411
00:14:54,310 --> 00:14:50,959
actually be

412
00:14:56,629 --> 00:14:55,509
i'm not going to guarantee that they're

413
00:14:57,670 --> 00:14:56,639

all going to be sleeping during that

414
00:14:59,189 --> 00:14:57,680
time frame

415
00:15:01,509 --> 00:14:59,199
but it is during their sleep period the

416
00:15:02,710 --> 00:15:01,519
way we have it scheduled

417
00:15:05,990 --> 00:15:02,720
and

418
00:15:07,829 --> 00:15:06,000
the team has laid out the entire plan in

419
00:15:09,189 --> 00:15:07,839
a way that i think is is very easy for

420
00:15:10,150 --> 00:15:09,199
us to understand

421
00:15:12,310 --> 00:15:10,160
and

422
00:15:15,750 --> 00:15:12,320
we laid that against the work that we

423
00:15:17,590 --> 00:15:15,760
are had already done for ddo operations

424
00:15:20,069 --> 00:15:17,600
um and did a real good thorough review

425
00:15:22,230 --> 00:15:20,079
of that today in the mmt so i'm prepared

426
00:15:23,269 --> 00:15:22,240
to go into this station mmt tomorrow

427
00:15:24,710 --> 00:15:23,279
morning

428
00:15:26,949 --> 00:15:24,720
and uh and tell them that we're

429
00:15:28,790 --> 00:15:26,959
comfortable and and uh barring something

430
00:15:30,710 --> 00:15:28,800
coming up between now and then we'll be

431
00:15:33,990 --> 00:15:30,720
from a shuttle standpoint will we go for

432
00:15:36,389 --> 00:15:34,000
the the 25s on dock as planned

433
00:15:38,949 --> 00:15:36,399
now i will tell you that um

434
00:15:41,350 --> 00:15:38,959
there's a good bit of work still ongoing

435
00:15:42,550 --> 00:15:41,360
on the station side primarily

436
00:15:44,870 --> 00:15:42,560
there's a lot of coordination with the

437
00:15:47,509 --> 00:15:44,880
russians in terms of the attitudes and

438
00:15:50,310 --> 00:15:47,519

the commands that are required

439
00:15:51,590 --> 00:15:50,320
as well as the the power plan

440
00:15:56,790 --> 00:15:51,600
and the

441
00:15:57,990 --> 00:15:56,800
analysis have ongoing work on the

442
00:16:00,230 --> 00:15:58,000
station side

443
00:16:01,749 --> 00:16:00,240
that work is not complete

444
00:16:03,670 --> 00:16:01,759
they have to make some assumptions when

445
00:16:06,230 --> 00:16:03,680
they do that work so

446
00:16:07,829 --> 00:16:06,240
if in making those assumptions the the

447
00:16:09,509 --> 00:16:07,839
analysis for the power and the thermal

448
00:16:10,949 --> 00:16:09,519
law comes out good then they'll be happy

449
00:16:13,030 --> 00:16:10,959
to perform

450
00:16:14,550 --> 00:16:13,040
the undock with the attitude maneuver

451
00:16:15,829 --> 00:16:14,560
and the photo ops that we've talked

452
00:16:18,310 --> 00:16:15,839
about

453
00:16:21,269 --> 00:16:18,320
they are continuing to carry their their

454
00:16:24,069 --> 00:16:21,279
quote nominal undock plan so that in the

455
00:16:26,150 --> 00:16:24,079
event that something doesn't turn out

456
00:16:28,230 --> 00:16:26,160
with the margins and and doesn't turn

457
00:16:29,749 --> 00:16:28,240
out favorable in terms of the thermal or

458
00:16:32,069 --> 00:16:29,759
the power plan

459
00:16:34,230 --> 00:16:32,079
they can go to their normal uh soyuz

460
00:16:37,430 --> 00:16:34,240
undock plan and in that case we would

461
00:16:39,030 --> 00:16:37,440
not see the station maneuvers

462
00:16:41,269 --> 00:16:39,040
and the crew on the soyuz would not be

463
00:16:43,509 --> 00:16:41,279

doing the photo ops and

464
00:16:45,269 --> 00:16:43,519
and we essentially wouldn't be doing

465
00:16:46,870 --> 00:16:45,279
what we've been planning for

466
00:16:48,710 --> 00:16:46,880
so they're carrying both of those plans

467
00:16:50,389 --> 00:16:48,720
forward and they need to do that until

468
00:16:51,990 --> 00:16:50,399
such time as their thermal and power

469
00:16:56,550 --> 00:16:52,000
plan comes back and they have all of

470
00:16:57,350 --> 00:16:56,560
that showing favorable i think they feel

471
00:17:39,350 --> 00:16:57,360
a

472
00:17:40,630 --> 00:17:39,360
tomorrow so

473
00:17:41,909 --> 00:17:40,640
with that that

474
00:17:43,669 --> 00:17:41,919
kind of wraps up everything we talked

475
00:17:45,830 --> 00:17:43,679
about at the mmt today i feel really

476
00:17:48,549 --> 00:17:45,840
good about where we are

477
00:17:50,549 --> 00:17:48,559
the team is continuing to perform at a

478
00:17:52,549 --> 00:17:50,559
very high level

479
00:17:53,909 --> 00:17:52,559
and of course all the major objectives

480
00:17:55,909 --> 00:17:53,919
that we're trying to accomplish on this

481
00:17:57,350 --> 00:17:55,919
mission um are just

482
00:17:58,470 --> 00:17:57,360
they're coming off without a hitch

483
00:18:01,270 --> 00:17:58,480
frankly

484
00:18:03,270 --> 00:18:01,280
i couldn't be more pleased about um

485
00:18:04,870 --> 00:18:03,280
about the uh all of the work that's gone

486
00:18:07,909 --> 00:18:04,880
into the mission and how it's turning

487
00:18:10,230 --> 00:18:07,919
out here for us in terms of the elc

488
00:18:11,909 --> 00:18:10,240

transfer and the ams

489
00:18:13,590 --> 00:18:11,919
um and so we're turning our attention

490
00:18:15,190 --> 00:18:13,600
toward the spacewalks now now

491
00:18:16,470 --> 00:18:15,200
it's a huge part of this mission as well

492
00:18:18,230 --> 00:18:16,480
and you know we put a lot of focus on

493
00:18:19,830 --> 00:18:18,240
spacewalks so

494
00:18:20,950 --> 00:18:19,840
we're ready to go do the first spacewalk

495
00:18:22,789 --> 00:18:20,960
tomorrow

496
00:18:24,630 --> 00:18:22,799
and with that i'd be happy to take any

497
00:18:26,549 --> 00:18:24,640
questions all right thank you very much

498
00:18:33,270 --> 00:18:26,559
that was a great update leroy and we'll

499
00:18:37,029 --> 00:18:35,110
seth morenstein ap

500
00:18:39,029 --> 00:18:37,039
leroy forgive me i missed

501
00:18:40,230 --> 00:18:39,039
most of yesterday all of yesterday's i

502
00:18:41,029 --> 00:18:40,240
was in flight

503
00:18:42,630 --> 00:18:41,039
so

504
00:18:44,870 --> 00:18:42,640
can you go through the timeline of

505
00:18:46,789 --> 00:18:44,880
saturday with the focus inspection what

506
00:18:48,870 --> 00:18:46,799
time are we looking at on

507
00:18:52,789 --> 00:18:48,880
saturday i mean will it impinge on the

508
00:18:55,590 --> 00:18:52,799
eva preps for eva2 who will do what

509
00:18:59,830 --> 00:18:57,270
i can do some of that

510
00:19:01,510 --> 00:18:59,840
and because this is a station

511
00:19:03,830 --> 00:19:01,520
operation

512
00:19:05,590 --> 00:19:03,840
um i can tell you in in broad strokes

513
00:19:07,669 --> 00:19:05,600

what the what the plan is

514
00:19:10,630 --> 00:19:07,679
um the timeline is still being refined a

515
00:19:13,510 --> 00:19:10,640
little bit but in general um

516
00:19:14,950 --> 00:19:13,520
the the actual undocking occurs at 4 30

517
00:19:19,830 --> 00:19:14,960
central time

518
00:19:20,870 --> 00:19:19,840
okay i meant the focus inspection oh oh

519
00:19:21,830 --> 00:19:20,880
forgive me

520
00:19:22,950 --> 00:19:21,840
okay

521
00:19:27,430 --> 00:19:22,960
um

522
00:19:29,430 --> 00:19:27,440
and again here i don't have an exact

523
00:19:30,870 --> 00:19:29,440
time for you but i can tell you

524
00:19:32,230 --> 00:19:30,880
that the beginning of the focus

525
00:19:33,590 --> 00:19:32,240
inspection where we have it laid in

526
00:19:34,789 --> 00:19:33,600
right now would be

527
00:19:36,870 --> 00:19:34,799
um

528
00:19:38,630 --> 00:19:36,880
approximately

529
00:19:40,630 --> 00:19:38,640
it's toward the end of the cruise

530
00:19:41,669 --> 00:19:40,640
morning if you will

531
00:19:44,470 --> 00:19:41,679
okay

532
00:19:46,470 --> 00:19:44,480
so um and it's uh

533
00:19:47,270 --> 00:19:46,480
it's about a three hour block of time i

534
00:19:49,029 --> 00:19:47,280
think

535
00:19:54,470 --> 00:19:49,039
um

536
00:19:56,630 --> 00:19:54,480
you know timeline with all the details

537
00:19:59,350 --> 00:19:56,640
on both sides of it uh with which crew

538
00:20:01,909 --> 00:19:59,360

members are doing what um i'd be getting

539
00:20:03,590 --> 00:20:01,919
in front of the ops team a little bit uh

540
00:20:04,710 --> 00:20:03,600
to to give you any more than that right

541
00:20:07,190 --> 00:20:04,720
now

542
00:20:09,350 --> 00:20:07,200
but coming in here tomorrow

543
00:20:10,870 --> 00:20:09,360
we will absolutely have

544
00:20:12,070 --> 00:20:10,880
every detail of that plan that we can

545
00:20:14,390 --> 00:20:12,080
show you and it'll be the one that we

546
00:20:15,590 --> 00:20:14,400
uplink to the crew

547
00:20:17,430 --> 00:20:15,600
i don't want to give you any more detail

548
00:20:18,789 --> 00:20:17,440
in that right now because

549
00:20:20,230 --> 00:20:18,799
i might give you something that would be

550
00:20:21,590 --> 00:20:20,240
different than what we ultimately decide

551
00:20:22,950 --> 00:20:21,600
to uplink to the crew and that wouldn't

552
00:20:24,070 --> 00:20:22,960
be helpful

553
00:20:25,830 --> 00:20:24,080
so

554
00:20:27,430 --> 00:20:25,840
basically it starts about the middle of

555
00:20:29,990 --> 00:20:27,440
the cruise about the end of the cruise

556
00:20:32,870 --> 00:20:30,000
morning on flight day six so it's really

557
00:20:34,710 --> 00:20:32,880
friday night saturday morning

558
00:20:36,310 --> 00:20:34,720
and and it'll be saturday morning in the

559
00:20:39,270 --> 00:20:36,320
early early hours of the morning when we

560
00:20:41,909 --> 00:20:39,280
start the focused inspection

561
00:20:42,870 --> 00:20:41,919
and forgive me since i also missed it

562
00:20:44,870 --> 00:20:42,880
the

563
00:20:47,350 --> 00:20:44,880

dimensions of

564
00:20:50,310 --> 00:20:47,360
oh oh one

565
00:20:52,149 --> 00:20:50,320
two 2-001

566
00:20:53,590 --> 00:20:52,159
length width depth we could put the

567
00:20:57,510 --> 00:20:53,600
chart back up

568
00:21:07,750 --> 00:21:00,149
put the sts-118 damage comparison chart

569
00:21:13,990 --> 00:21:11,669
this is for 2-001 this is the one

570
00:21:15,909 --> 00:21:14,000
that we're most interested in the only

571
00:21:18,070 --> 00:21:15,919
other one that we still have some work

572
00:21:21,510 --> 00:21:18,080
on going is the tile damage on the on

573
00:21:25,029 --> 00:21:22,950
and and we believe we're going to clear

574
00:21:28,470 --> 00:21:25,039
that one

575
00:21:31,270 --> 00:21:28,480
so these dimensions are 3.22 inches by

576
00:21:36,470 --> 00:21:31,280
2.4

577
00:21:41,510 --> 00:21:38,630
and that's length width and depth in

578
00:21:44,710 --> 00:21:42,950
and just

579
00:21:46,549 --> 00:21:44,720
for layman just

580
00:21:47,830 --> 00:21:46,559
what goes on in a focus inspection it's

581
00:21:52,070 --> 00:21:47,840
been a while since i've seen one of

582
00:21:57,510 --> 00:21:55,190
we have some instrumentation

583
00:21:59,590 --> 00:21:57,520
cameras and lasers on the end of the

584
00:22:02,230 --> 00:21:59,600
orbiter boom sensor system

585
00:22:03,029 --> 00:22:02,240
and we'll pick up that boom with

586
00:22:08,310 --> 00:22:03,039
the

587
00:22:10,310 --> 00:22:08,320
and we'll

588
00:22:12,390 --> 00:22:10,320

extend that down below over the wing and

589
00:22:14,470 --> 00:22:12,400
below the vehicle and we'll look at

590
00:22:16,230 --> 00:22:14,480
these areas with both cameras and the

591
00:22:17,430 --> 00:22:16,240
and the laser and that will give us a

592
00:22:18,710 --> 00:22:17,440
very good

593
00:22:21,669 --> 00:22:18,720
um

594
00:22:22,630 --> 00:22:21,679
images as as well as uh measurements if

595
00:22:24,870 --> 00:22:22,640
you will

596
00:22:27,029 --> 00:22:24,880
um of the damaged site

597
00:22:29,350 --> 00:22:27,039
and and it would be the the picture that

598
00:22:31,510 --> 00:22:29,360
i showed you earlier the sts-118 damage

599
00:22:37,270 --> 00:22:31,520
was from focused inspection on that

600
00:22:41,830 --> 00:22:39,909
clara moskowitz with space.com and um

601
00:22:44,230 --> 00:22:41,840
can you give me an idea sort of big

602
00:22:46,549 --> 00:22:44,240
picture just how often is a focused

603
00:22:50,149 --> 00:22:46,559
inspection necessary you know how many

604
00:22:52,789 --> 00:22:51,510
i can tell you exactly how many times

605
00:22:54,390 --> 00:22:52,799
we've done it

606
00:22:57,190 --> 00:22:54,400
because i asked the team yesterday and

607
00:22:59,669 --> 00:22:57,200
they and they reminded me

608
00:23:01,990 --> 00:22:59,679
we did it on sts-114 that was our return

609
00:23:03,510 --> 00:23:02,000
to flight mission

610
00:23:05,350 --> 00:23:03,520
and

611
00:23:07,590 --> 00:23:05,360
we had there

612
00:23:09,909 --> 00:23:07,600
some gap fillers

613
00:23:11,590 --> 00:23:09,919

that came came loose as well as some

614
00:23:12,630 --> 00:23:11,600
other damaged sites that we were looking

615
00:23:24,470 --> 00:23:12,640
at

616
00:23:25,750 --> 00:23:24,480
in the summer of 2005 i believe

617
00:23:27,510 --> 00:23:25,760
so

618
00:23:29,510 --> 00:23:27,520
we had that

619
00:23:32,070 --> 00:23:29,520
time period where you know we didn't fly

620
00:23:33,909 --> 00:23:32,080
between 114 and 121 which was about 9 or

621
00:23:35,350 --> 00:23:33,919
10 months something like that

622
00:23:37,029 --> 00:23:35,360
because we had some more work to do on

623
00:23:38,470 --> 00:23:37,039
the external tank as a result of what we

624
00:23:39,350 --> 00:23:38,480
saw on the first return to flight

625
00:23:41,430 --> 00:23:39,360
mission

626
00:23:42,630 --> 00:23:41,440
so we did some focus inspection on 114

627
00:23:45,269 --> 00:23:42,640
in orbit

628
00:23:46,070 --> 00:23:45,279
we did some on sts-121

629
00:23:47,990 --> 00:23:46,080
um

630
00:23:49,590 --> 00:23:48,000
in both of those cases you'll you'll

631
00:23:51,590 --> 00:23:49,600
recall that

632
00:23:53,430 --> 00:23:51,600
in the earlier flights as part of our

633
00:23:55,590 --> 00:23:53,440
return to flight effort

634
00:23:57,669 --> 00:23:55,600
we still had some gap fillers that were

635
00:24:00,549 --> 00:23:57,679
coming loose on us because we had been

636
00:24:02,710 --> 00:24:00,559
doing the gap filler work

637
00:24:04,390 --> 00:24:02,720
as much as we were able to do in each

638
00:24:05,669 --> 00:24:04,400

orbit or flow

639
00:24:08,390 --> 00:24:05,679
for each one of the return to flight

640
00:24:10,950 --> 00:24:08,400
missions so as time went on we saw fewer

641
00:24:12,630 --> 00:24:10,960
and fewer gap fillers protruding because

642
00:24:14,549 --> 00:24:12,640
we were in fact

643
00:24:16,710 --> 00:24:14,559
proactively going and replacing them in

644
00:24:18,950 --> 00:24:16,720
each orbit or flow

645
00:24:21,669 --> 00:24:18,960
every opportunity that we had so there

646
00:24:23,830 --> 00:24:21,679
was a lot of gap filler uh to look at on

647
00:24:25,350 --> 00:24:23,840
on 114 and 121.

648
00:24:28,070 --> 00:24:25,360
um

649
00:24:30,789 --> 00:24:28,080
sts-118 that i've showed you here today

650
00:24:33,669 --> 00:24:30,799
we did a focus inspection there

651
00:24:35,350 --> 00:24:33,679
and then on sts 120

652
00:24:37,750 --> 00:24:35,360
2 i believe

653
00:24:39,990 --> 00:24:37,760
um we did a focus inspection for some

654
00:24:40,950 --> 00:24:40,000
damage on ohm's pod

655
00:24:43,190 --> 00:24:40,960
um

656
00:24:44,870 --> 00:24:43,200
tile blanket area i think i can't

657
00:24:47,110 --> 00:24:44,880
remember exactly

658
00:24:48,390 --> 00:24:47,120
but i believe it was on the on the port

659
00:24:51,110 --> 00:24:48,400
homes pod

660
00:24:52,630 --> 00:24:51,120
and so we've done it four times

661
00:24:55,190 --> 00:24:52,640
and we've looked at

662
00:24:57,909 --> 00:24:55,200
more than one damage site

663
00:24:59,669 --> 00:24:57,919

on at least three of those missions

664
00:25:01,430 --> 00:24:59,679
this focus inspection that we're talking

665
00:25:02,710 --> 00:25:01,440
about here if we go execute it on

666
00:25:05,909 --> 00:25:02,720
saturday

667
00:25:08,390 --> 00:25:05,919
we'll look at this one site

668
00:25:09,909 --> 00:25:08,400
and and possibly the site

669
00:25:11,190 --> 00:25:09,919
where we have the damage on the elevon

670
00:25:15,350 --> 00:25:11,200
as well although i think that's a lot

671
00:25:17,029 --> 00:25:15,360
it's pretty unlikely we'll do that one

672
00:25:19,510 --> 00:25:17,039
thanks and also just one more question

673
00:25:21,350 --> 00:25:19,520
um to be clear would you if you do end

674
00:25:23,029 --> 00:25:21,360
up having to do the focused inspection

675
00:25:24,710 --> 00:25:23,039
would you have to cancel any planned

676
00:25:26,630 --> 00:25:24,720
activities or would that just be less

677
00:25:28,950 --> 00:25:26,640
downtime for the crew

678
00:25:32,230 --> 00:25:28,960
yeah it's um i talked about this a

679
00:25:33,669 --> 00:25:32,240
little bit uh yesterday

680
00:25:34,789 --> 00:25:33,679
the we don't have to cancel any

681
00:25:35,830 --> 00:25:34,799
activities

682
00:25:38,390 --> 00:25:35,840
um

683
00:25:40,310 --> 00:25:38,400
the the team has done an amazing job

684
00:25:42,310 --> 00:25:40,320
with this timeline because of some of

685
00:25:44,630 --> 00:25:42,320
the challenges that we had leading up to

686
00:25:46,789 --> 00:25:44,640
first launch attempt

687
00:25:48,070 --> 00:25:46,799
with getting everything synchronized and

688
00:25:49,510 --> 00:25:48,080

choreographed

689
00:25:50,710 --> 00:25:49,520
they had to work really really hard on

690
00:25:52,149 --> 00:25:50,720
it and then

691
00:25:53,590 --> 00:25:52,159
for the second launch attempt it was

692
00:25:54,789 --> 00:25:53,600
even more challenging with respect to

693
00:25:57,590 --> 00:25:54,799
sleep shift

694
00:25:59,909 --> 00:25:57,600
and and adding the both of the plus one

695
00:26:01,909 --> 00:25:59,919
days and doing that um at the outset for

696
00:26:02,870 --> 00:26:01,919
the launch on the second launch attempt

697
00:26:04,549 --> 00:26:02,880
um

698
00:26:06,470 --> 00:26:04,559
they built the timeline and they made

699
00:26:08,390 --> 00:26:06,480
changes to it such that

700
00:26:11,590 --> 00:26:08,400
we could sort of plug and play most of

701
00:26:13,990 --> 00:26:11,600
these flight days and included in that

702
00:26:15,510 --> 00:26:14,000
is the ability to to work around

703
00:26:17,510 --> 00:26:15,520
something like doing a focused

704
00:26:18,950 --> 00:26:17,520
inspection on flight day six

705
00:26:20,789 --> 00:26:18,960
so

706
00:26:23,350 --> 00:26:20,799
they have it placed in the timeline in a

707
00:26:26,390 --> 00:26:23,360
place that is probably the most benign

708
00:26:27,909 --> 00:26:26,400
that it could possibly be in terms of

709
00:26:29,350 --> 00:26:27,919
upsetting the other activities that

710
00:26:31,190 --> 00:26:29,360
we're trying to do in the sequence that

711
00:26:32,070 --> 00:26:31,200
we're trying to do them in this in this

712
00:26:35,190 --> 00:26:32,080
mission

713
00:26:37,750 --> 00:26:35,200

so we're real fortunate

714
00:26:39,510 --> 00:26:37,760
because the team has worked really hard

715
00:26:41,750 --> 00:26:39,520
on the timeline and on the plans and on

716
00:26:44,710 --> 00:26:41,760
the contingency plans so we don't we're

717
00:26:45,510 --> 00:26:44,720
not going to cancel a single thing

718
00:26:48,070 --> 00:26:45,520
and

719
00:26:49,990 --> 00:26:48,080
in in all likelihood

720
00:26:51,750 --> 00:26:50,000
it'll mean that

721
00:26:54,230 --> 00:26:51,760
we'll have one or two crew members that

722
00:26:56,390 --> 00:26:54,240
may have to spend uh you know work a

723
00:26:58,470 --> 00:26:56,400
little harder for a couple of minutes on

724
00:26:59,510 --> 00:26:58,480
one of the days we're doing transfer

725
00:27:03,590 --> 00:26:59,520
um

726
00:27:03,600 --> 00:27:09,590
thank you

727
00:27:14,149 --> 00:27:12,710
philip sloss with nasaspaceflight.com

728
00:27:15,990 --> 00:27:14,159
um

729
00:27:18,310 --> 00:27:16,000
on the on this uh

730
00:27:20,149 --> 00:27:18,320
on this site

731
00:27:21,110 --> 00:27:20,159
i mean i i realize you don't have as

732
00:27:23,830 --> 00:27:21,120
much

733
00:27:25,990 --> 00:27:23,840
precision in the in in in this as with

734
00:27:27,430 --> 00:27:26,000
the 118 side since you've already did

735
00:27:28,389 --> 00:27:27,440
you've done a focused inspection on that

736
00:27:30,789 --> 00:27:28,399
but

737
00:27:32,789 --> 00:27:30,799
um it's

738
00:27:34,789 --> 00:27:32,799

is there is there

739
00:27:37,350 --> 00:27:34,799
so the differences between the the two

740
00:27:40,149 --> 00:27:37,360
sites we have a different tile thickness

741
00:27:42,070 --> 00:27:40,159
uh possibly different damage does that

742
00:27:43,350 --> 00:27:42,080
is that going to

743
00:27:45,590 --> 00:27:43,360
is there any preliminary sort of

744
00:27:47,269 --> 00:27:45,600
assessment in terms of

745
00:27:49,510 --> 00:27:47,279
do you need whether you would whether

746
00:27:51,750 --> 00:27:49,520
you'll be able to clear this ultimately

747
00:27:53,350 --> 00:27:51,760
with or without the the additional data

748
00:27:55,350 --> 00:27:53,360
from the inspect from an inspection if

749
00:27:57,029 --> 00:27:55,360
you need to do that

750
00:27:59,590 --> 00:27:57,039
well it's a good question and it's

751
00:28:01,350 --> 00:27:59,600
important question um and we talked some

752
00:28:02,789 --> 00:28:01,360
about it in the in the mission

753
00:28:04,070 --> 00:28:02,799
management team

754
00:28:05,350 --> 00:28:04,080
um

755
00:28:07,190 --> 00:28:05,360
the uh

756
00:28:08,870 --> 00:28:07,200
as you can see from the graphic i showed

757
00:28:11,430 --> 00:28:08,880
you earlier the dimensions are are

758
00:28:13,190 --> 00:28:11,440
pretty similar um when you compare the

759
00:28:14,630 --> 00:28:13,200
118 damage to the one that we're dealing

760
00:28:16,710 --> 00:28:14,640
with here

761
00:28:18,149 --> 00:28:16,720
to include the depth at least our best

762
00:28:19,029 --> 00:28:18,159
estimate of the depth

763
00:28:21,269 --> 00:28:19,039

um

764
00:28:23,190 --> 00:28:21,279
some of the challenges and maybe we go

765
00:28:24,710 --> 00:28:23,200
ahead and put that the second graphic

766
00:28:30,710 --> 00:28:24,720
back up the one that has this damaged

767
00:28:34,950 --> 00:28:33,669
the um the one that has the sts-134

768
00:28:39,350 --> 00:28:34,960
damage site

769
00:28:43,350 --> 00:28:40,470
i think it's

770
00:28:49,430 --> 00:28:43,360
2a is when it's labeled on my

771
00:28:49,440 --> 00:28:51,750
so

772
00:28:54,870 --> 00:28:53,350
what the team is trying to do is to

773
00:28:57,830 --> 00:28:54,880
understand

774
00:29:00,149 --> 00:28:57,840
what what's actually in the

775
00:29:02,630 --> 00:29:00,159
in the white space uh that you see what

776
00:29:05,190 --> 00:29:02,640
what the white of the tile here so

777
00:29:07,190 --> 00:29:05,200
there's varying depth

778
00:29:08,870 --> 00:29:07,200
and it's very difficult

779
00:29:10,950 --> 00:29:08,880
they do their best with lighting and

780
00:29:12,389 --> 00:29:10,960
shadows and things of that nature to try

781
00:29:15,190 --> 00:29:12,399
and determine where the where the

782
00:29:18,310 --> 00:29:15,200
deepest parts of the cavity are and and

783
00:29:21,990 --> 00:29:18,320
how those are oriented to the to the the

784
00:29:26,149 --> 00:29:24,549
and there are some challenges with that

785
00:29:28,389 --> 00:29:26,159
because as you can see this picture's a

786
00:29:29,350 --> 00:29:28,399
little fuzzy

787
00:29:30,630 --> 00:29:29,360
i think

788
00:29:33,190 --> 00:29:30,640

we had a little bit better fortune on

789
00:29:34,870 --> 00:29:33,200
118 even before we did focus inspection

790
00:29:36,789 --> 00:29:34,880
i think we had a more clear picture than

791
00:29:38,549 --> 00:29:36,799
this

792
00:29:41,110 --> 00:29:38,559
but at any rate

793
00:29:43,430 --> 00:29:41,120
one of the one of the important factors

794
00:29:45,830 --> 00:29:43,440
is you know

795
00:29:48,230 --> 00:29:45,840
volumetrically how is that how are the

796
00:29:50,149 --> 00:29:48,240
deeper parts of that of that cavity

797
00:29:51,510 --> 00:29:50,159
oriented to the airflow

798
00:29:52,389 --> 00:29:51,520
and then

799
00:29:54,230 --> 00:29:52,399
um

800
00:29:56,549 --> 00:29:54,240
what does that mean in terms of the the

801
00:29:57,590 --> 00:29:56,559
aerothermal

802
00:29:59,350 --> 00:29:57,600
aspect

803
00:30:02,230 --> 00:29:59,360
of the analysis so

804
00:30:03,830 --> 00:30:02,240
on the 118 case we had a cavity that

805
00:30:05,830 --> 00:30:03,840
turned out to be sort of

806
00:30:06,789 --> 00:30:05,840
they had what the team likes to call a

807
00:30:09,110 --> 00:30:06,799
shelf

808
00:30:11,029 --> 00:30:09,120
so it had sort of a gradual slope down

809
00:30:13,909 --> 00:30:11,039
to kind of a plateau and then and then

810
00:30:16,710 --> 00:30:13,919
back up in kind of a sharp

811
00:30:23,029 --> 00:30:19,430
at the back side of the of the cavity

812
00:30:24,710 --> 00:30:23,039
this one is different than that

813
00:30:28,389 --> 00:30:24,720

and

814
00:30:30,549 --> 00:30:28,399
they won't know until we get better

815
00:30:33,909 --> 00:30:30,559
fidelity

816
00:30:35,669 --> 00:30:33,919
on the on the depth dimensions

817
00:30:36,470 --> 00:30:35,679
how much different it is and whether

818
00:30:38,789 --> 00:30:36,480
it's

819
00:30:41,190 --> 00:30:38,799
going to be an issue in terms of

820
00:30:44,070 --> 00:30:41,200
how the flow will affect the capability

821
00:30:47,750 --> 00:30:44,080
of the tile to to protect the the

822
00:30:50,149 --> 00:30:47,760
structure and the systems underneath it

823
00:30:52,389 --> 00:30:50,159
if you took this cavity and you oriented

824
00:30:54,950 --> 00:30:52,399
it differently

825
00:30:57,509 --> 00:30:54,960
it might be easier to clear it

826
00:31:00,230 --> 00:30:57,519
just to give you an example

827
00:31:02,149 --> 00:31:00,240
and so while it's similar to the 118

828
00:31:04,389 --> 00:31:02,159
damage area

829
00:31:06,549 --> 00:31:04,399
as best we know it today without focus

830
00:31:08,149 --> 00:31:06,559
inspection there are some differences

831
00:31:10,549 --> 00:31:08,159
and and some of those differences are

832
00:31:13,190 --> 00:31:10,559
where the deepest parts are oriented to

833
00:31:15,590 --> 00:31:13,200
and how they're oriented to the the

834
00:31:17,190 --> 00:31:15,600
the free stream flow

835
00:31:18,549 --> 00:31:17,200
so that just gives you an example of one

836
00:31:20,070 --> 00:31:18,559
of the kinds of things that they look at

837
00:31:22,310 --> 00:31:20,080
and what would be similar and what would

838
00:31:24,630 --> 00:31:22,320

be different

839
00:31:26,070 --> 00:31:24,640
now it is possible that that through the

840
00:31:27,830 --> 00:31:26,080
rest of the day today

841
00:31:30,870 --> 00:31:27,840
they will make some very conservative

842
00:31:33,590 --> 00:31:30,880
assumptions about you know

843
00:31:36,389 --> 00:31:33,600
what we might find in focus inspection

844
00:31:37,669 --> 00:31:36,399
and then sort of envelope the problem

845
00:31:39,269 --> 00:31:37,679
such that they could come back and say

846
00:31:41,909 --> 00:31:39,279
well when we did this

847
00:31:43,029 --> 00:31:41,919
we saw that we had margin in this case

848
00:31:45,269 --> 00:31:43,039
and

849
00:31:46,950 --> 00:31:45,279
you know in that sense we might be able

850
00:31:49,990 --> 00:31:46,960
to to clear it without focused

851
00:31:51,750 --> 00:31:50,000
inspection but um as of the time we did

852
00:31:53,509 --> 00:31:51,760
the mmt they didn't think

853
00:31:55,110 --> 00:31:53,519
uh they weren't confident that they were

854
00:31:56,230 --> 00:31:55,120
going to be able to do that whereas the

855
00:31:58,310 --> 00:31:56,240
site

856
00:31:59,590 --> 00:31:58,320
on the elevon with the damage

857
00:32:01,110 --> 00:31:59,600
they had very high confidence they're

858
00:32:03,190 --> 00:32:01,120
going to be able to clear that it's

859
00:32:05,430 --> 00:32:03,200
probably already cleared

860
00:32:06,310 --> 00:32:05,440
by this afternoon

861
00:32:07,830 --> 00:32:06,320
thanks

862
00:32:10,950 --> 00:32:07,840
and uh

863
00:32:14,070 --> 00:32:10,960

the second question is about this

864
00:32:15,669 --> 00:32:14,080
well about the the 72nd i guess the

865
00:32:18,070 --> 00:32:15,679
first part of it is just was this a

866
00:32:19,990 --> 00:32:18,080
single event at 70 seconds

867
00:32:22,470 --> 00:32:20,000
and and did that event

868
00:32:24,789 --> 00:32:22,480
cause this this impact that you're that

869
00:32:27,029 --> 00:32:24,799
that's being discussed more thoroughly

870
00:32:28,870 --> 00:32:27,039
okay so yeah i was talking about the srb

871
00:32:30,630 --> 00:32:28,880
video and we're just starting to see

872
00:32:32,710 --> 00:32:30,640
some of the srb videos so the team was

873
00:32:33,909 --> 00:32:32,720
not able to go through and assess all of

874
00:32:35,590 --> 00:32:33,919
it it's it's

875
00:32:37,430 --> 00:32:35,600
a lot to look at

876
00:32:39,110 --> 00:32:37,440
from from the boosters

877
00:32:40,789 --> 00:32:39,120
but they did show us a couple of clips

878
00:32:44,470 --> 00:32:40,799
one of the clips is

879
00:32:46,950 --> 00:32:44,480
is of this debris event from the 1377

880
00:32:48,710 --> 00:32:46,960
lox feed line bracket

881
00:32:50,710 --> 00:32:48,720
is where the the debris generate is

882
00:32:53,430 --> 00:32:50,720
generated from that bracket

883
00:32:56,230 --> 00:32:53,440
and in that case it's a single piece of

884
00:32:59,190 --> 00:32:56,240
debris that traverses down the stack and

885
00:33:01,110 --> 00:32:59,200
impacts the the half strut

886
00:33:03,029 --> 00:33:01,120
on the tank

887
00:33:05,430 --> 00:33:03,039
and then it it sprays into several

888
00:33:07,509 --> 00:33:05,440

pieces and doesn't you can't tell from

889
00:33:08,870 --> 00:33:07,519
that video whether that

890
00:33:11,909 --> 00:33:08,880
whether any of those smaller pieces

891
00:33:13,350 --> 00:33:11,919
impacts the orbiter or not i think

892
00:33:14,549 --> 00:33:13,360
you can tell that it probably doesn't

893
00:33:16,630 --> 00:33:14,559
but i don't know if you can tell with

894
00:33:19,430 --> 00:33:16,640
certainty that none of those smaller

895
00:33:20,950 --> 00:33:19,440
pieces impacted those smaller pieces of

896
00:33:23,110 --> 00:33:20,960
spray wouldn't have caused this kind of

897
00:33:24,789 --> 00:33:23,120
damage that we're talking about

898
00:33:25,990 --> 00:33:24,799
even if they did in fact impact the

899
00:33:29,190 --> 00:33:26,000
orbiter

900
00:33:31,509 --> 00:33:29,200
um so that was at 70 seconds

901
00:33:35,350 --> 00:33:31,519
at 70.3 seconds

902
00:33:37,509 --> 00:33:35,360
from that same vicinity of the 1377 lox

903
00:33:39,110 --> 00:33:37,519
feed line bracket we see a piece of

904
00:33:42,310 --> 00:33:39,120
debris coming off

905
00:33:45,509 --> 00:33:42,320
and traversing down and and hitting the

906
00:33:46,950 --> 00:33:45,519
starboard main landing gear door

907
00:33:48,230 --> 00:33:46,960
and we can tell with pretty good

908
00:33:50,310 --> 00:33:48,240
certainty

909
00:33:52,870 --> 00:33:50,320
from the impact and then the spray if

910
00:33:53,669 --> 00:33:52,880
you will after the impact

911
00:33:58,549 --> 00:33:53,679
that

912
00:33:59,830 --> 00:33:58,559
the main landing gear door and it

913
00:34:02,149 --> 00:33:59,840

impacted in

914
00:34:03,750 --> 00:34:02,159
the area and caused the damage that

915
00:34:06,070 --> 00:34:03,760
we'll show you that i showed you

916
00:34:07,830 --> 00:34:06,080
yesterday on the main landing gear door

917
00:34:09,990 --> 00:34:07,840
that was one of those seven areas which

918
00:34:10,869 --> 00:34:10,000
we subsequently cleared

919
00:34:12,629 --> 00:34:10,879
so

920
00:34:15,510 --> 00:34:12,639
those were two events

921
00:34:17,349 --> 00:34:15,520
very close in time in that 70 and 70.3

922
00:34:19,030 --> 00:34:17,359
seconds both appear to have been

923
00:34:21,750 --> 00:34:19,040
generated

924
00:34:24,149 --> 00:34:21,760
originated i should say from the 1377

925
00:34:26,389 --> 00:34:24,159
lox feedline bracket

926
00:34:29,109 --> 00:34:26,399
were suspect that that one or probably

927
00:34:32,470 --> 00:34:29,119
both of them were were ice as opposed to

928
00:34:35,750 --> 00:34:34,550
and uh

929
00:34:38,069 --> 00:34:35,760
and we think

930
00:34:39,909 --> 00:34:38,079
that and they and they both impacted one

931
00:34:42,230 --> 00:34:39,919
on the on the external tank strut and

932
00:34:43,589 --> 00:34:42,240
the other one on the landing gear door

933
00:34:46,389 --> 00:34:43,599
thank you and then

934
00:34:48,710 --> 00:34:46,399
one one final one about imagery have you

935
00:34:51,030 --> 00:34:48,720
been able to go back and find imagery of

936
00:34:52,230 --> 00:34:51,040
either ascent imagery of

937
00:34:54,069 --> 00:34:52,240
of this

938
00:34:55,990 --> 00:34:54,079

or pre-launch imagery for instance from

939
00:34:58,390 --> 00:34:56,000
the final inspection team on that

940
00:34:58,390 --> 00:34:58,400
bracket

941
00:35:01,190 --> 00:35:00,069
yes yes we have that's not a good

942
00:35:02,870 --> 00:35:01,200
question

943
00:35:04,550 --> 00:35:02,880
we didn't talk about that in the mmt

944
00:35:05,990 --> 00:35:04,560
today but i do know from my

945
00:35:07,109 --> 00:35:06,000
conversations outside the meeting

946
00:35:08,870 --> 00:35:07,119
afterwards

947
00:35:11,510 --> 00:35:08,880
um and asking a couple of questions the

948
00:35:13,589 --> 00:35:11,520
answer is that we have still photos of

949
00:35:16,069 --> 00:35:13,599
course we have close out and and

950
00:35:18,710 --> 00:35:16,079
pre-launch on the pad photos and and

951
00:35:20,550 --> 00:35:18,720
video of of all of these areas

952
00:35:23,030 --> 00:35:20,560
and we do have

953
00:35:25,109 --> 00:35:23,040
still photos where we have

954
00:35:27,349 --> 00:35:25,119
ice formation on those brackets which is

955
00:35:29,510 --> 00:35:27,359
typical

956
00:35:31,510 --> 00:35:29,520
on a day like we had launch day like we

957
00:35:33,349 --> 00:35:31,520
had where it was a pretty good ice

958
00:35:36,470 --> 00:35:33,359
formulating day

959
00:35:37,990 --> 00:35:36,480
in terms of the the weather conditions

960
00:35:39,270 --> 00:35:38,000
now you'll recall

961
00:35:40,349 --> 00:35:39,280
that

962
00:35:42,150 --> 00:35:40,359
this

963
00:35:43,910 --> 00:35:42,160

et-122

964
00:35:46,710 --> 00:35:43,920
didn't have some of the modifications

965
00:35:49,510 --> 00:35:46,720
that our return to flight tanks have

966
00:35:52,230 --> 00:35:49,520
one of the modifications it didn't have

967
00:35:54,310 --> 00:35:52,240
is to those feed line brackets

968
00:35:56,790 --> 00:35:54,320
we they still have the older bracket

969
00:36:00,790 --> 00:35:56,800
design and not the new titanium brackets

970
00:36:02,870 --> 00:36:00,800
the new tanks with the newer tanks

971
00:36:05,030 --> 00:36:02,880
with the titanium brackets don't have

972
00:36:07,030 --> 00:36:05,040
the tendency to to have ice buildup in

973
00:36:09,270 --> 00:36:07,040
these locks feed line bracket areas like

974
00:36:10,310 --> 00:36:09,280
like we saw on et-122

975
00:36:12,710 --> 00:36:10,320
so

976
00:36:15,109 --> 00:36:12,720
this was not unexpected in terms of the

977
00:36:16,550 --> 00:36:15,119
performance that we expected from et122

978
00:36:18,710 --> 00:36:16,560
this is one of the areas where we knew

979
00:36:20,069 --> 00:36:18,720
we had some susceptibility

980
00:36:25,589 --> 00:36:20,079
as a result of not having that

981
00:36:31,589 --> 00:36:28,790
mark caro for aviation week um

982
00:36:33,750 --> 00:36:31,599
switching to the uh to the photograph

983
00:36:36,390 --> 00:36:33,760
can you can you give us some idea of the

984
00:36:38,390 --> 00:36:36,400
perspective that you would get from the

985
00:36:40,630 --> 00:36:38,400
current plan of the of the orbiter i

986
00:36:41,589 --> 00:36:40,640
mean i guess i'm sort of asking what

987
00:36:46,710 --> 00:36:41,599
your

988
00:36:49,270 --> 00:36:46,720

in the in the imagery you get or or do

989
00:36:51,750 --> 00:36:49,280
they just kind of go for what they what

990
00:36:55,190 --> 00:36:51,760
they can get

991
00:36:56,790 --> 00:36:55,200
well i can sort of try to describe

992
00:36:58,790 --> 00:36:56,800
what you'll see when they bring in and

993
00:37:00,790 --> 00:36:58,800
show you the video tomorrow mark they're

994
00:37:04,550 --> 00:37:00,800
actually going to show you a video

995
00:37:07,270 --> 00:37:04,560
and it has three pictures in it one is

996
00:37:09,670 --> 00:37:07,280
from the soyuz vantage point

997
00:37:10,710 --> 00:37:09,680
um one is sort of a side view of the

998
00:37:13,030 --> 00:37:10,720
vehicle

999
00:37:14,790 --> 00:37:13,040
um

1000
00:37:16,470 --> 00:37:14,800
not quite a god's eye view but sort of a

1001
00:37:19,030 --> 00:37:16,480
side view of the vehicle that the the

1002
00:37:20,950 --> 00:37:19,040
entire stack to include the shuttle

1003
00:37:22,790 --> 00:37:20,960
station to soyuz everything before the

1004
00:37:24,710 --> 00:37:22,800
unknocking occurs and then the other one

1005
00:37:27,670 --> 00:37:24,720
is is

1006
00:37:29,990 --> 00:37:27,680
the view that you see just the vehicle

1007
00:37:31,430 --> 00:37:30,000
along the velocity vector moving uh

1008
00:37:33,109 --> 00:37:31,440
around the earth

1009
00:37:34,710 --> 00:37:33,119
and so then they play the video and it

1010
00:37:36,230 --> 00:37:34,720
shows you the separation and what you

1011
00:37:37,829 --> 00:37:36,240
see from the soyuz during the separation

1012
00:37:39,430 --> 00:37:37,839
then they'll show you this the the

1013
00:37:41,589 --> 00:37:39,440

station and how it maneuvers the

1014
00:37:42,710 --> 00:37:41,599
attitude maneuvers uh underneath the

1015
00:37:45,270 --> 00:37:42,720
soyuz

1016
00:37:48,069 --> 00:37:45,280
and that'll that'll show you the exact

1017
00:37:49,190 --> 00:37:48,079
perspective from the soyuz of the

1018
00:37:50,870 --> 00:37:49,200
um

1019
00:37:52,150 --> 00:37:50,880
of the entire stack

1020
00:37:54,230 --> 00:37:52,160
um

1021
00:37:56,390 --> 00:37:54,240
but basically we maneuver to a yv

1022
00:37:57,910 --> 00:37:56,400
attitude for the undock as opposed to

1023
00:38:00,790 --> 00:37:57,920
the normal latitude that we fly around

1024
00:38:03,190 --> 00:38:00,800
the earth in um and then do the undock

1025
00:38:05,270 --> 00:38:03,200
and then do a another

1026
00:38:06,310 --> 00:38:05,280
station attitude maneuver so that you

1027
00:38:08,470 --> 00:38:06,320
can get

1028
00:38:09,510 --> 00:38:08,480
a perspective of the station that

1029
00:38:12,230 --> 00:38:09,520
includes

1030
00:38:13,829 --> 00:38:12,240
so you can get sort of a side view of

1031
00:38:15,430 --> 00:38:13,839
the station with the vehicles that are

1032
00:38:18,230 --> 00:38:15,440
attached to it instead of looking down

1033
00:38:20,069 --> 00:38:18,240
any one axis or looking more in plane

1034
00:38:21,109 --> 00:38:20,079
where you would be less able to

1035
00:38:22,550 --> 00:38:21,119
appreciate

1036
00:38:27,349 --> 00:38:22,560
all of the

1037
00:38:30,230 --> 00:38:28,310
so

1038
00:38:31,670 --> 00:38:30,240

i can't describe it much better than

1039
00:38:33,349 --> 00:38:31,680
that without showing you a picture in a

1040
00:38:34,550 --> 00:38:33,359
video and i unfortunately don't have one

1041
00:38:35,829 --> 00:38:34,560
today but they'll be able to show you

1042
00:38:38,470 --> 00:38:35,839
that tomorrow

1043
00:38:40,390 --> 00:38:38,480
okay i guess i'll press just a tiny bit

1044
00:38:42,790 --> 00:38:40,400
do you have the earth or space in the

1045
00:38:44,390 --> 00:38:42,800
background or a combination or is that

1046
00:38:46,790 --> 00:38:44,400
we're going too far here

1047
00:38:48,710 --> 00:38:46,800
i i'm just sort of wondering what what

1048
00:38:52,950 --> 00:38:48,720
the context

1049
00:38:56,150 --> 00:38:54,630
i don't recall

1050
00:38:56,950 --> 00:38:56,160
i wish i did

1051
00:38:58,550 --> 00:38:56,960
um

1052
00:39:01,829 --> 00:38:58,560
but

1053
00:39:04,270 --> 00:39:01,839
the video is great

1054
00:39:08,150 --> 00:39:04,280
all right thank you and gina

1055
00:39:10,150 --> 00:39:08,160
um abc news uh with with this is focus

1056
00:39:11,910 --> 00:39:10,160
inspection are you considering adding a

1057
00:39:14,790 --> 00:39:11,920
day to this mission has that come up in

1058
00:39:16,310 --> 00:39:14,800
discussions at all um we're not going to

1059
00:39:17,910 --> 00:39:16,320
add a day

1060
00:39:20,150 --> 00:39:17,920
we don't think we need to add any time

1061
00:39:20,950 --> 00:39:20,160
into the plan i did ask the crew of the

1062
00:39:22,310 --> 00:39:20,960
team

1063
00:39:25,589 --> 00:39:22,320

just

1064
00:39:29,829 --> 00:39:28,470
in the last day or so you know

1065
00:39:32,310 --> 00:39:29,839
we'll take whatever time we need to do

1066
00:39:33,510 --> 00:39:32,320
this is the time that we have planned

1067
00:39:34,630 --> 00:39:33,520
sufficient

1068
00:39:37,030 --> 00:39:34,640
um

1069
00:39:38,630 --> 00:39:37,040
and all the answers came back that that

1070
00:39:40,710 --> 00:39:38,640
we feel very comfortable with what we

1071
00:39:42,630 --> 00:39:40,720
have timeline and what we had in there

1072
00:39:45,670 --> 00:39:42,640
as a placeholder

1073
00:39:47,670 --> 00:39:45,680
this is a fairly straightforward

1074
00:39:49,270 --> 00:39:47,680
as far as focus inspections go in

1075
00:39:51,270 --> 00:39:49,280
particular if we only have one site to

1076
00:39:51,990 --> 00:39:51,280
look at

1077
00:39:53,990 --> 00:39:52,000
so

1078
00:39:57,270 --> 00:39:54,000
we didn't feel a need to add any time or

1079
00:39:58,870 --> 00:39:57,280
certainly not a day to the plan

1080
00:40:00,310 --> 00:39:58,880
okay with that we're going to move to

1081
00:40:02,069 --> 00:40:00,320
the phone bridge where i believe we have

1082
00:40:11,349 --> 00:40:02,079
three three reporters waiting with

1083
00:40:25,190 --> 00:40:13,670
i believe irene klotz with reuters will

1084
00:40:29,990 --> 00:40:27,190
okay i think maybe we lost irene we'll

1085
00:40:31,589 --> 00:40:30,000
start with bill harwood with cbs

1086
00:40:33,510 --> 00:40:31,599
yeah thank you uh leroy a couple of

1087
00:40:35,750 --> 00:40:33,520
questions and and i apologize if you

1088
00:40:38,870 --> 00:40:35,760

addressed any of this earlier um had

1089
00:40:41,109 --> 00:40:38,880
some children issues had to deal with

1090
00:40:42,950 --> 00:40:41,119
an obvious question with tile damage is

1091
00:40:44,470 --> 00:40:42,960
what are the the possible implications

1092
00:40:46,309 --> 00:40:44,480
and i realize looking at this it doesn't

1093
00:40:48,710 --> 00:40:46,319
look as bad as 118

1094
00:40:49,910 --> 00:40:48,720
and you may be able to clear it but if

1095
00:40:51,910 --> 00:40:49,920
you don't

1096
00:40:54,309 --> 00:40:51,920
can you tell us worst case this is not a

1097
00:40:56,150 --> 00:40:54,319
loss of vehicle issue worst case i'm

1098
00:40:57,750 --> 00:40:56,160
assuming this is a repair issue and

1099
00:40:58,630 --> 00:40:57,760
that's worst case

1100
00:41:03,109 --> 00:40:58,640
um

1101
00:41:03,910 --> 00:41:03,119
if you had to repair something like this

1102
00:41:05,750 --> 00:41:03,920
one

1103
00:41:07,910 --> 00:41:05,760
can you refresh our memories about

1104
00:41:09,430 --> 00:41:07,920
exactly what the astronauts could do and

1105
00:41:10,630 --> 00:41:09,440
and what effect it would have and i

1106
00:41:12,150 --> 00:41:10,640
realized that you know you're not

1107
00:41:13,430 --> 00:41:12,160
anywhere near making a decision like

1108
00:41:15,430 --> 00:41:13,440
that but i want to make sure i

1109
00:41:18,230 --> 00:41:15,440
understand what all the options are

1110
00:41:24,630 --> 00:41:21,430
okay bill um

1111
00:41:26,630 --> 00:41:24,640
well you're correct in in terms of the

1112
00:41:28,390 --> 00:41:26,640
the worry factor on this one

1113
00:41:29,910 --> 00:41:28,400

and uh let me be specific when i was

1114
00:41:30,790 --> 00:41:29,920
here yesterday i talked about the fact

1115
00:41:32,390 --> 00:41:30,800
that

1116
00:41:34,470 --> 00:41:32,400
you know this is not

1117
00:41:35,829 --> 00:41:34,480
i'm not concerned about the damage that

1118
00:41:39,030 --> 00:41:35,839
we're seeing here

1119
00:41:41,510 --> 00:41:39,040
um and it's certainly not alarming and

1120
00:41:44,630 --> 00:41:41,520
and the team is not concerned about it

1121
00:41:48,470 --> 00:41:47,030
my confidence is is largely derived from

1122
00:41:50,230 --> 00:41:48,480
the fact that we have a very good

1123
00:41:52,630 --> 00:41:50,240
process for dispositioning these things

1124
00:41:55,910 --> 00:41:52,640
we know exactly how to go assess them

1125
00:41:58,710 --> 00:41:55,920
we've gotten better and better at it

1126
00:42:00,470 --> 00:41:58,720
and and we know that our models are

1127
00:42:03,510 --> 00:42:00,480
are doing nothing but improving as time

1128
00:42:04,390 --> 00:42:03,520
goes on and we get more experience

1129
00:42:09,190 --> 00:42:04,400
and

1130
00:42:10,470 --> 00:42:09,200
come up to a point in our assessment

1131
00:42:13,190 --> 00:42:10,480
where we feel like we need to get some

1132
00:42:14,790 --> 00:42:13,200
more data we know how to go do that i.e

1133
00:42:17,270 --> 00:42:14,800
focused inspection

1134
00:42:19,990 --> 00:42:17,280
which we're talking about doing now

1135
00:42:23,589 --> 00:42:20,000
which we may do saturday

1136
00:42:25,349 --> 00:42:23,599
we still may not do it also

1137
00:42:28,870 --> 00:42:25,359
and then when it comes right down to it

1138
00:42:31,990 --> 00:42:28,880

if if focus inspection and the analysis

1139
00:42:33,510 --> 00:42:32,000
of the data from focused inspection

1140
00:42:36,870 --> 00:42:33,520
determined that we didn't have the kind

1141
00:42:38,950 --> 00:42:36,880
of margins here that we wanted to have

1142
00:42:41,349 --> 00:42:38,960
then we do have some options to go do

1143
00:42:43,589 --> 00:42:41,359
some repair and

1144
00:42:45,030 --> 00:42:43,599
and bill i'll indulge you a little bit

1145
00:42:47,030 --> 00:42:45,040
but i don't want to go too far down this

1146
00:42:47,990 --> 00:42:47,040
path because

1147
00:42:49,430 --> 00:42:48,000
i have a pretty high degree of

1148
00:42:52,230 --> 00:42:49,440
confidence that this is not where we're

1149
00:42:55,510 --> 00:42:52,240
going but suffice it to say as you know

1150
00:42:57,829 --> 00:42:55,520
well we do have some repair capability

1151
00:43:02,390 --> 00:42:57,839
we have one that with some material that

1152
00:43:07,670 --> 00:43:05,510
like a a gun type

1153
00:43:08,950 --> 00:43:07,680
applicator and we put some

1154
00:43:13,670 --> 00:43:08,960
some

1155
00:43:15,430 --> 00:43:13,680
sta54

1156
00:43:17,670 --> 00:43:15,440
we also have what's called a tile

1157
00:43:19,589 --> 00:43:17,680
overlay

1158
00:43:21,430 --> 00:43:19,599
and

1159
00:43:23,190 --> 00:43:21,440
we have a lot of

1160
00:43:25,030 --> 00:43:23,200
confidence in

1161
00:43:27,910 --> 00:43:25,040
both of those repair capabilities if we

1162
00:43:29,270 --> 00:43:27,920
should need to use them we also have

1163
00:43:30,870 --> 00:43:29,280

the ability to

1164
00:43:32,950 --> 00:43:30,880
to do some

1165
00:43:34,390 --> 00:43:32,960
you know some verification on the ground

1166
00:43:36,710 --> 00:43:34,400
of different kind of repairs that we're

1167
00:43:38,069 --> 00:43:36,720
getting ready to go do so but that's

1168
00:43:41,030 --> 00:43:38,079
really about as far as i want to take

1169
00:43:43,190 --> 00:43:41,040
this discussion because um

1170
00:43:44,630 --> 00:43:43,200
i i feel pretty confident that if in

1171
00:43:46,390 --> 00:43:44,640
fact we're not able to clear it by the

1172
00:43:48,550 --> 00:43:46,400
morning

1173
00:43:49,589 --> 00:43:48,560
when we get the folks focused inspection

1174
00:43:51,270 --> 00:43:49,599
data

1175
00:43:53,589 --> 00:43:51,280
that we'll be able to clear this problem

1176
00:43:55,990 --> 00:43:53,599
and and not have to do anything uh

1177
00:43:58,390 --> 00:43:56,000
before we can return safely

1178
00:43:59,990 --> 00:43:58,400
um but having said that we're gonna go

1179
00:44:01,430 --> 00:44:00,000
do whatever is necessary and we're gonna

1180
00:44:03,670 --> 00:44:01,440
follow the data

1181
00:44:05,190 --> 00:44:03,680
all the way along in that process and

1182
00:44:06,710 --> 00:44:05,200
and in the meantime we're gonna stay

1183
00:44:08,390 --> 00:44:06,720
very much in the process and within

1184
00:44:10,870 --> 00:44:08,400
ourselves and we're not going to get too

1185
00:44:13,109 --> 00:44:10,880
far ahead of ourselves

1186
00:44:15,510 --> 00:44:13,119
i wanted to show you today the 118 case

1187
00:44:17,589 --> 00:44:15,520
because of the similarities

1188
00:44:19,109 --> 00:44:17,599

but also that there are some differences

1189
00:44:21,510 --> 00:44:19,119
and

1190
00:44:22,710 --> 00:44:21,520
but i think the similarities are are

1191
00:44:23,510 --> 00:44:22,720
good to show

1192
00:44:24,950 --> 00:44:23,520
um

1193
00:44:26,150 --> 00:44:24,960
and the fact that we did do a focus

1194
00:44:27,670 --> 00:44:26,160
inspection and the fact that we did

1195
00:44:30,470 --> 00:44:27,680
determine we didn't need to do anything

1196
00:44:31,990 --> 00:44:30,480
in that case um i wouldn't be surprised

1197
00:44:34,470 --> 00:44:32,000
at all if we end up

1198
00:44:35,829 --> 00:44:34,480
if we end up on a very similar path here

1199
00:44:38,069 --> 00:44:35,839
in fact that frankly that's my

1200
00:44:39,829 --> 00:44:38,079
expectation

1201
00:44:42,150 --> 00:44:39,839
leroy you mentioned uh once again the

1202
00:44:43,510 --> 00:44:42,160
118 case and i remember in that case

1203
00:44:44,870 --> 00:44:43,520
john shannon was telling us that one of

1204
00:44:46,550 --> 00:44:44,880
the reasons it was

1205
00:44:48,230 --> 00:44:46,560
cleared for re-entry was because of the

1206
00:44:49,910 --> 00:44:48,240
underlying structure

1207
00:44:52,790 --> 00:44:49,920
can you tell us anything about in this

1208
00:44:54,069 --> 00:44:52,800
location is it similar uh in the sense

1209
00:44:55,829 --> 00:44:54,079
of you know the heat sink that's

1210
00:44:57,990 --> 00:44:55,839
involved in all of that

1211
00:44:59,990 --> 00:44:58,000
thank you very much that's it for me

1212
00:45:02,309 --> 00:45:00,000
you bet bill um in fact let's put up the

1213
00:45:03,510 --> 00:45:02,319

graphic that shows the uh the entire

1214
00:45:10,790 --> 00:45:03,520
bottom side of the order i think is the

1215
00:45:15,030 --> 00:45:12,790
this isn't the best picture for showing

1216
00:45:17,030 --> 00:45:15,040
you this or illustrating this but

1217
00:45:20,550 --> 00:45:17,040
if you can imagine

1218
00:45:22,710 --> 00:45:20,560
the the line that kind of goes down

1219
00:45:24,230 --> 00:45:22,720
this starboard side

1220
00:45:25,829 --> 00:45:24,240
if you just sort of connect all the red

1221
00:45:27,430 --> 00:45:25,839
dots on the starboard side of the

1222
00:45:30,630 --> 00:45:27,440
vehicle

1223
00:45:33,510 --> 00:45:30,640
there's an intersection there between

1224
00:45:35,510 --> 00:45:33,520
the main body of the vehicle

1225
00:45:36,309 --> 00:45:35,520
um and and the wing

1226
00:45:37,670 --> 00:45:36,319
and

1227
00:45:39,349 --> 00:45:37,680
so um

1228
00:45:42,309 --> 00:45:39,359
this is kind of in the area where the

1229
00:45:44,710 --> 00:45:42,319
where the wing box is where the

1230
00:45:48,390 --> 00:45:44,720
the the delta wing on the starboard side

1231
00:45:50,470 --> 00:45:48,400
connects to the main body of the vehicle

1232
00:45:52,069 --> 00:45:50,480
and so there's a lot of structure

1233
00:45:53,990 --> 00:45:52,079
underneath this area

1234
00:45:55,109 --> 00:45:54,000
and in fact

1235
00:45:56,790 --> 00:45:55,119
bill

1236
00:45:59,109 --> 00:45:56,800
to be more specific

1237
00:46:00,710 --> 00:45:59,119
and and we didn't talk this in detail on

1238
00:46:02,790 --> 00:46:00,720

the mmt today but i've asked the team to

1239
00:46:05,750 --> 00:46:02,800
bring in some more detail

1240
00:46:08,990 --> 00:46:05,760
for tomorrow's discussion

1241
00:46:11,109 --> 00:46:09,000
we think that the tile damage here the

1242
00:46:13,030 --> 00:46:11,119
2-0-1 the one we're talking about on

1243
00:46:14,870 --> 00:46:13,040
sts-134

1244
00:46:18,150 --> 00:46:14,880
where it's a little bit forward and

1245
00:46:19,910 --> 00:46:18,160
inboard of what we had on 118

1246
00:46:22,069 --> 00:46:19,920
is actually over

1247
00:46:24,630 --> 00:46:22,079
even even a little bit more beefy

1248
00:46:28,550 --> 00:46:24,640
beefier part of the

1249
00:46:29,990 --> 00:46:28,560
structure than what we had on 118 so

1250
00:46:33,829 --> 00:46:30,000
there's a potential that we'll be able

1251
00:46:34,950 --> 00:46:33,839
to take even more advantage of the

1252
00:46:37,910 --> 00:46:34,960
of that

1253
00:46:39,589 --> 00:46:37,920
than we were able to on sts-118

1254
00:46:41,910 --> 00:46:39,599
and so um

1255
00:46:44,390 --> 00:46:41,920
there really aren't any other systems

1256
00:46:47,349 --> 00:46:44,400
directly underneath this tile

1257
00:46:49,910 --> 00:46:47,359
or in that vicinity

1258
00:46:51,990 --> 00:46:49,920
and it is over a pretty pretty

1259
00:46:52,950 --> 00:46:52,000
significant part of structure

1260
00:46:54,710 --> 00:46:52,960
and so

1261
00:46:56,069 --> 00:46:54,720
the team as we left them today they were

1262
00:46:57,990 --> 00:46:56,079
hoping to be able to take a little bit

1263
00:47:02,950 --> 00:46:58,000

advantage of that as well

1264
00:47:06,710 --> 00:47:05,030
okay our next

1265
00:47:08,950 --> 00:47:06,720
reporter on the phone bridge is james

1266
00:47:11,829 --> 00:47:08,960
dean

1267
00:47:13,750 --> 00:47:11,839
ford today so

1268
00:47:14,470 --> 00:47:13,760
i think you've answered this but um just

1269
00:47:15,829 --> 00:47:14,480
to

1270
00:47:17,910 --> 00:47:15,839
further clarify i guess on the

1271
00:47:21,109 --> 00:47:17,920
comparison with 118

1272
00:47:23,270 --> 00:47:21,119
on a mission that i covered um

1273
00:47:24,870 --> 00:47:23,280
i take it you did not uh the focus

1274
00:47:26,950 --> 00:47:24,880
inspection determined there was no need

1275
00:47:28,390 --> 00:47:26,960
to do anything further so

1276
00:47:32,309 --> 00:47:28,400
if uh

1277
00:47:33,750 --> 00:47:32,319
endeavors uh 134s focused inspection

1278
00:47:35,109 --> 00:47:33,760
confirmed the

1279
00:47:37,190 --> 00:47:35,119
similarities that you're pointing out

1280
00:47:40,549 --> 00:47:37,200
now you that would be your

1281
00:47:45,910 --> 00:47:43,829
that it's cleared

1282
00:47:47,349 --> 00:47:45,920
that's correct james the the let me be

1283
00:47:49,109 --> 00:47:47,359
specific

1284
00:47:51,829 --> 00:47:49,119
on the first part of your question for

1285
00:47:53,670 --> 00:47:51,839
sts-118 we did in fact with the focus

1286
00:47:55,910 --> 00:47:53,680
inspection um

1287
00:47:57,670 --> 00:47:55,920
if with the increased fidelity of the

1288
00:48:00,230 --> 00:47:57,680

data that we derived from focused

1289
00:48:02,790 --> 00:48:00,240
inspection we were able to analytically

1290
00:48:05,030 --> 00:48:02,800
clear the vehicle without doing anything

1291
00:48:07,030 --> 00:48:05,040
beyond focus inspection and as you saw

1292
00:48:09,750 --> 00:48:07,040
in the pictures um comparing the

1293
00:48:11,030 --> 00:48:09,760
on-orbit imagery to the post landing

1294
00:48:12,630 --> 00:48:11,040
there's

1295
00:48:13,750 --> 00:48:12,640
virtually no difference

1296
00:48:16,069 --> 00:48:13,760
in the tile

1297
00:48:17,990 --> 00:48:16,079
um or the condition of the tile from

1298
00:48:20,069 --> 00:48:18,000
when it was on orbit to to after we

1299
00:48:22,390 --> 00:48:20,079
landed

1300
00:48:23,750 --> 00:48:22,400
which says that we had a good analysis

1301
00:48:25,990 --> 00:48:23,760
at least in part it says we had a good

1302
00:48:28,790 --> 00:48:26,000
analysis

1303
00:48:29,829 --> 00:48:28,800
so in this case

1304
00:48:33,430 --> 00:48:29,839
we'll do

1305
00:48:35,270 --> 00:48:33,440
inspection we'll get the additional data

1306
00:48:37,270 --> 00:48:35,280
it'll help the team have a little bit

1307
00:48:40,069 --> 00:48:37,280
better fidelity on their analysis and

1308
00:48:41,510 --> 00:48:40,079
probably allow them to be less

1309
00:48:44,390 --> 00:48:41,520
conservative with the assumptions that

1310
00:48:46,150 --> 00:48:44,400
they have in in their analysis today

1311
00:48:48,549 --> 00:48:46,160
because they're making some

1312
00:48:50,710 --> 00:48:48,559
conservative assumptions about the the

1313
00:48:51,990 --> 00:48:50,720

uh the size the dimensional aspect of

1314
00:48:54,150 --> 00:48:52,000
this if you will

1315
00:48:55,589 --> 00:48:54,160
uh where the damage site is concerned

1316
00:48:57,030 --> 00:48:55,599
and they could back off on some of that

1317
00:48:59,030 --> 00:48:57,040
conservative and

1318
00:49:00,870 --> 00:48:59,040
conservativeism

1319
00:49:03,510 --> 00:49:00,880
if they have

1320
00:49:06,230 --> 00:49:03,520
better fidelity imagery with some some

1321
00:49:08,309 --> 00:49:06,240
better higher fidelity photography as

1322
00:49:11,030 --> 00:49:08,319
well as laser

1323
00:49:15,030 --> 00:49:13,190
we would intend to then hopefully clear

1324
00:49:17,030 --> 00:49:15,040
it analytically with some higher

1325
00:49:20,950 --> 00:49:17,040
fidelity data and in that sense it would

1326
00:49:23,190 --> 00:49:20,960
be similar to what we did on sts-118

1327
00:49:24,069 --> 00:49:23,200
thanks i was wondering if there would be

1328
00:49:26,549 --> 00:49:24,079
any

1329
00:49:28,710 --> 00:49:26,559
more or just different concern on this

1330
00:49:31,349 --> 00:49:28,720
mission given that

1331
00:49:32,950 --> 00:49:31,359
your your late inspection is planned

1332
00:49:34,150 --> 00:49:32,960
earlier and because you're giving away

1333
00:49:36,390 --> 00:49:34,160
the boom

1334
00:49:38,230 --> 00:49:36,400
um

1335
00:49:39,990 --> 00:49:38,240
a few extra days i guess maybe a couple

1336
00:49:41,750 --> 00:49:40,000
extra days that that area could be

1337
00:49:43,589 --> 00:49:41,760
exposed i mean is there any issue at all

1338
00:49:44,790 --> 00:49:43,599

with the timing of the late inspection

1339
00:49:46,230 --> 00:49:44,800
after you've already

1340
00:49:48,790 --> 00:49:46,240
identified damage that warrants a

1341
00:49:51,750 --> 00:49:48,800
focused inspection

1342
00:49:53,430 --> 00:49:51,760
uh no not really uh the the two are are

1343
00:49:55,349 --> 00:49:53,440
pretty much independent in the sense

1344
00:49:56,710 --> 00:49:55,359
that um you know we're not going to

1345
00:49:58,630 --> 00:49:56,720
leave these areas and we're not going to

1346
00:50:00,870 --> 00:49:58,640
leave this topic and we're not going to

1347
00:50:03,510 --> 00:50:00,880
give the boom away

1348
00:50:04,630 --> 00:50:03,520
until i'm completely satisfied that that

1349
00:50:06,630 --> 00:50:04,640
we're not going to need it for anything

1350
00:50:10,309 --> 00:50:06,640
else on this mission so

1351
00:50:11,750 --> 00:50:10,319
they're decoupled in that sense and

1352
00:50:13,829 --> 00:50:11,760
so we feel pretty good about the plan we

1353
00:50:15,430 --> 00:50:13,839
have

1354
00:50:16,710 --> 00:50:15,440
okay i believe that concludes the

1355
00:50:19,030 --> 00:50:16,720
questions from reporters on the phone

1356
00:50:20,390 --> 00:50:19,040
bridge we'll turn here to jsc for some

1357
00:50:21,510 --> 00:50:20,400
follow-ups if we can start over here

1358
00:50:24,309 --> 00:50:21,520
with gene

1359
00:50:25,750 --> 00:50:24,319
um the soyuz when the soyuz backs off

1360
00:50:27,829 --> 00:50:25,760
and takes a photo

1361
00:50:31,589 --> 00:50:27,839
are those glamorous shots or is there an

1362
00:50:34,950 --> 00:50:32,950
um

1363
00:50:36,549 --> 00:50:34,960

similar to the

1364
00:50:40,230 --> 00:50:36,559
this is the one thing that's similar to

1365
00:50:42,710 --> 00:50:40,240
the plan we had for sds-133 is that

1366
00:50:44,630 --> 00:50:42,720
there is some

1367
00:50:46,630 --> 00:50:44,640
technical benefit to

1368
00:50:48,230 --> 00:50:46,640
the photography operations that we're

1369
00:50:50,309 --> 00:50:48,240
going to do

1370
00:50:51,990 --> 00:50:50,319
i think for station

1371
00:50:54,390 --> 00:50:52,000
excuse me station program itself in

1372
00:50:57,510 --> 00:50:54,400
addition to

1373
00:50:59,349 --> 00:50:57,520
the the to include the partners and and

1374
00:51:01,270 --> 00:50:59,359
the vehicles that are resident at

1375
00:51:03,190 --> 00:51:01,280
station now they're going to get a

1376
00:51:04,390 --> 00:51:03,200
vantage point that they perhaps have

1377
00:51:07,430 --> 00:51:04,400
never gotten

1378
00:51:08,470 --> 00:51:07,440
and is not easy to get

1379
00:51:15,589 --> 00:51:08,480
and

1380
00:51:16,870 --> 00:51:15,599
was then

1381
00:51:18,150 --> 00:51:16,880
um

1382
00:51:19,670 --> 00:51:18,160
there's less benefit because i think

1383
00:51:21,510 --> 00:51:19,680
we're going to get overall less imagery

1384
00:51:23,829 --> 00:51:21,520
because we're not doing a fly about or a

1385
00:51:25,190 --> 00:51:23,839
fly around per se

1386
00:51:27,349 --> 00:51:25,200
but this

1387
00:51:30,390 --> 00:51:27,359
is

1388
00:51:32,230 --> 00:51:30,400

a whole lot better than no photography

1389
00:51:35,109 --> 00:51:32,240
and in fact there is some engineering

1390
00:51:39,990 --> 00:51:37,510
uh seth bornstein again in terms of

1391
00:51:43,430 --> 00:51:40,000
who's going to be operating the boom

1392
00:51:44,309 --> 00:51:43,440
and the cameras do you know that yet or

1393
00:51:46,390 --> 00:51:44,319
would

1394
00:51:48,309 --> 00:51:46,400
i'm sure the team knows

1395
00:51:50,630 --> 00:51:48,319
i didn't ask for

1396
00:51:53,270 --> 00:51:50,640
for those details we'll talk about um

1397
00:51:56,549 --> 00:51:53,280
that level of detail tomorrow if in fact

1398
00:51:58,309 --> 00:51:56,559
focus inspection is still in the plan

1399
00:51:59,270 --> 00:51:58,319
and in terms of the size of that going

1400
00:52:01,670 --> 00:51:59,280
back to

1401
00:52:03,270 --> 00:52:01,680
sort of post-it note size a little bit

1402
00:52:05,670 --> 00:52:03,280
bigger you know slice of bread i'm

1403
00:52:09,030 --> 00:52:05,680
trying to think of

1404
00:52:11,109 --> 00:52:09,040
of the damage side yeah the damage site

1405
00:52:12,710 --> 00:52:11,119
um

1406
00:52:13,910 --> 00:52:12,720
i i don't know how to describe it any

1407
00:52:16,790 --> 00:52:13,920
better than to give you the exact

1408
00:52:18,390 --> 00:52:16,800
dimensions that we're estimating it as

1409
00:52:20,230 --> 00:52:18,400
i've seen all different kind of size

1410
00:52:22,549 --> 00:52:20,240
post-it notes there's really tiny little

1411
00:52:23,349 --> 00:52:22,559
teeny tiny ones and there's ones that

1412
00:52:24,150 --> 00:52:23,359
are

1413
00:52:26,549 --> 00:52:24,160

you know

1414
00:52:32,150 --> 00:52:26,559
larger i'm not sure which post-it note

1415
00:52:36,309 --> 00:52:34,950
okay no further questions here uh at the

1416
00:52:38,710 --> 00:52:36,319
johnson space center we'll wrap up the

1417
00:52:40,390 --> 00:52:38,720
briefing a few operational notes the

1418
00:52:41,670 --> 00:52:40,400
crews are now in their sleep period the

1419
00:52:44,470 --> 00:52:41,680
shuttle crew is scheduled to wake up at

1420
00:52:46,470 --> 00:52:44,480
9 26 p.m central time the space station

1421
00:52:48,150 --> 00:52:46,480
crew at 101 am central time and the

1422
00:52:50,390 --> 00:52:48,160
space walk the first of the mission

1423
00:52:52,069 --> 00:52:50,400
planned to begin at 2 16 a.m central

1424
00:52:53,430 --> 00:52:52,079
time at the top of the hour we'll be

1425
00:52:54,790 --> 00:52:53,440
bringing the flight day highlights from

1426
00:52:56,470 --> 00:52:54,800
today's activities and that'll be

1427
00:52:57,750 --> 00:52:56,480
running through the crew sleep period