1
00:00:08,470 --> 00:00:06,630
good afternoon and welcome to nasa's

2
00:00:11,030 --> 00:00:08,480
johnson space center for today's mission

3
00:00:12,390 --> 00:00:11,040
status briefing of the sts-132 space

4
00:00:14,070 --> 00:00:12,400
shuttle mission to the international

5
00:00:16,390 --> 00:00:14,080
space station this is flight day seven

6
00:00:17,910 --> 00:00:16,400
of the flight and with us we have the

7
00:00:19,189 --> 00:00:17,920
lead space shuttle flight director to

8
00:00:21,349 --> 00:00:19,199
give us the status of the day's

9
00:00:22,790 --> 00:00:21,359
activities mike serafin so i'll turn it

10
00:00:24,710 --> 00:00:22,800
over to mike for opening comments and

11
00:00:25,990 --> 00:00:24,720
then we'll take questions

12
00:00:28,390 --> 00:00:26,000
thanks kylie

13
00:00:30,070 --> 00:00:28,400

on this seventh day of the flight of

14
00:00:31,669 --> 00:00:30,080
atlantis to the international space

15
00:00:33,750 --> 00:00:31,679
station the crew is taking a

16
00:00:34,709 --> 00:00:33,760
well-deserved break they spent their

17
00:00:36,470 --> 00:00:34,719
morning

18
00:00:38,150 --> 00:00:36,480
uh performing some preparatory

19
00:00:39,990 --> 00:00:38,160
activities for their third and final

20
00:00:41,590 --> 00:00:40,000
space walk on board the international

21
00:00:43,350 --> 00:00:41,600
space station

22
00:00:45,670 --> 00:00:43,360
flight day eight tomorrow they'll go out

23
00:00:48,069 --> 00:00:45,680
and complete all the primary mission

24
00:00:50,229 --> 00:00:48,079
objectives that we set out for

25
00:00:51,990 --> 00:00:50,239
on this mission and that will lead up to

26
00:00:54,229 --> 00:00:52,000
the return of the cargo carrier on

27
00:00:56,389 --> 00:00:54,239
flight day nine

28
00:00:57,510 --> 00:00:56,399
this morning the team spent a little bit

29
00:00:59,990 --> 00:00:57,520
of time

30
00:01:02,229 --> 00:01:00,000
on the ground working with the crew of

31
00:01:03,830 --> 00:01:02,239
atlantis and the international space

32
00:01:06,070 --> 00:01:03,840
station to review

33
00:01:09,270 --> 00:01:06,080
some changes to our third and final

34
00:01:10,550 --> 00:01:09,280
spacewalk and i'll detail those changes

35
00:01:12,230 --> 00:01:10,560
in a moment

36
00:01:14,469 --> 00:01:12,240
on board the international space station

37
00:01:16,870 --> 00:01:14,479
the team is also working on the water

38
00:01:18,630 --> 00:01:16,880

dispenser problem uh if you recall the

39
00:01:20,149 --> 00:01:18,640
uh water dispenser on board the

40
00:01:23,190 --> 00:01:20,159
international space station is not

41
00:01:24,870 --> 00:01:23,200
dispensing hot water and it's it's fully

42
00:01:26,950 --> 00:01:24,880
functional and capable of dispensing

43
00:01:29,510 --> 00:01:26,960
ambient water the team thinks that

44
00:01:31,270 --> 00:01:29,520
there's a circuit breaker that may have

45
00:01:33,590 --> 00:01:31,280
blown or be out of config and they're

46
00:01:36,230 --> 00:01:33,600
working on a procedure to try to recover

47
00:01:38,230 --> 00:01:36,240
the hot water no earlier than tomorrow

48
00:01:39,670 --> 00:01:38,240
onboard atlantis we're not working any

49
00:01:40,950 --> 00:01:39,680
new problems

50
00:01:47,670 --> 00:01:40,960
the

51
00:01:49,270 --> 00:01:47,680
that

52
00:01:51,670 --> 00:01:49,280
gave us some trouble during our second

53
00:01:54,469 --> 00:01:51,680
day the mission with the post launch

54
00:01:56,789 --> 00:01:54,479
inspection activities to review the

55
00:01:59,190 --> 00:01:56,799
status of atlantis heat shield

56
00:02:01,429 --> 00:01:59,200
and they performed another checkout a

57
00:02:03,749 --> 00:02:01,439
series of three checkouts

58
00:02:06,630 --> 00:02:03,759
two during the spacewalk and then a

59
00:02:08,229 --> 00:02:06,640
third after the spacewalk was complete

60
00:02:10,389 --> 00:02:08,239
and they just took it through the full

61
00:02:11,750 --> 00:02:10,399
range of motion at the low rate and the

62
00:02:13,670 --> 00:02:11,760
high rate and

63
00:02:15,830 --> 00:02:13,680

the camera is fully functional and we

64
00:02:17,430 --> 00:02:15,840
expect that to perform uh as if there

65
00:02:18,150 --> 00:02:17,440
were no problems

66
00:02:18,949 --> 00:02:18,160
on

67
00:02:29,190 --> 00:02:18,959
the

68
00:02:31,270 --> 00:02:29,200
of a

69
00:02:33,910 --> 00:02:31,280
post undocking late inspection using the

70
00:02:35,830 --> 00:02:33,920
orbiter boom and the laser dynamic range

71
00:02:38,630 --> 00:02:35,840
image or the ldri

72
00:02:40,710 --> 00:02:38,640
or whether we ought to modify the plan

73
00:02:42,949 --> 00:02:40,720
to perform that survey while docked to

74
00:02:45,110 --> 00:02:42,959
the international space station and

75
00:02:49,030 --> 00:02:45,120
should make a decision either today or

76
00:02:51,030 --> 00:02:49,040
uh or shortly uh in the before we undock

77
00:02:52,949 --> 00:02:51,040
we had a

78
00:02:54,390 --> 00:02:52,959
decision from our mission management

79
00:02:56,790 --> 00:02:54,400
team on both the shuttle and the

80
00:02:58,949 --> 00:02:56,800
international space station side to uh

81
00:03:00,710 --> 00:02:58,959
not to change the altitude of the

82
00:03:03,270 --> 00:03:00,720
international space station using the

83
00:03:04,149 --> 00:03:03,280
shuttle propellant so our plan right now

84
00:03:06,390 --> 00:03:04,159
is to

85
00:03:07,430 --> 00:03:06,400
undock atlantis with an excess of

86
00:03:09,430 --> 00:03:07,440
propellant

87
00:03:12,790 --> 00:03:09,440
and there was also a decision to

88
00:03:14,869 --> 00:03:12,800

transfer some 70 pounds of excess oxygen

89
00:03:16,550 --> 00:03:14,879
to the international space station 40

90
00:03:18,710 --> 00:03:16,560
pounds of that will go into the high

91
00:03:20,149 --> 00:03:18,720
pressure gas tanks that

92
00:03:21,910 --> 00:03:20,159
store either

93
00:03:24,789 --> 00:03:21,920
in cabin use onboard the international

94
00:03:27,270 --> 00:03:24,799
space station or use during upcoming

95
00:03:28,789 --> 00:03:27,280
spacewalks where the international space

96
00:03:30,789 --> 00:03:28,799
station does not have the shuttle

97
00:03:33,830 --> 00:03:30,799
immediately there the remainder will be

98
00:03:36,470 --> 00:03:33,840
put into the cabin atmosphere

99
00:03:37,430 --> 00:03:36,480
for the third spacewalk we've

100
00:03:39,589 --> 00:03:37,440
we're going to

101
00:03:41,509 --> 00:03:39,599
start that off by installing an ammonia

102
00:03:43,750 --> 00:03:41,519
jumper that will allow us to

103
00:03:46,470 --> 00:03:43,760
perform a future

104
00:03:49,110 --> 00:03:46,480
task if necessary of cooling the

105
00:03:51,509 --> 00:03:49,120
photovoltaic cooling system

106
00:03:52,789 --> 00:03:51,519
right now there's no expected use of

107
00:03:55,589 --> 00:03:52,799
that particular jumper but we're going

108
00:03:57,910 --> 00:03:55,599
to install that just to expedite use if

109
00:03:59,830 --> 00:03:57,920
that's necessary in the future

110
00:04:01,429 --> 00:03:59,840
we'll remove and replace the two

111
00:04:04,070 --> 00:04:01,439
batteries that we brought up the two

112
00:04:06,070 --> 00:04:04,080
brand new batteries to the port 6

113
00:04:08,949 --> 00:04:06,080

battery channel that

114
00:04:10,630 --> 00:04:08,959
we we knew we had to complete in our on

115
00:04:13,190 --> 00:04:10,640
the cargo carrier

116
00:04:15,670 --> 00:04:13,200
once that's complete the crew

117
00:04:18,629 --> 00:04:15,680
mike good and garrett reisman will wrap

118
00:04:21,270 --> 00:04:18,639
up their uh their work at the port six

119
00:04:23,670 --> 00:04:21,280
worksite way out on the port end of the

120
00:04:25,189 --> 00:04:23,680
the international space station's truss

121
00:04:27,670 --> 00:04:25,199
bring some tools that they've stowed

122
00:04:30,230 --> 00:04:27,680
outside their inboard of the rotary

123
00:04:33,670 --> 00:04:30,240
joint rotary joint on the

124
00:04:35,909 --> 00:04:33,680
on the solar arrays and that'll allow

125
00:04:37,110 --> 00:04:35,919
future spacewalks to be expedited from

126
00:04:38,550 --> 00:04:37,120
there

127
00:04:40,629 --> 00:04:38,560
removal and replacement of those two

128
00:04:43,510 --> 00:04:40,639
remaining batteries will allow return of

129
00:04:45,749 --> 00:04:43,520
the cargo carrier back or insta

130
00:04:47,670 --> 00:04:45,759
installation the cargo carrier back onto

131
00:04:50,310 --> 00:04:47,680
the mobile transporter on flight day

132
00:04:52,150 --> 00:04:50,320
eight we'll translate that overnight

133
00:04:53,830 --> 00:04:52,160
and remove it on flight day nine using

134
00:04:55,590 --> 00:04:53,840
the station's robotic arm to the center

135
00:04:57,430 --> 00:04:55,600
of the truss and then put it back in the

136
00:04:59,990 --> 00:04:57,440
shuttle's payload bay for return of the

137
00:05:01,670 --> 00:05:00,000
old batteries to the ground

138
00:05:03,270 --> 00:05:01,680

after those activities are complete we

139
00:05:05,909 --> 00:05:03,280
plan to go into the shuttle's payload

140
00:05:08,710 --> 00:05:05,919
bay and retrieve a grapple fixture that

141
00:05:10,629 --> 00:05:08,720
we flew up on a sidewall carrier and

142
00:05:12,469 --> 00:05:10,639
we'll bring that inside the airlock on

143
00:05:14,710 --> 00:05:12,479
board iss

144
00:05:16,950 --> 00:05:14,720
and later this summer the plan is to

145
00:05:19,189 --> 00:05:16,960
install that on the zarya module and

146
00:05:22,070 --> 00:05:19,199
that'll allow us to base the station's

147
00:05:24,550 --> 00:05:22,080
robotic arm or the dextrous manipulator

148
00:05:25,830 --> 00:05:24,560
on the zarya module should we decide to

149
00:05:27,350 --> 00:05:25,840
do that

150
00:05:29,189 --> 00:05:27,360
we do have a couple of get ahead tasks

151
00:05:31,270 --> 00:05:29,199
that we talked about with this crew and

152
00:05:32,629 --> 00:05:31,280
they're ready to go off and and perform

153
00:05:34,469 --> 00:05:32,639
if necessary

154
00:05:37,430 --> 00:05:34,479
there's a piece of

155
00:05:39,350 --> 00:05:37,440
insulation on the oru temp platform that

156
00:05:41,430 --> 00:05:39,360
we installed earlier on our first

157
00:05:44,390 --> 00:05:41,440
spacewalk of the mission they'll go out

158
00:05:45,909 --> 00:05:44,400
go down and put that into a

159
00:05:48,390 --> 00:05:45,919
proper position so that it doesn't

160
00:05:50,070 --> 00:05:48,400
interfere with any other robotic systems

161
00:05:52,310 --> 00:05:50,080
should we use those

162
00:05:53,990 --> 00:05:52,320
in that vicinity in the short term and

163
00:05:55,909 --> 00:05:54,000

then they'll go ahead and retrieve some

164
00:05:57,430 --> 00:05:55,919
tools out of the airlock itself and then

165
00:05:58,710 --> 00:05:57,440
stow them on the outside of the airlock

166
00:06:00,710 --> 00:05:58,720
in a toolbox

167
00:06:02,550 --> 00:06:00,720
so that is the plan for our third and

168
00:06:04,870 --> 00:06:02,560
final spacewalk originally we thought

169
00:06:06,629 --> 00:06:04,880
we'd have to perform three battery

170
00:06:07,830 --> 00:06:06,639
changes but because of the excellent

171
00:06:10,390 --> 00:06:07,840
work that

172
00:06:11,670 --> 00:06:10,400
the crew of atlantis did yesterday

173
00:06:13,430 --> 00:06:11,680
during their second spacewalk they

174
00:06:15,270 --> 00:06:13,440
actually got a head one battery and it

175
00:06:17,670 --> 00:06:15,280
allows us a little bit of margarine and

176
00:06:20,390 --> 00:06:17,680
a little bit of opportunity to get ahead

177
00:06:22,469 --> 00:06:20,400
on our third and final spacewalk

178
00:06:24,550 --> 00:06:22,479
inside mission control we spent a little

179
00:06:26,070 --> 00:06:24,560
bit of time today celebrating one of our

180
00:06:28,150 --> 00:06:26,080
flight controllers a mission controller

181
00:06:30,469 --> 00:06:28,160
by the name of lonnie schmidt who works

182
00:06:33,270 --> 00:06:30,479
in the propulsion systems is working his

183
00:06:36,230 --> 00:06:33,280
100th mission he's our first member of

184
00:06:39,430 --> 00:06:36,240
the century club in mission control

185
00:06:41,510 --> 00:06:39,440
lonnie has worked at the prop systems

186
00:06:43,350 --> 00:06:41,520
console

187
00:06:46,150 --> 00:06:43,360
since sts-1

188
00:06:47,670 --> 00:06:46,160

in various capacities and today was his

189
00:06:50,469 --> 00:06:47,680
100th mission

190
00:06:53,430 --> 00:06:50,479
and we just were proud to have them

191
00:06:55,430 --> 00:06:53,440
the the day-in day-out stress of being a

192
00:06:58,629 --> 00:06:55,440
flight controller in mission control

193
00:07:00,550 --> 00:06:58,639
and the shift hours are something that

194
00:07:01,589 --> 00:07:00,560
folks do get to experience from time to

195
00:07:03,990 --> 00:07:01,599
time but

196
00:07:07,110 --> 00:07:04,000
it's very very rare that somebody does

197
00:07:09,909 --> 00:07:07,120
it as long and as well as lonnie does it

198
00:07:11,270 --> 00:07:09,919
and we were just proud to to celebrate

199
00:07:13,749 --> 00:07:11,280
with him today

200
00:07:15,670 --> 00:07:13,759
in mission control with folks that have

201
00:07:18,230 --> 00:07:15,680
had an opportunity to work with them

202
00:07:19,749 --> 00:07:18,240
past and present so with that i'm happy

203
00:07:21,110 --> 00:07:19,759
to take any questions

204
00:07:23,029 --> 00:07:21,120
okay we'll start here at the johnson

205
00:07:25,189 --> 00:07:23,039
space center

206
00:07:27,670 --> 00:07:25,199
thanks mark caro for aviation week i had

207
00:07:29,670 --> 00:07:27,680
a question about the

208
00:07:31,110 --> 00:07:29,680
heat shield inspection strategy and i

209
00:07:33,270 --> 00:07:31,120
guess i

210
00:07:34,710 --> 00:07:33,280
got lost or was a little confused as to

211
00:07:36,230 --> 00:07:34,720
whether

212
00:07:38,390 --> 00:07:36,240
you're going to look at any part of the

213
00:07:40,550 --> 00:07:38,400

heat shield

214
00:07:42,830 --> 00:07:40,560
as as part of the post launch or you're

215
00:07:45,830 --> 00:07:42,840
going to wait and do

216
00:07:47,830 --> 00:07:45,840
the pre-landing and just kind of combine

217
00:07:49,749 --> 00:07:47,840
one final inspection if you could sort

218
00:07:50,790 --> 00:07:49,759
that out please

219
00:07:52,469 --> 00:07:50,800
the

220
00:07:54,309 --> 00:07:52,479
ascent inspection

221
00:07:56,070 --> 00:07:54,319
has been cleared by the debris

222
00:07:58,390 --> 00:07:56,080
assessment team and the team is

223
00:08:01,510 --> 00:07:58,400
comfortable with the the launch debris

224
00:08:04,469 --> 00:08:01,520
environment that could occur and are

225
00:08:07,909 --> 00:08:04,479
sure that we've got adequate imagery to

226
00:08:10,550 --> 00:08:07,919
uh clear the vehicle for reentry um

227
00:08:12,869 --> 00:08:10,560
regarding the orbital debris inspection

228
00:08:15,189 --> 00:08:12,879
and the ability to inspect the vehicle

229
00:08:17,589 --> 00:08:15,199
after we undock and measure it with the

230
00:08:19,909 --> 00:08:17,599
precision required the team is just off

231
00:08:21,350 --> 00:08:19,919
assessing the risk associated with the

232
00:08:23,830 --> 00:08:21,360
the problem that we experienced earlier

233
00:08:25,909 --> 00:08:23,840
on the pan tilt unit and whether it's

234
00:08:27,189 --> 00:08:25,919
appropriate to perform that

235
00:08:29,270 --> 00:08:27,199
inspection while docked to the

236
00:08:30,309 --> 00:08:29,280
international space station a day or two

237
00:08:32,949 --> 00:08:30,319
earlier

238
00:08:34,389 --> 00:08:32,959

than planned or whether it's appropriate

239
00:08:37,110 --> 00:08:34,399
to go off and perform that after

240
00:08:38,870 --> 00:08:37,120
undocking and that risk trade is being

241
00:08:41,110 --> 00:08:38,880
assessed by the mission management team

242
00:08:43,269 --> 00:08:41,120
and members of the imagery analysis team

243
00:08:46,790 --> 00:08:43,279
and the orbiter project office and we

244
00:08:51,190 --> 00:08:48,310
and i had to follow up on a different

245
00:08:52,949 --> 00:08:51,200
topic the space walk tomorrow will you

246
00:08:54,790 --> 00:08:52,959
go ahead and use the six and a half

247
00:08:56,710 --> 00:08:54,800
hours that you planned or are you

248
00:08:58,790 --> 00:08:56,720
entertaining a shorter or slightly

249
00:09:00,790 --> 00:08:58,800
longer spacewalk

250
00:09:03,030 --> 00:09:00,800
the plan for our third and final

251
00:09:05,829 --> 00:09:03,040
spacewalk is is for a six and a half

252
00:09:07,509 --> 00:09:05,839
hour duration uh we do not plan to

253
00:09:09,590 --> 00:09:07,519
extend for any of the get ahead tasks

254
00:09:11,670 --> 00:09:09,600
that i mentioned so once we get past the

255
00:09:13,750 --> 00:09:11,680
grapple fixture retrieval if we're close

256
00:09:15,750 --> 00:09:13,760
to the six and a half hour duration uh

257
00:09:18,310 --> 00:09:15,760
we'll just knock off the eva around that

258
00:09:20,710 --> 00:09:18,320
time frame and and tell uh mike good and

259
00:09:23,190 --> 00:09:20,720
garrett riesman to come back in and

260
00:09:24,710 --> 00:09:23,200
and we'll we'll declare a successful uh

261
00:09:26,949 --> 00:09:24,720
mission as far as the spacewalks are

262
00:09:28,550 --> 00:09:26,959
concerned if we have an opportunity to

263
00:09:31,590 --> 00:09:28,560

to perform some of the get-ahead tasks

264
00:09:34,949 --> 00:09:31,600
by staging tools outside in the toolbox

265
00:09:37,509 --> 00:09:34,959
uh to expedite future spacewalks or uh

266
00:09:39,509 --> 00:09:37,519
the the

267
00:09:41,350 --> 00:09:39,519
change to the insulation blanket on the

268
00:09:43,910 --> 00:09:41,360
temp platform we'll we'll do that but

269
00:09:47,430 --> 00:09:43,920
it'll be a real-time judgment call based

270
00:09:51,829 --> 00:09:49,350
phil harwood cvs just a follow-up to one

271
00:09:53,350 --> 00:09:51,839
of mark's questions um is the

272
00:09:55,509 --> 00:09:53,360
is the thermal protection system both

273
00:09:57,190 --> 00:09:55,519
tps and the rcc are they cleared for

274
00:09:59,269 --> 00:09:57,200
entry as of today

275
00:10:01,750 --> 00:09:59,279
the uh decision that we got from the

276
00:10:03,269 --> 00:10:01,760
mission management team after review of

277
00:10:05,750 --> 00:10:03,279
the

278
00:10:07,910 --> 00:10:05,760
reduced inspection imagery that we got

279
00:10:08,949 --> 00:10:07,920
from our second day of the mission and

280
00:10:10,710 --> 00:10:08,959
the uh

281
00:10:12,630 --> 00:10:10,720
rendezvous pitch maneuver imagery as

282
00:10:13,910 --> 00:10:12,640
well as the bonus imagery that we got

283
00:10:15,829 --> 00:10:13,920
from the international space station

284
00:10:16,630 --> 00:10:15,839
whether it was a crew member on the uh

285
00:10:18,470 --> 00:10:16,640
the

286
00:10:20,069 --> 00:10:18,480
station's robotic arm

287
00:10:23,030 --> 00:10:20,079
during the spacewalk or from the

288
00:10:24,870 --> 00:10:23,040

external cameras have cleared the

289
00:10:27,430 --> 00:10:24,880
the vehicle for entry

290
00:10:29,110 --> 00:10:27,440
from an accident debris standpoint

291
00:10:30,550 --> 00:10:29,120
um well i guess that's my question i

292
00:10:32,230 --> 00:10:30,560
don't understand why they're still

293
00:10:34,069 --> 00:10:32,240
looking at doing a docked inspection i

294
00:10:35,990 --> 00:10:34,079
mean if it's cleared for entry

295
00:10:37,509 --> 00:10:36,000
what is the why would you need to do a

296
00:10:38,949 --> 00:10:37,519
dock inspection i just don't understand

297
00:10:39,670 --> 00:10:38,959
that thanks

298
00:10:49,030 --> 00:10:39,680
the

299
00:10:51,430 --> 00:10:49,040
sub-optimal

300
00:10:54,069 --> 00:10:51,440
when you factor into the fact the

301
00:10:56,870 --> 00:10:54,079
the line of sight relative to the camera

302
00:10:58,870 --> 00:10:56,880
that in the on the fixed boom that was

303
00:11:01,269 --> 00:10:58,880
assessing the heat shield

304
00:11:04,310 --> 00:11:01,279
could not pan until so we didn't get as

305
00:11:06,710 --> 00:11:04,320
close a survey as we would normally uh

306
00:11:08,870 --> 00:11:06,720
hope for and then

307
00:11:11,190 --> 00:11:08,880
some of the areas that we didn't see

308
00:11:13,110 --> 00:11:11,200
using the the boom sensor

309
00:11:14,949 --> 00:11:13,120
using the sensor pack 2 in the digital

310
00:11:16,710 --> 00:11:14,959
camera on board

311
00:11:17,829 --> 00:11:16,720
didn't have direct line of sight so we

312
00:11:20,550 --> 00:11:17,839
had to use

313
00:11:23,990 --> 00:11:20,560

alternative assets space station assets

314
00:11:25,509 --> 00:11:24,000
rendezvous pitch maneuver or eva

315
00:11:27,430 --> 00:11:25,519
photos from our

316
00:11:29,829 --> 00:11:27,440
from previous spacewalks and those are

317
00:11:32,389 --> 00:11:29,839
taken from a further distance using a

318
00:11:35,269 --> 00:11:32,399
different camera type and again it was

319
00:11:38,310 --> 00:11:35,279
just line of sight lighting and there's

320
00:11:39,430 --> 00:11:38,320
some small quantifiable risk that comes

321
00:11:41,509 --> 00:11:39,440
with

322
00:11:43,350 --> 00:11:41,519
not having a perfect

323
00:11:45,750 --> 00:11:43,360
perpendicular line of sight with perfect

324
00:11:47,509 --> 00:11:45,760
lighting that the team is off assessing

325
00:11:49,990 --> 00:11:47,519
and whether or not

326
00:11:52,389 --> 00:11:50,000
there's some residual risk associated

327
00:11:54,069 --> 00:11:52,399
with that relative to

328
00:11:56,550 --> 00:11:54,079
accent debris

329
00:11:59,190 --> 00:11:56,560
the team is comfortable with what we've

330
00:12:01,670 --> 00:11:59,200
seen and there's no reason to suspect a

331
00:12:04,150 --> 00:12:01,680
problem with the the heat shield onboard

332
00:12:06,389 --> 00:12:04,160
atlantis from the uh launch environment

333
00:12:08,790 --> 00:12:06,399
and they're just talking about what

334
00:12:10,550 --> 00:12:08,800
residual risk remains because of the way

335
00:12:14,069 --> 00:12:10,560
that we had to inspect the vehicle

336
00:12:18,790 --> 00:12:16,790
hi robert perelman with collectspace.com

337
00:12:20,870 --> 00:12:18,800
today's execute package makes mention of

338
00:12:23,110 --> 00:12:20,880

a spacesuit swap for

339
00:12:26,150 --> 00:12:23,120
garrett riesman or at least particularly

340
00:12:28,389 --> 00:12:26,160
his uh using his backup gloves for eva3

341
00:12:30,310 --> 00:12:28,399
um were his gloves damaged during the

342
00:12:32,230 --> 00:12:30,320
previous cva or what was the reason for

343
00:12:35,990 --> 00:12:32,240
the swap

344
00:12:38,230 --> 00:12:36,000
there was a a fit problem with garrett's

345
00:12:39,670 --> 00:12:38,240
previous gloves and it just had to do

346
00:12:41,670 --> 00:12:39,680
with uh

347
00:12:44,389 --> 00:12:41,680
where the glove was

348
00:12:46,790 --> 00:12:44,399
pressing against his hand and just over

349
00:12:48,629 --> 00:12:46,800
you know the course of the the seven ish

350
00:12:51,350 --> 00:12:48,639
hours that he was in the suit it just

351
00:12:54,150 --> 00:12:51,360
got to be uncomfortable and

352
00:12:56,389 --> 00:12:54,160
he just opted to swap over to his uh

353
00:12:59,269 --> 00:12:56,399
backup gloves in in the hope that they

354
00:13:02,310 --> 00:13:00,629
okay that's all the questions here we'll

355
00:13:06,150 --> 00:13:02,320
go to the reporters on the line we have

356
00:13:08,550 --> 00:13:06,160
two uh first clara moskowitz please

357
00:13:10,230 --> 00:13:08,560
yeah hi uh before the launch we heard

358
00:13:12,069 --> 00:13:10,240
about a number of science experiments

359
00:13:13,829 --> 00:13:12,079
that were being packed aboard atlantis

360
00:13:16,069 --> 00:13:13,839
and i was just hoping to get an update

361
00:13:17,590 --> 00:13:16,079
on how those were going and also i think

362
00:13:19,269 --> 00:13:17,600
we heard that it was possible there

363
00:13:21,030 --> 00:13:19,279

might have been a change to which

364
00:13:23,750 --> 00:13:21,040
experiments were being brought back down

365
00:13:25,829 --> 00:13:23,760
to earth and when

366
00:13:27,910 --> 00:13:25,839
the uh the experiments are obviously

367
00:13:30,310 --> 00:13:27,920
ongoing on board the international space

368
00:13:34,389 --> 00:13:30,320
station we transferred the vast majority

369
00:13:36,710 --> 00:13:34,399
of them from atlantis over to iss and

370
00:13:38,949 --> 00:13:36,720
they're in the incubators and other

371
00:13:40,790 --> 00:13:38,959
other laboratory assets onboard the

372
00:13:43,430 --> 00:13:40,800
space station there's a japanese

373
00:13:46,230 --> 00:13:43,440
experiment a fish scale experiment

374
00:13:48,870 --> 00:13:46,240
there's a vaccine experiment and a

375
00:13:51,269 --> 00:13:48,880
number of other what we call sortie

376
00:13:52,710 --> 00:13:51,279
payloads which fly up and back on the

377
00:13:56,949 --> 00:13:52,720
same

378
00:14:00,389 --> 00:13:56,959
duration experiments and

379
00:14:02,550 --> 00:14:00,399
they're all proceeding just fine and

380
00:14:05,110 --> 00:14:02,560
we expect to complete the vast majority

381
00:14:07,430 --> 00:14:05,120
of those shortly before undocking and

382
00:14:08,870 --> 00:14:07,440
then they'll secure the experiment to

383
00:14:11,269 --> 00:14:08,880
basically stop

384
00:14:14,230 --> 00:14:11,279
uh and suspend whatever science is going

385
00:14:16,470 --> 00:14:14,240
on uh either through cold stowage or

386
00:14:17,670 --> 00:14:16,480
through some chemical process and then

387
00:14:19,509 --> 00:14:17,680
once they get on the ground they'll

388
00:14:20,550 --> 00:14:19,519

compare those with experiments on the

389
00:14:22,470 --> 00:14:20,560
ground

390
00:14:24,230 --> 00:14:22,480
you'll have to we'll have to wait until

391
00:14:26,389 --> 00:14:24,240
after the flight to find out the final

392
00:14:28,069 --> 00:14:26,399
results of those from the payload

393
00:14:29,590 --> 00:14:28,079
investigators

394
00:14:32,870 --> 00:14:29,600
to this point everything is has

395
00:14:33,829 --> 00:14:32,880
proceeded fine uh the discussion about

396
00:14:35,829 --> 00:14:33,839
leaving

397
00:14:37,430 --> 00:14:35,839
science on board the international space

398
00:14:40,150 --> 00:14:37,440
station was a

399
00:14:41,829 --> 00:14:40,160
discussion that pertained to what items

400
00:14:44,710 --> 00:14:41,839
do we want to return

401
00:14:47,269 --> 00:14:44,720
relative to the minimum or the limited

402
00:14:49,509 --> 00:14:47,279
stowage that we have on board atlantis

403
00:14:52,230 --> 00:14:49,519
in the mid deck cargo area that we that

404
00:14:53,990 --> 00:14:52,240
we have available to us and there's only

405
00:14:56,069 --> 00:14:54,000
so much volume and weight that you can

406
00:14:57,750 --> 00:14:56,079
return and there was some discussion

407
00:15:00,870 --> 00:14:57,760
about whether it was appropriate to

408
00:15:02,230 --> 00:15:00,880
return the regenerative life support

409
00:15:04,629 --> 00:15:02,240
equipment

410
00:15:08,310 --> 00:15:04,639
specifically the urine processing uh

411
00:15:10,069 --> 00:15:08,320
filters and other equipment used to

412
00:15:13,509 --> 00:15:10,079
process urine onboard the international

413
00:15:15,509 --> 00:15:13,519

space station to make water out of that

414
00:15:16,710 --> 00:15:15,519
and again it was just a trade-off

415
00:15:18,150 --> 00:15:16,720
discussion

416
00:15:19,670 --> 00:15:18,160
we are planning to return all the

417
00:15:22,069 --> 00:15:19,680
science that we had launched with on

418
00:15:24,310 --> 00:15:22,079
this flight and that was that discussion

419
00:15:25,430 --> 00:15:24,320
has been had and right now there are no

420
00:15:27,670 --> 00:15:25,440
changes to what we had planned

421
00:15:29,990 --> 00:15:27,680
pre-flight

422
00:15:33,509 --> 00:15:30,000
okay thanks that's it for me okay and

423
00:15:38,710 --> 00:15:35,910
uh thanks todd alberson of florida today

424
00:15:40,710 --> 00:15:38,720
i have a couple if i could the first one

425
00:15:43,590 --> 00:15:40,720
i was wondering um

426
00:15:46,310 --> 00:15:43,600
how many areas of the

427
00:15:48,150 --> 00:15:46,320
thermal thermal protection system

428
00:15:50,310 --> 00:15:48,160
have not yet been

429
00:15:52,310 --> 00:15:50,320
imaged i remember on flight day two i

430
00:15:55,430 --> 00:15:52,320
don't think they were able to get the

431
00:15:57,749 --> 00:15:55,440
crew cabin and parts of the left wing

432
00:16:01,590 --> 00:15:57,759
and i was wondering what areas or how

433
00:16:04,629 --> 00:16:01,600
many areas still uh require imagery

434
00:16:07,829 --> 00:16:04,639
we've gotten imagery of all of the areas

435
00:16:09,590 --> 00:16:07,839
on atlantis the uh

436
00:16:11,590 --> 00:16:09,600
discussed earlier some of them didn't

437
00:16:14,710 --> 00:16:11,600
have the best lighting we can actually

438
00:16:17,829 --> 00:16:14,720

see the the tile or see the rcc

439
00:16:19,430 --> 00:16:17,839
uh it's just it's not the exact

440
00:16:21,829 --> 00:16:19,440
lighting or conditions that we would

441
00:16:24,069 --> 00:16:21,839
like to see

442
00:16:25,990 --> 00:16:24,079
our second day of the mission we did not

443
00:16:29,509 --> 00:16:26,000
have imagery of the

444
00:16:31,189 --> 00:16:29,519
the top side of the reinforced carbon uh

445
00:16:32,790 --> 00:16:31,199
that sits underneath the payload bay

446
00:16:35,430 --> 00:16:32,800
door area on the

447
00:16:37,590 --> 00:16:35,440
on the starboard side the area that's

448
00:16:39,030 --> 00:16:37,600
along the uh

449
00:16:40,550 --> 00:16:39,040
what they call the chine which is where

450
00:16:42,629 --> 00:16:40,560
the wing merges out of the body of

451
00:16:44,870 --> 00:16:42,639
atlantis and before it becomes the

452
00:16:46,550 --> 00:16:44,880
reinforced carbon and then the size of

453
00:16:48,310 --> 00:16:46,560
the crew cabin and then the top of the

454
00:16:49,910 --> 00:16:48,320
port wing during the rendezvous pitch

455
00:16:52,629 --> 00:16:49,920
maneuver they managed to get the vast

456
00:16:54,710 --> 00:16:52,639
majority of that and then following that

457
00:16:56,310 --> 00:16:54,720
we used some external cameras on board

458
00:16:59,749 --> 00:16:56,320
the international space station as well

459
00:17:01,430 --> 00:16:59,759
as some photos from the first spacewalk

460
00:17:02,949 --> 00:17:01,440
when garrett was riding the station's

461
00:17:05,510 --> 00:17:02,959
robotic arm

462
00:17:07,270 --> 00:17:05,520
and the command and control mdm

463
00:17:09,429 --> 00:17:07,280

basically halted the robotic arm

464
00:17:13,270 --> 00:17:09,439
movement for some period of time when it

465
00:17:15,189 --> 00:17:13,280
when it had a a computer crash and

466
00:17:17,029 --> 00:17:15,199
he just sat up there and took some great

467
00:17:19,270 --> 00:17:17,039
photos of the top side of the reinforced

468
00:17:21,990 --> 00:17:19,280
carbon onboard atlantis and we got those

469
00:17:23,270 --> 00:17:22,000
bonus images to the ground and the team

470
00:17:26,549 --> 00:17:23,280
was able to see everything that they

471
00:17:31,350 --> 00:17:28,950
thanks very much and i also was

472
00:17:33,750 --> 00:17:31,360
wondering if you've had any

473
00:17:35,909 --> 00:17:33,760
significant indications from

474
00:17:38,070 --> 00:17:35,919
the wing leading edge

475
00:17:40,070 --> 00:17:38,080
sensors

476
00:17:41,590 --> 00:17:40,080
right now there aren't any indications

477
00:17:43,270 --> 00:17:41,600
from the wing leading edge sensors that

478
00:17:45,590 --> 00:17:43,280
would cause us

479
00:17:46,950 --> 00:17:45,600
concern relative to orbital debris or

480
00:17:49,110 --> 00:17:46,960
acid debris

481
00:17:51,669 --> 00:17:49,120
there were some signatures from the

482
00:17:52,950 --> 00:17:51,679
launch environment that we saw that

483
00:17:54,470 --> 00:17:52,960
caused us to

484
00:17:56,950 --> 00:17:54,480
provide

485
00:17:58,789 --> 00:17:56,960
greater scrutiny relative to the

486
00:18:00,870 --> 00:17:58,799
inspection imagery that we got on our

487
00:18:03,430 --> 00:18:00,880
second day of the mission and the team

488
00:18:05,510 --> 00:18:03,440

was able to clear all those indications

489
00:18:07,990 --> 00:18:05,520
and basically verified that it was

490
00:18:10,870 --> 00:18:08,000
either just ascent vibration or the

491
00:18:13,110 --> 00:18:10,880
paddle the panels themselves

492
00:18:14,470 --> 00:18:13,120
just moving together slightly causing a

493
00:18:16,549 --> 00:18:14,480
signature that the wing leading edge

494
00:18:18,070 --> 00:18:16,559
sensor may measure

495
00:18:19,909 --> 00:18:18,080
that just tells you how sensitive that

496
00:18:22,150 --> 00:18:19,919
the sensors are in those particular

497
00:18:23,669 --> 00:18:22,160
locations and not necessarily that

498
00:18:25,430 --> 00:18:23,679
there's a problem

499
00:18:27,830 --> 00:18:25,440
but the team did go off and make sure

500
00:18:30,150 --> 00:18:27,840
that the sensor signatures for the

501
00:18:32,070 --> 00:18:30,160
panels in question did not have damage

502
00:18:33,669 --> 00:18:32,080
and and again all those have been

503
00:18:35,669 --> 00:18:33,679
cleared

504
00:18:38,390 --> 00:18:35,679
thanks very much that's it for me

505
00:18:40,310 --> 00:18:38,400
okay are there any follow-ups here

506
00:18:41,990 --> 00:18:40,320
okay seeing none we'll go ahead and go

507
00:18:43,510 --> 00:18:42,000
back to mission control the next

508
00:18:45,270 --> 00:18:43,520
briefing would be after tomorrow's

509
00:18:47,510 --> 00:18:45,280
spacewalk and

510
00:18:49,669 --> 00:18:47,520
you can also also keep track online at