



1
00:00:05,110 --> 00:00:03,110
good morning and welcome back to the

2
00:00:07,670 --> 00:00:05,120
johnson space center for today's mission

3
00:00:10,230 --> 00:00:07,680
status briefing on atlantis flight with

4
00:00:12,310 --> 00:00:10,240
us today is the sts-132 lead space

5
00:00:13,910 --> 00:00:12,320
shuttle flight director mike sarafin who

6
00:00:14,910 --> 00:00:13,920
just completed his final shift on

7
00:00:17,430 --> 00:00:14,920
console

8
00:00:20,150 --> 00:00:17,440
mike thanks rob

9
00:00:21,670 --> 00:00:20,160
today the crew of atlantis is returning

10
00:00:23,670 --> 00:00:21,680
from the international space station on

11
00:00:26,070 --> 00:00:23,680
their 11th day of the mission

12
00:00:28,470 --> 00:00:26,080
we performed the normal inspection

13
00:00:30,550 --> 00:00:28,480

procedures to mitigate the orbital

14

00:00:31,830 --> 00:00:30,560

debris risk associated with the any

15

00:00:34,069 --> 00:00:31,840

space flight

16

00:00:36,069 --> 00:00:34,079

the crew performed the late inspection

17

00:00:37,510 --> 00:00:36,079

using the pan and tilt unit that we had

18

00:00:39,990 --> 00:00:37,520

problems with earlier than in the

19

00:00:41,750 --> 00:00:40,000

mission and we've got a brief video clip

20

00:00:44,150 --> 00:00:41,760

that i can show you the uh

21

00:00:45,190 --> 00:00:44,160

of the inspection in progress earlier

22

00:00:47,190 --> 00:00:45,200

today

23

00:00:49,670 --> 00:00:47,200

if we could roll the video you can see

24

00:00:51,990 --> 00:00:49,680

some of the reinforced carbon carbon

25

00:00:54,630 --> 00:00:52,000

being viewed from the laser dynamic

26

00:00:56,389 --> 00:00:54,640

ranging imager the ldri sensor

27

00:00:58,630 --> 00:00:56,399

that sat on the pan tilt unit that we

28

00:00:59,590 --> 00:00:58,640

had problem with a problem with early in

29

00:01:00,790 --> 00:00:59,600

the mission

30

00:01:03,029 --> 00:01:00,800

it worked great throughout the

31

00:01:04,869 --> 00:01:03,039

inspection a little while later on we

32

00:01:06,789 --> 00:01:04,879

flew the arm over from the starboard

33

00:01:08,469 --> 00:01:06,799

wing over the crew cabin and here you

34

00:01:10,070 --> 00:01:08,479

can see it flying over the forward

35

00:01:11,910 --> 00:01:10,080

windows and the nose and the earth in

36

00:01:13,830 --> 00:01:11,920

the background

37

00:01:16,149 --> 00:01:13,840

and the nose cap coming into view as

38

00:01:19,270 --> 00:01:16,159

part of the nose cap inspection it was a

39

00:01:21,350 --> 00:01:19,280

great survey today the crew

40

00:01:23,030 --> 00:01:21,360

exceeded the normal

41

00:01:25,350 --> 00:01:23,040

timeline here they were a couple of

42

00:01:26,630 --> 00:01:25,360

hours ahead as they proceeded through

43

00:01:28,149 --> 00:01:26,640

the inspection

44

00:01:29,910 --> 00:01:28,159

uh the

45

00:01:32,469 --> 00:01:29,920

crew finished roughly two and a half

46

00:01:34,630 --> 00:01:32,479

hours early with the inspection all of

47

00:01:36,469 --> 00:01:34,640

the imagery data is either on the ground

48

00:01:38,310 --> 00:01:36,479

or in the process of being sent to the

49

00:01:40,390 --> 00:01:38,320

ground there were a few

50

00:01:42,630 --> 00:01:40,400

periods that we missed just due to gaps

51
00:01:44,710 --> 00:01:42,640
in satellite coverage uh roughly 30

52
00:01:46,789 --> 00:01:44,720
minutes in time that crew needs to play

53
00:01:48,069 --> 00:01:46,799
back from a videotape to the ground and

54
00:01:50,550 --> 00:01:48,079
once we get all that imagery on the

55
00:01:52,870 --> 00:01:50,560
ground the analyst will review that and

56
00:01:55,749 --> 00:01:52,880
over the course of the next day

57
00:01:57,030 --> 00:01:55,759
provide a thumbs up on the heat shield

58
00:01:59,190 --> 00:01:57,040
of atlantis

59
00:02:01,350 --> 00:01:59,200
we expect an answer by the cruise midday

60
00:02:03,830 --> 00:02:01,360
meal tomorrow or

61
00:02:05,109 --> 00:02:03,840
early morning or mid morning

62
00:02:08,790 --> 00:02:05,119
houston time

63
00:02:10,630 --> 00:02:08,800

and once we get that answer the final uh

64

00:02:13,430 --> 00:02:10,640

clearance for re-entry will be given

65

00:02:14,949 --> 00:02:13,440

relative to atlantis heat shield at this

66

00:02:17,190 --> 00:02:14,959

point in the mission all of the robotic

67

00:02:19,510 --> 00:02:17,200

activities are complete the orbiter boom

68

00:02:22,470 --> 00:02:19,520

sensor system and the shuttle's robotic

69

00:02:26,550 --> 00:02:22,480

arm are put away in their their landing

70

00:02:28,790 --> 00:02:26,560

configuration and the uh checkouts for

71

00:02:30,869 --> 00:02:28,800

landing will proceed tomorrow under the

72

00:02:33,910 --> 00:02:30,879

uh the guidance of entry flight director

73

00:02:35,509 --> 00:02:33,920

tony cicacci uh tomorrow the crew will

74

00:02:37,430 --> 00:02:35,519

power up one of the auxiliary power

75

00:02:39,430 --> 00:02:37,440

units that provides hydraulic power to

76

00:02:40,949 --> 00:02:39,440

the aero surfaces on atlantis and

77

00:02:43,509 --> 00:02:40,959

they'll check those out along with some

78

00:02:45,670 --> 00:02:43,519

navigational aids that are used to find

79

00:02:48,070 --> 00:02:45,680

the landing site

80

00:02:50,309 --> 00:02:48,080

once those are complete the crew will

81

00:02:53,110 --> 00:02:50,319

proceed into some cabin stow activities

82

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

and atlantis will be ready to come home

83

00:02:57,589 --> 00:02:54,959

uh the crew is doing exceedingly well

84

00:02:59,830 --> 00:02:57,599

and we look forward if all goes well to

85

00:03:02,309 --> 00:02:59,840

uh the return of atlantis back to the

86

00:03:05,350 --> 00:03:02,319

kennedy space center at around 7 48

87

00:03:07,030 --> 00:03:05,360

central time on their 186th orbit and

88

00:03:08,229 --> 00:03:07,040

first landing opportunity to the kennedy

89

00:03:09,670 --> 00:03:08,239

space center

90

00:03:11,830 --> 00:03:09,680

the crew on board the international

91

00:03:13,830 --> 00:03:11,840

space station following the busy dock

92

00:03:14,869 --> 00:03:13,840

mission with the shuttle atlantis is

93

00:03:17,190 --> 00:03:14,879

resting

94

00:03:19,670 --> 00:03:17,200

later this week they'll pick up with the

95

00:03:22,070 --> 00:03:19,680

preparation activities for

96

00:03:24,789 --> 00:03:22,080

return of the half of the crew on board

97

00:03:27,430 --> 00:03:24,799

the 21 soyuz and

98

00:03:30,149 --> 00:03:27,440

those activities will proceed and

99

00:03:32,630 --> 00:03:30,159

set us up for a landing of the 21 soyuz

100

00:03:33,750 --> 00:03:32,640

crew on june the first

101

00:03:36,149 --> 00:03:33,760

it

102

00:03:38,630 --> 00:03:36,159

shortly before landing we'll achieve a

103

00:03:41,910 --> 00:03:38,640

milestone with atlantis and she will

104

00:03:44,630 --> 00:03:41,920

cross through her 120 millionth mile

105

00:03:47,830 --> 00:03:44,640

mark on the odometer of the ship

106

00:03:49,910 --> 00:03:47,840

during her 32nd and final era plan final

107

00:03:51,670 --> 00:03:49,920

planned flight so with that i'd be happy

108

00:03:53,670 --> 00:03:51,680

to take any questions

109

00:03:55,350 --> 00:03:53,680

okay we have reporters here in houston

110

00:03:58,149 --> 00:03:55,360

also on the phone bridge let's start in

111

00:04:01,190 --> 00:03:58,159

the back with mark and we'll work around

112

00:04:03,350 --> 00:04:01,200

uh thank you mark caro for aviation week

113

00:04:05,910 --> 00:04:03,360

can you give us a kind of a status on

114

00:04:08,949 --> 00:04:05,920

the consumables that atlantis has now in

115

00:04:11,990 --> 00:04:08,959

terms of and how that translates into an

116

00:04:14,070 --> 00:04:12,000

extra day or more on orbit

117

00:04:16,229 --> 00:04:14,080

from a consumable standpoint we have

118

00:04:17,430 --> 00:04:16,239

enough to achieve in the mission plus

119

00:04:18,629 --> 00:04:17,440

three days

120

00:04:20,789 --> 00:04:18,639

and uh

121

00:04:21,990 --> 00:04:20,799

that'll set us up for uh multiple

122

00:04:24,469 --> 00:04:22,000

attempts

123

00:04:27,670 --> 00:04:24,479

uh into mission and the mission plus one

124

00:04:28,950 --> 00:04:27,680

plus two um as required so we've got a

125

00:04:31,189 --> 00:04:28,960

lot of capability on this flight a

126
00:04:32,469 --> 00:04:31,199
little bit more than we normally have uh

127
00:04:34,550 --> 00:04:32,479
some of the uh

128
00:04:36,070 --> 00:04:34,560
the drivers there where the fact that we

129
00:04:38,469 --> 00:04:36,080
launched on time

130
00:04:41,189 --> 00:04:38,479
and all of the margin that we normally

131
00:04:43,350 --> 00:04:41,199
reserve for uh pad hold without

132
00:04:45,909 --> 00:04:43,360
requiring a top off of the

133
00:04:47,430 --> 00:04:45,919
the cryo tanks that power the fuel cells

134
00:04:49,830 --> 00:04:47,440
uh we took to orbit with this because we

135
00:04:51,110 --> 00:04:49,840
launched on the very first attempt so

136
00:04:53,670 --> 00:04:51,120
the cryo

137
00:04:55,670 --> 00:04:53,680
was our driver and we had more than

138
00:04:58,550 --> 00:04:55,680

enough to provide an extra day so we've

139

00:05:00,230 --> 00:04:58,560

got an emission plus three capability

140

00:05:01,749 --> 00:05:00,240

and just to follow i just want to make

141

00:05:03,670 --> 00:05:01,759

sure i understood the the sort of

142

00:05:06,150 --> 00:05:03,680

limiting factor is

143

00:05:08,950 --> 00:05:06,160

is which of those oxygen hydrogen or

144

00:05:12,870 --> 00:05:10,550

uh i don't know off the top my head

145

00:05:15,830 --> 00:05:12,880

which is the limiting consumable um it's

146

00:05:17,830 --> 00:05:15,840

typically water when you're talking uh a

147

00:05:20,230 --> 00:05:17,840

mission with that type of extension

148

00:05:22,070 --> 00:05:20,240

capability and uh tony soccer will have

149

00:05:25,270 --> 00:05:22,080

some details for you on that uh when he

150

00:05:26,870 --> 00:05:25,280

does his briefing tomorrow

151

00:05:28,629 --> 00:05:26,880

robert hi robert perlman with

152

00:05:31,350 --> 00:05:28,639

collectspace.com

153

00:05:32,790 --> 00:05:31,360

do you have an early weather outlook on

154

00:05:34,710 --> 00:05:32,800

returning to kennedy space center on

155

00:05:36,790 --> 00:05:34,720

wednesday thanks

156

00:05:39,990 --> 00:05:36,800

the early weather forecast at the

157

00:05:41,749 --> 00:05:40,000

kennedy space center is typical for a

158

00:05:44,310 --> 00:05:41,759

spring

159

00:05:46,390 --> 00:05:44,320

attempt to the kennedy space center

160

00:05:48,070 --> 00:05:46,400

there's a chance of low clouds and a

161

00:05:50,230 --> 00:05:48,080

chance of showers

162

00:05:53,029 --> 00:05:50,240

in the in the kennedy space center cape

163

00:05:54,790 --> 00:05:53,039

canaveral area and uh we may we may get

164

00:05:56,390 --> 00:05:54,800

lucky and land on the first attempt and

165

00:05:58,070 --> 00:05:56,400

the weather may cooperate or we may have

166

00:05:59,350 --> 00:05:58,080

to go around another day or two we'll uh

167

00:06:01,990 --> 00:05:59,360

we'll just have to see how that plays

168

00:06:03,510 --> 00:06:02,000

out i know that uh tony soccer our entry

169

00:06:05,110 --> 00:06:03,520

flight director and his team will be

170

00:06:07,430 --> 00:06:05,120

watching that closely over the next

171

00:06:09,830 --> 00:06:07,440

couple of days and we'll see how that

172

00:06:11,990 --> 00:06:09,840

just how the weather plays out

173

00:06:14,390 --> 00:06:12,000

and uh just a quick follow-up on the on

174

00:06:16,230 --> 00:06:14,400

the milestone the 120 millionth

175

00:06:17,749 --> 00:06:16,240

mile mark do you know what orbit that

176
00:06:18,950 --> 00:06:17,759
occurs or did i miss you saying that i'm

177
00:06:22,070 --> 00:06:18,960
sorry

178
00:06:23,830 --> 00:06:22,080
i do not have the exact orbit that that

179
00:06:25,189 --> 00:06:23,840
will occur on but it will be fairly late

180
00:06:28,150 --> 00:06:25,199
in the mission and we could provide that

181
00:06:29,990 --> 00:06:28,160
to you later if you like

182
00:06:32,629 --> 00:06:30,000
peter ray would suddenly a family in

183
00:06:34,150 --> 00:06:32,639
australia um for those not familiar with

184
00:06:35,830 --> 00:06:34,160
your um

185
00:06:37,430 --> 00:06:35,840
your heat shield scanning system could

186
00:06:39,270 --> 00:06:37,440
you just briefly explain the flickering

187
00:06:40,550 --> 00:06:39,280
that we see on the on the video that is

188
00:06:42,710 --> 00:06:40,560

downlinked and

189

00:06:43,749 --> 00:06:42,720

and how it works

190

00:06:46,230 --> 00:06:43,759

the

191

00:06:48,550 --> 00:06:46,240

laser dynamic range imager uh has a

192

00:06:49,670 --> 00:06:48,560

couple of different modes it has a

193

00:06:51,430 --> 00:06:49,680

two-dimensional mode and a

194

00:06:54,629 --> 00:06:51,440

three-dimensional mode

195

00:06:57,189 --> 00:06:54,639

where it's it's able to measure uh

196

00:06:59,589 --> 00:06:57,199

just various

197

00:07:01,029 --> 00:06:59,599

contours of the reinforced carbon and

198

00:07:03,189 --> 00:07:01,039

other surfaces

199

00:07:04,870 --> 00:07:03,199

and the two-dimensional mode is a

200

00:07:07,350 --> 00:07:04,880

non-flickering mode and a

201
00:07:09,670 --> 00:07:07,360
three-dimensional uh mode has the

202
00:07:12,469 --> 00:07:09,680
flickering light and allows us to see

203
00:07:14,550 --> 00:07:12,479
depth of field as opposed to just the uh

204
00:07:17,110 --> 00:07:14,560
the height and width of a of a

205
00:07:21,830 --> 00:07:17,120
particular site and uh

206
00:07:24,710 --> 00:07:21,840
we normally use the ldri in a 3d mode

207
00:07:26,150 --> 00:07:24,720
had we not had the cable snag earlier on

208
00:07:28,710 --> 00:07:26,160
in the flight and been able to pan and

209
00:07:30,629 --> 00:07:28,720
tilt the pan tilt unit fully we would

210
00:07:32,710 --> 00:07:30,639
have used it in that mode but

211
00:07:34,550 --> 00:07:32,720
we uh fortunately resolved that problem

212
00:07:36,870 --> 00:07:34,560
and and were able to use it here for our

213
00:07:39,430 --> 00:07:36,880

late inspection

214

00:07:41,990 --> 00:07:39,440

gina uh gina cincer abc news would you

215

00:07:44,390 --> 00:07:42,000

characterize for me this last inspection

216

00:07:46,309 --> 00:07:44,400

the amount of data that the that your

217

00:07:48,550 --> 00:07:46,319

team is looking at and

218

00:07:50,550 --> 00:07:48,560

just is this a round-the-clock effort to

219

00:07:52,230 --> 00:07:50,560

clear the orbiter how many people are

220

00:07:54,790 --> 00:07:52,240

involved would you just give me a little

221

00:07:57,350 --> 00:07:54,800

bit of a feel for that please

222

00:08:01,510 --> 00:07:57,360

yeah there's a very talented team of

223

00:08:04,309 --> 00:08:01,520

imagery analysts and engineers that are

224

00:08:05,990 --> 00:08:04,319

the basically the folks that are trained

225

00:08:09,189 --> 00:08:06,000

and have trained eyeballs on how to

226

00:08:11,830 --> 00:08:09,199

review all this data and also put all

227

00:08:14,390 --> 00:08:11,840

the tiles and rcc's and gap fillers and

228

00:08:16,790 --> 00:08:14,400

thermal blankets on the exterior of of

229

00:08:18,629 --> 00:08:16,800

the shuttles and the the imagery

230

00:08:19,990 --> 00:08:18,639

analysts work with the heat shield

231

00:08:21,990 --> 00:08:20,000

experts

232

00:08:23,670 --> 00:08:22,000

through a process of what they call a

233

00:08:25,350 --> 00:08:23,680

level one and a level two review a level

234

00:08:27,270 --> 00:08:25,360

one screening is basically where they

235

00:08:29,110 --> 00:08:27,280

just review the video and they find any

236

00:08:31,029 --> 00:08:29,120

areas of interest

237

00:08:32,070 --> 00:08:31,039

and that process takes a handful of

238

00:08:34,230 --> 00:08:32,080

hours

239

00:08:36,230 --> 00:08:34,240

to screen all the video and the video

240

00:08:38,550 --> 00:08:36,240

that we get down

241

00:08:40,709 --> 00:08:38,560

is roughly four and a half hours in

242

00:08:42,709 --> 00:08:40,719

total duration they'll go through that

243

00:08:45,110 --> 00:08:42,719

identify areas of interest

244

00:08:47,509 --> 00:08:45,120

as a team and then

245

00:08:49,430 --> 00:08:47,519

go back and individually review each

246

00:08:51,110 --> 00:08:49,440

area of interest and it's basically just

247

00:08:54,470 --> 00:08:51,120

saying all right i see something that

248

00:08:56,389 --> 00:08:54,480

doesn't look like unblemished rcc and it

249

00:08:59,030 --> 00:08:56,399

could be anything from

250

00:09:00,949 --> 00:08:59,040

just a stain that was on there

251
00:09:03,990 --> 00:09:00,959
pre-flight to

252
00:09:06,070 --> 00:09:04,000
previous missions um

253
00:09:09,590 --> 00:09:06,080
just heating effects on the leading edge

254
00:09:11,030 --> 00:09:09,600
of the rcc to a potential damage zone

255
00:09:12,870 --> 00:09:11,040
and they'll go through that and then

256
00:09:15,190 --> 00:09:12,880
proceed with a level 2

257
00:09:17,190 --> 00:09:15,200
survey or a level 2 review and that

258
00:09:19,110 --> 00:09:17,200
takes several hours to disposition and

259
00:09:21,750 --> 00:09:19,120
depending on how many

260
00:09:23,750 --> 00:09:21,760
areas of interest are identified

261
00:09:25,990 --> 00:09:23,760
may take them a handful of hours or half

262
00:09:27,750 --> 00:09:26,000
a day to disposition all the individual

263
00:09:32,949 --> 00:09:27,760

items and then they'll narrow it down to

264

00:09:35,110 --> 00:09:32,959

a very narrow list of areas that either

265

00:09:37,910 --> 00:09:35,120

clearly require additional analysis or

266

00:09:39,030 --> 00:09:37,920

or give the team concern or

267

00:09:41,430 --> 00:09:39,040

just

268

00:09:43,030 --> 00:09:41,440

they need to to use additional imagery

269

00:09:46,310 --> 00:09:43,040

techniques to review

270

00:09:48,150 --> 00:09:46,320

and uh nine nine times out of ten just

271

00:09:49,670 --> 00:09:48,160

using a different imagery technique and

272

00:09:52,550 --> 00:09:49,680

some of the tools that are available

273

00:09:54,310 --> 00:09:52,560

that take a little bit more time to use

274

00:09:56,550 --> 00:09:54,320

the label they're able to clear all of

275

00:09:58,230 --> 00:09:56,560

those blemishes that they find are areas

276

00:10:00,230 --> 00:09:58,240

of interest that they find and then

277

00:10:02,230 --> 00:10:00,240

occasionally they find a

278

00:10:04,310 --> 00:10:02,240

damaged zone and then they'll bring that

279

00:10:06,550 --> 00:10:04,320

forward to the the mission management

280

00:10:08,949 --> 00:10:06,560

team in the orbit project office for a

281

00:10:10,949 --> 00:10:08,959

full up review and then

282

00:10:12,710 --> 00:10:10,959

either additional tools will be applied

283

00:10:16,389 --> 00:10:12,720

to clear the vehicle knowing that there

284

00:10:17,750 --> 00:10:16,399

is a damage zone or a a blanket that's

285

00:10:19,750 --> 00:10:17,760

pulled up or a gap filler that's

286

00:10:21,910 --> 00:10:19,760

sticking out or they'll

287

00:10:23,590 --> 00:10:21,920

they'll require additional work

288

00:10:25,509 --> 00:10:23,600

some past flights if you're if you

289

00:10:26,710 --> 00:10:25,519

recall we had thermal blankets that

290

00:10:29,350 --> 00:10:26,720

needed to be

291

00:10:31,590 --> 00:10:29,360

tamped down or repaired or just put back

292

00:10:33,990 --> 00:10:31,600

into place or gap filters that were

293

00:10:36,150 --> 00:10:34,000

pulled out and those those are kind of

294

00:10:37,670 --> 00:10:36,160

the last steps and if we if we cannot

295

00:10:40,310 --> 00:10:37,680

clear the vehicle through just the

296

00:10:42,069 --> 00:10:40,320

imagery analysis and then burning down

297

00:10:47,110 --> 00:10:42,079

all the areas of interest

298

00:10:50,630 --> 00:10:49,110

anything else gina for now

299

00:10:52,630 --> 00:10:50,640

okay and before we go to the phone

300

00:10:53,990 --> 00:10:52,640

bridge mark mission control and answer

301
00:10:55,590 --> 00:10:54,000
to your question

302
00:10:57,670 --> 00:10:55,600
says the limiting consumables are

303
00:11:00,150 --> 00:10:57,680
lithium hydroxide canisters used to

304
00:11:02,389 --> 00:11:00,160
scrub the cabin atmosphere and cryogenic

305
00:11:05,110 --> 00:11:02,399
oxygen

306
00:11:08,949 --> 00:11:05,120
okay uh oh do you have a follow-up mark

307
00:11:10,150 --> 00:11:08,959
um yes i'd like to um ask if there was

308
00:11:11,829 --> 00:11:10,160
anything

309
00:11:14,630 --> 00:11:11,839
that you were tracking

310
00:11:16,949 --> 00:11:14,640
or you saw today in terms of

311
00:11:19,110 --> 00:11:16,959
apparent damage or an area of interest

312
00:11:21,190 --> 00:11:19,120
that may have come up even in the last

313
00:11:23,590 --> 00:11:21,200

few days as far as the heat

314

00:11:25,430 --> 00:11:23,600

shielding is concerned

315

00:11:27,430 --> 00:11:25,440

yeah regarding the heat shield on

316

00:11:30,150 --> 00:11:27,440

atlantis we're not tracking any problem

317

00:11:32,150 --> 00:11:30,160

areas or areas of concern obviously

318

00:11:33,829 --> 00:11:32,160

we've got a lot of imagery

319

00:11:35,269 --> 00:11:33,839

and data that we just gathered here in

320

00:11:37,190 --> 00:11:35,279

the last couple hours and we'll let the

321

00:11:39,430 --> 00:11:37,200

team go off and review that and give

322

00:11:40,470 --> 00:11:39,440

them a final say on whether or not there

323

00:11:43,910 --> 00:11:40,480

are

324

00:11:45,509 --> 00:11:43,920

inspect or

325

00:11:46,870 --> 00:11:45,519

additional work that we need to pursue

326

00:11:47,670 --> 00:11:46,880

before we're ready to bring atlantis

327

00:11:49,750 --> 00:11:47,680

home

328

00:11:51,590 --> 00:11:49,760

we'll just let that process play out and

329

00:11:53,910 --> 00:11:51,600

right now there aren't any obvious areas

330

00:11:55,829 --> 00:11:53,920

of concern

331

00:11:57,910 --> 00:11:55,839

okay on to the phone bridge first up

332

00:11:59,990 --> 00:11:57,920

marcia dunn

333

00:12:02,629 --> 00:12:00,000

yes hi um

334

00:12:04,069 --> 00:12:02,639

mike uh to echo ken ham you had some

335

00:12:05,430 --> 00:12:04,079

pretty cool words there for the crew a

336

00:12:06,949 --> 00:12:05,440

little while ago and i'm wondering it

337

00:12:09,190 --> 00:12:06,959

almost sounded like

338

00:12:11,350 --> 00:12:09,200

it's finally hitting you that this

339

00:12:13,990 --> 00:12:11,360

could well be atlantis last flight i'm

340

00:12:15,030 --> 00:12:14,000

wondering is that so and um

341

00:12:16,790 --> 00:12:15,040

could you

342

00:12:18,870 --> 00:12:16,800

maybe describe your thoughts and

343

00:12:22,790 --> 00:12:18,880

feelings as you get ready to wind up

344

00:12:24,790 --> 00:12:22,800

what could well be atlanta's last flight

345

00:12:26,949 --> 00:12:24,800

yeah that's a good question marcia um

346

00:12:28,949 --> 00:12:26,959

i've always been personally a milestone

347

00:12:31,350 --> 00:12:28,959

or a goal-driven person

348

00:12:32,550 --> 00:12:31,360

um you know when i when i was an

349

00:12:34,069 --> 00:12:32,560

engineer it was to get through

350

00:12:35,590 --> 00:12:34,079

engineering school and get my degree and

351

00:12:36,710 --> 00:12:35,600

then it was to work for nasa and then it

352

00:12:38,230 --> 00:12:36,720

was to be a

353

00:12:40,550 --> 00:12:38,240

flight controller mission control and a

354

00:12:42,790 --> 00:12:40,560

flight director and then to be a lead

355

00:12:45,110 --> 00:12:42,800

flight director and with the limited

356

00:12:48,069 --> 00:12:45,120

shuttle flights available out there it's

357

00:12:49,750 --> 00:12:48,079

it's hit me personally uh with the the

358

00:12:52,230 --> 00:12:49,760

fact that this will likely be my last

359

00:12:54,150 --> 00:12:52,240

shuttle lead um

360

00:12:56,069 --> 00:12:54,160

it is possible that we'll fly another

361

00:12:58,470 --> 00:12:56,079

flight on atlantis and we'll just have

362

00:12:59,430 --> 00:12:58,480

to see how the budget and schedule plays

363

00:13:01,670 --> 00:12:59,440

out

364

00:13:03,750 --> 00:13:01,680

given given the direction that the

365

00:13:05,670 --> 00:13:03,760

agency has and

366

00:13:08,230 --> 00:13:05,680

you know the team as a whole

367

00:13:11,030 --> 00:13:08,240

did an excellent job an outstanding job

368

00:13:12,389 --> 00:13:11,040

focusing on flying this mission planning

369

00:13:14,550 --> 00:13:12,399

it training it making sure that the

370

00:13:16,629 --> 00:13:14,560

vehicle was ready to go atlantis has

371

00:13:18,150 --> 00:13:16,639

performed virtually flawless

372

00:13:19,670 --> 00:13:18,160

throughout the

373

00:13:21,750 --> 00:13:19,680

the course of this mission the problems

374

00:13:23,990 --> 00:13:21,760

that we've had uh have been minor

375

00:13:26,710 --> 00:13:24,000

glitches uh and uh just really haven't

376

00:13:28,069 --> 00:13:26,720

given us much concern at all and uh it's

377

00:13:30,710 --> 00:13:28,079

just been a real pleasure to see all

378

00:13:32,310 --> 00:13:30,720

that play out

379

00:13:34,230 --> 00:13:32,320

and and i know you're hoping that you're

380

00:13:35,829 --> 00:13:34,240

playing to come out here for a landing

381

00:13:37,350 --> 00:13:35,839

is that have you ever done that before

382

00:13:39,030 --> 00:13:37,360

where you've actually

383

00:13:41,910 --> 00:13:39,040

come in for a shuttle landing to view

384

00:13:45,590 --> 00:13:41,920

firsthand and is it in part because this

385

00:13:47,509 --> 00:13:45,600

might be the last time atlantis lands

386

00:13:51,509 --> 00:13:47,519

uh there's a lot of reasons why i hope

387

00:13:53,430 --> 00:13:51,519

to see the sts-132 and atlanta sts-132

388

00:13:56,150 --> 00:13:53,440

crew in atlantis land

389

00:13:57,430 --> 00:13:56,160

i have had one other opportunity to go

390

00:13:59,430 --> 00:13:57,440

out to the kennedy space center and

391

00:14:01,670 --> 00:13:59,440

watch a landing and that was a previous

392

00:14:04,230 --> 00:14:01,680

flight of atlantis on sts-129 i was the

393

00:14:07,030 --> 00:14:04,240

shuttle lead for that and uh it was just

394

00:14:09,269 --> 00:14:07,040

a remarkable thing to see it was it was

395

00:14:11,189 --> 00:14:09,279

remarkable to see the ship land

396

00:14:13,509 --> 00:14:11,199

after it had been in space for uh

397

00:14:15,590 --> 00:14:13,519

roughly two weeks it was great to greet

398

00:14:17,590 --> 00:14:15,600

the crew coming off the ship and then

399

00:14:19,590 --> 00:14:17,600

just to be there in that environment to

400

00:14:23,030 --> 00:14:19,600

be on the runway with the ship on the

401
00:14:24,790 --> 00:14:23,040
runway nose gear down and it was it was

402
00:14:26,710 --> 00:14:24,800
just an incredible sight and and

403
00:14:29,030 --> 00:14:26,720
something to take in

404
00:14:31,350 --> 00:14:29,040
it it provides a great sense of

405
00:14:34,230 --> 00:14:31,360
accomplishment and closure just being

406
00:14:37,350 --> 00:14:34,240
there and being a part of that

407
00:14:38,550 --> 00:14:37,360
for sts-132 you know again we we spend

408
00:14:40,550 --> 00:14:38,560
about a year

409
00:14:42,550 --> 00:14:40,560
planning out these missions working with

410
00:14:45,590 --> 00:14:42,560
the shuttle and station program office

411
00:14:47,670 --> 00:14:45,600
working with the crew and just kind of

412
00:14:49,670 --> 00:14:47,680
knowing all the aspects and constraints

413
00:14:51,590 --> 00:14:49,680

associated with the mission identifying

414

00:14:53,430 --> 00:14:51,600

the key goals of the mission and how

415

00:14:55,350 --> 00:14:53,440

we're all going to make it happen and it

416

00:14:58,069 --> 00:14:55,360

takes a lot of time to make that happen

417

00:15:00,389 --> 00:14:58,079

and you bond with people and you get to

418

00:15:02,870 --> 00:15:00,399

experience a real good teamwork

419

00:15:04,310 --> 00:15:02,880

environment as part of that and uh just

420

00:15:05,670 --> 00:15:04,320

being there to greet the crew at the

421

00:15:08,069 --> 00:15:05,680

final end

422

00:15:09,509 --> 00:15:08,079

after landing in the mission uh provides

423

00:15:11,269 --> 00:15:09,519

a nice sense of closure and

424

00:15:12,710 --> 00:15:11,279

accomplishment and i very much look

425

00:15:15,670 --> 00:15:12,720

forward to that

426

00:15:17,990 --> 00:15:15,680

thank you and rob when you get that uh

427

00:15:20,310 --> 00:15:18,000

orbit for the 120 million mile mark i'd

428

00:15:21,509 --> 00:15:20,320

be interested in getting that too thanks

429

00:15:23,990 --> 00:15:21,519

will do

430

00:15:26,230 --> 00:15:24,000

irene klotz is up next

431

00:15:30,470 --> 00:15:26,240

thanks rob i don't have any questions

432

00:15:34,389 --> 00:15:32,550

uh thanks um i guess i don't have too

433

00:15:36,310 --> 00:15:34,399

much either but uh might just that's

434

00:15:38,389 --> 00:15:36,320

probably a real obvious one but um can

435

00:15:40,870 --> 00:15:38,399

you just explain a little further how

436

00:15:42,949 --> 00:15:40,880

uh it sounds like you have a whole extra

437

00:15:44,790 --> 00:15:42,959

today um and this might be more the

438

00:15:46,069 --> 00:15:44,800

entry director but um

439

00:15:48,550 --> 00:15:46,079

you have a

440

00:15:49,509 --> 00:15:48,560

full day more than you planned for going

441

00:15:53,910 --> 00:15:49,519

in

442

00:15:55,509 --> 00:15:53,920

a little bit about the added flexibility

443

00:15:57,110 --> 00:15:55,519

that gives you for

444

00:16:00,389 --> 00:15:57,120

how you would approach landing on on the

445

00:16:03,990 --> 00:16:02,470

yeah having uh additional consumables

446

00:16:06,790 --> 00:16:04,000

and margin does provide additional

447

00:16:09,269 --> 00:16:06,800

flexibility the exact landing strategy

448

00:16:10,870 --> 00:16:09,279

is being worked out by our entry flight

449

00:16:12,870 --> 00:16:10,880

director tony soccer and the mission

450

00:16:13,749 --> 00:16:12,880

management team here in a couple of

451
00:16:15,749 --> 00:16:13,759
hours

452
00:16:18,629 --> 00:16:15,759
and you'll hear those details from tony

453
00:16:22,550 --> 00:16:20,069
thanks a lot

454
00:16:24,310 --> 00:16:22,560
okay tarek malik is next

455
00:16:27,030 --> 00:16:24,320
thank you very much uh this is uh tarik

456
00:16:28,550 --> 00:16:27,040
malek from space.com and uh i used to

457
00:16:30,550 --> 00:16:28,560
follow up on marcia's question mike you

458
00:16:32,629 --> 00:16:30,560
mentioned that you were very focused on

459
00:16:33,990 --> 00:16:32,639
milestones and uh with the undocking

460
00:16:36,550 --> 00:16:34,000
yesterday that would be i would assume

461
00:16:39,189 --> 00:16:36,560
the the last chance to see atlantis

462
00:16:41,829 --> 00:16:39,199
outside the station

463
00:16:43,590 --> 00:16:41,839

i guess on as it's scheduled now

464

00:16:45,030 --> 00:16:43,600

so i'm just wondering what uh what it

465

00:16:47,269 --> 00:16:45,040

was like in the mission control room to

466

00:16:49,030 --> 00:16:47,279

see atlantis kind of back away

467

00:16:51,350 --> 00:16:49,040

at that time and then if you have

468

00:16:53,430 --> 00:16:51,360

anything special planned um

469

00:16:54,790 --> 00:16:53,440

after watching the shuttle landing in

470

00:16:57,110 --> 00:16:54,800

florida to either

471

00:17:00,069 --> 00:16:57,120

uh celebrate the the orbiter or or the

472

00:17:02,629 --> 00:17:00,079

mission team thanks

473

00:17:04,390 --> 00:17:02,639

uh seeing atlantis back away from the

474

00:17:08,230 --> 00:17:04,400

international space station

475

00:17:11,510 --> 00:17:08,240

was was just a a welcomed milestone it

476
00:17:13,429 --> 00:17:11,520
was something that provided you know a

477
00:17:15,909 --> 00:17:13,439
sense of closure to the dock mission

478
00:17:17,110 --> 00:17:15,919
that we had accomplished what we had set

479
00:17:19,350 --> 00:17:17,120
out to do

480
00:17:21,189 --> 00:17:19,360
in terms of making

481
00:17:24,390 --> 00:17:21,199
the international space station a better

482
00:17:26,710 --> 00:17:24,400
place by having been there and it it

483
00:17:27,669 --> 00:17:26,720
provided a shifting point in the in the

484
00:17:29,270 --> 00:17:27,679
mission

485
00:17:30,150 --> 00:17:29,280
to now that we've got our primary

486
00:17:31,669 --> 00:17:30,160
mission

487
00:17:33,350 --> 00:17:31,679
accomplished at the international space

488
00:17:35,750 --> 00:17:33,360

station now we can focus on getting

489

00:17:37,750 --> 00:17:35,760

atlantis and our crew home safely so uh

490

00:17:39,669 --> 00:17:37,760

it it was just a nice thing to see and

491

00:17:41,830 --> 00:17:39,679

it was it was a good place to be at that

492

00:17:43,510 --> 00:17:41,840

point in the mission and you know we had

493

00:17:45,909 --> 00:17:43,520

a few hiccups and glitches that we

494

00:17:48,310 --> 00:17:45,919

worked through to get to that point and

495

00:17:50,070 --> 00:17:48,320

you know it for the most part went off

496

00:17:51,270 --> 00:17:50,080

without a hitch

497

00:17:54,150 --> 00:17:51,280

in terms of

498

00:17:56,230 --> 00:17:54,160

uh events that are scheduled after a

499

00:17:58,830 --> 00:17:56,240

landing i just i just plan to spend some

500

00:18:01,909 --> 00:17:58,840

time with the people that we

501
00:18:03,750 --> 00:18:01,919
helped plan and prepare this mission

502
00:18:05,669 --> 00:18:03,760
with and that includes the crew of

503
00:18:07,510 --> 00:18:05,679
sts-132

504
00:18:09,110 --> 00:18:07,520
some friends out at the kennedy space

505
00:18:10,710 --> 00:18:09,120
center and then friends here at the

506
00:18:12,830 --> 00:18:10,720
johnson space center just spend time

507
00:18:14,390 --> 00:18:12,840
with them and just kind of enjoy the

508
00:18:16,230 --> 00:18:14,400
moment

509
00:18:19,270 --> 00:18:16,240
thank you

510
00:18:21,350 --> 00:18:19,280
all right bill harwood next

511
00:18:23,110 --> 00:18:21,360
oh yeah guys thanks uh mike just want to

512
00:18:24,950 --> 00:18:23,120
double check the consumables you guys

513
00:18:26,789 --> 00:18:24,960

can stay up until friday so i mean

514

00:18:28,310 --> 00:18:26,799

saturday so fridays pick them and

515

00:18:30,630 --> 00:18:28,320

saturday is your absolute last day is

516

00:18:31,909 --> 00:18:30,640

that right as it stands today

517

00:18:33,750 --> 00:18:31,919

yeah bill you're going to ask me to do

518

00:18:35,510 --> 00:18:33,760

math in public here so wednesday morning

519

00:18:38,710 --> 00:18:35,520

is end of mission

520

00:18:39,750 --> 00:18:38,720

plus one is thursday plus two is friday

521

00:18:42,789 --> 00:18:39,760

so yes

522

00:18:44,950 --> 00:18:42,799

saturday would be our systems day and uh

523

00:18:46,470 --> 00:18:44,960

friday would be our pick em day

524

00:18:48,470 --> 00:18:46,480

thanks and one more for me and it's just

525

00:18:49,909 --> 00:18:48,480

to follow up on this this i guess the

526

00:18:52,150 --> 00:18:49,919

atlantis theme

527

00:18:53,510 --> 00:18:52,160

um what do you think personally about it

528

00:18:55,510 --> 00:18:53,520

i mean what's your sense of the vehicle

529

00:18:56,950 --> 00:18:55,520

i know engineers don't anthropomorphize

530

00:18:58,390 --> 00:18:56,960

all that much but

531

00:18:59,909 --> 00:18:58,400

do you have any personal thoughts about

532

00:19:02,390 --> 00:18:59,919

seeing this thing wrap up its final

533

00:19:05,510 --> 00:19:02,400

mission thanks

534

00:19:07,350 --> 00:19:05,520

um my personal thoughts are that

535

00:19:11,669 --> 00:19:07,360

the shuttle has been a remarkable

536

00:19:12,549 --> 00:19:11,679

vehicle in that it uh has served and is

537

00:19:29,350 --> 00:19:12,559

a

538

00:19:31,350 --> 00:19:29,360

by delivering components to the

539

00:19:33,510 --> 00:19:31,360

international space station either the

540

00:19:34,390 --> 00:19:33,520

rossvet module or the columbus module or

541

00:19:36,390 --> 00:19:34,400

others

542

00:19:39,029 --> 00:19:36,400

and then also through

543

00:19:41,750 --> 00:19:39,039

various depart department of defense uh

544

00:19:43,110 --> 00:19:41,760

mission tasks that we've completed um

545

00:19:45,430 --> 00:19:43,120

atlantis

546

00:19:48,070 --> 00:19:45,440

has been a peacekeeper and uh that's

547

00:19:50,070 --> 00:19:48,080

that's been a great thing to see and to

548

00:19:52,630 --> 00:19:50,080

be a part of and uh

549

00:19:54,549 --> 00:19:52,640

that's just my thought on on atlantis

550

00:19:57,270 --> 00:19:54,559

and her history the shuttle program

551
00:19:58,950 --> 00:19:57,280
history is a little more complex uh it's

552
00:20:01,350 --> 00:19:58,960
had a lot of triumph and tragedy

553
00:20:03,350 --> 00:20:01,360
associated with it and uh we'll see how

554
00:20:04,950 --> 00:20:03,360
the history books uh leave the shuttle

555
00:20:06,630 --> 00:20:04,960
program but it's something that i'm

556
00:20:08,789 --> 00:20:06,640
proud to be a part of and i've spent the

557
00:20:11,110 --> 00:20:08,799
last 16 going on 17 years of my life

558
00:20:13,029 --> 00:20:11,120
doing

559
00:20:14,789 --> 00:20:13,039
whether whether we get additional

560
00:20:16,950 --> 00:20:14,799
flights out there or not you know

561
00:20:19,270 --> 00:20:16,960
remains to be seen but

562
00:20:23,990 --> 00:20:19,280
i'm i'm just glad to be at this point in

563
00:20:28,070 --> 00:20:25,909

okay i guess that's it on the phone

564

00:20:29,909 --> 00:20:28,080

bridge any questions back here

565

00:20:31,750 --> 00:20:29,919

if not we'll close quick programming

566

00:20:34,390 --> 00:20:31,760

note don't go far because coming up at

567

00:20:36,070 --> 00:20:34,400

11 a.m central time noon eastern time is

568

00:20:37,909 --> 00:20:36,080

our final mission management team

569

00:20:39,590 --> 00:20:37,919

briefing that'll be with leroy kane the

570

00:20:42,549 --> 00:20:39,600

deputy shuttle program manager and

571

00:20:45,669 --> 00:20:42,559

chairman of the mmt the mmt meets uh

572

00:20:47,430 --> 00:20:45,679

very shortly to discuss landing strategy

573

00:20:49,830 --> 00:20:47,440

atlantis astronauts will begin their

574

00:20:51,669 --> 00:20:49,840

sleep period this afternoon at 3 20 p.m

575

00:20:53,110 --> 00:20:51,679

central time paving the way for the

576

00:20:55,510 --> 00:20:53,120

airing of our flight day highlights

577

00:20:57,510 --> 00:20:55,520

beginning at 4 pm central time those

578

00:20:59,430 --> 00:20:57,520

highlights on nasa tv to be replayed

579

00:21:01,750 --> 00:20:59,440

every hour on the hour throughout the

580

00:21:04,789 --> 00:21:01,760

crew sleep period and wake up for the

581

00:21:07,190 --> 00:21:04,799

crew late tonight at 11 20 p.m central

582

00:21:09,270 --> 00:21:07,200

time to begin flight day 12 and all of

583

00:21:10,789 --> 00:21:09,280

the orbiter preparations for atlantis

584

00:21:13,590 --> 00:21:10,799

scheduled homecoming to the kennedy

585

00:21:15,270 --> 00:21:13,600

space center on wednesday you can follow

586

00:21:17,510 --> 00:21:15,280

all the activities of both the shuttle

587

00:21:20,710 --> 00:21:17,520

and station crews on our website at

588

00:21:23,950 --> 00:21:21,909

with that we'll go back to mission