



1
00:00:07,190 --> 00:00:04,630
good afternoon everybody and welcome to

2
00:00:09,350 --> 00:00:07,200
nasa's johnson space center for today's

3
00:00:11,110 --> 00:00:09,360
mission status briefing uh following

4
00:00:12,709 --> 00:00:11,120
along with discovery's arrival at the

5
00:00:15,990 --> 00:00:12,719
international space station as part of

6
00:00:17,830 --> 00:00:16,000
the sts-133 mission joining us is brian

7
00:00:20,870 --> 00:00:17,840
lenny he's the lead flight director for

8
00:00:22,790 --> 00:00:20,880
discovery's voyage to the iss and he'll

9
00:00:24,470 --> 00:00:22,800
talk about his shift today

10
00:00:27,029 --> 00:00:24,480
what occurred obviously and then look

11
00:00:29,589 --> 00:00:27,039
ahead at what's in store for the next

12
00:00:31,830 --> 00:00:29,599
day aboard the orbiting joint complex

13
00:00:33,990 --> 00:00:31,840

i'll turn it over to brian okay thank

14

00:00:36,069 --> 00:00:34,000

you kyle well good afternoon thank you

15

00:00:37,830 --> 00:00:36,079

for being here as kyle said it's been a

16

00:00:39,830 --> 00:00:37,840

great day in space the crew has done a

17

00:00:41,350 --> 00:00:39,840

fabulous job i'll walk through some of

18

00:00:43,830 --> 00:00:41,360

the activities that went on today as

19

00:00:45,750 --> 00:00:43,840

well as talk about how systems are doing

20

00:00:47,910 --> 00:00:45,760

first off the crew got up about

21

00:00:49,270 --> 00:00:47,920

5 50 this morning just before 6 a.m

22

00:00:51,110 --> 00:00:49,280

central time

23

00:00:52,389 --> 00:00:51,120

they did their typical post-sleep

24

00:00:54,549 --> 00:00:52,399

activities

25

00:00:56,709 --> 00:00:54,559

and then we followed up with a couple of

26
00:00:58,869 --> 00:00:56,719
big rendezvous burns i say big because

27
00:01:00,389 --> 00:00:58,879
we went from an orbit of about 120

28
00:01:03,349 --> 00:01:00,399
nautical miles and all the way up to

29
00:01:05,270 --> 00:01:03,359
about 190 miles and a one rev transfer

30
00:01:07,190 --> 00:01:05,280
with a couple of burns there and that

31
00:01:08,469 --> 00:01:07,200
set us up for the rendezvous and then

32
00:01:10,149 --> 00:01:08,479
the docking

33
00:01:11,670 --> 00:01:10,159
all of which went really well the

34
00:01:13,429 --> 00:01:11,680
rendezvous itself was flowing really

35
00:01:15,350 --> 00:01:13,439
well all the burns all the manual

36
00:01:17,510 --> 00:01:15,360
maneuvers all the activities the crew

37
00:01:19,429 --> 00:01:17,520
did a fabulous job

38
00:01:21,190 --> 00:01:19,439

accomplishing all those things i didn't

39

00:01:22,469 --> 00:01:21,200

get any numbers in terms of propellant

40

00:01:23,910 --> 00:01:22,479

consumption but

41

00:01:25,590 --> 00:01:23,920

for my observations everything went

42

00:01:27,990 --> 00:01:25,600

really really well

43

00:01:30,149 --> 00:01:28,000

the manual phase we did the the r bar

44

00:01:32,149 --> 00:01:30,159

pitch maneuver once we got in close and

45

00:01:34,710 --> 00:01:32,159

got some good pictures we hope i expect

46

00:01:36,710 --> 00:01:34,720

of the bottom of the space shuttle those

47

00:01:37,910 --> 00:01:36,720

were being downlinked as i was coming

48

00:01:39,270 --> 00:01:37,920

over here

49

00:01:40,710 --> 00:01:39,280

and we'll get a folks we'll get a good

50

00:01:43,109 --> 00:01:40,720

look at those tonight

51
00:01:45,510 --> 00:01:43,119
uh as as they come in

52
00:01:47,030 --> 00:01:45,520
and then uh once the rendezvous pitch

53
00:01:48,550 --> 00:01:47,040
maneuver was complete or our bar pitch

54
00:01:50,630 --> 00:01:48,560
maneuver was complete the crew flew up

55
00:01:52,789 --> 00:01:50,640
to the v-bar the velocity vector of the

56
00:01:53,910 --> 00:01:52,799
space station and flew it on in for

57
00:01:55,590 --> 00:01:53,920
docking

58
00:01:57,670 --> 00:01:55,600
the all the flying the manual flying

59
00:01:59,030 --> 00:01:57,680
again went really well

60
00:02:01,030 --> 00:01:59,040
there were no issues at all with any of

61
00:02:03,109 --> 00:02:01,040
the assistance on board

62
00:02:05,429 --> 00:02:03,119
discovery she performed quite well as

63
00:02:08,309 --> 00:02:07,030

once we got docked

64

00:02:09,990 --> 00:02:08,319

it took a little bit longer than we

65

00:02:12,710 --> 00:02:10,000

would have liked for the hard mate to

66

00:02:15,350 --> 00:02:12,720

complete when the order discovery came

67

00:02:17,030 --> 00:02:15,360

in we got what we call a soft dock and

68

00:02:19,350 --> 00:02:17,040

then it took about an extra 30 40

69

00:02:21,750 --> 00:02:19,360

minutes to get to fully hard mated and

70

00:02:22,869 --> 00:02:21,760

i'll go into why here in a few minutes

71

00:02:26,390 --> 00:02:22,879

but first i'll go ahead and cover the

72

00:02:28,150 --> 00:02:26,400

rest of the activities for today

73

00:02:29,430 --> 00:02:28,160

for today you probably saw the crew was

74

00:02:30,470 --> 00:02:29,440

opening the hatch they're coming in

75

00:02:32,150 --> 00:02:30,480

they're going to do their safety

76

00:02:34,229 --> 00:02:32,160

briefing and then they're going right

77

00:02:36,309 --> 00:02:34,239

into their robotic operations that are

78

00:02:38,229 --> 00:02:36,319

scheduled for today today was a very

79

00:02:39,589 --> 00:02:38,239

busy day and we knew that going into it

80

00:02:41,670 --> 00:02:39,599

this is probably our one day in the

81

00:02:44,390 --> 00:02:41,680

timeline that was pretty aggressively

82

00:02:46,470 --> 00:02:44,400

scheduled on the timeline purpose

83

00:02:48,390 --> 00:02:46,480

so the crew is going to go in and the

84

00:02:50,710 --> 00:02:48,400

purpose of the rest of today's install

85

00:02:51,830 --> 00:02:50,720

the elc number four out on the starboard

86

00:02:53,750 --> 00:02:51,840

truss

87

00:02:55,270 --> 00:02:53,760

to do that they're going to pluck it out

88

00:02:57,270 --> 00:02:55,280

of the payload bay with the space

89

00:02:58,630 --> 00:02:57,280

station robotic arm then they're that's

90

00:02:59,990 --> 00:02:58,640

going to present it to the shuttle

91

00:03:01,030 --> 00:03:00,000

robotic arm

92

00:03:02,309 --> 00:03:01,040

who will

93

00:03:04,630 --> 00:03:02,319

they'll do a hand off to the shuttle

94

00:03:07,110 --> 00:03:04,640

robotic arm and then while the shuttle

95

00:03:09,190 --> 00:03:07,120

robotic arm is holding the payload the

96

00:03:11,589 --> 00:03:09,200

space station robotic arm is going to do

97

00:03:14,390 --> 00:03:11,599

a walk off from the node 2

98

00:03:15,430 --> 00:03:14,400

and inchworm over to the mbs and then

99

00:03:17,270 --> 00:03:15,440

the

100

00:03:19,509 --> 00:03:17,280

space shuttle robotic arm will hand it

101
00:03:21,270 --> 00:03:19,519
back to the space station arm

102
00:03:23,509 --> 00:03:21,280
and then the space station robotic arm

103
00:03:26,149 --> 00:03:23,519
will continue with the installation out

104
00:03:28,470 --> 00:03:26,159
at the s3 location

105
00:03:29,990 --> 00:03:28,480
the crew that's doing this is nicole

106
00:03:32,949 --> 00:03:30,000
stott and mike barrett are doing all of

107
00:03:35,030 --> 00:03:32,959
the ssrms ops the station arm ops and

108
00:03:36,550 --> 00:03:35,040
eric bowe and al drew are doing the

109
00:03:39,190 --> 00:03:36,560
shuttle arm ops

110
00:03:40,390 --> 00:03:39,200
once it's out at the proper location it

111
00:03:42,550 --> 00:03:40,400
will be attached with the common

112
00:03:44,869 --> 00:03:42,560
attached system that has and katie and

113
00:03:47,670 --> 00:03:44,879

paulo will execute the procedures to do

114

00:03:50,229 --> 00:03:47,680

the full hookup for that element out

115

00:03:52,229 --> 00:03:50,239

there on the uh truss

116

00:03:54,309 --> 00:03:52,239

they should complete all those things uh

117

00:03:56,710 --> 00:03:54,319

just about an hour or so before sleep

118

00:03:59,030 --> 00:03:56,720

for the timeline we were about 40

119

00:04:01,030 --> 00:03:59,040

minutes late or so getting hard mate the

120

00:04:02,869 --> 00:04:01,040

crew made up probably half of that

121

00:04:04,550 --> 00:04:02,879

getting the hatch open so i would

122

00:04:06,550 --> 00:04:04,560

anticipate things go well and they will

123

00:04:08,949 --> 00:04:06,560

still be able to get everything done

124

00:04:10,949 --> 00:04:08,959

today and good good amount of time and

125

00:04:12,710 --> 00:04:10,959

be able to get all mated up

126
00:04:14,309 --> 00:04:12,720
before they go to bed

127
00:04:16,949 --> 00:04:14,319
for the docking the thing that delayed

128
00:04:19,670 --> 00:04:16,959
us a little bit some of you probably saw

129
00:04:21,189 --> 00:04:19,680
once we got to a soft mate we the ring

130
00:04:23,350 --> 00:04:21,199
is extended

131
00:04:25,430 --> 00:04:23,360
that the orbiter contacts

132
00:04:27,350 --> 00:04:25,440
the station with and then we try to

133
00:04:29,270 --> 00:04:27,360
retract that ring

134
00:04:31,430 --> 00:04:29,280
and the mechanical systems that do that

135
00:04:33,030 --> 00:04:31,440
bring it in slowly and carefully and it

136
00:04:35,670 --> 00:04:33,040
wants to be aligned we want it to be

137
00:04:37,990 --> 00:04:35,680
aligned well with the docking interface

138
00:04:39,590 --> 00:04:38,000

what happened to us this time is

139

00:04:41,510 --> 00:04:39,600

it took a little bit longer and the

140

00:04:42,390 --> 00:04:41,520

rates on the vehicle were such that we

141

00:04:44,629 --> 00:04:42,400

got

142

00:04:46,469 --> 00:04:44,639

tilted over pitched over if you will a

143

00:04:47,830 --> 00:04:46,479

little bit and then the gravity gradient

144

00:04:50,629 --> 00:04:47,840

what we call the gravity gradient the

145

00:04:51,909 --> 00:04:50,639

forces from the earth from the gravity

146

00:04:53,510 --> 00:04:51,919

pull a little bit differently on the

147

00:04:55,670 --> 00:04:53,520

different masses of the vehicle believe

148

00:04:57,590 --> 00:04:55,680

it or not so the forces on the shuttle

149

00:04:59,909 --> 00:04:57,600

caused it to pitch a little bit more

150

00:05:03,029 --> 00:04:59,919

which uh differently than the space

151

00:05:04,790 --> 00:05:03,039

station the result is is that the uh

152

00:05:07,510 --> 00:05:04,800

alignment system or the the docking

153

00:05:09,590 --> 00:05:07,520

system gets a little bit out of a line

154

00:05:11,590 --> 00:05:09,600

so we got to wait until we kind of swing

155

00:05:13,029 --> 00:05:11,600

and in this case we the shuttle came in

156

00:05:15,189 --> 00:05:13,039

in this direction we got docked on the

157

00:05:16,310 --> 00:05:15,199

soft mate and then it kind of swung all

158

00:05:17,670 --> 00:05:16,320

the way around

159

00:05:19,830 --> 00:05:17,680

and by the time he got back over here

160

00:05:21,749 --> 00:05:19,840

the forces were reversed and we had

161

00:05:24,070 --> 00:05:21,759

enough time for the docking system did

162

00:05:26,150 --> 00:05:24,080

its passive alignment and kind of fixed

163

00:05:27,590 --> 00:05:26,160

itself and got itself aligned again and

164

00:05:29,749 --> 00:05:27,600

then we're able to do the re final

165

00:05:31,749 --> 00:05:29,759

retraction and get all hard mated that

166

00:05:33,029 --> 00:05:31,759

activity added about 40 minutes it's

167

00:05:34,710 --> 00:05:33,039

about a rev

168

00:05:37,510 --> 00:05:34,720

as these things work out or half a rev

169

00:05:39,510 --> 00:05:37,520

excuse me as these things work out and

170

00:05:41,749 --> 00:05:39,520

we have seen it a couple of times before

171

00:05:43,350 --> 00:05:41,759

actually more than that we saw it

172

00:05:44,950 --> 00:05:43,360

a number of times earlier in the space

173

00:05:46,310 --> 00:05:44,960

station program

174

00:05:47,749 --> 00:05:46,320

and then we kind of changed our

175

00:05:50,150 --> 00:05:47,759

procedures and how we do those

176

00:05:54,070 --> 00:05:50,160

alignments and retractions and recently

177

00:05:55,430 --> 00:05:54,080

we've seen it on i think sts-126 and 130

178

00:05:57,909 --> 00:05:55,440

there were some who were suspecting

179

00:05:59,510 --> 00:05:57,919

perhaps it was an endeavor thing

180

00:06:01,110 --> 00:05:59,520

since obviously discovery just had the

181

00:06:02,870 --> 00:06:01,120

same issue perhaps that's not such a

182

00:06:04,870 --> 00:06:02,880

good suspicion anymore but we'll

183

00:06:07,749 --> 00:06:04,880

continue to look at that

184

00:06:09,029 --> 00:06:07,759

the overall impact to us is is nil

185

00:06:11,270 --> 00:06:09,039

we lost a little bit of time on the

186

00:06:14,230 --> 00:06:11,280

timeline uh the crew will likely make

187

00:06:16,309 --> 00:06:14,240

that up uh and if they don't well we do

188

00:06:18,309 --> 00:06:16,319

have a contingency plan in place that if

189

00:06:20,710 --> 00:06:18,319

we didn't get all the way mated and uh

190

00:06:21,830 --> 00:06:20,720

doc with the elc tonight

191

00:06:23,749 --> 00:06:21,840

that we could just leave it at the

192

00:06:25,029 --> 00:06:23,759

pre-installed position overnight and

193

00:06:26,629 --> 00:06:25,039

then pick that activity up in the

194

00:06:29,270 --> 00:06:26,639

morning so there's a fair amount of

195

00:06:31,029 --> 00:06:29,280

margin in the timeline to deal with

196

00:06:32,870 --> 00:06:31,039

a big contingency like that i said it

197

00:06:34,790 --> 00:06:32,880

was an aggressive timeline for tonight

198

00:06:37,270 --> 00:06:34,800

but there's margin tomorrow that we can

199

00:06:38,629 --> 00:06:37,280

use if we had to but again i don't think

200

00:06:39,909 --> 00:06:38,639

we're going to need to do that i think

201
00:06:42,070 --> 00:06:39,919
that the folks will get it all taken

202
00:06:44,230 --> 00:06:42,080
care of on board and as you saw when

203
00:06:45,990 --> 00:06:44,240
they came in the door on the tvs the

204
00:06:48,469 --> 00:06:46,000
crew looked like they were doing great

205
00:06:50,469 --> 00:06:48,479
listening to them all day long they're

206
00:06:52,230 --> 00:06:50,479
in great shape great spirits and

207
00:06:54,629 --> 00:06:52,240
obviously very happy to be on board the

208
00:06:55,990 --> 00:06:54,639
station uh maybe go have some snacks

209
00:06:57,909 --> 00:06:56,000
with their friends like a pineapple or

210
00:06:58,629 --> 00:06:57,919
something good like that we'll see

211
00:07:00,870 --> 00:06:58,639
but

212
00:07:02,629 --> 00:07:00,880
that's about all i got for today or if

213
00:07:04,150 --> 00:07:02,639

y'all have any questions i'd be happy to

214

00:07:06,469 --> 00:07:04,160

talk about that

215

00:07:07,830 --> 00:07:06,479

okay great any questions

216

00:07:13,110 --> 00:07:07,840

over here

217

00:07:16,710 --> 00:07:14,830

hi robert perlman with

218

00:07:17,990 --> 00:07:16,720

collectspace.com um before you even got

219

00:07:20,150 --> 00:07:18,000

to softmate

220

00:07:22,309 --> 00:07:20,160

there the crew was running i guess about

221

00:07:25,029 --> 00:07:22,319

four minutes behind in the docking

222

00:07:27,110 --> 00:07:25,039

schedules they made up for and then some

223

00:07:28,830 --> 00:07:27,120

um i was just curious what caused that

224

00:07:31,749 --> 00:07:28,840

delay

225

00:07:33,589 --> 00:07:31,759

well the docking is all manual activity

226

00:07:36,150 --> 00:07:33,599

right the fly-in the fly around all that

227

00:07:38,230 --> 00:07:36,160

stuff so the times we put in there are

228

00:07:40,870 --> 00:07:38,240

all estimates so plus or minus a few

229

00:07:42,550 --> 00:07:40,880

minutes to me is still on time

230

00:07:43,990 --> 00:07:42,560

uh it's like if you say well it's going

231

00:07:45,189 --> 00:07:44,000

to take me 10 minutes to drive across

232

00:07:46,390 --> 00:07:45,199

town

233

00:07:48,550 --> 00:07:46,400

you hit a traffic light or something

234

00:07:50,070 --> 00:07:48,560

maybe takes a longer little shorter

235

00:07:51,749 --> 00:07:50,080

but you fly a little different rate a

236

00:07:53,430 --> 00:07:51,759

little different style that'll change

237

00:07:55,029 --> 00:07:53,440

your times a little bit

238

00:07:57,430 --> 00:07:55,039

to us it's no impact we know all that

239

00:07:59,430 --> 00:07:57,440

margins in the timeline and

240

00:08:01,430 --> 00:07:59,440

again for me it's a manual phase so plus

241

00:08:04,150 --> 00:08:01,440

or minus a few minutes is uh

242

00:08:05,270 --> 00:08:04,160

insignificant

243

00:08:06,070 --> 00:08:05,280

anything else

244

00:08:07,589 --> 00:08:06,080

okay

245

00:08:09,189 --> 00:08:07,599

uh let's say we have a couple folks on

246

00:08:11,350 --> 00:08:09,199

the phone bridge we'll start with marcia

247

00:08:13,670 --> 00:08:11,360

dunn with associated press

248

00:08:15,990 --> 00:08:13,680

yes hi can you hear me yep

249

00:08:18,070 --> 00:08:16,000

yes um brian i'm just wondering the

250

00:08:19,909 --> 00:08:18,080

slight misalignment does does that have

251

00:08:21,110 --> 00:08:19,919

anything to do with the i guess it

252

00:08:23,189 --> 00:08:21,120

doesn't have anything then to do with

253

00:08:26,629 --> 00:08:23,199

the size of the space station or with

254

00:08:28,150 --> 00:08:26,639

all those vessels stock there i would

255

00:08:29,189 --> 00:08:28,160

agree it does not have anything to do

256

00:08:31,909 --> 00:08:29,199

with that

257

00:08:34,149 --> 00:08:31,919

the misalignment when we docked we got

258

00:08:35,990 --> 00:08:34,159

lined up just fine and and it's more

259

00:08:39,430 --> 00:08:36,000

just the vehicle is very large station

260

00:08:41,269 --> 00:08:39,440

is very large now and as we as as the

261

00:08:43,029 --> 00:08:41,279

small rates on the vehicle

262

00:08:44,630 --> 00:08:43,039

allowed it i guess i was going this way

263

00:08:45,670 --> 00:08:44,640

earlier allowed it to pitch over a

264

00:08:47,110 --> 00:08:45,680

little bit

265

00:08:49,269 --> 00:08:47,120

again the gravity gradient just

266

00:08:51,750 --> 00:08:49,279

accelerated that and also kind of

267

00:08:53,269 --> 00:08:51,760

contorted or twisted or just misaligned

268

00:08:55,910 --> 00:08:53,279

it a little bit more and it's just a

269

00:08:57,190 --> 00:08:55,920

little bit but it was enough that

270

00:08:59,110 --> 00:08:57,200

it was a line such that we didn't want

271

00:09:01,430 --> 00:08:59,120

to pull it together and not have a good

272

00:09:03,509 --> 00:09:01,440

mate so you wait for it to get cleaned

273

00:09:05,350 --> 00:09:03,519

up on the other side and it was aligned

274

00:09:08,070 --> 00:09:05,360

well

275

00:09:10,070 --> 00:09:08,080

if you had a smaller vehicle

276

00:09:11,829 --> 00:09:10,080

probably may not happen but i can't say

277

00:09:13,990 --> 00:09:11,839

that i don't think we have a real strong

278

00:09:16,550 --> 00:09:14,000

theory how why it happens like i said we

279

00:09:18,630 --> 00:09:16,560

had it back as early as sts-105 i think

280

00:09:21,110 --> 00:09:18,640

someone told me and again the procedures

281

00:09:22,550 --> 00:09:21,120

back then were a little bit different

282

00:09:24,150 --> 00:09:22,560

would it happen again if we ran those

283

00:09:26,389 --> 00:09:24,160

same procedures i'm not sure we think

284

00:09:27,670 --> 00:09:26,399

what we do today is better

285

00:09:29,269 --> 00:09:27,680

but

286

00:09:31,190 --> 00:09:29,279

now i would say it's just the way it is

287

00:09:32,870 --> 00:09:31,200

it's physics and we got to deal with

288

00:09:34,230 --> 00:09:32,880

that and we have procedures to deal with

289

00:09:36,389 --> 00:09:34,240

that

290

00:09:38,310 --> 00:09:36,399

do you have any idea of how many

291

00:09:41,030 --> 00:09:38,320

the numbers of pictures photos that were

292

00:09:43,670 --> 00:09:41,040

downloaded following the rpm maneuver no

293

00:09:45,269 --> 00:09:43,680

i don't i'm sorry a bunch um

294

00:09:47,990 --> 00:09:45,279

the cruise usually takes on the order of

295

00:09:49,590 --> 00:09:48,000

90 or 100 if i remember right but

296

00:09:51,750 --> 00:09:49,600

they try and get two or three shots of

297

00:09:53,030 --> 00:09:51,760

each location on the shuttle so they get

298

00:09:54,870 --> 00:09:53,040

a bunch and we'll have that number for

299

00:09:56,630 --> 00:09:54,880

you tomorrow though great thank you and

300

00:09:57,509 --> 00:09:56,640

last one for me is there anything new on

301
00:10:00,790 --> 00:09:57,519
the

302
00:10:03,190 --> 00:10:00,800
debris report from launch day

303
00:10:06,230 --> 00:10:03,200
uh let's see from launch day no i don't

304
00:10:08,389 --> 00:10:06,240
know leroy had larry kane had the

305
00:10:09,910 --> 00:10:08,399
mission management team today from what

306
00:10:11,430 --> 00:10:09,920
i understand there wasn't much reported

307
00:10:13,350 --> 00:10:11,440
at that time although i was busy doing

308
00:10:15,670 --> 00:10:13,360
the rendezvous at the time

309
00:10:17,509 --> 00:10:15,680
they will get more status as they go

310
00:10:19,190 --> 00:10:17,519
the timeline for those activities as we

311
00:10:20,710 --> 00:10:19,200
explained yesterday is tonight they'll

312
00:10:22,550 --> 00:10:20,720
have their what we call the focused

313
00:10:24,150 --> 00:10:22,560

inspection meeting which just means that

314

00:10:26,230 --> 00:10:24,160

the folks have had a time to look at all

315

00:10:28,069 --> 00:10:26,240

the pieces of imagery from the

316

00:10:29,829 --> 00:10:28,079

launch day to flight day to inspection

317

00:10:32,470 --> 00:10:29,839

to the arbor pitch maneuver pictures we

318

00:10:33,670 --> 00:10:32,480

take and downlink tonight today they'll

319

00:10:35,430 --> 00:10:33,680

have a chance to look at all those

320

00:10:36,630 --> 00:10:35,440

things and be able to determine if

321

00:10:38,710 --> 00:10:36,640

there's some place that we're really

322

00:10:40,710 --> 00:10:38,720

worried about and from what i'm hearing

323

00:10:42,150 --> 00:10:40,720

right now no one obviously is saying any

324

00:10:44,550 --> 00:10:42,160

such thing but we'll have that official

325

00:10:46,870 --> 00:10:44,560

meeting tonight and then mmt will

326

00:10:48,790 --> 00:10:46,880

discuss it tomorrow and as need be for

327

00:10:50,389 --> 00:10:48,800

subsequent days as well

328

00:10:52,550 --> 00:10:50,399

thank you that's all for me

329

00:10:55,269 --> 00:10:52,560

okay thanks marcia let's see james dean

330

00:10:57,190 --> 00:10:55,279

florida today are you on

331

00:10:58,790 --> 00:10:57,200

yes uh thank you kyle

332

00:11:00,069 --> 00:10:58,800

ryan i know you've been

333

00:11:01,430 --> 00:11:00,079

focused on the work at hand but just

334

00:11:02,310 --> 00:11:01,440

wondered if you could share any thoughts

335

00:11:03,910 --> 00:11:02,320

on

336

00:11:06,150 --> 00:11:03,920

seeing discovery docked for what should

337

00:11:09,750 --> 00:11:06,160

be the last time and and um

338

00:11:11,670 --> 00:11:09,760

as well um just the uh

339

00:11:13,590 --> 00:11:11,680

weakness this time of joining all the

340

00:11:16,230 --> 00:11:13,600

other vehicles

341

00:11:18,710 --> 00:11:16,240

okay well yeah sure discovery is a

342

00:11:20,389 --> 00:11:18,720

fabulous a glamorous vehicle if you will

343

00:11:22,310 --> 00:11:20,399

discovery's done a lot of great things

344

00:11:23,590 --> 00:11:22,320

for us and it's wonderful to see

345

00:11:24,949 --> 00:11:23,600

discovery back at the international

346

00:11:27,030 --> 00:11:24,959

space station

347

00:11:28,949 --> 00:11:27,040

i did delay coming over here for 15

348

00:11:30,389 --> 00:11:28,959

minutes so i could see that my crew come

349

00:11:31,910 --> 00:11:30,399

into space station because it was a

350

00:11:33,590 --> 00:11:31,920

personal thing i wanted to see them

351

00:11:35,509 --> 00:11:33,600

there and i also knew that you guys

352

00:11:37,350 --> 00:11:35,519

wanted to see that instead of me

353

00:11:38,870 --> 00:11:37,360

so i really did want to see that it's

354

00:11:40,949 --> 00:11:38,880

good to see our guys on board it's good

355

00:11:42,710 --> 00:11:40,959

to see the spaceship there and to see

356

00:11:47,190 --> 00:11:42,720

the whole stack up there is uh it's all

357

00:11:49,509 --> 00:11:48,550

thanks um

358

00:11:58,150 --> 00:11:49,519

i

359

00:12:00,470 --> 00:11:58,160

transfer on the tv schedule and

360

00:12:01,910 --> 00:12:00,480

and then just one other question was uh

361

00:12:03,509 --> 00:12:01,920

following up again on the fly around i

362

00:12:05,990 --> 00:12:03,519

wonder if he could just

363

00:12:08,069 --> 00:12:06,000

uh tell us kind of what

364

00:12:10,230 --> 00:12:08,079

is left to be um

365

00:12:12,069 --> 00:12:10,240

decided to you know i know i know the

366

00:12:13,750 --> 00:12:12,079

approval is not expected till monday or

367

00:12:15,829 --> 00:12:13,760

tuesday but you know what what are the

368

00:12:16,870 --> 00:12:15,839

outstanding issues that have to be

369

00:12:18,710 --> 00:12:16,880

um

370

00:12:20,230 --> 00:12:18,720

that haven't yet been covered

371

00:12:22,150 --> 00:12:20,240

thank you

372

00:12:23,910 --> 00:12:22,160

okay for flight day four you're right

373

00:12:25,670 --> 00:12:23,920

it's mostly a transfer and prepare for

374

00:12:26,870 --> 00:12:25,680

the evas the next day we'll go into camp

375

00:12:28,550 --> 00:12:26,880

out in the evening of course they'll do

376

00:12:29,990 --> 00:12:28,560

a bunch of transfer operations during

377

00:12:31,990 --> 00:12:30,000

the day

378

00:12:33,670 --> 00:12:32,000

no real big ticket items at one point in

379

00:12:36,550 --> 00:12:33,680

the timeline that was the day we did the

380

00:12:38,310 --> 00:12:36,560

pm install but do the activity as an eva

381

00:12:40,310 --> 00:12:38,320

one we push the pima install to flight

382

00:12:42,230 --> 00:12:40,320

day six so

383

00:12:44,310 --> 00:12:42,240

no real

384

00:12:46,389 --> 00:12:44,320

single big-ticket items if you will but

385

00:12:47,829 --> 00:12:46,399

tomorrow is a big transfer day crew gets

386

00:12:49,990 --> 00:12:47,839

situated there in space station and be

387

00:12:52,790 --> 00:12:50,000

ready to go with the evas on flight day

388

00:12:54,470 --> 00:12:52,800

five for the fly about i call it the fly

389

00:12:56,230 --> 00:12:54,480

about to distinguish from fly around

390

00:12:57,190 --> 00:12:56,240

which is what the shuttle does after

391

00:12:58,629 --> 00:12:57,200

undock

392

00:13:00,150 --> 00:12:58,639

just to keep things straight in my mind

393

00:13:02,710 --> 00:13:00,160

when i speak with people

394

00:13:03,750 --> 00:13:02,720

uh what is left uh well when we launched

395

00:13:05,110 --> 00:13:03,760

i kind of unplugged for that

396

00:13:07,910 --> 00:13:05,120

conversation and left that to the

397

00:13:09,670 --> 00:13:07,920

mission management team i know that the

398

00:13:12,310 --> 00:13:09,680

and the other engineering teams working

399

00:13:13,030 --> 00:13:12,320

all the analysis going on i know that

400

00:13:18,389 --> 00:13:13,040

the

401
00:13:21,030 --> 00:13:18,399
station engineering team has to do on a

402
00:13:22,310 --> 00:13:21,040
regular basis for events like this is

403
00:13:23,829 --> 00:13:22,320
still in work and we knew that would

404
00:13:27,350 --> 00:13:23,839
take time

405
00:13:29,509 --> 00:13:27,360
it's just a partially iterative process

406
00:13:30,790 --> 00:13:29,519
but once they have a solution they like

407
00:13:32,550 --> 00:13:30,800
then they got to go do some more

408
00:13:33,829 --> 00:13:32,560
thorough analysis on that to make sure

409
00:13:35,110 --> 00:13:33,839
it's going all the solar array

410
00:13:37,430 --> 00:13:35,120
positioning and things like that are

411
00:13:39,430 --> 00:13:37,440
going to be satisfactory so we knew that

412
00:13:40,870 --> 00:13:39,440
part would take a while

413
00:13:43,269 --> 00:13:40,880

in fact it might not even be done by

414

00:13:45,269 --> 00:13:43,279

flight day six uh the reality is that

415

00:13:46,949 --> 00:13:45,279

may go a little bit longer and that's

416

00:13:48,310 --> 00:13:46,959

okay because

417

00:13:50,230 --> 00:13:48,320

our expectation with the mission

418

00:13:51,990 --> 00:13:50,240

management teams is that they would

419

00:13:53,750 --> 00:13:52,000

authorize assuming they get there when

420

00:13:55,430 --> 00:13:53,760

they have these discussions if they

421

00:13:56,949 --> 00:13:55,440

authorize the ops teams to go ahead and

422

00:13:58,710 --> 00:13:56,959

do this

423

00:14:00,710 --> 00:13:58,720

we will wait for that analysis of course

424

00:14:02,949 --> 00:14:00,720

and if it came back it's not good or

425

00:14:04,790 --> 00:14:02,959

that there was a problem that could veto

426

00:14:06,870 --> 00:14:04,800

the activity itself

427

00:14:09,269 --> 00:14:06,880

don't expect that folks are working on

428

00:14:11,910 --> 00:14:09,279

that but that is one reality of the

429

00:14:14,069 --> 00:14:11,920

timeline and the path we're on

430

00:14:15,590 --> 00:14:14,079

as far as other folks so the engineering

431

00:14:17,189 --> 00:14:15,600

the space station engineering folks are

432

00:14:19,110 --> 00:14:17,199

off looking at the things that they have

433

00:14:20,949 --> 00:14:19,120

to do for these type of events in

434

00:14:22,949 --> 00:14:20,959

particular with solar rays but in

435

00:14:25,269 --> 00:14:22,959

addition our russian partners are also

436

00:14:27,189 --> 00:14:25,279

off working on the 24s making sure

437

00:14:28,790 --> 00:14:27,199

they're comfortable with it doing this

438

00:14:30,389 --> 00:14:28,800

activity with the trajectory the crew is

439

00:14:32,310 --> 00:14:30,399

being asked to do

440

00:14:33,670 --> 00:14:32,320

and all the training and fly-about

441

00:14:35,110 --> 00:14:33,680

activities that they would have to do

442

00:14:36,310 --> 00:14:35,120

during the activity

443

00:14:38,230 --> 00:14:36,320

the

444

00:14:39,670 --> 00:14:38,240

early discussions obviously we laid out

445

00:14:41,110 --> 00:14:39,680

a plan

446

00:14:43,430 --> 00:14:41,120

here's how it would go happen and the

447

00:14:45,269 --> 00:14:43,440

russians have done that for us now teams

448

00:14:47,350 --> 00:14:45,279

on all sides are looking at it making

449

00:14:48,629 --> 00:14:47,360

sure it's a good plan and that

450

00:14:50,150 --> 00:14:48,639

there's nothing that we're missing in

451

00:14:52,949 --> 00:14:50,160

all that and that it's going to be safe

452

00:14:54,470 --> 00:14:52,959

to go do so that is all in work and

453

00:14:55,670 --> 00:14:54,480

again i think all those reports are

454

00:14:57,269 --> 00:14:55,680

going to feed back into the mission

455

00:14:59,509 --> 00:14:57,279

management teams over the next couple of

456

00:15:01,350 --> 00:14:59,519

days again i've asked that they provide

457

00:15:03,269 --> 00:15:01,360

us a response no later than flight day

458

00:15:08,069 --> 00:15:03,279

six so we have plenty of time to work it

459

00:15:12,470 --> 00:15:11,110

anything else james

460

00:15:14,629 --> 00:15:12,480

thank you very much

461

00:15:16,470 --> 00:15:14,639

okay thank you okay we're back here any

462

00:15:19,030 --> 00:15:16,480

wrap-ups from anybody

463

00:15:21,110 --> 00:15:19,040

okay uh we'll end with the usual couple

464

00:15:23,590 --> 00:15:21,120

of programming notes um

465

00:15:25,590 --> 00:15:23,600

crew heads to bed a little before 10 p.m

466

00:15:26,389 --> 00:15:25,600

central time we'll start our flight day

467

00:15:28,470 --> 00:15:26,399

3

468

00:15:30,150 --> 00:15:28,480

highlights obviously that'll focus on

469

00:15:32,550 --> 00:15:30,160

all of the footage that

470

00:15:34,470 --> 00:15:32,560

the crew has shot and what you saw of

471

00:15:39,829 --> 00:15:34,480

rendezvous and docking

472

00:15:42,069 --> 00:15:39,839

wake up sunday is 5 53 a.m central time

473

00:15:44,310 --> 00:15:42,079

and the crew will have its first

474

00:15:46,230 --> 00:15:44,320

in-flight interview with a number of

475

00:15:49,030 --> 00:15:46,240

news organizations

476
00:15:51,670 --> 00:15:49,040
tomorrow and there is a mission status

477
00:15:52,629 --> 00:15:51,680
briefing scheduled late tomorrow morning

478
00:15:54,310 --> 00:15:52,639
and then

479
00:15:56,710 --> 00:15:54,320
the mmt of course meets again at one

480
00:15:59,269 --> 00:15:56,720
o'clock and we will have a post mmt

481
00:16:01,350 --> 00:15:59,279
press conference tomorrow as well that

482
00:16:03,350 --> 00:16:01,360
currently is scheduled for 3 pm central

483
00:16:06,470 --> 00:16:03,360
so stay tuned for all of that we're

484
00:16:09,030 --> 00:16:06,480
operating off of revision c on the

485
00:16:11,509 --> 00:16:09,040
mission television schedule so be sure

486
00:16:13,269 --> 00:16:11,519
to check that out it changes frequently

487
00:16:16,389 --> 00:16:13,279
and you see that there on the bottom of

488
00:16:17,990 --> 00:16:16,399

your screen so check that out along with

489

00:16:20,230 --> 00:16:18,000

all of the other mission coverage out on

490

00:16:21,430 --> 00:16:20,240

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