



1
00:00:05,269 --> 00:00:03,350
well good afternoon and welcome back to

2
00:00:07,190 --> 00:00:05,279
the johnson space center for today's

3
00:00:08,950 --> 00:00:07,200
briefing to preview a pair of u.s

4
00:00:10,549 --> 00:00:08,960
spacewalks coming up during this very

5
00:00:13,669 --> 00:00:10,559
busy time on the international space

6
00:00:15,509 --> 00:00:13,679
station for the expedition 41 crew

7
00:00:17,269 --> 00:00:15,519
with us today to provide a status on

8
00:00:19,590 --> 00:00:17,279
current station operations and to look

9
00:00:21,590 --> 00:00:19,600
at those spacewalks are kenny todd the

10
00:00:23,830 --> 00:00:21,600
international space station manager for

11
00:00:25,830 --> 00:00:23,840
integration and operations

12
00:00:28,230 --> 00:00:25,840
scott stover the nasa flight director

13
00:00:30,230 --> 00:00:28,240

for the international space station

14

00:00:33,510 --> 00:00:30,240

jacqueline cagey the lead spacewalk

15

00:00:34,870 --> 00:00:33,520

officer for us eva 27 coming up on

16

00:00:36,790 --> 00:00:34,880

october 7

17

00:00:39,670 --> 00:00:36,800

and keith johnson the lead spacewalk

18

00:00:41,990 --> 00:00:39,680

officer for us eva 28 coming up on

19

00:00:43,030 --> 00:00:42,000

october 15th and we'll start off with

20

00:00:45,110 --> 00:00:43,040

kenny

21

00:00:47,190 --> 00:00:45,120

thanks rob and uh

22

00:00:48,630 --> 00:00:47,200

good afternoon everyone i'll i'll uh

23

00:00:50,709 --> 00:00:48,640

defer the conversation about the

24

00:00:53,510 --> 00:00:50,719

specifics of the evas to

25

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

scott and and keith and jackie but from

26

00:00:57,670 --> 00:00:55,680

a big picture perspective i'll tell you

27

00:00:59,270 --> 00:00:57,680

things are going very well on board the

28

00:01:01,590 --> 00:00:59,280

space station

29

00:01:04,229 --> 00:01:01,600

as most of you know last week we had the

30

00:01:06,149 --> 00:01:04,239

arrival of 40s

31

00:01:08,789 --> 00:01:06,159

which allowed us to increase our crew

32

00:01:11,030 --> 00:01:08,799

complement back up to three on the usos

33

00:01:13,270 --> 00:01:11,040

with the addition of butch wilmore

34

00:01:15,590 --> 00:01:13,280

i'll tell you bill as uh or butch is

35

00:01:17,510 --> 00:01:15,600

doing a great job uh he's pretty much

36

00:01:20,070 --> 00:01:17,520

got his space legs up under him now he's

37

00:01:21,670 --> 00:01:20,080

he's making contributions to to the team

38

00:01:23,270 --> 00:01:21,680

and doing a great job and so we're

39

00:01:24,310 --> 00:01:23,280

looking forward to having him aboard for

40

00:01:25,590 --> 00:01:24,320

the next

41

00:01:28,149 --> 00:01:25,600

six months

42

00:01:30,950 --> 00:01:28,159

um he uh he joined reid wiseman and

43

00:01:32,630 --> 00:01:30,960

alexander gerst uh those two guys have

44

00:01:34,310 --> 00:01:32,640

been doing a great job well while

45

00:01:37,190 --> 00:01:34,320

they've been down at a crew of three on

46

00:01:39,749 --> 00:01:37,200

the station and uh it's good to have the

47

00:01:42,069 --> 00:01:39,759

the crew back up to six again

48

00:01:43,830 --> 00:01:42,079

this crew of three on the usos will be

49

00:01:45,590 --> 00:01:43,840

together for about a month

50

00:01:48,950 --> 00:01:45,600

we'll plan to bring

51
00:01:50,950 --> 00:01:48,960
alexander and reid home on november 10th

52
00:01:52,870 --> 00:01:50,960
and between now and then they've got an

53
00:01:54,630 --> 00:01:52,880
awful lot of work to do

54
00:01:57,510 --> 00:01:54,640
just about a week ago a little over a

55
00:01:58,389 --> 00:01:57,520
week ago we birthed the spacex dragon

56
00:02:00,469 --> 00:01:58,399
for the

57
00:02:02,789 --> 00:02:00,479
third excuse me the fourth of the

58
00:02:04,310 --> 00:02:02,799
commercial resupply flights that spacex

59
00:02:06,709 --> 00:02:04,320
is doing for us

60
00:02:09,029 --> 00:02:06,719
that particular dragon had a large

61
00:02:11,589 --> 00:02:09,039
complement of science and payloads on it

62
00:02:13,589 --> 00:02:11,599
and these guys are off uh knocking the

63
00:02:16,949 --> 00:02:13,599

science out and doing a great job and

64

00:02:19,030 --> 00:02:16,959

and so far so good

65

00:02:20,470 --> 00:02:19,040

in the midst of all that uh we're

66

00:02:21,990 --> 00:02:20,480

planning for a couple evas that you're

67

00:02:23,430 --> 00:02:22,000

going to hear the details about here

68

00:02:25,670 --> 00:02:23,440

shortly

69

00:02:28,070 --> 00:02:25,680

so so we'll get these evas done do the

70

00:02:31,430 --> 00:02:28,080

science on spacex and then on or about

71

00:02:32,869 --> 00:02:31,440

the the 21st of october we'll plan to

72

00:02:35,030 --> 00:02:32,879

unbirth the dragon

73

00:02:36,790 --> 00:02:35,040

and turn our sights towards hopefully a

74

00:02:37,910 --> 00:02:36,800

couple of more

75

00:02:40,390 --> 00:02:37,920

commercial

76
00:02:42,070 --> 00:02:40,400
cargo resupply flights between now and

77
00:02:43,509 --> 00:02:42,080
the end of the year

78
00:02:45,830 --> 00:02:43,519
so

79
00:02:47,990 --> 00:02:45,840
as i mentioned in parallel to doing all

80
00:02:51,190 --> 00:02:48,000
the science on the spacex

81
00:02:53,589 --> 00:02:51,200
we're about to embark on uh what will be

82
00:02:55,830 --> 00:02:53,599
um a series of evas

83
00:02:58,309 --> 00:02:55,840
starting next week that will stretch out

84
00:03:00,309 --> 00:02:58,319
uh into the first of next year and on

85
00:03:02,309 --> 00:03:00,319
out into the spring

86
00:03:04,470 --> 00:03:02,319
and we'll be doing some things

87
00:03:06,390 --> 00:03:04,480
like like cleaning up some of the the

88
00:03:09,030 --> 00:03:06,400

stuff we still have to clean up from our

89

00:03:10,470 --> 00:03:09,040

past three contingency evas we got the

90

00:03:12,949 --> 00:03:10,480

we got the functionality recovered

91

00:03:14,229 --> 00:03:12,959

during those evas but but we we left

92

00:03:16,869 --> 00:03:14,239

some things out there that we knew that

93

00:03:18,550 --> 00:03:16,879

we wanted to go um put back in proper

94

00:03:20,309 --> 00:03:18,560

order so we'll do that

95

00:03:22,550 --> 00:03:20,319

in addition to that we've had some

96

00:03:24,390 --> 00:03:22,560

failures in our power system so we're

97

00:03:25,830 --> 00:03:24,400

going to go rectify that

98

00:03:28,229 --> 00:03:25,840

also we're going to take advantage while

99

00:03:30,550 --> 00:03:28,239

we're out on on these evas to improve

100

00:03:32,149 --> 00:03:30,560

our overall fault tolerance capability

101
00:03:33,830 --> 00:03:32,159
and by that i mean it gives us an

102
00:03:35,430 --> 00:03:33,840
opportunity to sustain a failure in some

103
00:03:36,390 --> 00:03:35,440
of these critical systems and still be

104
00:03:38,710 --> 00:03:36,400
able to

105
00:03:39,830 --> 00:03:38,720
to function and do the job that station

106
00:03:41,270 --> 00:03:39,840
needs to do

107
00:03:42,949 --> 00:03:41,280
so

108
00:03:44,710 --> 00:03:42,959
that that's going to be part of our near

109
00:03:47,430 --> 00:03:44,720
term plan and when you look it out a

110
00:03:49,270 --> 00:03:47,440
little farther as to how the evas stack

111
00:03:50,550 --> 00:03:49,280
up after the first of the year out into

112
00:03:52,869 --> 00:03:50,560
the spring we're really going to start

113
00:03:54,550 --> 00:03:52,879

this this transformation of the space

114

00:03:55,830 --> 00:03:54,560

station we're going to be we're going to

115

00:03:58,309 --> 00:03:55,840

be doing the things we need to do on

116

00:04:01,509 --> 00:03:58,319

these evas to to prep

117

00:04:03,589 --> 00:04:01,519

for moving moving some modules around

118

00:04:07,190 --> 00:04:03,599

all that is in in preparation for being

119

00:04:09,990 --> 00:04:07,200

able to support some future uh crude uh

120

00:04:12,309 --> 00:04:10,000

vehicles coming to station uh commercial

121

00:04:14,149 --> 00:04:12,319

crew vehicles and so uh we're trying to

122

00:04:15,509 --> 00:04:14,159

get out in front of that and do some

123

00:04:17,030 --> 00:04:15,519

things to put ourselves to position to

124

00:04:18,390 --> 00:04:17,040

be able to do that

125

00:04:19,909 --> 00:04:18,400

so we'll be prepping for movement

126

00:04:21,830 --> 00:04:19,919

modules we'll be installing a new

127

00:04:23,909 --> 00:04:21,840

docking adapter system

128

00:04:25,670 --> 00:04:23,919

so all that will be happening throughout

129

00:04:29,270 --> 00:04:25,680

the next several months onboard the

130

00:04:31,189 --> 00:04:29,280

station as far as our eva plans go

131

00:04:33,270 --> 00:04:31,199

so this is going to put us in the best

132

00:04:35,030 --> 00:04:33,280

position that we need to be in in order

133

00:04:37,830 --> 00:04:35,040

to to sustain

134

00:04:39,830 --> 00:04:37,840

the iss and and keep this outpost uh

135

00:04:42,870 --> 00:04:39,840

functioning and and keep it on track to

136

00:04:45,350 --> 00:04:42,880

be a world-class laboratory that that we

137

00:04:46,710 --> 00:04:45,360

can use to to do research and and

138

00:04:49,510 --> 00:04:46,720

discovery

139

00:04:50,790 --> 00:04:49,520

so so that that's our primary goal so

140

00:04:53,510 --> 00:04:50,800

with that

141

00:04:56,230 --> 00:04:53,520

iss is in good shape the the crew's in

142

00:04:57,670 --> 00:04:56,240

good shape the suits are in good shape

143

00:05:00,469 --> 00:04:57,680

the team's in good shape we're ready to

144

00:05:01,909 --> 00:05:00,479

go do these evas and i'll let scott and

145

00:05:03,430 --> 00:05:01,919

and the folks here talk to you about the

146

00:05:06,230 --> 00:05:03,440

specifics

147

00:05:07,749 --> 00:05:06,240

thank you kenny um so folks i'm scott

148

00:05:10,070 --> 00:05:07,759

stover lead flight director for

149

00:05:12,310 --> 00:05:10,080

spacewalk 27 as rob said we're here to

150

00:05:15,670 --> 00:05:12,320

talk about the two upcoming uh us

151

00:05:19,029 --> 00:05:15,680

spacewalks uh spacewalks 27 and 28.

152

00:05:20,550 --> 00:05:19,039

spacewalk 27 is planned for october 7th

153

00:05:23,110 --> 00:05:20,560

that's a tuesday

154

00:05:26,310 --> 00:05:23,120

and the egress time right now is planned

155

00:05:29,110 --> 00:05:26,320

for about 7 10 a.m central time

156

00:05:32,469 --> 00:05:29,120

spacewalk 28 is planned for wednesday

157

00:05:36,150 --> 00:05:32,479

october 15th again egress is right now

158

00:05:38,310 --> 00:05:36,160

looking to be 7 10 a.m central time

159

00:05:40,550 --> 00:05:38,320

each of the spacewalks are planned to be

160

00:05:42,230 --> 00:05:40,560

six and a half hours in length

161

00:05:45,670 --> 00:05:42,240

both of these spacewalks will use the

162

00:05:47,189 --> 00:05:45,680

u.s space suits and will be egressing

163

00:05:48,950 --> 00:05:47,199

from the u.s

164

00:05:52,469 --> 00:05:48,960

quest airlock

165

00:05:55,830 --> 00:05:52,479

for our crew members spacewalks 27 will

166

00:05:58,070 --> 00:05:55,840

have reid wiseman and alexander gerst as

167

00:05:59,270 --> 00:05:58,080

our eva crew members

168

00:06:01,430 --> 00:05:59,280

for both

169

00:06:03,430 --> 00:06:01,440

wiseman and gerst this will be the first

170

00:06:05,749 --> 00:06:03,440

spacewalk of their careers

171

00:06:07,110 --> 00:06:05,759

however both have had hundreds of hours

172

00:06:08,790 --> 00:06:07,120

in training

173

00:06:11,110 --> 00:06:08,800

both here on the ground in the neutral

174

00:06:13,510 --> 00:06:11,120

buoyancy laboratory pool

175

00:06:17,029 --> 00:06:13,520

but also on orbit and both are ready to

176

00:06:20,469 --> 00:06:17,039

go for the eva

177

00:06:22,390 --> 00:06:20,479

our intravehicular suit crew member will

178

00:06:24,390 --> 00:06:22,400

be barry butch wilmore

179

00:06:26,390 --> 00:06:24,400

and he will also be operating the space

180

00:06:28,870 --> 00:06:26,400

station robotic arm for this uh

181

00:06:31,350 --> 00:06:28,880

spacewalks

182

00:06:34,390 --> 00:06:31,360

alexander gerst happens to be just the

183

00:06:36,950 --> 00:06:34,400

third german spacewalker the first one

184

00:06:39,670 --> 00:06:36,960

was uh thomas ryder and the the second

185

00:06:41,189 --> 00:06:39,680

was han schlegel

186

00:06:44,870 --> 00:06:41,199

um so

187

00:06:48,550 --> 00:06:44,880

for eva 28 or spacewalk 28 the uh

188

00:06:51,189 --> 00:06:48,560

extravehicular crew will be wiseman

189

00:06:52,790 --> 00:06:51,199

and wilmore so this will actually be

190

00:06:53,990 --> 00:06:52,800

wiseman's second

191

00:07:01,189 --> 00:06:54,000

spacewalk

192

00:07:05,670 --> 00:07:03,510

moving on to to give you

193

00:07:08,710 --> 00:07:05,680

a little bit of uh

194

00:07:11,270 --> 00:07:08,720

i will be lead for spacewalk number 27

195

00:07:13,670 --> 00:07:11,280

uh and david korth will be the lead

196

00:07:16,070 --> 00:07:13,680

flight director for spacewalk 28. this

197

00:07:17,990 --> 00:07:16,080

will be his third spacewalk as a lead

198

00:07:19,830 --> 00:07:18,000

flight director

199

00:07:22,309 --> 00:07:19,840

and to give you an overview of spacewalk

200

00:07:24,950 --> 00:07:22,319

27 we'll go through the the objectives

201
00:07:25,909 --> 00:07:24,960
of the spacewalk and and where uh items

202
00:07:27,670 --> 00:07:25,919
are going to

203
00:07:30,550 --> 00:07:27,680
happen the actual work sites around the

204
00:07:32,309 --> 00:07:30,560
space station and then jackie kege our

205
00:07:34,950 --> 00:07:32,319
extra vehicular activity officer will go

206
00:07:37,350 --> 00:07:34,960
into a little bit more detail about that

207
00:07:39,909 --> 00:07:37,360
so for spacewalk 27 our primary

208
00:07:41,749 --> 00:07:39,919
objectives are to move

209
00:07:43,430 --> 00:07:41,759
a degraded pump module which is

210
00:07:45,270 --> 00:07:43,440
currently stowed on

211
00:07:46,790 --> 00:07:45,280
the mobile transporter

212
00:07:49,430 --> 00:07:46,800
and placed that on an

213
00:07:50,869 --> 00:07:49,440

external stowage platform

214

00:07:53,510 --> 00:07:50,879

that pump module

215

00:07:56,469 --> 00:07:53,520

has a failed valve in it that failed

216

00:07:59,510 --> 00:07:56,479

back in december of 2013

217

00:08:02,790 --> 00:07:59,520

and the pump module itself was replaced

218

00:08:05,749 --> 00:08:02,800

on u.s spacewalks number 24 and 25 and

219

00:08:07,830 --> 00:08:05,759

was temporarily stowed uh on the mobile

220

00:08:10,230 --> 00:08:07,840

transporter so we're putting it in its

221

00:08:12,390 --> 00:08:10,240

final stowage location

222

00:08:15,189 --> 00:08:12,400

we are also going to

223

00:08:18,790 --> 00:08:15,199

replace a camera light

224

00:08:20,710 --> 00:08:18,800

that is on the starboard side of the lab

225

00:08:23,029 --> 00:08:20,720

the destiny module

226

00:08:24,629 --> 00:08:23,039

that light has one of two bulbs

227

00:08:26,790 --> 00:08:24,639

currently failed in it and it's one of

228

00:08:27,990 --> 00:08:26,800

our primary lights that we use

229

00:08:29,830 --> 00:08:28,000

for

230

00:08:31,749 --> 00:08:29,840

the visiting vehicles when they arrive

231

00:08:33,110 --> 00:08:31,759

and also for supporting external

232

00:08:34,310 --> 00:08:33,120

robotics

233

00:08:36,630 --> 00:08:34,320

so we want to go ahead and replace that

234

00:08:38,149 --> 00:08:36,640

light before the second bulb fails

235

00:08:40,469 --> 00:08:38,159

we will also be installing what is

236

00:08:41,670 --> 00:08:40,479

called the mobile transporter relay

237

00:08:44,470 --> 00:08:41,680

assembly

238

00:08:46,550 --> 00:08:44,480

this is a new capability that we'll have

239

00:08:48,630 --> 00:08:46,560

is hopefully you you know the the mobile

240

00:08:50,150 --> 00:08:48,640

transporter is a

241

00:08:52,230 --> 00:08:50,160

vehicle that actually moves up and down

242

00:08:53,910 --> 00:08:52,240

the length of the space station truss

243

00:08:56,389 --> 00:08:53,920

and has multiple work sites that it can

244

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

plug in to get power uh if for some

245

00:09:00,470 --> 00:08:59,040

reason we couldn't give power to that

246

00:09:02,070 --> 00:09:00,480

mobile transporter at one of those work

247

00:09:04,470 --> 00:09:02,080

sites this new

248

00:09:05,350 --> 00:09:04,480

mtra allows us to provide keep a live

249

00:09:06,949 --> 00:09:05,360

power

250

00:09:09,030 --> 00:09:06,959

and we'd be able to make sure there's no

251
00:09:12,470 --> 00:09:09,040
hardware damage to the mobile

252
00:09:13,990 --> 00:09:12,480
transporter or anything attached to it

253
00:09:15,829 --> 00:09:14,000
when we go to look at where is all this

254
00:09:17,269 --> 00:09:15,839
happening luckily we're all pretty

255
00:09:19,430 --> 00:09:17,279
centered up in the middle of the space

256
00:09:20,550 --> 00:09:19,440
station we don't have to send the ev

257
00:09:22,630 --> 00:09:20,560
crew members

258
00:09:24,470 --> 00:09:22,640
far away from the airlock the mobile

259
00:09:26,230 --> 00:09:24,480
transporter itself will be at work site

260
00:09:28,550 --> 00:09:26,240
four which is actually in the very

261
00:09:31,110 --> 00:09:28,560
center of the s0 truss

262
00:09:33,030 --> 00:09:31,120
that's where the degraded pump module is

263
00:09:35,430 --> 00:09:33,040

currently located and we'll be moving

264

00:09:37,269 --> 00:09:35,440

that over to the external stowage

265

00:09:39,750 --> 00:09:37,279

platform number two

266

00:09:41,910 --> 00:09:39,760

which is located on the starboard side

267

00:09:43,829 --> 00:09:41,920

of the lab just in front of the airlock

268

00:09:46,550 --> 00:09:43,839

itself

269

00:09:48,870 --> 00:09:46,560

the camera light that we're going to be

270

00:09:51,670 --> 00:09:48,880

replacing is also on the starboard side

271

00:09:53,590 --> 00:09:51,680

of the the lab and not very far away

272

00:09:55,509 --> 00:09:53,600

from esp2

273

00:09:58,550 --> 00:09:55,519

and finally the mobile transporter relay

274

00:10:00,790 --> 00:09:58,560

assembly that is being installed up on

275

00:10:04,470 --> 00:10:00,800

the mobile transporter once again at the

276

00:10:07,670 --> 00:10:04,480

center of the s0 truss

277

00:10:09,750 --> 00:10:07,680

so to give you a quick overview of the

278

00:10:12,470 --> 00:10:09,760

priorities and everything for spacewalk

279

00:10:15,350 --> 00:10:12,480

number 28

280

00:10:16,630 --> 00:10:15,360

we have the the first and most important

281

00:10:19,670 --> 00:10:16,640

activity we have we're going to replace

282

00:10:22,870 --> 00:10:19,680

sequential shunt unit 3a

283

00:10:25,030 --> 00:10:22,880

this box provides regulated power from

284

00:10:27,509 --> 00:10:25,040

solar array number 3a

285

00:10:30,150 --> 00:10:27,519

this box failed

286

00:10:31,990 --> 00:10:30,160

back in may of 2014.

287

00:10:34,790 --> 00:10:32,000

it really is no impact to any of the

288

00:10:36,550 --> 00:10:34,800

downstream users of that power because

289

00:10:40,870 --> 00:10:36,560

all of those loads have been transferred

290

00:10:43,230 --> 00:10:40,880

to the power channel 3 bravo

291

00:10:45,829 --> 00:10:43,240

that said by replacing

292

00:10:47,509 --> 00:10:45,839

ssu3a that will allow us to have more

293

00:10:49,030 --> 00:10:47,519

flexibility and redundancy in the

294

00:10:50,069 --> 00:10:49,040

primary power system of the space

295

00:10:51,990 --> 00:10:50,079

station

296

00:10:53,350 --> 00:10:52,000

and ultimately we'll make sure that we

297

00:10:55,750 --> 00:10:53,360

can have enough power for all the

298

00:10:57,190 --> 00:10:55,760

science that we want to go do

299

00:10:59,430 --> 00:10:57,200

the other items that we will be

300

00:11:01,750 --> 00:10:59,440

performing on spacewalk 28 are all in

301
00:11:04,310 --> 00:11:01,760
preparation for the relocation of the

302
00:11:05,990 --> 00:11:04,320
permanent multi-purpose module

303
00:11:07,829 --> 00:11:06,000
the pmm

304
00:11:09,750 --> 00:11:07,839
as kenny mentioned we are getting ready

305
00:11:11,990 --> 00:11:09,760
to do some reconfigurations of the space

306
00:11:15,350 --> 00:11:12,000
station in preparation for commercial

307
00:11:17,910 --> 00:11:15,360
crew capabilities and to give us another

308
00:11:19,190 --> 00:11:17,920
birthing port for our commercial cargo

309
00:11:19,990 --> 00:11:19,200
vehicles

310
00:11:21,670 --> 00:11:20,000
so

311
00:11:24,550 --> 00:11:21,680
in order for us to be able to

312
00:11:26,870 --> 00:11:24,560
move the permanent multi-purpose module

313
00:11:29,269 --> 00:11:26,880

we need to relocate

314

00:11:31,030 --> 00:11:29,279

multiple components that are outside the

315

00:11:33,269 --> 00:11:31,040

first one that we're going to touch is

316

00:11:36,550 --> 00:11:33,279

the camera port number seven that's

317

00:11:38,389 --> 00:11:36,560

currently located on the p1 truss

318

00:11:40,630 --> 00:11:38,399

and we're going to actually not only

319

00:11:42,949 --> 00:11:40,640

just move this camera we're going to

320

00:11:45,829 --> 00:11:42,959

replace it with a new one the current

321

00:11:47,110 --> 00:11:45,839

camera has a stuck zoom capability uh

322

00:11:49,430 --> 00:11:47,120

and although

323

00:11:51,750 --> 00:11:49,440

it's usable in many ways we really do

324

00:11:53,910 --> 00:11:51,760

want to recover that capability so we'll

325

00:11:56,790 --> 00:11:53,920

we'll be moving that camera from the

326

00:11:59,430 --> 00:11:56,800

bottom of the port 1 truss and placing

327

00:12:01,030 --> 00:11:59,440

it up on top of the port 1 truss with a

328

00:12:03,110 --> 00:12:01,040

brand new camera

329

00:12:04,550 --> 00:12:03,120

we're also going to move what's called

330

00:12:06,230 --> 00:12:04,560

an adjustable

331

00:12:08,470 --> 00:12:06,240

portable foot restraint and tool

332

00:12:10,629 --> 00:12:08,480

stanchion that also is currently located

333

00:12:12,069 --> 00:12:10,639

on the bottom of the port 1 truss and

334

00:12:12,949 --> 00:12:12,079

we're just going to move it out of the

335

00:12:16,629 --> 00:12:12,959

way

336

00:12:18,470 --> 00:12:16,639

and place it up on the s0 truss

337

00:12:20,230 --> 00:12:18,480

and the

338

00:12:23,590 --> 00:12:20,240

one other thing that we're going to move

339

00:12:25,350 --> 00:12:23,600

is a wireless external television

340

00:12:27,110 --> 00:12:25,360

camera assembly

341

00:12:29,910 --> 00:12:27,120

or antenna assembly

342

00:12:32,230 --> 00:12:29,920

that receives all the video signals that

343

00:12:33,190 --> 00:12:32,240

you see from our space walking crew

344

00:12:34,790 --> 00:12:33,200

members

345

00:12:36,389 --> 00:12:34,800

we're going to move that from its

346

00:12:38,870 --> 00:12:36,399

current location on top of the port 1

347

00:12:40,790 --> 00:12:38,880

truss out and actually put it on top of

348

00:12:42,230 --> 00:12:40,800

the node 2 module

349

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

again all of this is really in

350

00:12:46,069 --> 00:12:44,320

preparations for

351
00:12:47,750 --> 00:12:46,079
the permanent multi-purpose module

352
00:12:49,910 --> 00:12:47,760
relocation which

353
00:12:52,710 --> 00:12:49,920
currently is scheduled sometime over the

354
00:12:55,350 --> 00:12:52,720
summer of next year

355
00:12:57,269 --> 00:12:55,360
so with that i'm going to now pass over

356
00:12:59,350 --> 00:12:57,279
to jackie kege who is our lead extra

357
00:13:01,030 --> 00:12:59,360
vehicular activity officer for spacewalk

358
00:13:03,030 --> 00:13:01,040
number 27.

359
00:13:06,629 --> 00:13:03,040
hi i'm jacqueline cagey the lead eva

360
00:13:08,790 --> 00:13:06,639
space work officer for usc va 27

361
00:13:11,750 --> 00:13:08,800
as scott mentioned the spacewalk will be

362
00:13:14,870 --> 00:13:11,760
performed by reed wiseman as ev1

363
00:13:15,910 --> 00:13:14,880

and alexander gersht as ev2 with butch

364

00:13:18,790 --> 00:13:15,920

wilmore

365

00:13:20,710 --> 00:13:18,800

providing our iv support and our robotic

366

00:13:22,310 --> 00:13:20,720

arm operations

367

00:13:24,069 --> 00:13:22,320

wiseman and gersch have been training in

368

00:13:25,750 --> 00:13:24,079

a long time for this

369

00:13:28,069 --> 00:13:25,760

eva we

370

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

were able to prepare them in the mbl

371

00:13:33,350 --> 00:13:30,720

prior to launch

372

00:13:35,990 --> 00:13:33,360

we did simulate this entire eva back in

373

00:13:37,590 --> 00:13:36,000

march together so

374

00:13:40,949 --> 00:13:37,600

they are

375

00:13:43,110 --> 00:13:40,959

ready to to perform it next week

376

00:13:46,230 --> 00:13:43,120

wiseman will be extra vehicular crew

377

00:13:48,790 --> 00:13:46,240

member number ev1 he will be wearing red

378

00:13:50,870 --> 00:13:48,800

stripes and first will be crew member

379

00:13:53,430 --> 00:13:50,880

number two ev2 wearing a plain white

380

00:13:57,750 --> 00:13:54,629

they will begin the spacewalk

381

00:14:00,310 --> 00:13:57,760

preparations about 2 15 am central time

382

00:14:02,230 --> 00:14:00,320

and scheduled to begin their in-suit

383

00:14:04,629 --> 00:14:02,240

light exercise or aisle pre-breathe

384

00:14:06,870 --> 00:14:04,639

protocol about 4 15.

385

00:14:08,550 --> 00:14:06,880

aisle stands for in-suit light exercise

386

00:14:11,110 --> 00:14:08,560

it's a pre-breathe protocol that we

387

00:14:14,150 --> 00:14:11,120

started in increment 27

388

00:14:16,629 --> 00:14:14,160

this protocol we don the spacesuits and

389

00:14:19,030 --> 00:14:16,639

then exercise very lightly for about 15

390

00:14:21,110 --> 00:14:19,040

minutes with rest breaks in between

391

00:14:23,110 --> 00:14:21,120

the exercise equates to just slightly

392

00:14:26,230 --> 00:14:23,120

moving your arms and legs to get the

393

00:14:28,310 --> 00:14:26,240

nitrogen out of your system

394

00:14:30,790 --> 00:14:28,320

egress from the u.s airlock will be at 7

395

00:14:33,750 --> 00:14:30,800

15 a.m central time

396

00:14:37,189 --> 00:14:33,760

and with that i will begin the video to

397

00:14:42,550 --> 00:14:39,750

usc va 27 will start from the quest

398

00:14:48,790 --> 00:14:42,560

airlock reed wiseman ev1 wearing a suit

399

00:14:56,470 --> 00:14:51,590

alexander gersht ev2 wearing a plain

400

00:15:01,829 --> 00:14:59,750

and then after completing buddy checks

401
00:15:04,550 --> 00:15:01,839
alex will head to the starboard cedar

402
00:15:11,670 --> 00:15:04,560
cart to temp stow the mtra bags for

403
00:15:20,790 --> 00:15:14,550
reed will translate to esp2 to prepare

404
00:15:20,800 --> 00:15:26,629
he will temp stow bags

405
00:15:39,189 --> 00:15:28,470
and then open the thermal blanket to

406
00:15:43,670 --> 00:15:40,949
meanwhile alex will translate to the

407
00:15:55,749 --> 00:15:43,680
port cedar cart to retrieve the apfr or

408
00:15:59,990 --> 00:15:57,990
which he will translate to the ssrms

409
00:16:00,829 --> 00:16:00,000
installation location

410
00:16:11,430 --> 00:16:00,839
on

411
00:16:14,230 --> 00:16:11,440
the arm

412
00:16:22,069 --> 00:16:14,240
swap his safety tether

413
00:16:35,509 --> 00:16:23,990

at this point reed will translate to the

414

00:16:55,749 --> 00:16:37,910

and move them to the mtra worksite to

415

00:17:03,030 --> 00:16:58,310

there are two bags one contains the mtra

416

00:17:09,270 --> 00:17:04,789

and the second bag contains the four

417

00:17:13,669 --> 00:17:12,710

then ev1 will translate to ev2's safety

418

00:17:21,029 --> 00:17:13,679

tether

419

00:17:25,110 --> 00:17:22,949

alex rides the arm which is flown by

420

00:17:26,789 --> 00:17:25,120

butch wilmore to the poa to retrieve the

421

00:17:28,710 --> 00:17:26,799

pump munchl

422

00:17:30,230 --> 00:17:28,720

the poa is a robotically controlled

423

00:17:37,990 --> 00:17:30,240

stowage site that we placed the pump

424

00:17:43,430 --> 00:17:39,830

during the arm maneuver alex will rotate

425

00:17:46,789 --> 00:17:43,440

the pump module 180 degrees to get it to

426

00:17:48,390 --> 00:17:46,799

the correct installation orientation

427

00:17:56,870 --> 00:17:48,400

and please note that the arm maneuver

428

00:18:01,750 --> 00:17:59,270

reed will help guide butch and alex to

429

00:18:11,350 --> 00:18:01,760

install the pump module partially onto

430

00:18:15,909 --> 00:18:13,029

he will then remove the adjustable

431

00:18:23,430 --> 00:18:15,919

grapple bar or agb from the pump module

432

00:18:28,070 --> 00:18:25,350

and the crew will complete the final

433

00:18:29,990 --> 00:18:28,080

installation of the pump module and then

434

00:18:36,630 --> 00:18:30,000

we'll use the pgt to drive the four

435

00:18:41,350 --> 00:18:38,070

at this point the ev crew worked

436

00:18:46,789 --> 00:18:41,360

together to stow the agb on a spare oru

437

00:18:51,830 --> 00:18:49,990

and the agb is the method that

438

00:18:54,789 --> 00:18:51,840

was able to attach the pump module to

439

00:19:04,230 --> 00:18:54,799

the poa for that long

440

00:19:08,549 --> 00:19:06,150

and while the arm flies alex tore this

441

00:19:10,870 --> 00:19:08,559

next task reed will clean up the pump

442

00:19:18,789 --> 00:19:10,880

module work site including closing the

443

00:19:27,909 --> 00:19:21,190

alex is flown to camera port 13 which is

444

00:19:33,270 --> 00:19:29,909

you will first lock the camera pan and

445

00:19:33,280 --> 00:19:47,350

and then remove the failed light

446

00:19:57,750 --> 00:19:49,669

ev2 will retrieve the spare light from

447

00:20:06,870 --> 00:19:59,750

install it with a single bolt and the

448

00:20:13,590 --> 00:20:09,270

alex will then retrieve the handling aid

449

00:20:19,190 --> 00:20:15,430

and then he will unlock the pan and tilt

450

00:20:21,430 --> 00:20:19,200

unit prior to you leaving the work site

451
00:20:28,789 --> 00:20:21,440
during this time ev1 returns the pump

452
00:20:46,230 --> 00:20:31,350
and proceeds to translate to the mtra

453
00:20:52,549 --> 00:20:48,789
the mtra worksite is on the zenith side

454
00:20:59,110 --> 00:20:56,789
when reed begin gets into position

455
00:21:02,470 --> 00:20:59,120
he will remove the dead face connector

456
00:21:05,990 --> 00:21:02,480
that has protected the camera port since

457
00:21:14,310 --> 00:21:08,870
then he will install the empty array

458
00:21:17,430 --> 00:21:16,149
reed will gather the red yellow cable

459
00:21:21,270 --> 00:21:17,440
set

460
00:21:25,830 --> 00:21:21,280
and attach one end to the mtra box

461
00:21:27,830 --> 00:21:25,840
then route and mate the yellow connector

462
00:21:29,029 --> 00:21:27,840
and continue down the port side of the

463
00:21:31,590 --> 00:21:29,039

mt

464

00:21:44,149 --> 00:21:31,600

to the nadir empty location to meet the

465

00:21:51,110 --> 00:21:46,950

will fly back to esp2 to clean up the

466

00:21:51,120 --> 00:21:57,669

including a safety tether swap

467

00:21:57,679 --> 00:22:07,430

and removal of the apfr

468

00:22:14,390 --> 00:22:10,630

he then releases the ssrms from support

469

00:22:17,510 --> 00:22:16,070

and he will translate back to the

470

00:22:19,909 --> 00:22:17,520

airlock

471

00:22:24,310 --> 00:22:19,919

to stow the failed light inside the

472

00:22:35,669 --> 00:22:27,510

alex then translate to the mtra worksite

473

00:22:41,990 --> 00:22:38,310

ev2 will work the starboard side of the

474

00:22:48,310 --> 00:22:42,000

mtra where ev1 worked the port

475

00:22:48,320 --> 00:22:56,470

and make the connectors to the mtra

476

00:23:00,230 --> 00:22:57,909

you will route the cables down the

477

00:23:06,710 --> 00:23:00,240

starboard side of the mt

478

00:23:13,350 --> 00:23:08,870

and then hand off the blue connection

479

00:23:17,830 --> 00:23:15,110

the crew will then translate back to the

480

00:23:20,310 --> 00:23:17,840

zenith side of the mt making to sure to

481

00:23:28,149 --> 00:23:20,320

secure all their wire ties to keep the

482

00:23:30,870 --> 00:23:29,909

at this point they will clean up their

483

00:23:36,630 --> 00:23:30,880

bags

484

00:23:50,870 --> 00:23:39,190

they will ingress the airlock completing

485

00:23:55,350 --> 00:23:53,909

although we have not allotted for extra

486

00:23:58,549 --> 00:23:55,360

tasks beyond

487

00:23:59,990 --> 00:23:58,559

the mtra we have prepared some in case

488

00:24:02,470 --> 00:24:00,000

the crew does have extra time while

489

00:24:04,390 --> 00:24:02,480

they're outside these get ahead tasks

490

00:24:08,070 --> 00:24:04,400

are called

491

00:24:09,510 --> 00:24:08,080

our first two priorities would be

492

00:24:11,269 --> 00:24:09,520

actually two of the tests that keith

493

00:24:13,510 --> 00:24:11,279

will talk about in a couple minutes for

494

00:24:16,870 --> 00:24:13,520

his eva would be trying to get some of

495

00:24:18,470 --> 00:24:16,880

those that work done off of the eva 28

496

00:24:20,789 --> 00:24:18,480

before continuing

497

00:24:21,990 --> 00:24:20,799

on to some get-aheads that would

498

00:24:24,390 --> 00:24:22,000

help

499

00:24:27,510 --> 00:24:24,400

reconfigure the cedar carts deploy the

500

00:24:30,310 --> 00:24:27,520

mlm ethernet cable or gather some bags

501
00:24:32,549 --> 00:24:30,320
that we left outside on previous evas

502
00:24:35,110 --> 00:24:32,559
now i'll pass over to keith johnson who

503
00:24:38,149 --> 00:24:35,120
will talk eva 28.

504
00:24:41,750 --> 00:24:40,310
my name is keith johnson i'm the lead va

505
00:24:43,830 --> 00:24:41,760
officer for

506
00:24:45,669 --> 00:24:43,840
uscva 28.

507
00:24:47,990 --> 00:24:45,679
our ev crew members

508
00:24:49,190 --> 00:24:48,000
are reid wiseman repeating his role as

509
00:24:50,549 --> 00:24:49,200
ev1

510
00:24:52,870 --> 00:24:50,559
and

511
00:24:54,630 --> 00:24:52,880
barry butch wilmore will be performing

512
00:24:56,470 --> 00:24:54,640
his first dva

513
00:24:57,750 --> 00:24:56,480

as ev2

514

00:24:59,590 --> 00:24:57,760

alex in

515

00:25:02,390 --> 00:24:59,600

following his role as an eevee crew

516

00:25:03,190 --> 00:25:02,400

member will be our ground or i'm sorry

517

00:25:05,590 --> 00:25:03,200

our

518

00:25:07,430 --> 00:25:05,600

inter-vehicular or ivy crew member where

519

00:25:09,190 --> 00:25:07,440

he'll help the crew get suited up in in

520

00:25:11,669 --> 00:25:09,200

preparation

521

00:25:13,870 --> 00:25:11,679

um let's see

522

00:25:18,789 --> 00:25:13,880

scott mentioned that the

523

00:25:23,190 --> 00:25:18,799

ssu-3a is our critical task on this eva

524

00:25:25,269 --> 00:25:23,200

and in order to change out this ssu

525

00:25:28,070 --> 00:25:25,279

it would be receiving full power in the

526

00:25:30,470 --> 00:25:28,080

daylight pass of the solar a so as an

527

00:25:33,029 --> 00:25:30,480

inhibit we'll be changing out that

528

00:25:35,269 --> 00:25:33,039

during an eclipse a night pass

529

00:25:37,350 --> 00:25:35,279

at this particular beta angle on october

530

00:25:40,630 --> 00:25:37,360

15th we have a little over 30 minutes to

531

00:25:42,470 --> 00:25:40,640

get this box removed and replaced with

532

00:25:43,350 --> 00:25:42,480

the replacement unit

533

00:25:45,750 --> 00:25:43,360

um

534

00:25:48,630 --> 00:25:45,760

let's see uh we will be starting eva at

535

00:25:54,950 --> 00:25:48,640

about 7 20 in the morning on october

536

00:26:00,230 --> 00:25:57,750

okay as i mentioned uh reid wiseman will

537

00:26:02,710 --> 00:26:00,240

be ev1 he'll be the one with the red

538

00:26:05,909 --> 00:26:02,720

stripes coming out of the airlock first

539

00:26:08,950 --> 00:26:05,919

he'll be followed by uh barry butch

540

00:26:11,110 --> 00:26:08,960

wilmore as uh ev2

541

00:26:13,909 --> 00:26:11,120

they'll hand out the spare sequential

542

00:26:16,549 --> 00:26:13,919

shunt unit in an orbital replacement

543

00:26:18,630 --> 00:26:16,559

unit bag

544

00:26:22,870 --> 00:26:18,640

reed will assist butch in translation up

545

00:26:30,630 --> 00:26:24,950

which will start out first along face

546

00:26:40,390 --> 00:26:32,470

he'll drop a green hook from his safety

547

00:26:43,190 --> 00:26:41,669

meanwhile

548

00:26:47,510 --> 00:26:43,200

reid will climb up the crew and

549

00:26:51,669 --> 00:26:49,750

he'll transfer his crew lock bag with

550

00:26:56,230 --> 00:26:51,679

his tools in it onto an articulating

551
00:27:00,149 --> 00:26:58,230
he'll release that bundle

552
00:27:03,190 --> 00:27:00,159
and he'll stow it on his body restraint

553
00:27:05,110 --> 00:27:03,200
tether or brt

554
00:27:07,510 --> 00:27:05,120
reid will join butch along the starboard

555
00:27:09,830 --> 00:27:07,520
face one truss

556
00:27:11,669 --> 00:27:09,840
or he'll drop his green hook and that

557
00:27:15,110 --> 00:27:11,679
allows them to go farther out on the

558
00:27:19,269 --> 00:27:17,510
butch and reed will continue translating

559
00:27:24,630 --> 00:27:19,279
starboard

560
00:27:24,640 --> 00:27:29,990
out to the 3a solar array

561
00:27:33,669 --> 00:27:32,070
butch will stow the oru bag holding the

562
00:27:38,710 --> 00:27:33,679
spare ssu

563
00:27:43,750 --> 00:27:41,110

reed will join butch and install the

564

00:27:47,750 --> 00:27:43,760

apfr with the crew lock bag

565

00:27:49,830 --> 00:27:47,760

and a worksite interface or with socket

566

00:27:51,430 --> 00:27:49,840

he'll remove the crew lock bag

567

00:27:55,669 --> 00:27:51,440

with the tools and stow it at the

568

00:28:05,190 --> 00:27:58,230

it'll ingress the apfr in preparation

569

00:28:09,590 --> 00:28:07,430

during the day pass prior to the eclipse

570

00:28:11,029 --> 00:28:09,600

he'll install a handling aid called a

571

00:28:13,029 --> 00:28:11,039

scoop

572

00:28:15,430 --> 00:28:13,039

on the failed ssu

573

00:28:16,950 --> 00:28:15,440

and he'll loosen the bolt

574

00:28:23,269 --> 00:28:16,960

in preparation for driving it all the

575

00:28:27,190 --> 00:28:25,269

in eclipse he'll remove the the failed

576
00:28:29,750 --> 00:28:27,200
unit

577
00:28:30,870 --> 00:28:29,760
and butch will prepare the replacement

578
00:28:33,750 --> 00:28:30,880
unit

579
00:28:35,669 --> 00:28:33,760
hand it over to reed

580
00:28:37,750 --> 00:28:35,679
it'll present the electrical connector

581
00:28:39,430 --> 00:28:37,760
side of the ssu to butch

582
00:28:42,389 --> 00:28:39,440
to inspect for

583
00:28:44,470 --> 00:28:42,399
debris damage bent pins or things that

584
00:28:47,350 --> 00:28:44,480
could prevent it from being installed

585
00:28:50,310 --> 00:28:47,360
and here's an image of the business side

586
00:28:50,320 --> 00:28:55,430
reed will rotate the ssu into position

587
00:29:01,510 --> 00:28:57,350
and you'll drive the bolt while butch

588
00:29:05,830 --> 00:29:03,510

once the ssu is installed the crew will

589

00:29:09,750 --> 00:29:05,840

notify the ground to start testing it

590

00:29:15,029 --> 00:29:12,149

and he'll hand butch the failed ssu to

591

00:29:17,269 --> 00:29:15,039

put in the oru bag

592

00:29:23,430 --> 00:29:17,279

which will put the bag in the s the ssu

593

00:29:29,510 --> 00:29:26,470

reed will egress the apfr

594

00:29:35,269 --> 00:29:29,520

he'll put the crew lock bag on the apfr

595

00:29:38,870 --> 00:29:37,110

reed and butch will head back inboard

596

00:29:51,269 --> 00:29:38,880

following these their safety tethers

597

00:29:55,350 --> 00:29:53,430

we'll stop along the way to pick up

598

00:29:56,710 --> 00:29:55,360

the green hooks that they dropped

599

00:30:05,830 --> 00:29:56,720

on their way out and then they'll

600

00:30:10,470 --> 00:30:08,630

readable stow is apfr

601
00:30:17,430 --> 00:30:10,480
and he'll retrieve the crew lock bag off

602
00:30:22,070 --> 00:30:19,830
and butch will go to the airlock and

603
00:30:26,310 --> 00:30:22,080
he'll stow the failed ssu and he'll

604
00:30:31,350 --> 00:30:28,310
from there he'll head towards camera

605
00:30:45,269 --> 00:30:31,360
port 7 or cp7 as we call it on the port

606
00:30:51,909 --> 00:30:49,510
once he's there he'll stow his oru bag

607
00:30:54,070 --> 00:30:51,919
meanwhile uh readable butch will join

608
00:30:58,070 --> 00:30:54,080
butch at cp7 translating a little bit

609
00:31:06,950 --> 00:30:59,990
and that'll help deconflict their safety

610
00:31:17,990 --> 00:31:09,350
which will temporarily stow his smaller

611
00:31:23,029 --> 00:31:19,509
the two of them will move over to

612
00:31:26,549 --> 00:31:23,039
release the apfr and tool stanchion

613
00:31:28,230 --> 00:31:26,559

and they'll shepard it inboard

614

00:31:30,710 --> 00:31:28,240

that'll get it out of the way for the

615

00:31:36,070 --> 00:31:30,720

permanent multi-purpose module or pmm

616

00:31:36,080 --> 00:31:40,470

reading butch will return to cp7

617

00:31:51,110 --> 00:31:42,389

reed will remove a crew lock bag from

618

00:31:58,070 --> 00:31:53,909

butch will release the bolts on the cp7

619

00:32:01,509 --> 00:32:00,630

we'll hand butch a scoop

620

00:32:03,269 --> 00:32:01,519

and then

621

00:32:05,110 --> 00:32:03,279

butch will install it

622

00:32:12,149 --> 00:32:05,120

and he'll remove the camera group and

623

00:32:18,950 --> 00:32:14,470

from there reed will temporarily stow

624

00:32:23,190 --> 00:32:21,190

butch and reed will disconnect and stow

625

00:32:24,710 --> 00:32:23,200

three electrical connectors

626
00:32:27,110 --> 00:32:24,720
from the stanchion

627
00:32:35,110 --> 00:32:27,120
and install a small oru bag as a

628
00:32:39,190 --> 00:32:37,590
they'll release the stanchion bolt

629
00:32:47,029 --> 00:32:39,200
and reed will hand the stanchion to

630
00:32:50,710 --> 00:32:49,269
from there butch will head forward on

631
00:32:54,149 --> 00:32:50,720
iss

632
00:33:02,789 --> 00:32:54,159
to the zenith aft end of node 2

633
00:33:08,070 --> 00:33:04,230
which will install the stanchion at

634
00:33:20,549 --> 00:33:10,950
and remove the oru bag

635
00:33:25,269 --> 00:33:22,950
meanwhile

636
00:33:27,269 --> 00:33:25,279
reed will translate port zenith to

637
00:33:40,149 --> 00:33:27,279
camera port 8

638
00:33:44,230 --> 00:33:42,230

he'll release two outer and one center

639

00:33:47,990 --> 00:33:44,240

bolt of the wireless video system

640

00:33:56,630 --> 00:33:48,000

external transceiver assembly or weta

641

00:34:06,149 --> 00:33:58,549

i'll remove the whole unit and put it on

642

00:34:22,149 --> 00:34:08,069

and then i'll translate out

643

00:34:22,159 --> 00:34:30,550

you'll hand the weta off to butch

644

00:34:35,990 --> 00:34:33,270

from there reed will retrieve the failed

645

00:34:39,669 --> 00:34:36,000

camera group from its temporary stowage

646

00:34:39,679 --> 00:34:45,349

and will translate to the airlock

647

00:34:49,589 --> 00:34:47,030

the airlock will exchange the failed

648

00:34:59,910 --> 00:34:49,599

camera group with a replacement unit in

649

00:35:05,349 --> 00:35:02,790

it'll translate back to the port truss

650

00:35:06,950 --> 00:35:05,359

and up to cp8

651
00:35:24,230 --> 00:35:06,960
we removed

652
00:35:32,870 --> 00:35:25,430
he'll remove

653
00:35:32,880 --> 00:35:40,069
and install it on the camera stanchion

654
00:35:48,150 --> 00:35:42,550
he'll remove the scoop handling aid

655
00:35:53,910 --> 00:35:49,589
he'll check the alignment of the camera

656
00:35:57,030 --> 00:35:55,670
and retrieve his oru bag and put it on

657
00:35:58,550 --> 00:35:57,040
his brt

658
00:36:00,790 --> 00:35:58,560
during that time butch will be

659
00:36:03,990 --> 00:36:00,800
installing the weta on the cp-11

660
00:36:07,109 --> 00:36:06,069
it'll remove the scoop stow it in the

661
00:36:08,630 --> 00:36:07,119
bag

662
00:36:11,990 --> 00:36:08,640
and he'll drive the center and outer

663
00:36:16,550 --> 00:36:13,510

then he'll connect the electrical

664

00:36:25,510 --> 00:36:19,270

and retrieve his oru bag

665

00:36:29,190 --> 00:36:27,190

at this point both crew members will

666

00:36:30,230 --> 00:36:29,200

return to the airlock they'll stow their

667

00:36:32,790 --> 00:36:30,240

bags

668

00:36:36,310 --> 00:36:32,800

and ingress butch going in first

669

00:36:36,320 --> 00:36:47,430

and that will complete uscva 28.

670

00:36:49,589 --> 00:36:48,230

so

671

00:36:51,990 --> 00:36:49,599

we expect

672

00:36:53,349 --> 00:36:52,000

the evas to last about six and a half

673

00:36:55,990 --> 00:36:53,359

hours

674

00:36:59,030 --> 00:36:56,000

if for some reason things go very well

675

00:37:01,829 --> 00:36:59,040

on uscva27 as jackie mentioned and they

676
00:37:04,069 --> 00:37:01,839
get several of our tasks completed early

677
00:37:04,870 --> 00:37:04,079
we have a list of of get ahead tasks

678
00:37:07,510 --> 00:37:04,880
that

679
00:37:09,349 --> 00:37:07,520
we can start

680
00:37:11,910 --> 00:37:09,359
one of the the tasks that we have on our

681
00:37:15,190 --> 00:37:11,920
list as a get ahead is releasing battery

682
00:37:18,310 --> 00:37:15,200
bolts on the s4 and s6 truss in

683
00:37:20,150 --> 00:37:18,320
preparation for those battery rnr's um

684
00:37:22,790 --> 00:37:20,160
in in years to come

685
00:37:25,430 --> 00:37:22,800
we also can retrieve the cp9

686
00:37:27,910 --> 00:37:25,440
light that's outside

687
00:37:30,150 --> 00:37:27,920
jackie mentioned the the bags that could

688
00:37:32,630 --> 00:37:30,160

be brought inside we also have

689

00:37:34,470 --> 00:37:32,640

the mlm ethernet cable

690

00:37:36,790 --> 00:37:34,480

routing that we could complete

691

00:37:38,150 --> 00:37:36,800

out onto pma1

692

00:37:40,150 --> 00:37:38,160

and we also have the cedar cart

693

00:37:41,270 --> 00:37:40,160

reconfigurations as part of our get

694

00:37:43,589 --> 00:37:41,280

ahead list

695

00:37:45,670 --> 00:37:43,599

and an airlock handrail clamp to cover

696

00:37:48,069 --> 00:37:45,680

up an mmod strike

697

00:37:50,630 --> 00:37:48,079

and that's all i have

698

00:37:52,950 --> 00:37:50,640

okay thanks keith uh time for questions

699

00:37:54,870 --> 00:37:52,960

and we'll take them here at jsc and on

700

00:37:57,190 --> 00:37:54,880

our phone bridge and we'll start off

701
00:37:59,990 --> 00:37:57,200
over here with mark caro mark

702
00:38:02,230 --> 00:38:00,000
uh thank you mark caro for aviation week

703
00:38:04,870 --> 00:38:02,240
i had a question and a follow-up i

704
00:38:07,829 --> 00:38:04,880
wonder if you might uh go back to the

705
00:38:09,270 --> 00:38:07,839
battery fuse issue that sort of

706
00:38:10,470 --> 00:38:09,280
forced the delay

707
00:38:12,950 --> 00:38:10,480
uh from

708
00:38:15,030 --> 00:38:12,960
resuming the maintenance space walks in

709
00:38:16,950 --> 00:38:15,040
in august and i guess where i'm going

710
00:38:19,670 --> 00:38:16,960
with that is to to understand that that

711
00:38:21,750 --> 00:38:19,680
was a generic problem or or

712
00:38:25,430 --> 00:38:21,760
what you know what you needed to do to

713
00:38:26,790 --> 00:38:25,440

resolve that how it arose and

714

00:38:28,790 --> 00:38:26,800

don't have a fault

715

00:38:31,510 --> 00:38:28,800

well let's see the the issue was with

716

00:38:32,470 --> 00:38:31,520

our our long life batteries

717

00:38:35,030 --> 00:38:32,480

there was a

718

00:38:36,790 --> 00:38:35,040

discovery that was made

719

00:38:39,190 --> 00:38:36,800

when looking back at the testing and the

720

00:38:40,470 --> 00:38:39,200

way the batteries were tested

721

00:38:42,950 --> 00:38:40,480

that

722

00:38:44,230 --> 00:38:42,960

generically anytime you you get ready to

723

00:38:45,670 --> 00:38:44,240

fly a set of batteries we go through

724

00:38:46,470 --> 00:38:45,680

what we call a series of acceptance

725

00:38:48,630 --> 00:38:46,480

tests

726

00:38:50,069 --> 00:38:48,640

for those batteries and

727

00:38:51,510 --> 00:38:50,079

we put them through a number of

728

00:38:53,750 --> 00:38:51,520

different cycles

729

00:38:55,349 --> 00:38:53,760

and for the batteries

730

00:38:57,430 --> 00:38:55,359

they discovered some on the ground here

731

00:38:59,270 --> 00:38:57,440

in their testing that their test plan

732

00:39:01,589 --> 00:38:59,280

called out more cycles

733

00:39:02,710 --> 00:39:01,599

than than what was required

734

00:39:04,710 --> 00:39:02,720

and so

735

00:39:07,109 --> 00:39:04,720

at the time we looked at it hard and

736

00:39:09,190 --> 00:39:07,119

said you know do we want to continue

737

00:39:10,870 --> 00:39:09,200

with the batteries we have on board

738

00:39:12,230 --> 00:39:10,880

we felt like they were good batteries we

739

00:39:15,270 --> 00:39:12,240

felt like if we needed to go out in a

740

00:39:16,790 --> 00:39:15,280

contingency that that we could do that

741

00:39:18,870 --> 00:39:16,800

there was no indications the batteries

742

00:39:21,030 --> 00:39:18,880

were charging they were just fine

743

00:39:22,790 --> 00:39:21,040

um but uh

744

00:39:25,030 --> 00:39:22,800

but but the fact of the matter is that

745

00:39:27,190 --> 00:39:25,040

the the test plan that they had been

746

00:39:29,109 --> 00:39:27,200

through was not consistent with what the

747

00:39:31,270 --> 00:39:29,119

original intent was which was not to put

748

00:39:32,470 --> 00:39:31,280

them through as many cycles and so so we

749

00:39:33,910 --> 00:39:32,480

made the decision we knew it was

750

00:39:35,670 --> 00:39:33,920

conservative when we made it but we

751

00:39:37,670 --> 00:39:35,680

thought it was a a good call we could

752

00:39:39,510 --> 00:39:37,680

wait on the ebas it wasn't an issue

753

00:39:41,990 --> 00:39:39,520

there and so

754

00:39:44,470 --> 00:39:42,000

so again we we made the decision to fly

755

00:39:46,550 --> 00:39:44,480

up some new batteries um and and get

756

00:39:47,750 --> 00:39:46,560

those on board and then and then get

757

00:39:49,510 --> 00:39:47,760

ourselves in a

758

00:39:52,550 --> 00:39:49,520

you know what we consider be as pristina

759

00:39:54,390 --> 00:39:52,560

shape as we could going into these evas

760

00:39:56,950 --> 00:39:54,400

thanks and for my follow-up i wondered

761

00:40:00,470 --> 00:39:56,960

if you will continue to

762

00:40:02,310 --> 00:40:00,480

use the absorbent pads and the

763

00:40:05,190 --> 00:40:02,320

the breathing tubes

764

00:40:06,309 --> 00:40:05,200

that you used after the

765

00:40:09,829 --> 00:40:06,319

july

766

00:40:12,550 --> 00:40:09,839

2013 difficulties or is that no longer

767

00:40:17,910 --> 00:40:13,589

those are

768

00:40:21,750 --> 00:40:17,920

of our our gear going forward um

769

00:40:24,230 --> 00:40:21,760

again uh coming out of out of the issue

770

00:40:26,710 --> 00:40:24,240

that we had with luca back in 2013 we

771

00:40:29,589 --> 00:40:26,720

made a a lot of different changes

772

00:40:31,510 --> 00:40:29,599

to to minimize the overall risk and and

773

00:40:34,069 --> 00:40:31,520

part of that was things that we could do

774

00:40:37,030 --> 00:40:34,079

to to reduce the likelihood

775

00:40:39,190 --> 00:40:37,040

of having the problem but also to to to

776
00:40:41,109 --> 00:40:39,200
also reduce the consequence and and

777
00:40:43,750 --> 00:40:41,119
mitigate the consequence part of it too

778
00:40:45,910 --> 00:40:43,760
and and as part of that uh the actions

779
00:40:47,670 --> 00:40:45,920
with with having the snorkel and the

780
00:40:49,270 --> 00:40:47,680
helmet pad and so forth really really

781
00:40:51,190 --> 00:40:49,280
helps us from from the standpoint of

782
00:40:52,390 --> 00:40:51,200
mitigating a consequence should we get

783
00:40:54,230 --> 00:40:52,400
there

784
00:40:56,550 --> 00:40:54,240
again so so yeah that's going to be a

785
00:40:58,390 --> 00:40:56,560
standard part of of our

786
00:41:00,309 --> 00:40:58,400
of our preparations from this point

787
00:41:01,349 --> 00:41:00,319
forward

788
00:41:05,510 --> 00:41:01,359

robert

789

00:41:08,790 --> 00:41:07,750

keith you mentioned a list of five

790

00:41:11,190 --> 00:41:08,800

different

791

00:41:13,990 --> 00:41:11,200

uh get aheads at the end i'm wondering

792

00:41:16,710 --> 00:41:14,000

in general how with with the delay that

793

00:41:19,670 --> 00:41:16,720

were paused that we had in spacewalks

794

00:41:22,950 --> 00:41:19,680

how long the list of get aheads

795

00:41:25,030 --> 00:41:22,960

or tasks that are not critical has grown

796

00:41:30,710 --> 00:41:25,040

and

797

00:41:33,190 --> 00:41:30,720

you rank what to do next in that list

798

00:41:34,710 --> 00:41:33,200

that's an interesting question

799

00:41:36,630 --> 00:41:34,720

the list is long

800

00:41:37,670 --> 00:41:36,640

um it includes

801
00:41:39,270 --> 00:41:37,680
things that

802
00:41:41,589 --> 00:41:39,280
at the very bottom of the list that are

803
00:41:44,230 --> 00:41:41,599
probably trivial but you know would

804
00:41:46,150 --> 00:41:44,240
would be nice just just to to neaten up

805
00:41:49,510 --> 00:41:46,160
all the way up to

806
00:41:51,030 --> 00:41:49,520
tasks that would help future evas

807
00:41:53,430 --> 00:41:51,040
um by

808
00:41:55,349 --> 00:41:53,440
you know getting steps out of the way or

809
00:41:56,630 --> 00:41:55,359
or clearing a path so

810
00:41:57,829 --> 00:41:56,640
um

811
00:41:59,990 --> 00:41:57,839
i i would have to get you the

812
00:42:03,510 --> 00:42:00,000
information on on how many items are on

813
00:42:05,589 --> 00:42:03,520

that list but uh we we try to work them

814

00:42:07,270 --> 00:42:05,599

in priority order but we also try to

815

00:42:08,710 --> 00:42:07,280

work them um

816

00:42:09,670 --> 00:42:08,720

based on the location of the crew

817

00:42:11,990 --> 00:42:09,680

members

818

00:42:14,309 --> 00:42:12,000

throughout the existing eva

819

00:42:17,190 --> 00:42:14,319

what ones would work best so

820

00:42:19,750 --> 00:42:17,200

um we have a prioritized list

821

00:42:22,870 --> 00:42:19,760

of of things that have to happen

822

00:42:23,990 --> 00:42:22,880

probably more based on uh on criticality

823

00:42:26,390 --> 00:42:24,000

of of

824

00:42:29,190 --> 00:42:26,400

future failures or or things that would

825

00:42:30,470 --> 00:42:29,200

help us get ahead all the way down so

826

00:42:32,550 --> 00:42:30,480

um

827

00:42:34,230 --> 00:42:32,560

you know we we i wouldn't say pick and

828

00:42:36,630 --> 00:42:34,240

choose we're given a list that gets

829

00:42:39,670 --> 00:42:36,640

approved that gets uh analyzed for the

830

00:42:45,910 --> 00:42:39,680

work sites that we're at and um we try

831

00:42:48,950 --> 00:42:47,510

hey uh we have uh

832

00:42:51,470 --> 00:42:48,960

one reporter on the phone bridge we'll

833

00:42:54,230 --> 00:42:51,480

come back here for follow-ups as well uh

834

00:42:55,910 --> 00:42:54,240

miriamkramerspace.com you there

835

00:43:00,470 --> 00:42:55,920

hi yeah thanks so much for taking my

836

00:43:03,190 --> 00:43:00,480

question um so i i am curious about how

837

00:43:06,069 --> 00:43:03,200

the spacewalk pairs were decided and

838

00:43:08,390 --> 00:43:06,079

also how the um tasks of each of the

839

00:43:10,150 --> 00:43:08,400

spacewalkers uh

840

00:43:12,309 --> 00:43:10,160

are are chosen i mean

841

00:43:15,589 --> 00:43:12,319

like for instance

842

00:43:17,510 --> 00:43:15,599

gets to ride the robotic arm so how i i

843

00:43:22,069 --> 00:43:17,520

guess i'm wondering how how all of that

844

00:43:26,390 --> 00:43:24,790

uh so i guess i'll take that one uh and

845

00:43:28,550 --> 00:43:26,400

jackie and keith can chime in at any

846

00:43:31,750 --> 00:43:28,560

point in time also uh for for an overall

847

00:43:33,349 --> 00:43:31,760

what tasks are selected um

848

00:43:35,030 --> 00:43:33,359

there's multiple things that go into

849

00:43:37,109 --> 00:43:35,040

consideration as keith even mentioned

850

00:43:40,309 --> 00:43:37,119

with the get ahead task

851
00:43:42,230 --> 00:43:40,319
primary tasks for any uh spacewalk come

852
00:43:43,990 --> 00:43:42,240
from a programmatic standpoint there are

853
00:43:44,710 --> 00:43:44,000
priorities of items that we need to get

854
00:43:46,710 --> 00:43:44,720
done

855
00:43:48,470 --> 00:43:46,720
external to the vehicle

856
00:43:52,230 --> 00:43:48,480
some of those could actually be

857
00:43:53,990 --> 00:43:52,240
completed by the spdm and robotics so we

858
00:43:55,750 --> 00:43:54,000
will try to make sure that those get

859
00:43:58,069 --> 00:43:55,760
handled uh from from a robotic

860
00:44:00,069 --> 00:43:58,079
standpoint but there are just some items

861
00:44:03,510 --> 00:44:00,079
that uh you know need a crew member's

862
00:44:05,589 --> 00:44:03,520
touch uh outside uh and so from a an

863
00:44:07,349 --> 00:44:05,599

overall programmatic side whether it's

864

00:44:10,230 --> 00:44:07,359

because a failure has happened and we

865

00:44:12,230 --> 00:44:10,240

need to respond to that failure or it's

866

00:44:15,349 --> 00:44:12,240

preparation for future activities for

867

00:44:17,270 --> 00:44:15,359

example the pmm relocation

868

00:44:19,190 --> 00:44:17,280

the the program gives us gives us a

869

00:44:20,470 --> 00:44:19,200

prioritized list of those items that

870

00:44:23,349 --> 00:44:20,480

need to be done

871

00:44:25,349 --> 00:44:23,359

we then generically plan our space walks

872

00:44:27,829 --> 00:44:25,359

for six and a half hours so we need to

873

00:44:30,790 --> 00:44:27,839

to analyze and figure out how long each

874

00:44:32,309 --> 00:44:30,800

one of those activities uh will last and

875

00:44:33,510 --> 00:44:32,319

and it's kind of like a puzzle at that

876

00:44:35,349 --> 00:44:33,520

point in time where you're you're

877

00:44:37,430 --> 00:44:35,359

putting the pieces together

878

00:44:39,190 --> 00:44:37,440

this item takes 20 minutes this item

879

00:44:40,950 --> 00:44:39,200

takes two hours and you have to come up

880

00:44:42,870 --> 00:44:40,960

with timelines that are about six and a

881

00:44:44,790 --> 00:44:42,880

half hours long

882

00:44:46,950 --> 00:44:44,800

as for which crew member

883

00:44:47,829 --> 00:44:46,960

gets to do which that's almost a puzzle

884

00:44:48,790 --> 00:44:47,839

as well

885

00:44:50,550 --> 00:44:48,800

so

886

00:44:51,829 --> 00:44:50,560

each crew member is trained

887

00:44:53,589 --> 00:44:51,839

and and they get trained on many

888

00:44:56,230 --> 00:44:53,599

activities

889

00:44:58,150 --> 00:44:56,240

specifically our our contingency

890

00:45:00,710 --> 00:44:58,160

failure response activities all the crew

891

00:45:03,430 --> 00:45:00,720

members on the u.s segment get trained

892

00:45:04,550 --> 00:45:03,440

on those so that they can respond if we

893

00:45:07,430 --> 00:45:04,560

need them

894

00:45:08,790 --> 00:45:07,440

but for planned dvas uh there's uh you

895

00:45:11,190 --> 00:45:08,800

know assessments of crew members

896

00:45:13,750 --> 00:45:11,200

capabilities uh all of our guys are and

897

00:45:15,030 --> 00:45:13,760

girls are very sharp but uh you know

898

00:45:16,710 --> 00:45:15,040

whether it's crew member size or

899

00:45:18,710 --> 00:45:16,720

anything like that we we need to take

900

00:45:21,109 --> 00:45:18,720

that in consideration when it comes down

901
00:45:23,270 --> 00:45:21,119
to performing an activity uh so that

902
00:45:26,390 --> 00:45:23,280
that kind of gets put into place uh and

903
00:45:28,069 --> 00:45:26,400
then when you look at um what tasks need

904
00:45:30,069 --> 00:45:28,079
to be done it like i said it kind of

905
00:45:32,950 --> 00:45:30,079
lays out as a puzzle as well as to which

906
00:45:33,990 --> 00:45:32,960
crew member is available at any time and

907
00:45:36,309 --> 00:45:34,000
which

908
00:45:38,230 --> 00:45:36,319
tasks best fit that person

909
00:45:39,990 --> 00:45:38,240
so yeah it looks fun because

910
00:45:42,150 --> 00:45:40,000
mr gersch gets to ride the arm around

911
00:45:43,510 --> 00:45:42,160
and it could be fun but

912
00:45:48,550 --> 00:45:43,520
he

913
00:45:54,710 --> 00:45:48,560

job and it was determined

914

00:46:00,950 --> 00:45:57,190

okay i think that was it from miriam

915

00:46:02,390 --> 00:46:00,960

back here at jsc any follow-ups

916

00:46:04,790 --> 00:46:02,400

mark

917

00:46:07,109 --> 00:46:04,800

yes i'm wondering you know if we dial

918

00:46:10,309 --> 00:46:07,119

back again uh

919

00:46:11,990 --> 00:46:10,319

to july of uh 2013

920

00:46:14,390 --> 00:46:12,000

and and the whole

921

00:46:17,109 --> 00:46:14,400

broad issue of

922

00:46:18,630 --> 00:46:17,119

conducting space walks is there any

923

00:46:20,150 --> 00:46:18,640

way to sort of

924

00:46:21,829 --> 00:46:20,160

address the

925

00:46:24,870 --> 00:46:21,839

the sort of

926
00:46:27,430 --> 00:46:24,880
overall change or improvement

927
00:46:29,829 --> 00:46:27,440
and you are a rigor in conducting space

928
00:46:32,069 --> 00:46:29,839
walks now whether they're emergency or

929
00:46:35,190 --> 00:46:32,079
maintenance

930
00:46:36,550 --> 00:46:35,200
has this whole process put you in a

931
00:46:38,710 --> 00:46:36,560
in a better

932
00:46:40,630 --> 00:46:38,720
position i assume it has but i just

933
00:46:41,750 --> 00:46:40,640
don't know how you look at it from a

934
00:46:43,750 --> 00:46:41,760
management

935
00:46:44,790 --> 00:46:43,760
standpoint

936
00:46:46,550 --> 00:46:44,800
part of the

937
00:46:55,109 --> 00:46:46,560
the

938
00:46:58,950 --> 00:46:55,119

board that was formed

939

00:47:00,950 --> 00:46:58,960

to look at all facets not just the the

940

00:47:02,950 --> 00:47:00,960

technical part of what happened but also

941

00:47:05,510 --> 00:47:02,960

look at at the management aspects

942

00:47:08,470 --> 00:47:05,520

cultural aspects what have you to try to

943

00:47:11,990 --> 00:47:08,480

try to see whether were there gaps in in

944

00:47:14,870 --> 00:47:12,000

the way the we prepared for evas on all

945

00:47:16,309 --> 00:47:14,880

fronts and so um

946

00:47:18,710 --> 00:47:16,319

coming out of that there was a series of

947

00:47:20,470 --> 00:47:18,720

recommendations that were were made

948

00:47:22,630 --> 00:47:20,480

there was an eva recovery team that was

949

00:47:24,549 --> 00:47:22,640

put in place to go in and work all of

950

00:47:25,349 --> 00:47:24,559

those recommendations

951
00:47:28,150 --> 00:47:25,359
so

952
00:47:30,309 --> 00:47:28,160
when you look back at at where we were

953
00:47:32,069 --> 00:47:30,319
then going into evas and our prep level

954
00:47:34,630 --> 00:47:32,079
of preparation now

955
00:47:37,829 --> 00:47:34,640
i would tell you that i think we're

956
00:47:39,750 --> 00:47:37,839
we're communicating better i think the

957
00:47:41,349 --> 00:47:39,760
working the suits and working with the

958
00:47:43,270 --> 00:47:41,359
program and working with our ops

959
00:47:44,630 --> 00:47:43,280
community i think there's a lot a lot

960
00:47:46,549 --> 00:47:44,640
tighter

961
00:47:48,870 --> 00:47:46,559
coordination that's happening about

962
00:47:50,309 --> 00:47:48,880
issues with suits and and how that flows

963
00:47:52,630 --> 00:47:50,319

into operations and how we make

964

00:47:54,390 --> 00:47:52,640

management decisions so

965

00:47:56,790 --> 00:47:54,400

i think there is a

966

00:48:00,150 --> 00:47:56,800

a certain level of awareness

967

00:48:02,150 --> 00:48:00,160

across the community now that that

968

00:48:04,390 --> 00:48:02,160

that is enhanced that's been put in

969

00:48:06,309 --> 00:48:04,400

place and that that through our review

970

00:48:08,230 --> 00:48:06,319

process and and just our basic

971

00:48:11,109 --> 00:48:08,240

communications is much much better than

972

00:48:15,750 --> 00:48:12,630

robert

973

00:48:17,829 --> 00:48:15,760

um sort of the flip side of get ahead

974

00:48:20,150 --> 00:48:17,839

it was mentioned that all three are

975

00:48:22,950 --> 00:48:20,160

rookie space walkers and that they're

976
00:48:24,790 --> 00:48:22,960
well trained that they've gone through

977
00:48:26,790 --> 00:48:24,800
the pool and such but

978
00:48:28,069 --> 00:48:26,800
is there any time loaded at the front to

979
00:48:30,470 --> 00:48:28,079
give to let them

980
00:48:31,670 --> 00:48:30,480
sort of gain their their space legs so

981
00:48:33,270 --> 00:48:31,680
to speak

982
00:48:37,270 --> 00:48:33,280
and to just get familiar working in the

983
00:48:39,030 --> 00:48:37,280
emu in the vacuum of outer space

984
00:48:42,470 --> 00:48:39,040
yeah for for every first time

985
00:48:44,390 --> 00:48:42,480
spacewalker we do put about 15 to 20

986
00:48:46,309 --> 00:48:44,400
minutes at the beginning just after

987
00:48:48,950 --> 00:48:46,319
egress that we call translation

988
00:48:50,549 --> 00:48:48,960

adaptation and we give them some points

989

00:48:52,309 --> 00:48:50,559

and tips of

990

00:48:54,549 --> 00:48:52,319

different movements to make just so they

991

00:48:56,470 --> 00:48:54,559

can get used to the feel of themselves

992

00:48:59,510 --> 00:48:56,480

in the suit in the vacuum of space for

993

00:49:02,150 --> 00:48:59,520

the first time and then we also pad our

994

00:49:03,750 --> 00:49:02,160

evas for all crew members because it is

995

00:49:06,630 --> 00:49:03,760

different than what we do in the the

996

00:49:08,150 --> 00:49:06,640

water so that we have plenty of time so

997

00:49:10,630 --> 00:49:08,160

we're not rushing the crew members when

998

00:49:12,870 --> 00:49:10,640

they're out the door

999

00:49:17,030 --> 00:49:12,880

i'd also like to add that

1000

00:49:21,510 --> 00:49:17,040

during usc va 28 we are shooting for

1001

00:49:23,670 --> 00:49:21,520

a specific eclipse to start the ssu task

1002

00:49:26,870 --> 00:49:23,680

and as part of that we take into account

1003

00:49:28,069 --> 00:49:26,880

that we have one rookie and

1004

00:49:29,990 --> 00:49:28,079

the other crew member will have

1005

00:49:33,589 --> 00:49:30,000

completed reed will have completed an

1006

00:49:34,549 --> 00:49:33,599

eva the week before so we'll use that to

1007

00:49:35,910 --> 00:49:34,559

judge

1008

00:49:37,030 --> 00:49:35,920

what it takes to get them out to the

1009

00:49:37,750 --> 00:49:37,040

work site but

1010

00:49:39,589 --> 00:49:37,760

we

1011

00:49:41,910 --> 00:49:39,599

leave enough margin so that they should

1012

00:49:45,589 --> 00:49:41,920

be there and set up at the work site

1013

00:49:49,829 --> 00:49:48,069

any other follow-ups here

1014

00:49:51,510 --> 00:49:49,839

okay i think that's it for questions

1015

00:49:53,990 --> 00:49:51,520

we'll close uh the briefing with a

1016

00:49:56,150 --> 00:49:54,000

programming note our spacewalk coverage

1017

00:49:59,190 --> 00:49:56,160

on nasa television next tuesday october

1018

00:50:02,150 --> 00:49:59,200

7th as well as on october 15th will

1019

00:50:03,990 --> 00:50:02,160

begin at 6 a.m central time 7 a.m

1020

00:50:05,589 --> 00:50:04,000

eastern time the beginning of a busy

1021

00:50:07,990 --> 00:50:05,599

several months aboard the international

1022

00:50:11,190 --> 00:50:08,000

space station you can follow all of the

1023

00:50:15,190 --> 00:50:11,200

iss activities every day on our website

1024

00:50:19,030 --> 00:50:17,270

station with that we'll sign off for