



Welcome to Cygnus OX

50

50

1
00:00:05,910 --> 00:00:01,750
station this is houston are you ready

2
00:00:08,800 --> 00:00:08,790
houston we are ready

3
00:00:12,310 --> 00:00:10,709
associated press this is mission control

4
00:00:13,430 --> 00:00:12,320
houston please call station for a voice

5
00:00:14,950 --> 00:00:13,440
check

6
00:00:20,710 --> 00:00:14,960
thank you expenses

7
00:00:24,790 --> 00:00:22,790
hello marcia loud and clear

8
00:00:26,550 --> 00:00:24,800
well happy new year to you both

9
00:00:29,189 --> 00:00:26,560
greetings from the kennedy space center

10
00:00:29,950 --> 00:00:29,199
in florida um tell me how did you ring

11
00:00:33,110 --> 00:00:29,960
in

12
00:00:38,229 --> 00:00:33,120
2017 any special foods and what did you

13
00:00:42,069 --> 00:00:39,670

well we had a great meal actually

14

00:00:43,590 --> 00:00:42,079

provided by tomah our french astronaut

15

00:00:46,470 --> 00:00:43,600

counterparts

16

00:00:48,229 --> 00:00:46,480

he had special food made from kind of

17

00:00:49,990 --> 00:00:48,239

regions in france that he is from where

18

00:00:51,750 --> 00:00:50,000

parts of his family are from so we

19

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

enjoyed that down in the russian segment

20

00:00:56,709 --> 00:00:53,920

so we made it a truly international

21

00:00:57,750 --> 00:00:56,719

celebration for 2017.

22

00:01:00,150 --> 00:00:57,760

well you're going to have to tell me

23

00:01:02,549 --> 00:01:00,160

what french delicacies you dined on i'm

24

00:01:04,710 --> 00:01:02,559

curious and and i'm assuming there was

25

00:01:08,870 --> 00:01:04,720

no champagne so what did you use instead

26

00:01:13,190 --> 00:01:10,789

unfortunately no bubbly we just had

27

00:01:15,830 --> 00:01:13,200

juice but we had

28

00:01:16,870 --> 00:01:15,840

we had ox tongue which i'm not a big fan

29

00:01:18,310 --> 00:01:16,880

of but

30

00:01:20,550 --> 00:01:18,320

uh

31

00:01:22,789 --> 00:01:20,560

shane thought it was pretty good i liked

32

00:01:25,429 --> 00:01:22,799

the chicken it was in a

33

00:01:27,190 --> 00:01:25,439

white wine sauce and

34

00:01:29,670 --> 00:01:27,200

then for dessert it was a gingerbread

35

00:01:30,950 --> 00:01:29,680

with lots of vanilla in it it was very

36

00:01:33,590 --> 00:01:30,960

tasty

37

00:01:35,270 --> 00:01:33,600

well you guys lucked out having a french

38

00:01:36,390 --> 00:01:35,280

astronaut up there with you during new

39

00:01:38,310 --> 00:01:36,400

year's

40

00:01:40,149 --> 00:01:38,320

could you share any space themed new

41

00:01:46,469 --> 00:01:40,159

year's resolutions that you might have

42

00:01:49,590 --> 00:01:48,069

well i haven't thought of that one i

43

00:01:51,190 --> 00:01:49,600

guess marcia but

44

00:01:52,950 --> 00:01:51,200

we're really geared up right now for our

45

00:01:54,710 --> 00:01:52,960

spacewalks that are coming out coming up

46

00:01:56,789 --> 00:01:54,720

over the next few weeks so i think all

47

00:01:58,550 --> 00:01:56,799

of our focus right now is on those and

48

00:02:00,789 --> 00:01:58,560

to me thinking about it now just to have

49

00:02:03,910 --> 00:02:00,799

those be successful and everything to go

50

00:02:06,069 --> 00:02:03,920

well um would be a great resolution

51
00:02:07,910 --> 00:02:06,079
how is all the ground preparation going

52
00:02:09,910 --> 00:02:07,920
for the spacewalks i know that there was

53
00:02:13,110 --> 00:02:09,920
a lot of robotic work that needed to be

54
00:02:15,110 --> 00:02:13,120
done in play in advance

55
00:02:19,910 --> 00:02:15,120
is that completed is everything

56
00:02:23,270 --> 00:02:21,510
actually it's going extremely well

57
00:02:25,430 --> 00:02:23,280
they're a little bit ahead of schedule

58
00:02:27,110 --> 00:02:25,440
and they've gotten all the batteries out

59
00:02:29,430 --> 00:02:27,120
that they were planning to get out they

60
00:02:31,110 --> 00:02:29,440
have i think a few more moves to do to

61
00:02:32,070 --> 00:02:31,120
get them temps towed

62
00:02:33,910 --> 00:02:32,080
and

63
00:02:37,030 --> 00:02:33,920

i think they're pretty much ready for us

64

00:02:39,830 --> 00:02:37,040

to go out shortly so we're very pleased

65

00:02:42,309 --> 00:02:39,840

that that went as smoothly as it did

66

00:02:44,390 --> 00:02:42,319

well it's been um almost nine years

67

00:02:46,710 --> 00:02:44,400

since your last spacewalks what are the

68

00:02:48,470 --> 00:02:46,720

pros and cons considering so much time

69

00:02:49,910 --> 00:02:48,480

has passed since you last ventured out

70

00:02:51,830 --> 00:02:49,920

the hatch

71

00:02:53,830 --> 00:02:51,840

i imagine psychologically it's good to

72

00:02:57,350 --> 00:02:53,840

have experienced it once before but you

73

00:03:03,509 --> 00:02:59,509

how is that going out again after so

74

00:03:08,390 --> 00:03:05,589

well it there definitely has been some

75

00:03:10,070 --> 00:03:08,400

time but it's it's actually interesting

76

00:03:11,990 --> 00:03:10,080

once you get into the procedures you're

77

00:03:13,910 --> 00:03:12,000

like oh yeah i remember that oh yeah and

78

00:03:15,509 --> 00:03:13,920

don't forget about this i you know i

79

00:03:16,949 --> 00:03:15,519

screwed up and did this you need to not

80

00:03:19,589 --> 00:03:16,959

do that and

81

00:03:21,670 --> 00:03:19,599

so it's been a good learning experience

82

00:03:23,589 --> 00:03:21,680

uh going through getting ready the whole

83

00:03:26,550 --> 00:03:23,599

preparation process

84

00:03:29,270 --> 00:03:26,560

uh to remind us of everything that that

85

00:03:32,869 --> 00:03:29,280

happened nine years ago

86

00:03:35,110 --> 00:03:32,879

well peggy a couple questions for you um

87

00:03:37,270 --> 00:03:35,120

acknowledging your record as the world's

88

00:03:39,270 --> 00:03:37,280

oldest space woman how's your body

89

00:03:42,149 --> 00:03:39,280

adapting to weightlessness this go

90

00:03:44,949 --> 00:03:42,159

around is it is it um physically what

91

00:03:46,390 --> 00:03:44,959

you expected or even easier um

92

00:03:47,830 --> 00:03:46,400

how has time you know

93

00:03:49,110 --> 00:03:47,840

is there any toll at all that you can

94

00:03:50,149 --> 00:03:49,120

see having

95

00:03:51,430 --> 00:03:50,159

you know

96

00:03:53,589 --> 00:03:51,440

age

97

00:03:57,750 --> 00:03:53,599

been a factor for the last decade tell

98

00:04:01,830 --> 00:03:59,589

okay well the between my first and my

99

00:04:03,750 --> 00:04:01,840

second flight it was only five years and

100

00:04:05,750 --> 00:04:03,760

your body does learn how to adapt to

101
00:04:07,830 --> 00:04:05,760
being in space i was a little concerned

102
00:04:10,070 --> 00:04:07,840
that since it was seven

103
00:04:12,229 --> 00:04:10,080
eight years since i'd last flown

104
00:04:14,229 --> 00:04:12,239
i was concerned that my body might not

105
00:04:16,710 --> 00:04:14,239
remember how to adapt into space but i

106
00:04:18,710 --> 00:04:16,720
think i adapted even faster this time so

107
00:04:20,870 --> 00:04:18,720
my body hadn't forgotten even though it

108
00:04:23,990 --> 00:04:20,880
had been a few years

109
00:04:27,270 --> 00:04:24,000
i think if anything you know

110
00:04:29,909 --> 00:04:27,280
i i love being in space i sleep like a

111
00:04:31,909 --> 00:04:29,919
baby i mean it is amazing the great

112
00:04:32,870 --> 00:04:31,919
sleep nothing hurts when you're laying

113
00:04:34,550 --> 00:04:32,880

in bed

114

00:04:36,629 --> 00:04:34,560

so you can sleep the whole night through

115

00:04:37,830 --> 00:04:36,639

it's great

116

00:04:39,749 --> 00:04:37,840

well that sounds like a great

117

00:04:41,110 --> 00:04:39,759

advertisement for everybody over a

118

00:04:42,950 --> 00:04:41,120

certain age

119

00:04:45,590 --> 00:04:42,960

you know spacewalking is strenuous no

120

00:04:47,909 --> 00:04:45,600

matter how you cut it and did you did

121

00:04:50,230 --> 00:04:47,919

you exercise extra hard before the

122

00:04:51,670 --> 00:04:50,240

flight at least to be prepped for that i

123

00:04:54,469 --> 00:04:51,680

it's it's probably one of the most

124

00:04:59,590 --> 00:04:54,479

grueling things on earth or in space

125

00:05:04,150 --> 00:05:01,670

it is very physically challenging i

126

00:05:07,029 --> 00:05:04,160

think the reason that a lot of us find

127

00:05:09,350 --> 00:05:07,039

it uh so interesting to do

128

00:05:11,830 --> 00:05:09,360

is because of the physical and mental

129

00:05:13,670 --> 00:05:11,840

challenge that's required you know to

130

00:05:16,550 --> 00:05:13,680

keep the big picture in mind to keep all

131

00:05:19,029 --> 00:05:16,560

the tests in mind but at the same time

132

00:05:20,310 --> 00:05:19,039

there is just a physical toll of having

133

00:05:23,189 --> 00:05:20,320

to do this

134

00:05:24,710 --> 00:05:23,199

we have a really great exercise machine

135

00:05:26,550 --> 00:05:24,720

that's here since

136

00:05:29,110 --> 00:05:26,560

i flew the last time is called the

137

00:05:31,590 --> 00:05:29,120

advanced resistive exercise device

138

00:05:33,830 --> 00:05:31,600

and it uh is phenomenal i'm really

139

00:05:35,909 --> 00:05:33,840

really impressed with it i would say i'm

140

00:05:36,830 --> 00:05:35,919

probably building muscle up here so i'm

141

00:05:39,670 --> 00:05:36,840

very

142

00:05:40,950 --> 00:05:39,680

pleased well for either of you um

143

00:05:43,270 --> 00:05:40,960

is this going to be a particularly

144

00:05:45,670 --> 00:05:43,280

difficult space walker is it pretty

145

00:05:47,909 --> 00:05:45,680

straightforward as they go i just didn't

146

00:05:50,310 --> 00:05:47,919

know how complicated a task does these

147

00:05:55,510 --> 00:05:50,320

battery changeouts will be or or how

148

00:05:59,189 --> 00:05:57,350

well i think all of them are fairly

149

00:06:00,710 --> 00:05:59,199

straightforward if everything works well

150

00:06:03,110 --> 00:06:00,720

but uh you never know how that's going

151
00:06:05,110 --> 00:06:03,120
to go we're prepared obviously to do

152
00:06:06,790 --> 00:06:05,120
everything nominally but

153
00:06:08,390 --> 00:06:06,800
if things start going wrong or the bolts

154
00:06:10,710 --> 00:06:08,400
aren't driving correctly the team on the

155
00:06:12,150 --> 00:06:10,720
ground has got a great plan for us and

156
00:06:14,230 --> 00:06:12,160
they're going to make sure

157
00:06:16,230 --> 00:06:14,240
we can do whatever we can based on the

158
00:06:17,990 --> 00:06:16,240
way the hardware is behaving

159
00:06:19,909 --> 00:06:18,000
haven't seen the robotic operations over

160
00:06:21,350 --> 00:06:19,919
the last few days though everything like

161
00:06:24,550 --> 00:06:21,360
peggy mentioned earlier is going very

162
00:06:25,909 --> 00:06:24,560
smoothly so we're expecting the same

163
00:06:28,230 --> 00:06:25,919

and there's nothing easy when you go

164

00:06:30,390 --> 00:06:28,240

outside by the way

165

00:06:32,230 --> 00:06:30,400

oh i want you know there's a lot of

166

00:06:33,909 --> 00:06:32,240

space and science fiction movies that

167

00:06:35,270 --> 00:06:33,919

have come out in the last month or two

168

00:06:36,790 --> 00:06:35,280

and i'm wondering have you had a chance

169

00:06:38,870 --> 00:06:36,800

have they beamed up any of these new

170

00:06:40,629 --> 00:06:38,880

movies and of course hidden figures

171

00:06:41,909 --> 00:06:40,639

comes to the forefront of my mind but

172

00:06:44,070 --> 00:06:41,919

you know there's a rival there's

173

00:06:46,230 --> 00:06:44,080

passengers a lot of good

174

00:06:49,430 --> 00:06:46,240

space related stuff and um didn't know

175

00:06:50,309 --> 00:06:49,440

if you'd gotten any time off to

176

00:06:52,230 --> 00:06:50,319

or

177

00:06:57,029 --> 00:06:52,240

built you know possibilities of seeing

178

00:07:00,469 --> 00:06:58,629

we have had the good fortune of seeing a

179

00:07:02,870 --> 00:07:00,479

few of those we saw passengers which we

180

00:07:04,710 --> 00:07:02,880

really enjoy we saw the new star wars

181

00:07:05,749 --> 00:07:04,720

and uh i'll let peggy talk about the

182

00:07:08,150 --> 00:07:05,759

last one

183

00:07:10,390 --> 00:07:08,160

and we also got to see hidden figures so

184

00:07:11,270 --> 00:07:10,400

we're we've been very privileged to get

185

00:07:13,029 --> 00:07:11,280

to see

186

00:07:15,270 --> 00:07:13,039

some of the early screenings on these

187

00:07:16,950 --> 00:07:15,280

movies and it's actually a lot of fun

188

00:07:19,990 --> 00:07:16,960

you know seeing space movies while

189

00:07:23,029 --> 00:07:21,589

well when you're watching these movies

190

00:07:25,350 --> 00:07:23,039

i'm assuming they're in english do you

191

00:07:27,670 --> 00:07:25,360

have to do a lot of translating for your

192

00:07:33,510 --> 00:07:27,680

crew members or are they subtitled in

193

00:07:37,830 --> 00:07:35,749

so there they are in english and no

194

00:07:39,350 --> 00:07:37,840

subtitles so the the russian crew

195

00:07:40,710 --> 00:07:39,360

members sometimes join us sometimes

196

00:07:42,309 --> 00:07:40,720

don't but when they're here if they have

197

00:07:43,990 --> 00:07:42,319

a question they'll ask us but in general

198

00:07:45,270 --> 00:07:44,000

they just follow along you know it's a

199

00:07:46,790 --> 00:07:45,280

most of them are pretty good action

200

00:07:49,430 --> 00:07:46,800

movies and you can kind of just get the

201

00:07:51,270 --> 00:07:49,440

gist of things just by watching it

202

00:07:53,110 --> 00:07:51,280

well if you get a chance get mission

203

00:07:54,469 --> 00:07:53,120

control to send up a rival too because

204

00:07:56,869 --> 00:07:54,479

that was terrific

205

00:07:58,790 --> 00:07:56,879

um tell me shane you're coming home next

206

00:08:01,029 --> 00:07:58,800

month oh i'm assuming you'll still be

207

00:08:01,749 --> 00:08:01,039

able to catch the super bowl up on orbit

208

00:08:03,270 --> 00:08:01,759

or

209

00:08:04,300 --> 00:08:03,280

how's the timing on all that going to

210

00:08:05,560 --> 00:08:04,310

fall out

211

00:08:07,270 --> 00:08:05,570

[Applause]

212

00:08:09,029 --> 00:08:07,280

[Music]

213

00:08:10,790 --> 00:08:09,039

yeah currently we're planning to come

214

00:08:12,790 --> 00:08:10,800

home at the end of february so yeah we

215

00:08:14,390 --> 00:08:12,800

would be up here for super bowl we're

216

00:08:16,390 --> 00:08:14,400

looking forward to that especially since

217

00:08:18,550 --> 00:08:16,400

it's in houston this year so we got a

218

00:08:19,990 --> 00:08:18,560

lot of events planned for um for our

219

00:08:21,830 --> 00:08:20,000

crew to help out with that so we're

220

00:08:24,469 --> 00:08:21,840

looking forward to it

221

00:08:26,230 --> 00:08:24,479

well what uh can you share some of the

222

00:08:28,469 --> 00:08:26,240

things that you might be taking part in

223

00:08:34,870 --> 00:08:28,479

and do you have a favorite so far in

224

00:08:37,589 --> 00:08:36,630

well i'd obviously vote for the houston

225

00:08:39,430 --> 00:08:37,599

texans

226

00:08:42,070 --> 00:08:39,440

so they'll start their playoff run next

227

00:08:43,990 --> 00:08:42,080

week and we'll see how that goes

228

00:08:45,269 --> 00:08:44,000

i'm not sure all what public affairs has

229

00:08:46,790 --> 00:08:45,279

planned for us but i just know we're

230

00:08:48,870 --> 00:08:46,800

going to be involved with the super bowl

231

00:08:50,790 --> 00:08:48,880

committee that's in houston and we've

232

00:08:53,590 --> 00:08:50,800

done a few videos already for kind of

233

00:08:55,110 --> 00:08:53,600

pregame things for the nfl network so

234

00:08:57,110 --> 00:08:55,120

we're looking forward to seeing how all

235

00:08:59,110 --> 00:08:57,120

that plays out

236

00:09:01,350 --> 00:08:59,120

and peggy i know you had the cookie

237

00:09:03,990 --> 00:09:01,360

decorating contest for christmas

238

00:09:06,230 --> 00:09:04,000

and i know you enjoy

239

00:09:08,310 --> 00:09:06,240

cooking and good food

240

00:09:10,949 --> 00:09:08,320

anything else you got planned over the

241

00:09:15,750 --> 00:09:10,959

next few months to help improve the diet

242

00:09:19,990 --> 00:09:18,150

well we do have um

243

00:09:23,269 --> 00:09:20,000

a couple of birthdays coming up in

244

00:09:25,110 --> 00:09:23,279

february so i've got a little plan for

245

00:09:28,790 --> 00:09:25,120

some special dinners that we're going to

246

00:09:31,990 --> 00:09:30,550

well great well listen both of you it's

247

00:09:34,550 --> 00:09:32,000

been a pleasure talking to you i wish

248

00:09:36,110 --> 00:09:34,560

you the best of everything in 2017 and

249

00:09:38,790 --> 00:09:36,120

safe travels

250

00:09:43,350 --> 00:09:38,800

[Music]

251

00:09:48,070 --> 00:09:45,910

station this is houston acr that

252

00:09:50,310 --> 00:09:48,080

concludes the associated press portion

253

00:10:15,430 --> 00:09:50,320

of the event please stand by for a voice

254

00:10:23,269 --> 00:10:18,069

cbs this is bill harwood cbs news at the

255

00:10:27,509 --> 00:10:25,910

hey bill we read you loud and clear

256

00:10:28,710 --> 00:10:27,519

hey thanks shane it's great to see you

257

00:10:29,990 --> 00:10:28,720

guys i

258

00:10:32,150 --> 00:10:30,000

obviously appreciate you taking a few

259

00:10:33,750 --> 00:10:32,160

minutes to chat with me uh wondering how

260

00:10:35,829 --> 00:10:33,760

your new years went how you guys

261

00:10:37,350 --> 00:10:35,839

celebrated that and

262

00:10:41,829 --> 00:10:37,360

life aboard station in the holiday

263

00:10:45,829 --> 00:10:43,590

well we got such a great crew it's been

264

00:10:46,870 --> 00:10:45,839

fun sharing this holiday season up here

265

00:10:48,470 --> 00:10:46,880

together

266

00:10:50,550 --> 00:10:48,480

we are away from our families we miss

267

00:10:51,829 --> 00:10:50,560

them dearly but uh this has been a great

268

00:10:53,590 --> 00:10:51,839

space family

269

00:10:54,310 --> 00:10:53,600

that we've been being able to be a part

270

00:10:56,069 --> 00:10:54,320

of

271

00:10:57,509 --> 00:10:56,079

for the new years we had a great dinner

272

00:10:59,430 --> 00:10:57,519

down in the russian segment but it was

273

00:11:01,590 --> 00:10:59,440

the food was all provided by thomas

274

00:11:04,230 --> 00:11:01,600

pesquet our french astronaut

275

00:11:06,230 --> 00:11:04,240

we had really great food and uh and just

276

00:11:08,630 --> 00:11:06,240

enjoyed ringing in the new year sitting

277

00:11:10,150 --> 00:11:08,640

around with our friends and talking

278

00:11:15,990 --> 00:11:10,160

you guys get to watch any football or

279

00:11:19,670 --> 00:11:17,829

yeah we get to see some football as well

280

00:11:22,550 --> 00:11:19,680

um they've been kind enough to kind of

281

00:11:23,990 --> 00:11:22,560

live stream up a few games uh pro games

282

00:11:26,150 --> 00:11:24,000

on sundays and college games on

283

00:11:28,310 --> 00:11:26,160

saturdays so it's been for me it's been

284

00:11:30,389 --> 00:11:28,320

a nice way to kind of stay in touch with

285

00:11:31,990 --> 00:11:30,399

things at home

286

00:11:33,829 --> 00:11:32,000

well listen guys i want to kind of focus

287

00:11:36,230 --> 00:11:33,839

on the evas coming up in the battery

288

00:11:37,590 --> 00:11:36,240

swap outs for the for the rest of the of

289

00:11:40,150 --> 00:11:37,600

this interview i've been following the

290

00:11:41,269 --> 00:11:40,160

robotics work on the ground

291

00:11:42,630 --> 00:11:41,279

and it looks like things have gone

292

00:11:45,590 --> 00:11:42,640

really well i mean it's like got a good

293

00:11:46,630 --> 00:11:45,600

head start on the swap outs and uh

294

00:11:51,670 --> 00:11:46,640

how's it been going from your

295

00:11:56,550 --> 00:11:53,990

well we've been watching them uh with

296

00:11:57,990 --> 00:11:56,560

our on the robotic workstation here it

297

00:12:00,069 --> 00:11:58,000

everything looks like it's going very

298

00:12:02,230 --> 00:12:00,079

smoothly and the flight directors have

299

00:12:04,310 --> 00:12:02,240

given us some reports and everything

300

00:12:06,470 --> 00:12:04,320

sounds fantastic so

301

00:12:08,629 --> 00:12:06,480

we're knocking on wood and hoping

302

00:12:11,430 --> 00:12:08,639

everything will continue as such and

303

00:12:14,470 --> 00:12:11,440

look and hoping that ours will also be

304

00:12:16,230 --> 00:12:14,480

all nominal we love nominal

305

00:12:17,829 --> 00:12:16,240

yeah as much as i dislike the word i

306

00:12:19,269 --> 00:12:17,839

like it too

307

00:12:21,350 --> 00:12:19,279

tell me why you need to change out the

308

00:12:22,790 --> 00:12:21,360

batteries uh in layman's terms what's

309

00:12:27,190 --> 00:12:22,800

going on that you need to replace these

310

00:12:30,230 --> 00:12:28,389

well the batteries that are out there

311

00:12:32,150 --> 00:12:30,240

now have been up here for the duration

312

00:12:33,110 --> 00:12:32,160

of the space station so some over a

313

00:12:34,150 --> 00:12:33,120

decade

314

00:12:35,829 --> 00:12:34,160

um

315

00:12:37,910 --> 00:12:35,839

and the others even more so it's just

316

00:12:39,350 --> 00:12:37,920

kind of time to change them out

317

00:12:41,110 --> 00:12:39,360

we've gotten more efficient of course

318

00:12:43,829 --> 00:12:41,120

just like things on earth things are the

319

00:12:45,990 --> 00:12:43,839

batteries now are a little smaller one

320

00:12:48,150 --> 00:12:46,000

of the sizes of the old ones is now

321

00:12:49,509 --> 00:12:48,160

takes a place of two with an adapter

322

00:12:51,269 --> 00:12:49,519

plate so you'll see you'll hear a lot of

323

00:12:53,190 --> 00:12:51,279

adapter plate talk going on with the

324

00:12:55,590 --> 00:12:53,200

spacewalk so peggy and i will be

325

00:12:57,509 --> 00:12:55,600

installing the adapter plates and uh

326

00:12:59,030 --> 00:12:57,519

moving a few of the old batteries onto

327

00:13:01,350 --> 00:12:59,040

those adapter plates

328

00:13:03,030 --> 00:13:01,360

and uh it's just time i guess and we're

329

00:13:05,030 --> 00:13:03,040

gonna do this on the starboard side of

330

00:13:07,190 --> 00:13:05,040

the space station they're in spacewalks

331

00:13:08,710 --> 00:13:07,200

one and two and a year or so from now

332

00:13:09,910 --> 00:13:08,720

they'll take care of the port side so

333

00:13:12,790 --> 00:13:09,920

we're just kind of changing out the

334

00:13:14,470 --> 00:13:12,800

batteries um they're due for a change up

335

00:13:15,750 --> 00:13:14,480

okay so i guess it's like my my cell

336

00:13:17,509 --> 00:13:15,760

phone i mean after a while it won't hold

337

00:13:21,350 --> 00:13:17,519

a charge as long or does it just lose

338

00:13:26,310 --> 00:13:23,670

it's actually exactly just like that or

339

00:13:29,190 --> 00:13:26,320

your power tools that you know you they

340

00:13:31,269 --> 00:13:29,200

just won't hold very much charge and so

341

00:13:33,829 --> 00:13:31,279

even though the guys on the ground deep

342

00:13:35,590 --> 00:13:33,839

cycle ours um

343

00:13:37,509 --> 00:13:35,600

frequently it has to be more and more

344

00:13:40,389 --> 00:13:37,519

frequently

345

00:13:42,389 --> 00:13:40,399

we need just new batteries up here so

346

00:13:44,150 --> 00:13:42,399

it'll hold more of a charge

347

00:13:45,750 --> 00:13:44,160

and yet you remember we have to have the

348

00:13:48,389 --> 00:13:45,760

charge when uh

349

00:13:51,670 --> 00:13:48,399

when we're in eclipse the station is

350

00:13:53,910 --> 00:13:51,680

entirely powered by solar energy so when

351
00:13:55,110 --> 00:13:53,920
we're on when the earth is between us

352
00:13:57,030 --> 00:13:55,120
and the sun

353
00:13:59,509 --> 00:13:57,040
uh we are in the dark and we have to

354
00:14:02,230 --> 00:13:59,519
have those the battery the power stored

355
00:14:03,269 --> 00:14:02,240
by those batteries

356
00:14:06,629 --> 00:14:03,279
you know this is probably the most

357
00:14:08,949 --> 00:14:06,639
complicated remotely controlled arm work

358
00:14:10,870 --> 00:14:08,959
uh that i can recall anyway and

359
00:14:17,430 --> 00:14:10,880
obviously using dexter is a is another

360
00:14:20,310 --> 00:14:18,790
yeah it's been doing great we don't

361
00:14:22,470 --> 00:14:20,320
really have any interface with the crew

362
00:14:23,910 --> 00:14:22,480
anymore with it so that's unfortunate

363
00:14:25,110 --> 00:14:23,920

for us but the ground teams are

364

00:14:27,030 --> 00:14:25,120

phenomenal

365

00:14:29,269 --> 00:14:27,040

they've been flying it um really

366

00:14:31,430 --> 00:14:29,279

flawlessly over the last few months and

367

00:14:33,350 --> 00:14:31,440

obviously this past few days getting

368

00:14:35,509 --> 00:14:33,360

ready for our activities have been

369

00:14:38,230 --> 00:14:35,519

really fun to watch

370

00:14:40,310 --> 00:14:38,240

how much of a time saver is the robotics

371

00:14:42,230 --> 00:14:40,320

work from jsc

372

00:14:44,069 --> 00:14:42,240

in terms of you know the number of evas

373

00:14:48,790 --> 00:14:44,079

you guys would have to do if if the

374

00:14:52,629 --> 00:14:50,790

if if we didn't have the robotics

375

00:14:54,710 --> 00:14:52,639

helping us out it would be six space

376

00:14:57,110 --> 00:14:54,720

walks for shane and i to do all the

377

00:14:59,030 --> 00:14:57,120

activities so this way if everything

378

00:15:01,189 --> 00:14:59,040

continues nominally

379

00:15:02,310 --> 00:15:01,199

it will just be two space walks instead

380

00:15:03,910 --> 00:15:02,320

of six

381

00:15:06,310 --> 00:15:03,920

and the reason that we have to have the

382

00:15:08,069 --> 00:15:06,320

two is because unfortunately the adapter

383

00:15:11,750 --> 00:15:08,079

plates don't have

384

00:15:14,870 --> 00:15:11,760

uh an interface for the robotic uh arm

385

00:15:16,470 --> 00:15:14,880

lucky for shane and i

386

00:15:18,069 --> 00:15:16,480

yeah you know that was my next question

387

00:15:20,150 --> 00:15:18,079

what what do you guys bring to the table

388

00:15:21,509 --> 00:15:20,160

that the arm doesn't but uh

389

00:15:23,430 --> 00:15:21,519

the adapter plates are obviously

390

00:15:24,550 --> 00:15:23,440

critical what what role do those plates

391

00:15:25,509 --> 00:15:24,560

serve i mean i know you're going to

392

00:15:27,189 --> 00:15:25,519

mount

393

00:15:29,430 --> 00:15:27,199

three of the old batteries on top of

394

00:15:31,509 --> 00:15:29,440

those plates that will remain in place

395

00:15:33,110 --> 00:15:31,519

but do you need them also to interface

396

00:15:34,629 --> 00:15:33,120

the new batteries with the electronics

397

00:15:38,470 --> 00:15:34,639

assembly i'm a little fuzzy on the

398

00:15:42,069 --> 00:15:40,150

sure well shane mentioned you know

399

00:15:44,790 --> 00:15:42,079

they're each there are three battery

400

00:15:47,189 --> 00:15:44,800

pairs on each side of the uh place that

401
00:15:48,870 --> 00:15:47,199
we're doing the replacements and so each

402
00:15:50,310 --> 00:15:48,880
battery pair is in

403
00:15:52,790 --> 00:15:50,320
in series

404
00:15:54,870 --> 00:15:52,800
and so if we take it and replace one

405
00:15:57,030 --> 00:15:54,880
battery or two batteries with one we

406
00:15:59,749 --> 00:15:57,040
still need an adapter plate to flow that

407
00:16:02,949 --> 00:15:59,759
energy so that we maintain the circuit

408
00:16:06,389 --> 00:16:02,959
so the adapter plate is basically just a

409
00:16:08,389 --> 00:16:06,399
continuation of the power chain and it

410
00:16:11,189 --> 00:16:08,399
also allows us to stow those extra

411
00:16:12,710 --> 00:16:11,199
batteries on top

412
00:16:14,230 --> 00:16:12,720
and so none of the old batteries will

413
00:16:16,710 --> 00:16:14,240

come home on the pallet three will

414

00:16:19,590 --> 00:16:16,720

remain in the ia i guess just an

415

00:16:20,870 --> 00:16:19,600

indefinite storage so 12 out six on and

416

00:16:23,030 --> 00:16:20,880

then you're going to do this three more

417

00:16:27,990 --> 00:16:23,040

times down the road for the for the

418

00:16:33,509 --> 00:16:30,389

yeah so eva2 which will be tomorrow

419

00:16:35,269 --> 00:16:33,519

pesky and myself next friday on the 13th

420

00:16:37,590 --> 00:16:35,279

we'll take care of the other side of the

421

00:16:38,949 --> 00:16:37,600

one that peggy and i are going to do

422

00:16:40,870 --> 00:16:38,959

and then yeah about a year or so

423

00:16:43,030 --> 00:16:40,880

whenever the next batteries come up on

424

00:16:44,629 --> 00:16:43,040

the next htv vehicle

425

00:16:46,550 --> 00:16:44,639

then the spacewalks will be planned i'm

426
00:16:52,629 --> 00:16:46,560
sure shortly after that

427
00:16:56,310 --> 00:16:53,990
now we're looking forward to going out

428
00:16:58,550 --> 00:16:56,320
on the sixth and the 13th

429
00:17:00,629 --> 00:16:58,560
no i know it i'm kidding uh

430
00:17:02,310 --> 00:17:00,639
looking at these evas is this are these

431
00:17:03,910 --> 00:17:02,320
things complicated as eva i mean i've

432
00:17:05,350 --> 00:17:03,920
covered a lot of vvas they all seem

433
00:17:07,189 --> 00:17:05,360
complicated but

434
00:17:11,909 --> 00:17:07,199
this one seems straightforward but maybe

435
00:17:13,909 --> 00:17:12,789
well

436
00:17:15,669 --> 00:17:13,919
they're all straightforward if

437
00:17:17,510 --> 00:17:15,679
everything works great and everything is

438
00:17:19,189 --> 00:17:17,520

going well and the crew members are you

439

00:17:21,750 --> 00:17:19,199

know feeling great so hopefully that'll

440

00:17:23,429 --> 00:17:21,760

all be the case um but we you know the

441

00:17:24,470 --> 00:17:23,439

ground team's ready for about anything

442

00:17:26,630 --> 00:17:24,480

that can happen and they're going to

443

00:17:28,710 --> 00:17:26,640

support us no matter what they'll keep

444

00:17:29,909 --> 00:17:28,720

us safe they'll make sure

445

00:17:32,150 --> 00:17:29,919

that we get the task done that we can

446

00:17:33,750 --> 00:17:32,160

get done but first of all keep peggy and

447

00:17:35,029 --> 00:17:33,760

i safe outside and that's that's our

448

00:17:37,590 --> 00:17:35,039

number one goal

449

00:17:40,150 --> 00:17:37,600

um but yeah they're all complicated when

450

00:17:42,310 --> 00:17:40,160

you go outside the simplest task is is

451
00:17:43,669 --> 00:17:42,320
not simple anymore i'm even moving the

452
00:17:45,750 --> 00:17:43,679
tool from one thing to the other you

453
00:17:47,350 --> 00:17:45,760
mentally have to be in the game for six

454
00:17:48,470 --> 00:17:47,360
to seven hours however long you're out

455
00:17:50,470 --> 00:17:48,480
there

456
00:17:52,310 --> 00:17:50,480
and that that along with the physical

457
00:17:55,190 --> 00:17:52,320
challenge of moving that big mass of the

458
00:17:57,270 --> 00:17:55,200
suit around um is there's nothing easy

459
00:17:58,830 --> 00:17:57,280
about it

460
00:18:01,270 --> 00:17:58,840
vicky you're one of nasa's most

461
00:18:02,710 --> 00:18:01,280
experienced space walkers how do you

462
00:18:04,310 --> 00:18:02,720
look at it i mean

463
00:18:05,990 --> 00:18:04,320

you know given all the prep required

464

00:18:07,669 --> 00:18:06,000

just to go outside and then watching the

465

00:18:09,430 --> 00:18:07,679

astronauts who spend that six or seven

466

00:18:10,870 --> 00:18:09,440

hours come back in it looks

467

00:18:12,950 --> 00:18:10,880

i mean do you ever even get a chance to

468

00:18:17,110 --> 00:18:12,960

enjoy it out there is it just all work

469

00:18:21,830 --> 00:18:19,029

well we're pretty focused when we're out

470

00:18:24,710 --> 00:18:21,840

there and i and i think we should be but

471

00:18:26,789 --> 00:18:24,720

it's always nice to get just a brief

472

00:18:29,590 --> 00:18:26,799

respite to actually look around and see

473

00:18:31,430 --> 00:18:29,600

how amazingly beautiful it is not only

474

00:18:33,750 --> 00:18:31,440

do we have an incredibly beautiful earth

475

00:18:35,270 --> 00:18:33,760

but it is amazing this structure that we

476
00:18:38,950 --> 00:18:35,280
have out there and when you're out there

477
00:18:42,549 --> 00:18:38,960
in it it just looks so amazingly large

478
00:18:44,070 --> 00:18:42,559
and it it's a miraculous engineering

479
00:18:47,190 --> 00:18:44,080
feat to have

480
00:18:50,630 --> 00:18:47,200
this football field length of truss with

481
00:18:52,549 --> 00:18:50,640
solar arrays that are 239 feet and

482
00:18:53,830 --> 00:18:52,559
and then you know the length of the

483
00:18:56,950 --> 00:18:53,840
volume the

484
00:18:59,669 --> 00:18:56,960
pressurized volume more than a 747 it's

485
00:19:03,029 --> 00:18:59,679
just it's really amazing to see that

486
00:19:04,549 --> 00:19:03,039
structure from the outside as well too

487
00:19:06,310 --> 00:19:04,559
that sounds like fun shane i'll ask my

488
00:19:07,590 --> 00:19:06,320

last question to you you're a veteran

489

00:19:08,710 --> 00:19:07,600

obviously what are you what do you look

490

00:19:10,630 --> 00:19:08,720

forward to

491

00:19:12,390 --> 00:19:10,640

uh obviously the work's number one but i

492

00:19:14,230 --> 00:19:12,400

mean just the experience of walking out

493

00:19:19,350 --> 00:19:14,240

that hatch or floating up the hatch what

494

00:19:23,029 --> 00:19:21,190

well i look forward to just getting this

495

00:19:25,590 --> 00:19:23,039

battery replacement done i mean that's

496

00:19:26,789 --> 00:19:25,600

our goal the mission is we know what our

497

00:19:28,390 --> 00:19:26,799

mission is we're going to go out there

498

00:19:29,990 --> 00:19:28,400

and accomplish the mission

499

00:19:31,510 --> 00:19:30,000

and that's what i look forward to we

500

00:19:33,430 --> 00:19:31,520

will get a chance like peggy mentioned

501
00:19:34,870 --> 00:19:33,440
maybe to peek around a little bit and

502
00:19:36,230 --> 00:19:34,880
those will be some great memories and

503
00:19:37,830 --> 00:19:36,240
we'll take a few pictures while we're

504
00:19:39,750 --> 00:19:37,840
out there but that's all kind of

505
00:19:41,029 --> 00:19:39,760
secondary we're going to get the mission

506
00:19:42,630 --> 00:19:41,039
done and then if we have a little time

507
00:19:44,390 --> 00:19:42,640
at the end we'll we'll enjoy the view a

508
00:19:45,750 --> 00:19:44,400
little bit

509
00:19:47,750 --> 00:19:45,760
guys thanks a lot

510
00:19:49,190 --> 00:19:47,760
happy happy 2017. good luck with the

511
00:19:52,870 --> 00:19:49,200
evas and look forward to talking with

512
00:19:52,880 --> 00:19:57,190
thanks bill happy 2017.