



1
00:00:04,800 --> 00:00:03,060
welcome to the International Space

2
00:00:07,499 --> 00:00:04,810
Station flight control room here with us

3
00:00:10,410 --> 00:00:07,509
today we have astronaut Mike Fossum Mike

4
00:00:12,480 --> 00:00:10,420
thank you for coming today we have a lot

5
00:00:14,580 --> 00:00:12,490
going on hun station today and an

6
00:00:16,909 --> 00:00:14,590
outsider station in all of it relates to

7
00:00:19,649 --> 00:00:16,919
session but first of all mike is a

8
00:00:21,540 --> 00:00:19,659
veteran of space flights he's got three

9
00:00:25,349 --> 00:00:21,550
Space Flight Center his belt the most

10
00:00:27,659 --> 00:00:25,359
recent one was with the expedition 29

11
00:00:29,639 --> 00:00:27,669
mission where you served as a commander

12
00:00:31,829 --> 00:00:29,649
and so he where he spent on the

13
00:00:34,290 --> 00:00:31,839

International Space Station for 167 days

14

00:00:37,140 --> 00:00:34,300

in space that's a long time thank you

15

00:00:39,330 --> 00:00:37,150

and welcome so let's first talk about

16

00:00:42,740 --> 00:00:39,340

what we just heard we we did get a

17

00:00:44,550 --> 00:00:42,750

notification here of a potential

18

00:00:46,920 --> 00:00:44,560

conjunction with the International Space

19

00:00:49,050 --> 00:00:46,930

Station can you talk to us and really

20

00:00:51,450 --> 00:00:49,060

conjunction is a kind of a fancy word

21

00:00:53,340 --> 00:00:51,460

for we're getting kind of close to

22

00:00:56,580 --> 00:00:53,350

something they we're watching a number

23

00:00:58,440 --> 00:00:56,590

of different pieces of debris most of

24

00:01:00,930 --> 00:00:58,450

them are like satellite upper stages

25

00:01:03,000 --> 00:01:00,940

boosters things like that and there's

26

00:01:05,580 --> 00:01:03,010

many of them in orbit around the earth

27

00:01:07,469 --> 00:01:05,590

and some of them are at or our orbit are

28

00:01:10,559 --> 00:01:07,479

the same kind of orbit or altitudes that

29

00:01:13,410 --> 00:01:10,569

the space station is located in and

30

00:01:15,270 --> 00:01:13,420

right now the trajectory officer got

31

00:01:17,789 --> 00:01:15,280

word just a short time ago that there is

32

00:01:20,010 --> 00:01:17,799

a significant piece that they have a

33

00:01:22,919 --> 00:01:20,020

they don't have a real solid crack on it

34

00:01:24,510 --> 00:01:22,929

and it's kind of an odd odd science to

35

00:01:26,789 --> 00:01:24,520

try to understand where these things are

36

00:01:29,520 --> 00:01:26,799

located and predict where they will be

37

00:01:31,379 --> 00:01:29,530

in the future but this one just popped

38

00:01:32,969 --> 00:01:31,389

up as a concern so they're watching it

39

00:01:36,870 --> 00:01:32,979

closely unfortunately they won't get

40

00:01:39,120 --> 00:01:36,880

another good look at it to to refine the

41

00:01:42,209 --> 00:01:39,130

tracking information until this evening

42

00:01:44,699 --> 00:01:42,219

it's time of closest possible approach

43

00:01:47,690 --> 00:01:44,709

to the crew is approximately 130 in the

44

00:01:51,090 --> 00:01:47,700

morning I think 138 yeah am one day

45

00:01:52,410 --> 00:01:51,100

central time so they're watching they're

46

00:01:53,999 --> 00:01:52,420

going to be watching that closely and

47

00:01:56,249 --> 00:01:54,009

shortly they'll be notifying the crew

48

00:01:58,800 --> 00:01:56,259

about this when you've learned about

49

00:02:01,230 --> 00:01:58,810

these things then these things happen

50

00:02:03,480 --> 00:02:01,240

every few weeks where we need to do

51
00:02:06,959 --> 00:02:03,490
normally we do it a debris avoidance

52
00:02:08,969 --> 00:02:06,969
maneuver which basically means we just

53
00:02:11,330 --> 00:02:08,979
take that opportunity to give the space

54
00:02:14,610 --> 00:02:11,340
station a little bit of a reboost so we

55
00:02:17,070 --> 00:02:14,620
we burn the engines lift the altitude up

56
00:02:20,430 --> 00:02:17,080
that change our orbit and that increases

57
00:02:23,430 --> 00:02:20,440
the the distance away from that future

58
00:02:28,020 --> 00:02:23,440
you know passing event this one we

59
00:02:30,300 --> 00:02:28,030
learned about too late and so there's a

60
00:02:33,720 --> 00:02:30,310
possibility that we will have to do what

61
00:02:36,210 --> 00:02:33,730
we call a shelter-in-place we've had six

62
00:02:38,610 --> 00:02:36,220
instances in the in the space station

63
00:02:41,610 --> 00:02:38,620

program where we've had kind of a late

64

00:02:43,619 --> 00:02:41,620

notification and and there was a concern

65

00:02:45,509 --> 00:02:43,629

that we might have to shelter in place

66

00:02:47,819 --> 00:02:45,519

and that means we closed all on the

67

00:02:50,009 --> 00:02:47,829

hatches on the u.s. part of the space

68

00:02:51,960 --> 00:02:50,019

station and retreat into the Soyuz

69

00:02:54,869 --> 00:02:51,970

spacecraft to minimize the risk of a

70

00:02:58,170 --> 00:02:54,879

possible damage to the station from this

71

00:03:00,899 --> 00:02:58,180

passing piece of debris twice we've

72

00:03:03,599 --> 00:03:00,909

actually done the shelter in place and I

73

00:03:05,729 --> 00:03:03,609

was fortunate if you call it that do it

74

00:03:08,009 --> 00:03:05,739

to do the second one last summer on jun

75

00:03:10,050 --> 00:03:08,019

28 when we were fairly new to the space

76
00:03:12,690 --> 00:03:10,060
and how long were you guys sheltered in

77
00:03:14,550 --> 00:03:12,700
place for that about 45 minutes for an

78
00:03:16,680 --> 00:03:14,560
hour you want to get everything caught

79
00:03:18,930 --> 00:03:16,690
no it's not bad it's a little disruption

80
00:03:21,720 --> 00:03:18,940
to the day and here everybody's a little

81
00:03:24,839 --> 00:03:21,730
nervous while you go in to do that but

82
00:03:27,990 --> 00:03:24,849
its its way of just increasing safety

83
00:03:32,129 --> 00:03:28,000
and being prudent space is a very big

84
00:03:33,869 --> 00:03:32,139
place and now there's a lot of a lot of

85
00:03:35,460 --> 00:03:33,879
margin built into these predictions but

86
00:03:38,129 --> 00:03:35,470
once you get there's there's also

87
00:03:40,500 --> 00:03:38,139
uncertainty associated with it so it's

88
00:03:41,670 --> 00:03:40,510

just a it's a safe thing to do when when

89

00:03:43,259 --> 00:03:41,680

there's going to be something gets a

90

00:03:45,180 --> 00:03:43,269

little close close enough to make us

91

00:03:47,039 --> 00:03:45,190

nervous we take different actions

92

00:03:48,599 --> 00:03:47,049

depending on how much time we have to do

93

00:03:50,430 --> 00:03:48,609

and that's what's going on now okay

94

00:03:52,259 --> 00:03:50,440

great thanks for that information so

95

00:03:53,809 --> 00:03:52,269

again we'll just stay tuned and follow

96

00:03:56,339 --> 00:03:53,819

along with that I'm sure we'll have a

97

00:03:58,199 --> 00:03:56,349

breaking news if it's necessary and

98

00:03:59,250 --> 00:03:58,209

there's a shelter in place we'll make

99

00:04:01,650 --> 00:03:59,260

sure that the public gets that

100

00:04:02,970 --> 00:04:01,660

information as well yea though p i as i

101
00:04:05,430 --> 00:04:02,980
understand that the website will be

102
00:04:07,259 --> 00:04:05,440
updated as we learn more information the

103
00:04:09,059 --> 00:04:07,269
website will be updated and if we get

104
00:04:10,500 --> 00:04:09,069
into the point in the middle of the

105
00:04:13,650 --> 00:04:10,510
night actually very early in the cruise

106
00:04:16,229 --> 00:04:13,660
they they'll will have live TV and

107
00:04:18,599 --> 00:04:16,239
coverage of that great and so folks can

108
00:04:21,990 --> 00:04:18,609
follow along if you want to keep updated

109
00:04:26,250 --> 00:04:22,000
on that potential conjunction with the

110
00:04:28,340 --> 00:04:26,260
space station go to ww NSA gov / station

111
00:04:31,640 --> 00:04:28,350
and you can get your updates

112
00:04:33,680 --> 00:04:31,650
so now again another top of the news you

113
00:04:37,430 --> 00:04:33,690

know item for us is the launch of the

114

00:04:39,080 --> 00:04:37,440

atv-3 this is the Europeans cargo ship

115

00:04:41,900 --> 00:04:39,090

that is bringing up seven tons of

116

00:04:44,240 --> 00:04:41,910

supplies and it's exciting right oh this

117

00:04:46,820 --> 00:04:44,250

is like that to get was kind of cargo I

118

00:04:48,800 --> 00:04:46,830

mean it was a great launch great launch

119

00:04:50,780 --> 00:04:48,810

last night here in houston we watched

120

00:04:52,820 --> 00:04:50,790

from Houston of course it's the third

121

00:04:55,610 --> 00:04:52,830

launch of the European Space Agency

122

00:04:58,280 --> 00:04:55,620

cargo ship atv-3 I was fortunate

123

00:05:01,430 --> 00:04:58,290

actually to be on at the space station

124

00:05:02,840 --> 00:05:01,440

to see the first and second vehicles so

125

00:05:05,240 --> 00:05:02,850

now they're finally launching one that I

126

00:05:09,410 --> 00:05:05,250

won't see in person up there but it was

127

00:05:11,120 --> 00:05:09,420

it was a great launch to you know as the

128

00:05:13,970 --> 00:05:11,130

vehicle took off everything that's gone

129

00:05:15,770 --> 00:05:13,980

fine you know as always for watching a

130

00:05:17,450 --> 00:05:15,780

couple of really tiny small things with

131

00:05:19,040 --> 00:05:17,460

it but everything seems to be on track

132

00:05:21,710 --> 00:05:19,050

the crews been practiced and prepared

133

00:05:26,480 --> 00:05:21,720

the space station is ready to receive

134

00:05:28,940 --> 00:05:26,490

the ATV as a as it will basically chase

135

00:05:30,440 --> 00:05:28,950

the space station down for a few days or

136

00:05:32,180 --> 00:05:30,450

work in the orbital mechanics and

137

00:05:35,240 --> 00:05:32,190

getting in closer to the station until

138

00:05:37,160 --> 00:05:35,250

it's ready to attach to the aft end okay

139

00:05:38,510 --> 00:05:37,170

and I know it'll be in orbit for at

140

00:05:40,670 --> 00:05:38,520

least five and a half days before it

141

00:05:42,560 --> 00:05:40,680

does go and dock for that docking that

142

00:05:45,500 --> 00:05:42,570

docking again is scheduled to take place

143

00:05:47,090 --> 00:05:45,510

on Wednesday March 28th the documents to

144

00:05:48,980 --> 00:05:47,100

take place at five thirty two p.m.

145

00:05:51,950 --> 00:05:48,990

central time now real quick I have a

146

00:05:54,680 --> 00:05:51,960

question for you that came to us on

147

00:05:57,740 --> 00:05:54,690

Twitter yeah from Twitter we we pulled

148

00:06:01,910 --> 00:05:57,750

the verse and want to get some questions

149

00:06:03,650 --> 00:06:01,920

for you so on so first we have this

150

00:06:06,890 --> 00:06:03,660

Twitter question comes from Jupiter fix

151
00:06:09,410 --> 00:06:06,900
from Norway yeah is there a lot of work

152
00:06:12,620 --> 00:06:09,420
for the crew on the arrival of a TV 3

153
00:06:15,190 --> 00:06:12,630
and is there any good food stuff for the

154
00:06:18,470 --> 00:06:15,200
crew aboard okay absolutely to both

155
00:06:22,460 --> 00:06:18,480
there's a the if everything works right

156
00:06:24,350 --> 00:06:22,470
the ATV will automatically come in and

157
00:06:27,500 --> 00:06:24,360
do all of its automatic and rendezvous

158
00:06:29,390 --> 00:06:27,510
and all the way to docking without any

159
00:06:30,920 --> 00:06:29,400
assistance from the crew on board the

160
00:06:32,720 --> 00:06:30,930
flight control team on the ground of

161
00:06:34,730 --> 00:06:32,730
course is monitoring everything closely

162
00:06:36,650 --> 00:06:34,740
and interacting with the different

163
00:06:38,480 --> 00:06:36,660

systems but from the cruise point of

164

00:06:40,559 --> 00:06:38,490

view on board the space station it

165

00:06:43,260 --> 00:06:40,569

should all work automatically

166

00:06:45,239 --> 00:06:43,270

but that's never good enough for us so

167

00:06:49,709 --> 00:06:45,249

the crew is actually ready to take

168

00:06:52,409 --> 00:06:49,719

manual control and that's uh i think

169

00:06:54,119 --> 00:06:52,419

it's a it's alec kononenko and andre

170

00:06:56,279 --> 00:06:54,129

kuipers diapers it's like that are

171

00:06:58,529 --> 00:06:56,289

trained to do that so I like will be the

172

00:07:00,359 --> 00:06:58,539

main flying person and Andre is

173

00:07:02,609 --> 00:07:00,369

assisting him with the procedures and

174

00:07:04,230 --> 00:07:02,619

backing them up and and so it's a very

175

00:07:06,959 --> 00:07:04,240

choreographed thing they trained quite a

176

00:07:09,149 --> 00:07:06,969

bit for this just in case and they'll be

177

00:07:12,269 --> 00:07:09,159

monitoring different parameters as the

178

00:07:14,609 --> 00:07:12,279

ATV is doing it's doing its approach and

179

00:07:18,689 --> 00:07:14,619

coming in close to the station so if

180

00:07:21,359 --> 00:07:18,699

anything is doesn't meet the the limits

181

00:07:23,909 --> 00:07:21,369

or the expectations they'll take over

182

00:07:25,320 --> 00:07:23,919

manual control and bring it in so they

183

00:07:27,089 --> 00:07:25,330

have to practice that make sure all of

184

00:07:29,429 --> 00:07:27,099

the systems that data systems the

185

00:07:31,529 --> 00:07:29,439

tracking systems and their their their

186

00:07:33,209 --> 00:07:31,539

flight control system or that they used

187

00:07:35,759 --> 00:07:33,219

to interface with it and do the remote

188

00:07:37,409 --> 00:07:35,769

control piloting is all working properly

189

00:07:39,149 --> 00:07:37,419

on the station so they're all they're

190

00:07:40,980 --> 00:07:39,159

all pumped up and ready to go Stefan and

191

00:07:42,749 --> 00:07:40,990

in fact today they're actually training

192

00:07:44,459 --> 00:07:42,759

they're doing an onboard training as

193

00:07:46,469 --> 00:07:44,469

well of the rendezvous and docking

194

00:07:49,109 --> 00:07:46,479

absolutely yeah they go through it all

195

00:07:50,549 --> 00:07:49,119

and it's important to do that and when

196

00:07:52,829 --> 00:07:50,559

you get the vehicle and it's always

197

00:07:54,570 --> 00:07:52,839

great to have a cargo ship come up from

198

00:07:57,089 --> 00:07:54,580

Earth because well there's a lot of

199

00:07:59,040 --> 00:07:57,099

supplies that you're waiting for but the

200

00:08:00,659 --> 00:07:59,050

what what everybody really likes is the

201
00:08:03,869 --> 00:08:00,669
stuff that's back just behind the hatch

202
00:08:05,850 --> 00:08:03,879
and you can and the the vehicles from

203
00:08:07,679 --> 00:08:05,860
the ground usually come up at a slightly

204
00:08:12,299 --> 00:08:07,689
higher pressure than the space station

205
00:08:14,639 --> 00:08:12,309
and the the particular one of the one of

206
00:08:16,469 --> 00:08:14,649
the russian progress cargo ships that

207
00:08:18,179 --> 00:08:16,479
came up we were all near the hatch and

208
00:08:20,309 --> 00:08:18,189
we started to equalize that pressure and

209
00:08:22,439 --> 00:08:20,319
this air is coming from the progress in

210
00:08:24,719 --> 00:08:22,449
to the ship and we're all gathered

211
00:08:27,029 --> 00:08:24,729
around looking for the smells of Earth

212
00:08:29,730 --> 00:08:27,039
and in that particular case earth

213
00:08:31,469 --> 00:08:29,740

smelled like oranges because there was

214

00:08:34,139 --> 00:08:31,479

there were some oranges on the ship and

215

00:08:35,490 --> 00:08:34,149

they had you know this so that odor the

216

00:08:37,110 --> 00:08:35,500

smell of the orange is kind of filled

217

00:08:39,300 --> 00:08:37,120

that air and when it came through the

218

00:08:41,790 --> 00:08:39,310

little tiny valve into the space station

219

00:08:43,529 --> 00:08:41,800

work oranges we couldn't wait to get the

220

00:08:45,449 --> 00:08:43,539

hatch open and I get to some of that

221

00:08:50,009 --> 00:08:45,459

fresh fruit and vegetables so oranges

222

00:08:52,230 --> 00:08:50,019

apples onions garlic are kind of the

223

00:08:53,370 --> 00:08:52,240

common things pretty good shelf life yes

224

00:08:55,080 --> 00:08:53,380

tomatoes

225

00:08:57,180 --> 00:08:55,090

uh that have a pretty good shelf life

226

00:08:58,560 --> 00:08:57,190

that can you know make the trip so

227

00:09:00,390 --> 00:08:58,570

everybody's looking forward to that okay

228

00:09:03,300 --> 00:09:00,400

well that answers the good stuff part of

229

00:09:05,400 --> 00:09:03,310

the question so let's move along to now

230

00:09:07,380 --> 00:09:05,410

one of the other things that they are

231

00:09:10,380 --> 00:09:07,390

the crew is working on in advance of

232

00:09:11,910 --> 00:09:10,390

that the arrival of the atv-3 it's a

233

00:09:13,800 --> 00:09:11,920

little bit of cleanup of the permanent

234

00:09:16,380 --> 00:09:13,810

multi-purpose module that is also known

235

00:09:20,610 --> 00:09:16,390

as Leonardo they space closet all right

236

00:09:23,910 --> 00:09:20,620

tell me about also our basement it sits

237

00:09:26,100 --> 00:09:23,920

down and and there's no up or down in

238

00:09:29,340 --> 00:09:26,110

space but you still know where the down

239

00:09:31,920 --> 00:09:29,350

is located and it's a great big storage

240

00:09:35,310 --> 00:09:31,930

you know area but we're bringing a

241

00:09:37,440 --> 00:09:35,320

moving van up you know 3,000 pounds of

242

00:09:39,300 --> 00:09:37,450

equipment coming up on a TV 3 you have

243

00:09:41,490 --> 00:09:39,310

to have a place to put it and so that's

244

00:09:43,560 --> 00:09:41,500

that is significant and we've got to

245

00:09:45,990 --> 00:09:43,570

just make sure that the all other things

246

00:09:48,810 --> 00:09:46,000

we have there right now are organized

247

00:09:51,770 --> 00:09:48,820

and and cleaned up and you make room to

248

00:09:54,480 --> 00:09:51,780

bring in all this new stuff or the

249

00:09:56,670 --> 00:09:54,490

management of your spare parts you're

250

00:09:59,280 --> 00:09:56,680

all of these things that come up can

251

00:10:01,380 --> 00:09:59,290

really eat up a lot of crew time and

252

00:10:03,630 --> 00:10:01,390

we're not there just to rearrange boxes

253

00:10:05,730 --> 00:10:03,640

and bags and and hunt for lost things

254

00:10:06,990 --> 00:10:05,740

were there to do other kinds of work now

255

00:10:09,300 --> 00:10:07,000

what I understand there's a lot more

256

00:10:11,190 --> 00:10:09,310

involved with then just you know it's

257

00:10:13,140 --> 00:10:11,200

not like moving furniture and from one

258

00:10:14,580 --> 00:10:13,150

room to another room it is literally a

259

00:10:16,700 --> 00:10:14,590

lot more than that because you have to

260

00:10:19,110 --> 00:10:16,710

maintain the inventory management system

261

00:10:21,180 --> 00:10:19,120

right right you know where things are

262

00:10:23,730 --> 00:10:21,190

going to have to be labeled and helps us

263

00:10:25,470 --> 00:10:23,740

find things and and then all the while

264

00:10:27,540 --> 00:10:25,480

you're floating so it's a little more

265

00:10:28,770 --> 00:10:27,550

typical then y know it you can't just

266

00:10:30,990 --> 00:10:28,780

set all those things on the ground

267

00:10:33,570 --> 00:10:31,000

outside the garage as you find places to

268

00:10:35,520 --> 00:10:33,580

put them you have to you know tack them

269

00:10:37,050 --> 00:10:35,530

down have the bungee cords ready and

270

00:10:39,480 --> 00:10:37,060

things like that so you can temporarily

271

00:10:40,850 --> 00:10:39,490

stow things in certain places and then

272

00:10:43,800 --> 00:10:40,860

move them to their final location

273

00:10:46,530 --> 00:10:43,810

because it's it's a big place and you

274

00:10:48,720 --> 00:10:46,540

know in our garages or our basements we

275

00:10:51,660 --> 00:10:48,730

might have things setting on the floor

276

00:10:53,490 --> 00:10:51,670

or sitting on shelves in space it could

277

00:10:55,170 --> 00:10:53,500

set on the ceiling as easy as it can sit

278

00:10:58,080 --> 00:10:55,180

on the floor you can bungee it to the

279

00:11:00,330 --> 00:10:58,090

wall and so you have things in 33 all

280

00:11:02,790 --> 00:11:00,340

three dimensions it can be anywhere it

281

00:11:05,670 --> 00:11:02,800

can be above that ceiling panel if you

282

00:11:06,970 --> 00:11:05,680

will and so you have to really keep

283

00:11:08,560 --> 00:11:06,980

track of these things you know

284

00:11:10,750 --> 00:11:08,570

electronic database it's really

285

00:11:12,189 --> 00:11:10,760

important because if you when you lose

286

00:11:14,650 --> 00:11:12,199

them they're really hard to find because

287

00:11:16,960 --> 00:11:14,660

you have to look everywhere and if

288

00:11:18,819 --> 00:11:16,970

there's a lot of stuff sure I work I

289

00:11:20,939 --> 00:11:18,829

recall your mission and you were looking

290

00:11:23,139 --> 00:11:20,949

for a tube of grease for the for the

291

00:11:24,819 --> 00:11:23,149

treadmill nugget for the advanced

292

00:11:26,650 --> 00:11:24,829

resistive exercise device and that was

293

00:11:29,850 --> 00:11:26,660

that was a lot of fun watching you hunt

294

00:11:34,180 --> 00:11:29,860

that down Oh what speaking of the a red

295

00:11:36,009 --> 00:11:34,190

so also today burbank has had also spent

296

00:11:39,129 --> 00:11:36,019

some time earlier this morning on the

297

00:11:41,769 --> 00:11:39,139

six-month maintenance of the treadmill

298

00:11:44,710 --> 00:11:41,779

starting already we did the last yeah so

299

00:11:46,660 --> 00:11:44,720

what is what all involved with that it's

300

00:11:48,550 --> 00:11:46,670

open up all of the panels get into the

301
00:11:50,199 --> 00:11:48,560
details cleaning out for one because

302
00:11:52,150 --> 00:11:50,209
dust will accumulate and we clean the

303
00:11:53,620 --> 00:11:52,160
station every week some of the filters

304
00:11:55,540 --> 00:11:53,630
in different parts of the station get

305
00:11:59,259 --> 00:11:55,550
cleaned very regularly but there's other

306
00:12:01,180 --> 00:11:59,269
areas back behind closeout panels but

307
00:12:02,800 --> 00:12:01,190
it's time to it you need to periodically

308
00:12:05,170 --> 00:12:02,810
just get in there clean everything up

309
00:12:07,900 --> 00:12:05,180
inspect it we grease some of the moving

310
00:12:09,490 --> 00:12:07,910
parts and and make sure that nothing has

311
00:12:11,290 --> 00:12:09,500
shaken loose because that treadmill gets

312
00:12:13,900 --> 00:12:11,300
a lot of abuse you get big guys like me

313
00:12:15,639 --> 00:12:13,910

on there pounding along you know running

314

00:12:17,379 --> 00:12:15,649

miles on that on the treadmill and it

315

00:12:18,879 --> 00:12:17,389

takes a lot of abuse so you need to just

316

00:12:20,250 --> 00:12:18,889

make sure everything's okay and do minor

317

00:12:23,439 --> 00:12:20,260

adjustments before it turns into

318

00:12:25,420 --> 00:12:23,449

equipment damage okay great well and we

319

00:12:27,220 --> 00:12:25,430

just had some video up for NASA

320

00:12:28,870 --> 00:12:27,230

television as well I want to go ahead

321

00:12:31,210 --> 00:12:28,880

and go to one more Twitter question and

322

00:12:34,180 --> 00:12:31,220

we're getting close to also later today

323

00:12:37,269 --> 00:12:34,190

we have an event where the commander

324

00:12:39,280 --> 00:12:37,279

Burbank Don Pettit and also Andre

325

00:12:41,259 --> 00:12:39,290

Kuiper's will take a break and talk with

326

00:12:45,460 --> 00:12:41,269

Bloomberg News at a Moscow to talk about

327

00:12:47,170 --> 00:12:45,470

the US and Russian cooperation and so I

328

00:12:50,199 --> 00:12:47,180

will have to break for that in just a

329

00:12:54,490 --> 00:12:50,209

little bit but real quick the the next

330

00:12:57,069 --> 00:12:54,500

question here is see what with the set

331

00:12:58,449 --> 00:12:57,079

it is comes from fly for calm I have

332

00:13:00,550 --> 00:12:58,459

always wondered what is the most

333

00:13:03,519 --> 00:13:00,560

humbling thing about seeing Earth from

334

00:13:05,050 --> 00:13:03,529

space Wow I think for me the most

335

00:13:07,030 --> 00:13:05,060

humbling thing about seeing Earth from

336

00:13:09,129 --> 00:13:07,040

space is just knowing when it's a

337

00:13:11,740 --> 00:13:09,139

magnificent view and it's always just

338

00:13:14,379 --> 00:13:11,750

amazing the daytime you see all of these

339

00:13:16,449 --> 00:13:14,389

these the continents rolling by the

340

00:13:17,370 --> 00:13:16,459

nighttime you see the city lights the

341

00:13:19,690 --> 00:13:17,380

Aurora

342

00:13:22,569 --> 00:13:19,700

aurora lights which are stunning and

343

00:13:24,040 --> 00:13:22,579

just to realize how few people have

344

00:13:25,840 --> 00:13:24,050

really had the opportunity to see it

345

00:13:27,850 --> 00:13:25,850

from this vantage point to me is is

346

00:13:29,889 --> 00:13:27,860

really humbling and I know how fortunate

347

00:13:32,079 --> 00:13:29,899

I am to to be part of this most

348

00:13:34,210 --> 00:13:32,089

outrageous of all humankind adventures

349

00:13:37,150 --> 00:13:34,220

sure well great thank you very much for

350

00:13:39,040 --> 00:13:37,160

answering that and also I know that you

351
00:13:40,720 --> 00:13:39,050
came over here in a hurry because you

352
00:13:41,889 --> 00:13:40,730
were just out at the MBL pool I don't

353
00:13:45,040 --> 00:13:41,899
know if we have time to pull up any

354
00:13:47,560 --> 00:13:45,050
video but we do have sunny williams and

355
00:13:51,540 --> 00:13:47,570
aki or culture yeah we actually do have

356
00:13:55,569 --> 00:13:51,550
some video for you so they were both

357
00:13:57,220 --> 00:13:55,579
they are both working on a practice one

358
00:13:58,750 --> 00:13:57,230
at the embryo and this is a practice one

359
00:14:02,290 --> 00:13:58,760
for spacewalk something you know about

360
00:14:03,960 --> 00:14:02,300
oh yeah I've spent a lot of hours out

361
00:14:07,180 --> 00:14:03,970
there at the neutral buoyancy laboratory

362
00:14:08,440 --> 00:14:07,190
sunny and Aki are launching in August so

363
00:14:10,300 --> 00:14:08,450

they're one of the next cruise to head

364

00:14:12,550 --> 00:14:10,310

up to the space station it looks like

365

00:14:13,990 --> 00:14:12,560

they may get a spacewalk to to do a

366

00:14:16,150 --> 00:14:14,000

little bit of maintenance work on the

367

00:14:18,819 --> 00:14:16,160

station so I wanted to talk to him about

368

00:14:20,829 --> 00:14:18,829

some ideas for tools and equipment that

369

00:14:22,180 --> 00:14:20,839

we've been talking about and decided to

370

00:14:24,490 --> 00:14:22,190

go out there this morning to help him

371

00:14:25,990 --> 00:14:24,500

suit up and then show them exactly how

372

00:14:28,300 --> 00:14:26,000

to configure those things on their suits

373

00:14:29,350 --> 00:14:28,310

so I got to watch him get started in

374

00:14:32,079 --> 00:14:29,360

their run this morning they're doing

375

00:14:34,780 --> 00:14:32,089

great great good stuff so again Sonny

376

00:14:37,780 --> 00:14:34,790

Williams she had flown aboard the space

377

00:14:39,310 --> 00:14:37,790

station award for expedition 14 so it's

378

00:14:40,600 --> 00:14:39,320

been a long time since she's been there

379

00:14:41,980 --> 00:14:40,610

I bet the station's gonna look quite a

380

00:14:43,870 --> 00:14:41,990

bit different when she gets there she

381

00:14:45,970 --> 00:14:43,880

also established the world record for

382

00:14:48,460 --> 00:14:45,980

females with four spacewalks on her belt

383

00:14:51,730 --> 00:14:48,470

and Peggy Whitson surpassed her a little

384

00:14:53,949 --> 00:14:51,740

after that then also aki had flown

385

00:14:57,160 --> 00:14:53,959

aboard sts 124 you were on your mission

386

00:15:01,060 --> 00:14:57,170

and so they are both scheduled to fly

387

00:15:03,550 --> 00:15:01,070

aboard ISS as the expedition 32 33 crew

388

00:15:05,560 --> 00:15:03,560

member and again that launch is set for

389

00:15:07,150 --> 00:15:05,570

this summer and we look forward to that

390

00:15:09,040 --> 00:15:07,160

as well thank you very much for coming

391

00:15:11,500 --> 00:15:09,050

out today it's all as always all the

392

00:15:14,500 --> 00:15:11,510

pleasure talking to you and we're going

393

00:15:16,630 --> 00:15:14,510

to go ahead and get out so we can

394

00:15:17,650 --> 00:15:16,640

prepare for that an in-flight event

395

00:15:20,199 --> 00:15:17,660

that's going to be taking place from

396

00:15:21,819 --> 00:15:20,209

here in just a couple minutes and again

397

00:15:25,689 --> 00:15:21,829

it is going to be commander Burbank and

398

00:15:27,100 --> 00:15:25,699

Don Pettit and also astronaut European

399

00:15:30,290 --> 00:15:27,110

Space Agency astronaut Andre Kuiper's

400

00:15:32,420 --> 00:15:30,300

who will be talking with Bloomberg News

401
00:15:33,770 --> 00:15:32,430
thank you so much man hey it's great to

402
00:15:35,210 --> 00:15:33,780
come over here it's great to watch the

403
00:15:37,820 --> 00:15:35,220
crew and what's going on on the space

404
00:15:38,930 --> 00:15:37,830
station it's an amazing place and these

405
00:15:41,810 --> 00:15:38,940
are very dear friends that are up there

406
00:15:43,910 --> 00:15:41,820
right now we handed the keys to Dan just

407
00:15:46,400 --> 00:15:43,920
before we left of course and have been

408
00:15:48,350 --> 00:15:46,410
staying close to the mission and just

409
00:15:49,850 --> 00:15:48,360
really appreciate everything that's

410
00:15:51,020 --> 00:15:49,860
going on they're doing great they're

411
00:15:53,270 --> 00:15:51,030
having a lot of fun they're getting a

412
00:15:55,550 --> 00:15:53,280
lot of work done and it's exciting to

413
00:15:58,460 --> 00:15:55,560

see the mission continue thanks a bunch

414

00:16:01,250 --> 00:15:58,470

great thank you and that's it for today