



1  
00:00:05,510 --> 00:00:02,950  
houston this is station we are ready for

2  
00:00:08,070 --> 00:00:06,470  
okay

3  
00:00:11,430 --> 00:00:08,080  
station this is houston are you picking

4  
00:00:16,470 --> 00:00:13,190  
i am now i had to adjust the volume on

5  
00:00:18,470 --> 00:00:16,480  
the atu i got you loud and clear okay we

6  
00:00:20,310 --> 00:00:18,480  
have you loud and clear as well

7  
00:00:22,150 --> 00:00:20,320  
and women of the hour this is mission

8  
00:00:23,750 --> 00:00:22,160  
control houston please call station for

9  
00:00:25,910 --> 00:00:23,760  
a voice check

10  
00:00:27,589 --> 00:00:25,920  
station this is producer barry finkel

11  
00:00:30,710 --> 00:00:27,599  
with women of the hour how do you hear

12  
00:00:35,270 --> 00:00:32,389  
i've got you loud and clear and we're

13  
00:00:41,270 --> 00:00:38,709

great oh i'm so excited to talk to you

14

00:00:43,510 --> 00:00:41,280

um i just wanted to start by saying i

15

00:00:45,510 --> 00:00:43,520

will not be i'll be edited out of this

16

00:00:48,229 --> 00:00:45,520

interview so if you could respond in

17

00:00:50,150 --> 00:00:48,239

full sentences that would be ideal and i

18

00:00:52,790 --> 00:00:50,160

want to start by having you introduce

19

00:00:56,950 --> 00:00:52,800

yourself who you are what you do and

20

00:01:01,349 --> 00:00:59,430

yeah i'm astronaut kate rubins it's

21

00:01:03,990 --> 00:01:01,359

great to be talking to you i'm aboard

22

00:01:06,550 --> 00:01:04,000

the international space station and we

23

00:01:09,750 --> 00:01:06,560

just flew off the coast of japan we're

24

00:01:11,990 --> 00:01:09,760

headed somewhere towards panagonia and

25

00:01:14,230 --> 00:01:12,000

we have been busy all day on space

26  
00:01:15,990 --> 00:01:14,240  
station doing a bunch of experiments and

27  
00:01:17,749 --> 00:01:16,000  
prepping our spacesuits to go out the

28  
00:01:19,910 --> 00:01:17,759  
door on a spacewalk

29  
00:01:22,390 --> 00:01:19,920  
next saturday

30  
00:01:24,230 --> 00:01:22,400  
oh that is so exciting

31  
00:01:26,390 --> 00:01:24,240  
so when you were little and you would

32  
00:01:28,230 --> 00:01:26,400  
look up at the stars growing up did you

33  
00:01:34,069 --> 00:01:28,240  
ever imagine yourself being among them

34  
00:01:37,910 --> 00:01:36,390  
well when i was growing up when you are

35  
00:01:40,469 --> 00:01:37,920  
a little kid you've got some career

36  
00:01:43,590 --> 00:01:40,479  
goals of course and i had three it was

37  
00:01:46,310 --> 00:01:43,600  
astronaut biologist and geologist

38  
00:01:48,149 --> 00:01:46,320

so i started out as a biologist i wound

39

00:01:50,870 --> 00:01:48,159

up as an astronaut and we'll see what

40

00:01:54,310 --> 00:01:50,880

happens from here

41

00:01:56,389 --> 00:01:54,320

wow that must feel really good

42

00:01:58,149 --> 00:01:56,399

so i'm curious what was going through

43

00:02:00,149 --> 00:01:58,159

your mind as you were launching into

44

00:02:05,030 --> 00:02:00,159

space how is the experience different

45

00:02:09,350 --> 00:02:07,510

yeah so we actually spend a lot of time

46

00:02:11,510 --> 00:02:09,360

in the simulator we launch on soyuz

47

00:02:13,110 --> 00:02:11,520

rockets so we are in the simulator with

48

00:02:16,309 --> 00:02:13,120

our russian colleagues

49

00:02:17,990 --> 00:02:16,319

often in moscow and the simulator feels

50

00:02:20,550 --> 00:02:18,000

very much like the real spacecraft you

51  
00:02:23,110 --> 00:02:20,560  
climb in on the real day and everything

52  
00:02:25,030 --> 00:02:23,120  
looks exactly as you're used to uh the

53  
00:02:28,150 --> 00:02:25,040  
biggest difference there is the fact

54  
00:02:30,630 --> 00:02:28,160  
that you actually uh then start to feel

55  
00:02:32,470 --> 00:02:30,640  
the rocket underneath you at liftoff and

56  
00:02:33,990 --> 00:02:32,480  
uh there's a lot of this going through

57  
00:02:35,190 --> 00:02:34,000  
your mind of i can't believe i'm

58  
00:02:37,910 --> 00:02:35,200  
actually here i can't believe we're

59  
00:02:39,990 --> 00:02:37,920  
actually on top of a rocket and it's a

60  
00:02:43,589 --> 00:02:40,000  
pretty incredible experience to suddenly

61  
00:02:45,589 --> 00:02:43,599  
be hurled into space at 17 500 miles an

62  
00:02:48,470 --> 00:02:45,599  
hour

63  
00:02:51,110 --> 00:02:48,480

yeah it's hard to imagine

64

00:02:53,270 --> 00:02:51,120

can you give us a sensory description of

65

00:02:57,430 --> 00:02:53,280

being in space the sight smells and

66

00:03:02,390 --> 00:02:59,670

yeah that's a great question actually um

67

00:03:04,390 --> 00:03:02,400

so space does have a little bit of a

68

00:03:06,790 --> 00:03:04,400

smell and we got a chance to experience

69

00:03:08,390 --> 00:03:06,800

that when we docked the dragon vehicle

70

00:03:10,869 --> 00:03:08,400

to the space station so this was the

71

00:03:12,869 --> 00:03:10,879

spacex vehicle that launched recently

72

00:03:14,949 --> 00:03:12,879

one of the things that we do is

73

00:03:16,790 --> 00:03:14,959

pressurize and depressurize the air lock

74

00:03:18,710 --> 00:03:16,800

that goes between those two vehicles

75

00:03:21,110 --> 00:03:18,720

when you do that you bring a little bit

76

00:03:23,830 --> 00:03:21,120

of that space smell into station and and

77

00:03:26,070 --> 00:03:23,840

so my commander called us over and and

78

00:03:27,990 --> 00:03:26,080

told my crewmates and i to smell and

79

00:03:30,830 --> 00:03:28,000

smell if we could smell space it smells

80

00:03:33,110 --> 00:03:30,840

a little metallic but nothing

81

00:03:37,190 --> 00:03:33,120

remarkable not something you're gonna

82

00:03:44,229 --> 00:03:39,509

so what are you most looking forward to

83

00:03:49,190 --> 00:03:47,030

so i think uh you know the space walk is

84

00:03:50,630 --> 00:03:49,200

this pretty amazing thing actually when

85

00:03:52,309 --> 00:03:50,640

you see

86

00:03:54,949 --> 00:03:52,319

all of the effort that goes into it

87

00:03:57,429 --> 00:03:54,959

there's ground teams that spend months

88

00:03:59,830 --> 00:03:57,439

and years even preparing for this the

89

00:04:01,270 --> 00:03:59,840

end goal is to add some structure to the

90

00:04:03,429 --> 00:04:01,280

space station so we're going to put

91

00:04:05,270 --> 00:04:03,439

essentially what's a front porch onto

92

00:04:07,750 --> 00:04:05,280

the space station and that's going to be

93

00:04:09,670 --> 00:04:07,760

this kind of docking adapter for new

94

00:04:10,710 --> 00:04:09,680

commercial crew vehicles so i think one

95

00:04:12,309 --> 00:04:10,720

of the things that we're really looking

96

00:04:14,470 --> 00:04:12,319

forward to is the fact that we actually

97

00:04:15,830 --> 00:04:14,480

get to bolt a piece of hardware onto

98

00:04:18,150 --> 00:04:15,840

space station

99

00:04:20,710 --> 00:04:18,160

for me mostly it's really the fan that

100

00:04:22,310 --> 00:04:20,720

the fact that i get to see all of these

101  
00:04:24,390 --> 00:04:22,320  
years of ground training and all these

102  
00:04:26,550 --> 00:04:24,400  
folks that have helped me along the way

103  
00:04:29,030 --> 00:04:26,560  
they get to execute an eva i get to be

104  
00:04:30,710 --> 00:04:29,040  
part of that um that's that's i think

105  
00:04:33,110 --> 00:04:30,720  
just one of the most amazing things is

106  
00:04:35,350 --> 00:04:33,120  
to see what happens when nasa kicks into

107  
00:04:37,030 --> 00:04:35,360  
high gear what they can accomplish and

108  
00:04:40,230 --> 00:04:37,040  
and how all these these people come

109  
00:04:43,110 --> 00:04:40,240  
together and put a plan together

110  
00:04:47,189 --> 00:04:43,120  
yeah so what is an average day in space

111  
00:04:50,710 --> 00:04:48,629  
yeah that's a that is a great question

112  
00:04:53,110 --> 00:04:50,720  
it's a busy day usually um we are

113  
00:04:55,110 --> 00:04:53,120

absolutely maximizing our time up here

114

00:04:56,950 --> 00:04:55,120

and so we might get up in the morning

115

00:04:58,790 --> 00:04:56,960

and do some

116

00:05:01,350 --> 00:04:58,800

various science ops so for example right

117

00:05:03,830 --> 00:05:01,360

now i'm working on a lot of cell culture

118

00:05:05,990 --> 00:05:03,840

for heart cells these are cardiomyocytes

119

00:05:08,230 --> 00:05:06,000

that were actually growing on orbit so

120

00:05:09,670 --> 00:05:08,240

there there no kidding heart cells you

121

00:05:11,270 --> 00:05:09,680

can see them in the microscope they

122

00:05:13,350 --> 00:05:11,280

start beating

123

00:05:15,350 --> 00:05:13,360

they they beat in together and you can

124

00:05:17,430 --> 00:05:15,360

actually see that and we're culturing

125

00:05:18,790 --> 00:05:17,440

them on board the space station to try

126

00:05:20,950 --> 00:05:18,800

to understand the effects of

127

00:05:22,390 --> 00:05:20,960

microgravity so you might have a science

128

00:05:23,830 --> 00:05:22,400

experiment in the morning

129

00:05:25,909 --> 00:05:23,840

this afternoon uh we're gonna be

130

00:05:28,550 --> 00:05:25,919

plumbers we are uh replacing some

131

00:05:30,150 --> 00:05:28,560

components uh on the toilet and a few

132

00:05:32,150 --> 00:05:30,160

hours before that i was putting together

133

00:05:34,070 --> 00:05:32,160

this the uh spacesuits and doing a bunch

134

00:05:36,469 --> 00:05:34,080

of hardware checkout to get us ready to

135

00:05:38,070 --> 00:05:36,479

go on our spacewalk so it's uh choose

136

00:05:39,990 --> 00:05:38,080

your own adventure i mean and pick any

137

00:05:42,710 --> 00:05:40,000

kind of activity we're probably doing it

138

00:05:48,150 --> 00:05:45,670

so when it comes to activity is more for

139

00:05:50,629 --> 00:05:48,160

fun i'm assuming that you know things

140

00:05:52,870 --> 00:05:50,639

like board games are probably limited so

141

00:05:56,550 --> 00:05:52,880

what is your favorite activity to do for

142

00:06:01,749 --> 00:05:58,469

yeah so that that is a great question

143

00:06:04,070 --> 00:06:01,759

and um we don't the the kinds of

144

00:06:06,230 --> 00:06:04,080

activities um that we have on board the

145

00:06:07,830 --> 00:06:06,240

space station you have a lot of things

146

00:06:10,309 --> 00:06:07,840

that you would have available to you on

147

00:06:12,309 --> 00:06:10,319

earth we have a little book library

148

00:06:14,230 --> 00:06:12,319

you know we have some things that we can

149

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

do in our free time a lot of times the

150

00:06:18,870 --> 00:06:16,319

crew hangs out and just chats with each

151

00:06:21,189 --> 00:06:18,880

other at dinner but there's not a lot of

152

00:06:23,670 --> 00:06:21,199

desire to just do the normal things that

153

00:06:24,790 --> 00:06:23,680

you would on a saturday afternoon on the

154

00:06:27,189 --> 00:06:24,800

earth

155

00:06:29,430 --> 00:06:27,199

because this is such an amazing place we

156

00:06:31,510 --> 00:06:29,440

really find ourselves drawn to the

157

00:06:33,029 --> 00:06:31,520

cupola and that's the big area with

158

00:06:37,110 --> 00:06:33,039

windows where we can look down at the

159

00:06:39,110 --> 00:06:37,120

earth and you could spend

160

00:06:41,590 --> 00:06:39,120

six months of saturdays up here and

161

00:06:43,909 --> 00:06:41,600

never and never really do a normal earth

162

00:06:45,510 --> 00:06:43,919

activity because we're so fascinated

163

00:06:47,749 --> 00:06:45,520

with watching the earth and watching the

164

00:06:49,589 --> 00:06:47,759

planet go by so i think most of our

165

00:06:51,589 --> 00:06:49,599

downtime activities are usually

166

00:06:53,189 --> 00:06:51,599

concerned with the really unique nature

167

00:06:56,390 --> 00:06:53,199

of space and the fact that we're in

168

00:07:02,629 --> 00:06:58,550

how would you describe seeing an aurora

169

00:07:07,189 --> 00:07:05,510

that it's amazing and aurora uh from

170

00:07:09,749 --> 00:07:07,199

space is one of the most incredible

171

00:07:11,430 --> 00:07:09,759

things that you can imagine and uh it's

172

00:07:13,270 --> 00:07:11,440

a little bit rare so

173

00:07:15,350 --> 00:07:13,280

you end up when you're looking out the

174

00:07:17,830 --> 00:07:15,360

window you end up with these uh treasure

175

00:07:19,670 --> 00:07:17,840

hunts a little bit of times uh sometimes

176

00:07:22,150 --> 00:07:19,680

i wanted to see the pyramids i saw those

177

00:07:23,110 --> 00:07:22,160

the other day from space

178

00:07:26,950 --> 00:07:23,120

so

179

00:07:28,950 --> 00:07:26,960

looking out for because it only happens

180

00:07:30,550 --> 00:07:28,960

at certain times we were lucky enough

181

00:07:32,629 --> 00:07:30,560

that we launched on the soyuz and we

182

00:07:34,950 --> 00:07:32,639

were actually orbiting the planet in our

183

00:07:36,870 --> 00:07:34,960

very small soyuz spacecraft for two days

184

00:07:38,790 --> 00:07:36,880

before we dock for the space station and

185

00:07:40,230 --> 00:07:38,800

i looked out the window

186

00:07:42,390 --> 00:07:40,240

one of the first nights when we were in

187

00:07:44,950 --> 00:07:42,400

orbital darkness and i saw this

188

00:07:47,270 --> 00:07:44,960

beautiful green aurora and and it just

189

00:07:49,029 --> 00:07:47,280

uh happened to be that way uh we were we

190

00:07:51,270 --> 00:07:49,039

were looking for it for a while and only

191

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

recently saw it up here on space station

192

00:07:54,230 --> 00:07:53,120

um and so it's it's gorgeous it's

193

00:07:56,309 --> 00:07:54,240

amazing

194

00:07:58,390 --> 00:07:56,319

i'm a scientist and so i enjoy thinking

195

00:08:00,950 --> 00:07:58,400

about magnetic fields and and what this

196

00:08:02,790 --> 00:08:00,960

exactly means for uh what's going on in

197

00:08:05,110 --> 00:08:02,800

terms of geomagnetic issues on our

198

00:08:09,189 --> 00:08:05,120

planet but i think maybe not everybody

199

00:08:16,790 --> 00:08:11,270

how has your relationship with earth

200

00:08:21,029 --> 00:08:18,790

i think one of the ways that your

201  
00:08:23,990 --> 00:08:21,039  
relationship with earth changes is the

202  
00:08:26,390 --> 00:08:24,000  
fact that you can see so much

203  
00:08:29,110 --> 00:08:26,400  
so i was narrating to some family and

204  
00:08:31,430 --> 00:08:29,120  
friends a little while ago uh we had a

205  
00:08:34,070 --> 00:08:31,440  
really nice pass over the u.s and i saw

206  
00:08:36,149 --> 00:08:34,080  
some areas in vancouver and i was really

207  
00:08:37,269 --> 00:08:36,159  
interested in looking at the mountains

208  
00:08:41,829 --> 00:08:37,279  
and

209  
00:08:44,470 --> 00:08:41,839  
noticed off in the distance

210  
00:08:46,230 --> 00:08:44,480  
uh some lakes and i was thinking gosh i

211  
00:08:47,590 --> 00:08:46,240  
need to get better on my geography i

212  
00:08:49,110 --> 00:08:47,600  
better go look that up that's a really

213  
00:08:50,949 --> 00:08:49,120

big lake

214

00:08:52,790 --> 00:08:50,959

it was the great lakes and so that is

215

00:08:54,710 --> 00:08:52,800

this go that's the way your the scope

216

00:08:57,190 --> 00:08:54,720

should completely changes i mean you can

217

00:08:59,269 --> 00:08:57,200

see out of one eye you can see the west

218

00:09:01,430 --> 00:08:59,279

coast out of your other eye you can

219

00:09:02,790 --> 00:09:01,440

actually see the great lakes and so

220

00:09:04,949 --> 00:09:02,800

that kind of perspective where you're

221

00:09:07,350 --> 00:09:04,959

seeing whole continents um you're just

222

00:09:09,110 --> 00:09:07,360

seeing this beauty of the planet come

223

00:09:10,230 --> 00:09:09,120

come before your eyes

224

00:09:11,750 --> 00:09:10,240

i think

225

00:09:13,590 --> 00:09:11,760

it does something really deep in the

226

00:09:17,110 --> 00:09:13,600

human brain stem and it definitely

227

00:09:24,550 --> 00:09:19,350

so can you tell us briefly how you wound

228

00:09:29,910 --> 00:09:27,110

yeah so i applied to nasa and was part

229

00:09:31,590 --> 00:09:29,920

of the 2009 astronaut class we come in

230

00:09:33,750 --> 00:09:31,600

and we do a lot of basic training as

231

00:09:35,430 --> 00:09:33,760

astronaut candidates and then when we

232

00:09:36,790 --> 00:09:35,440

get selected for a mission we actually

233

00:09:38,470 --> 00:09:36,800

trained for about two and a half years

234

00:09:40,310 --> 00:09:38,480

for the the specific mission that we're

235

00:09:42,389 --> 00:09:40,320

going to do and so

236

00:09:44,389 --> 00:09:42,399

we we do a lot of training at nasa but

237

00:09:46,150 --> 00:09:44,399

we also train at the partner agency

238

00:09:49,350 --> 00:09:46,160

sites so i was talking about the

239

00:09:51,190 --> 00:09:49,360

training in moscow we train in japan we

240

00:09:53,829 --> 00:09:51,200

train in canada and we train in europe

241

00:09:54,790 --> 00:09:53,839

as well and after you go through all of

242

00:09:56,630 --> 00:09:54,800

that

243

00:09:58,470 --> 00:09:56,640

you have a pretty good understanding i

244

00:10:01,110 --> 00:09:58,480

think of what we're going to do on a

245

00:10:02,310 --> 00:10:01,120

daily basis on the space station

246

00:10:05,269 --> 00:10:02,320

so we

247

00:10:07,350 --> 00:10:05,279

we get all this this training done and a

248

00:10:09,829 --> 00:10:07,360

little bit of it we learn on the job up

249

00:10:12,230 --> 00:10:09,839

here um but there's not a whole lot that

250

00:10:13,990 --> 00:10:12,240

we're directing of of the selection

251  
00:10:16,710 --> 00:10:14,000  
process or anything like that that all

252  
00:10:18,389 --> 00:10:16,720  
comes from the ground um and we just

253  
00:10:20,550 --> 00:10:18,399  
help them out the best we can

254  
00:10:22,870 --> 00:10:20,560  
getting this incredible amount of

255  
00:10:24,790 --> 00:10:22,880  
experiments space walks

256  
00:10:27,910 --> 00:10:24,800  
cargo transfer work all the things we're

257  
00:10:32,230 --> 00:10:30,150  
so you have a crew up there but there

258  
00:10:37,750 --> 00:10:32,240  
aren't necessarily all that many people

259  
00:10:42,150 --> 00:10:40,150  
you know i we really don't it's actually

260  
00:10:44,150 --> 00:10:42,160  
amazing the space station is huge and so

261  
00:10:45,670 --> 00:10:44,160  
you might not have eyes on every single

262  
00:10:47,990 --> 00:10:45,680  
crew member but we kind of know where

263  
00:10:49,750 --> 00:10:48,000

everybody is and what they're doing uh

264

00:10:52,870 --> 00:10:49,760

we'll be working together a lot of the

265

00:10:55,430 --> 00:10:52,880

time so uh for example today two my

266

00:10:58,230 --> 00:10:55,440

russian colleagues were down in the in

267

00:10:59,509 --> 00:10:58,240

the european segment doing an ultrasound

268

00:11:01,030 --> 00:10:59,519

experiment so

269

00:11:03,269 --> 00:11:01,040

we're you know we're working on the

270

00:11:05,190 --> 00:11:03,279

spacesuits and we we'd float by and

271

00:11:07,350 --> 00:11:05,200

watch them do an ultrasound experiment

272

00:11:08,630 --> 00:11:07,360

um you you really just get the sense

273

00:11:11,430 --> 00:11:08,640

that you're working together all the

274

00:11:12,870 --> 00:11:11,440

time um so it doesn't feel lonely it and

275

00:11:14,550 --> 00:11:12,880

it can be a little

276

00:11:15,990 --> 00:11:14,560

busy up here you've got people flying

277

00:11:17,030 --> 00:11:16,000

from module to module getting their

278

00:11:18,949 --> 00:11:17,040

stuff done

279

00:11:20,550 --> 00:11:18,959

so it's just a it's a lot of enjoyment

280

00:11:23,110 --> 00:11:20,560

and and you really don't get that sense

281

00:11:25,590 --> 00:11:23,120

of loneliness

282

00:11:31,590 --> 00:11:25,600

do you feel a need to create a private

283

00:11:36,310 --> 00:11:34,069

uh we really don't we have our little um

284

00:11:38,949 --> 00:11:36,320

cubicle where our sleeping sleeping bags

285

00:11:42,389 --> 00:11:38,959

are hung up and um so we all have a

286

00:11:45,110 --> 00:11:42,399

place to sleep and uh the the work up

287

00:11:46,710 --> 00:11:45,120

here is so fascinating and so engaging i

288

00:11:48,550 --> 00:11:46,720

think a lot of the stuff that you might

289

00:11:50,949 --> 00:11:48,560

feel on the ground where

290

00:11:52,949 --> 00:11:50,959

i i need to get away from it all um i

291

00:11:56,389 --> 00:11:52,959

just want my own spot

292

00:11:59,509 --> 00:11:56,399

it doesn't translate up here um the

293

00:12:01,430 --> 00:11:59,519

any sense of of isolation

294

00:12:04,389 --> 00:12:01,440

can immediately be cured by going and

295

00:12:06,550 --> 00:12:04,399

looking out the window and seeing

296

00:12:08,310 --> 00:12:06,560

everybody on the planet there's actually

297

00:12:10,629 --> 00:12:08,320

i would say more feeling of

298

00:12:13,110 --> 00:12:10,639

connectedness than there is of isolation

299

00:12:16,069 --> 00:12:13,120

or need to to sequester yourself from

300

00:12:21,590 --> 00:12:18,870

you are the 60th woman in space which is

301

00:12:23,590 --> 00:12:21,600

pretty incredible did you talk to any

302

00:12:28,310 --> 00:12:23,600

other women astronauts and get any

303

00:12:31,350 --> 00:12:29,430

well i talked to a whole bunch of

304

00:12:34,069 --> 00:12:31,360

astronauts before i launched i think

305

00:12:36,310 --> 00:12:34,079

that's a really good practice in general

306

00:12:38,069 --> 00:12:36,320

so there's actually not a major

307

00:12:39,750 --> 00:12:38,079

difference in terms of the kind of job

308

00:12:42,150 --> 00:12:39,760

that we're doing up here it's

309

00:12:44,790 --> 00:12:42,160

essentially no impact so

310

00:12:46,310 --> 00:12:44,800

i talked to women and men about all of

311

00:12:48,389 --> 00:12:46,320

their experiences about the things that

312

00:12:51,190 --> 00:12:48,399

we've talked about about launching

313

00:12:52,629 --> 00:12:51,200

what people thought of the work

314

00:12:55,430 --> 00:12:52,639

their tips and tricks for getting

315

00:12:56,949 --> 00:12:55,440

through the workday and the advice from

316

00:12:58,629 --> 00:12:56,959

from fellow astronauts and folks that

317

00:13:01,590 --> 00:12:58,639

have flown before is really invaluable

318

00:13:03,829 --> 00:13:01,600

that's what allows us to get up here and

319

00:13:05,269 --> 00:13:03,839

hit the ground running and get so much

320

00:13:07,190 --> 00:13:05,279

accomplished

321

00:13:10,710 --> 00:13:07,200

in our first few days and weeks up on

322

00:13:15,110 --> 00:13:12,790

so do you ever feel isolated being the

323

00:13:19,509 --> 00:13:15,120

only woman on board or is that not an

324

00:13:23,990 --> 00:13:21,670

i frankly don't really think about the

325

00:13:25,910 --> 00:13:24,000

fact that i'm the only woman on board i

326

00:13:27,350 --> 00:13:25,920

think it's just you know we're a crew

327

00:13:28,710 --> 00:13:27,360

we're up here

328

00:13:31,430 --> 00:13:28,720

there's no difference in my job

329

00:13:33,190 --> 00:13:31,440

description so

330

00:13:35,190 --> 00:13:33,200

it's not something that comes to mind

331

00:13:37,590 --> 00:13:35,200

it's not something i think it's that's

332

00:13:39,269 --> 00:13:37,600

maybe the same question as uh does

333

00:13:41,910 --> 00:13:39,279

somebody feel isolated being the only

334

00:13:43,430 --> 00:13:41,920

army astronaut up here or does somebody

335

00:13:45,509 --> 00:13:43,440

feel isolated being the only japanese

336

00:13:47,430 --> 00:13:45,519

astronaut up here

337

00:13:49,350 --> 00:13:47,440

it's it's part of who we are we bring

338

00:13:51,910 --> 00:13:49,360

our own personal characteristics to the

339

00:13:54,069 --> 00:13:51,920

table but we're together up here as a

340

00:13:56,550 --> 00:13:54,079

crew and

341

00:14:01,509 --> 00:13:56,560

there's really not a separation or

342

00:14:04,150 --> 00:14:01,519

isolation or a need to feel different

343

00:14:05,990 --> 00:14:04,160

that's great um i'm wondering how do you

344

00:14:07,910 --> 00:14:06,000

cope with being separated from family

345

00:14:10,230 --> 00:14:07,920

and friends you know pretty much the

346

00:14:14,069 --> 00:14:10,240

farthest distance you could be

347

00:14:18,310 --> 00:14:15,750

well so there actually are times where

348

00:14:20,710 --> 00:14:18,320

we pass directly over uh for example our

349

00:14:23,910 --> 00:14:20,720

hometown or where we live or where

350

00:14:26,150 --> 00:14:23,920

relatives are and and they'll oftentimes

351

00:14:28,629 --> 00:14:26,160

use an app on the ground that that they

352

00:14:30,870 --> 00:14:28,639

can use to spot the space station um and

353

00:14:32,550 --> 00:14:30,880

nasa has this app but your listeners can

354

00:14:34,629 --> 00:14:32,560

go look it up and and see if we happen

355

00:14:37,750 --> 00:14:34,639

to be flying overhead at a good time and

356

00:14:40,470 --> 00:14:37,760

so i get a lot of notes from people um

357

00:14:42,710 --> 00:14:40,480

that say hey i just saw you fly overhead

358

00:14:44,629 --> 00:14:42,720

so you actually in some ways

359

00:14:47,430 --> 00:14:44,639

can feel closer to some of your

360

00:14:49,189 --> 00:14:47,440

far-flung uh friends and relatives and

361

00:14:51,269 --> 00:14:49,199

we have a really fantastic way of

362

00:14:53,829 --> 00:14:51,279

staying connected with people up here so

363

00:14:56,790 --> 00:14:53,839

uh we can have video chats with uh with

364

00:14:58,949 --> 00:14:56,800

our family and friends and uh it's

365

00:15:00,310 --> 00:14:58,959

really it's a it's a really fun time we

366

00:15:01,990 --> 00:15:00,320

get to bring a little bit of the space

367

00:15:04,710 --> 00:15:02,000

station life to them

368

00:15:06,870 --> 00:15:04,720

so it's not as remote as you would think

369

00:15:09,509 --> 00:15:06,880

it's a fascinating unique environment

370

00:15:11,590 --> 00:15:09,519

and it is a remote and extreme

371

00:15:16,069 --> 00:15:11,600

environment but it gets brought a lot

372

00:15:19,670 --> 00:15:17,750

so what do you miss back on earth are

373

00:15:21,590 --> 00:15:19,680

there little things you really miss you

374

00:15:26,150 --> 00:15:21,600

know if small is a dish you really love

375

00:15:30,310 --> 00:15:28,230

yeah that's a good question and and i'm

376

00:15:32,389 --> 00:15:30,320

not the only one to say this but i do

377

00:15:35,829 --> 00:15:32,399

miss um a lot of the

378

00:15:38,629 --> 00:15:35,839

sounds and smells uh and and feeling of

379

00:15:41,350 --> 00:15:38,639

being outside so we have a closed-loop

380

00:15:42,949 --> 00:15:41,360

system here which is actually a

381

00:15:44,870 --> 00:15:42,959

fantastic

382

00:15:47,829 --> 00:15:44,880

science experiment if you will and

383

00:15:50,710 --> 00:15:47,839

understanding of how we recycle air

384

00:15:52,550 --> 00:15:50,720

water we're at 90 recycling here so so

385

00:15:55,030 --> 00:15:52,560

we recycle all of our water we recycle

386

00:15:56,710 --> 00:15:55,040

all of our air but you end up living in

387

00:15:59,350 --> 00:15:56,720

a place with no weather

388

00:16:01,030 --> 00:15:59,360

it's always the same temperature up here

389

00:16:01,910 --> 00:16:01,040

we don't really feel a breeze on our

390

00:16:03,590 --> 00:16:01,920

face

391

00:16:05,590 --> 00:16:03,600

we can see the planet but you don't

392

00:16:07,829 --> 00:16:05,600

necessarily see something like trees or

393

00:16:09,350 --> 00:16:07,839

or a field up close and so that's

394

00:16:10,949 --> 00:16:09,360

something that we miss a little bit and

395

00:16:12,629 --> 00:16:10,959

and you uh

396

00:16:14,629 --> 00:16:12,639

i think on the ground maybe would would

397

00:16:16,710 --> 00:16:14,639

tend to complain about the weather up

398

00:16:18,550 --> 00:16:16,720

here we'd be thrilled to to uh be

399

00:16:20,150 --> 00:16:18,560

standing in the middle of a rainstorm so

400

00:16:22,629 --> 00:16:20,160

i think that's the one thing is that the

401  
00:16:23,990 --> 00:16:22,639  
actual sensation of being somewhere

402  
00:16:24,870 --> 00:16:24,000  
where you've got

403  
00:16:27,189 --> 00:16:24,880  
uh

404  
00:16:29,749 --> 00:16:27,199  
you feel outside and

405  
00:16:31,030 --> 00:16:29,759  
and you can feel nature um

406  
00:16:32,629 --> 00:16:31,040  
but at the same time having this

407  
00:16:33,910 --> 00:16:32,639  
closed-loop environmental system is

408  
00:16:35,509 --> 00:16:33,920  
fascinating

409  
00:16:36,710 --> 00:16:35,519  
and and we're really learning a lot

410  
00:16:39,430 --> 00:16:36,720  
about

411  
00:16:40,870 --> 00:16:39,440  
how you can purify air and water and how

412  
00:16:43,590 --> 00:16:40,880  
you can

413  
00:16:46,550 --> 00:16:43,600

minimize your use of resources and keep

414

00:16:48,550 --> 00:16:46,560

that constantly purified in recycling

415

00:16:51,350 --> 00:16:48,560

we're learning a whole lot about that

416

00:16:53,030 --> 00:16:51,360

it's engineering science um

417

00:16:56,310 --> 00:16:53,040

it's a lot it's a it's one giant

418

00:16:59,670 --> 00:16:56,320

experiment i think on the space station

419

00:17:01,670 --> 00:16:59,680

fascinating so funny last question from

420

00:17:07,429 --> 00:17:01,680

us have you updated your address on

421

00:17:11,350 --> 00:17:09,189

i did send an email out of office

422

00:17:14,949 --> 00:17:11,360

message that said i'm currently off the

423

00:17:17,590 --> 00:17:14,959

planet unable to get back to your email

424

00:17:19,750 --> 00:17:17,600

oh that's amazing thank you so much this

425

00:17:23,909 --> 00:17:19,760

has been excellent and best of luck on

426

00:17:27,510 --> 00:17:25,510

thank you it's really great to talk to

427

00:17:29,190 --> 00:17:27,520

you i want to say hi to all your

428

00:17:30,789 --> 00:17:29,200

listeners and thanks very much for

429

00:17:35,430 --> 00:17:30,799

joining us on the international space

430

00:17:39,990 --> 00:17:37,270

station this is houston acr that

431

00:17:41,909 --> 00:17:40,000

concludes the event thank you

432

00:17:43,590 --> 00:17:41,919

thank you women of the hour and station