



1
00:00:07,590 --> 00:00:03,110
station this is houston are you ready

2
00:00:07,600 --> 00:00:15,270
houston we are ready for the event

3
00:00:19,349 --> 00:00:17,590
okay great kgo tv this is mission

4
00:00:21,429 --> 00:00:19,359
control houston please call station for

5
00:00:24,070 --> 00:00:21,439
a voice check

6
00:00:27,990 --> 00:00:24,080
station this is kgo tv how do you hear

7
00:00:33,270 --> 00:00:29,830
greg we have you loud and clear welcome

8
00:00:33,270 --> 00:00:33,280
aboard the international space station

9
00:00:36,069 --> 00:00:35,110
thank you for that you guys looking good

10
00:00:38,069 --> 00:00:36,079
today

11
00:00:39,670 --> 00:00:38,079
um let's just start with progress what

12
00:00:44,310 --> 00:00:39,680
are you hearing about the loss of that

13
00:00:47,430 --> 00:00:46,150

well obviously that's uh

14

00:00:49,590 --> 00:00:47,440

you know potentially a significant

15

00:00:51,430 --> 00:00:49,600

impact on operations up here not only uh

16

00:00:53,270 --> 00:00:51,440

because of the cargo

17

00:00:55,430 --> 00:00:53,280

that uh you know will not be delivered

18

00:00:57,990 --> 00:00:55,440

now but also the implications to the

19

00:01:00,310 --> 00:00:58,000

booster and uh you know implications to

20

00:01:02,310 --> 00:01:00,320

soyuz launches et cetera so um we're

21

00:01:04,149 --> 00:01:02,320

still trying to figure out uh what the

22

00:01:06,870 --> 00:01:04,159

exact impacts are going to be uh what

23

00:01:08,870 --> 00:01:06,880

our path forward is going to be uh so

24

00:01:10,950 --> 00:01:08,880

we're kind of in the wait and see

25

00:01:13,190 --> 00:01:10,960

up here in the wait and see

26

00:01:15,429 --> 00:01:13,200

mindset obviously there's a lot of

27

00:01:19,510 --> 00:01:15,439

people formulating plans and backup

28

00:01:23,190 --> 00:01:21,350

down here we've heard that you know if

29

00:01:24,550 --> 00:01:23,200

they can't pull something together that

30

00:01:30,950 --> 00:01:24,560

a couple of you guys might be coming

31

00:01:34,950 --> 00:01:32,710

no i don't think there's any chance of

32

00:01:37,190 --> 00:01:34,960

coming home early um there there are

33

00:01:38,390 --> 00:01:37,200

there is a chance of of maybe the three

34

00:01:41,350 --> 00:01:38,400

of us that were supposed to come back on

35

00:01:42,789 --> 00:01:41,360

september 8th to be delayed

36

00:01:47,749 --> 00:01:42,799

so that's something that we're looking

37

00:01:53,030 --> 00:01:49,910

i was watching pictures of the hurricane

38

00:01:55,590 --> 00:01:53,040

a moment ago i don't know if you guys uh

39

00:01:57,190 --> 00:01:55,600

if all of you got to see it uh but how

40

00:02:03,910 --> 00:01:57,200

how what do you think of that thing and

41

00:02:07,910 --> 00:02:06,149

yeah we just passed over tahiti in the

42

00:02:10,229 --> 00:02:07,920

south pacific still heading to the

43

00:02:12,550 --> 00:02:10,239

southeast it's night out this way

44

00:02:14,790 --> 00:02:12,560

on i grew up on the gulf coast i've seen

45

00:02:16,470 --> 00:02:14,800

a lot of hurricanes and a hurricane is a

46

00:02:18,470 --> 00:02:16,480

scary thing no matter what angle you're

47

00:02:20,470 --> 00:02:18,480

looking at it from and it certainly is a

48

00:02:21,670 --> 00:02:20,480

it's a it's really big and we've seen

49

00:02:23,510 --> 00:02:21,680

we've saw it

50

00:02:25,750 --> 00:02:23,520

several days in a row and really saw a

51
00:02:27,830 --> 00:02:25,760
big change evident yesterday when we

52
00:02:30,630 --> 00:02:27,840
passed over it was much more condensed

53
00:02:32,309 --> 00:02:30,640
much it just appeared solid uh it was

54
00:02:34,309 --> 00:02:32,319
like a big dome

55
00:02:39,110 --> 00:02:34,319
of solid clouds with the eye having

56
00:02:43,110 --> 00:02:40,630
mike i was looking at some of your

57
00:02:44,550 --> 00:02:43,120
photographs and i think you tweeted one

58
00:02:47,270 --> 00:02:44,560
that said this is the best picture i've

59
00:02:51,190 --> 00:02:49,830
how's the what is it like up there uh to

60
00:02:52,790 --> 00:02:51,200
look at how it's taking pictures you

61
00:02:55,670 --> 00:02:52,800
feel like a tourist

62
00:02:58,550 --> 00:02:56,710
uh

63
00:03:00,790 --> 00:02:58,560

you know not a little bit like a tourist

64

00:03:02,630 --> 00:03:00,800

i guess it's enjoying the fact of just

65

00:03:04,149 --> 00:03:02,640

being here it's a lot of hard work a lot

66

00:03:06,149 --> 00:03:04,159

of the time but when you get a chance to

67

00:03:08,149 --> 00:03:06,159

uh to look outside

68

00:03:09,990 --> 00:03:08,159

i really you know like to do that and

69

00:03:11,589 --> 00:03:10,000

i've had uh you know i find just a

70

00:03:13,110 --> 00:03:11,599

personal interest in photography and

71

00:03:14,550 --> 00:03:13,120

especially the low light photography

72

00:03:15,830 --> 00:03:14,560

we've got some cameras here that are

73

00:03:18,070 --> 00:03:15,840

really good at

74

00:03:19,830 --> 00:03:18,080

picking up that was that that that

75

00:03:21,990 --> 00:03:19,840

picture you saw was illuminated by

76

00:03:23,910 --> 00:03:22,000

starlight and moonlight not that was

77

00:03:25,190 --> 00:03:23,920

taken at night time it's a lot of fun

78

00:03:29,509 --> 00:03:25,200

you could see a lot of details with the

79

00:03:33,670 --> 00:03:31,350

mike i've seen your stuff too and i've

80

00:03:40,550 --> 00:03:33,680

seen you playing with the new 3d camera

81

00:03:50,789 --> 00:03:42,470

yeah we actually do hold on i'll get it

82

00:03:56,470 --> 00:03:54,149

so this is uh this is the erb ii and uh

83

00:03:58,390 --> 00:03:56,480

it's uh one of the one of the 3d cameras

84

00:04:00,470 --> 00:03:58,400

that we have on board and this is the

85

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

camera that we used a few weeks ago to

86

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

make the first live

87

00:04:07,429 --> 00:04:04,400

hd 3d

88

00:04:14,070 --> 00:04:07,439

transmission to the ground

89

00:04:19,749 --> 00:04:15,910

yeah it's light now it's all it's so

90

00:04:26,390 --> 00:04:21,509

satoshi they let you play with that

91

00:04:30,870 --> 00:04:28,390

yeah we've uh we've done some filming

92

00:04:35,189 --> 00:04:32,070

all right we've uh we've done some

93

00:04:37,590 --> 00:04:35,199

filming with it both uh recorded um

94

00:04:39,909 --> 00:04:37,600

documentation and also um the live the

95

00:04:41,670 --> 00:04:39,919

live stuff that we talked about

96

00:04:45,350 --> 00:04:41,680

you think it's gonna be an educational

97

00:04:49,670 --> 00:04:47,430

well i think it's certainly going to be

98

00:04:52,070 --> 00:04:49,680

an educational tool i think it's a it's

99

00:04:53,430 --> 00:04:52,080

a tool that we can use to help people

100

00:04:54,790 --> 00:04:53,440

share in the experience of living and

101

00:04:56,390 --> 00:04:54,800

working in space

102

00:04:58,469 --> 00:04:56,400

obviously it's going to be a very

103

00:05:00,790 --> 00:04:58,479

important uh from the educational

104

00:05:03,110 --> 00:05:00,800

aspects but also you know we we could

105

00:05:04,629 --> 00:05:03,120

use this to help us with robotics some

106

00:05:06,790 --> 00:05:04,639

of the fine

107

00:05:08,710 --> 00:05:06,800

work that we have to do outside you know

108

00:05:10,629 --> 00:05:08,720

if we have a 3d view it's going to it's

109

00:05:12,469 --> 00:05:10,639

going to help that immensely so there's

110

00:05:16,469 --> 00:05:12,479

there's a lot of practical applications

111

00:05:25,350 --> 00:05:19,350

i'd like to ask satoshi you know what

112

00:05:30,469 --> 00:05:27,749

okay uh i've been working on protein

113

00:05:34,230 --> 00:05:30,479

crystallization uh experiment

114

00:05:35,270 --> 00:05:34,240

uh we are making uh

115

00:05:38,150 --> 00:05:35,280

cancer

116

00:05:40,870 --> 00:05:38,160

remedy related protein

117

00:05:43,029 --> 00:05:40,880

in particular

118

00:05:44,710 --> 00:05:43,039

angioangiogenesis

119

00:05:45,990 --> 00:05:44,720

inhibitor

120

00:05:49,189 --> 00:05:46,000

which

121

00:05:50,629 --> 00:05:49,199

when cancer cells grow the

122

00:05:53,189 --> 00:05:50,639

additional

123

00:05:56,469 --> 00:05:53,199

vessels grow around the cancer cells so

124

00:05:59,430 --> 00:05:56,479

if you block that uh growth then uh it

125

00:06:01,430 --> 00:05:59,440

leads to cancer cancer remedy so uh we

126
00:06:03,110 --> 00:06:01,440
are looking forward to the

127
00:06:16,230 --> 00:06:03,120
a

128
00:06:16,240 --> 00:06:18,870
wow

129
00:06:23,110 --> 00:06:21,029
we didn't know that either

130
00:06:27,990 --> 00:06:23,120
because our friends don't call me doctor

131
00:06:39,909 --> 00:06:29,990
they ever come they ever come to you say

132
00:06:39,919 --> 00:06:44,309
sure

133
00:06:46,629 --> 00:06:45,110
um

134
00:06:48,070 --> 00:06:46,639
ron back to you

135
00:06:53,110 --> 00:06:48,080
besides taking pictures what are you

136
00:06:57,110 --> 00:06:55,110
well you know right now we're in the uh

137
00:06:59,430 --> 00:06:57,120
pretty much the full utilization mode of

138
00:07:00,950 --> 00:06:59,440

the space station so we've at any at any

139

00:07:03,510 --> 00:07:00,960

given time there's probably you know

140

00:07:05,110 --> 00:07:03,520

three or four or five experiments going

141

00:07:07,510 --> 00:07:05,120

on and we're involved in a lot of that

142

00:07:09,189 --> 00:07:07,520

activity so a good part of our day

143

00:07:11,510 --> 00:07:09,199

across the across the whole station on

144

00:07:13,430 --> 00:07:11,520

all six crew members is doing some of

145

00:07:15,510 --> 00:07:13,440

the science that this this amazing

146

00:07:21,350 --> 00:07:15,520

orbital research facility was built to

147

00:07:25,589 --> 00:07:23,510

how long do it's quite huge how long

148

00:07:31,189 --> 00:07:25,599

does it take you to traverse from from

149

00:07:34,469 --> 00:07:32,950

well we haven't haven't done any races

150

00:07:37,350 --> 00:07:34,479

yet or tried to set any new world

151
00:07:38,870 --> 00:07:37,360
records but uh i bet you it's probably

152
00:07:40,950 --> 00:07:38,880
if you i mean

153
00:07:42,469 --> 00:07:40,960
there's it's not a straight line so so

154
00:07:43,990 --> 00:07:42,479
everything is not lined up in a straight

155
00:07:45,990 --> 00:07:44,000
line there's different modules off in

156
00:07:48,790 --> 00:07:46,000
different directions so if you were

157
00:07:50,150 --> 00:07:48,800
going to actually go and and fly through

158
00:07:52,230 --> 00:07:50,160
every module on the space station it

159
00:07:54,070 --> 00:07:52,240
would take at least five minutes or

160
00:07:56,309 --> 00:07:54,080
maybe maybe more but if you're just

161
00:07:59,749 --> 00:07:56,319
going to go from the front end to the

162
00:08:01,670 --> 00:07:59,759
aft end just a couple of minutes of

163
00:08:05,189 --> 00:08:01,680

fast flying through those modules we'll

164

00:08:09,510 --> 00:08:07,909

let me ask mike this i never cease to

165

00:08:13,990 --> 00:08:09,520

marvel at

166

00:08:17,350 --> 00:08:14,000

nasa does and you know

167

00:08:19,350 --> 00:08:17,360

apollo the shuttle program now iss

168

00:08:24,150 --> 00:08:19,360

how about you guys do you ever stop

169

00:08:28,309 --> 00:08:25,990

you know there's there's moments there's

170

00:08:30,070 --> 00:08:28,319

times when it's work you know because

171

00:08:33,029 --> 00:08:30,080

right now i've spent all morning working

172

00:08:34,310 --> 00:08:33,039

on a carbon dioxide removal uh system

173

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

that has a little trouble with it so

174

00:08:38,790 --> 00:08:36,640

i've i've torn into it and i'm

175

00:08:40,630 --> 00:08:38,800

you know uh putting some jumper wires in

176
00:08:43,029 --> 00:08:40,640
to work around a piece of non-functional

177
00:08:44,470 --> 00:08:43,039
equipment inside of it and you know you

178
00:08:47,110 --> 00:08:44,480
forget you're in space except when your

179
00:08:49,829 --> 00:08:47,120
tools start to float away from you

180
00:08:51,829 --> 00:08:49,839
but you know i think like all of us i

181
00:08:53,829 --> 00:08:51,839
grew up watching the space program in

182
00:08:55,590 --> 00:08:53,839
the early days and dreaming you know

183
00:08:58,150 --> 00:08:55,600
what if would such a thing be possible

184
00:08:59,509 --> 00:08:58,160
and the answer is yes it is and we know

185
00:09:01,750 --> 00:08:59,519
that we're some of the most fortunate

186
00:09:04,150 --> 00:09:01,760
people you know on or off the planet to

187
00:09:06,710 --> 00:09:04,160
be living our dream every day and this

188
00:09:09,590 --> 00:09:06,720

is a fantastic experience and i'm making

189

00:09:11,110 --> 00:09:09,600

the best of it

190

00:09:16,470 --> 00:09:11,120

thank you guys for taking the time to

191

00:09:25,110 --> 00:09:20,870

station this is houston

192

00:09:27,269 --> 00:09:25,120

concludes the kgo tv portion of the

193

00:09:30,870 --> 00:09:27,279

event please stand by for a voice check

194

00:09:38,070 --> 00:09:33,269

station this is uh terek malek from

195

00:09:42,870 --> 00:09:40,070

hi tarik great to talk to you welcome

196

00:09:45,030 --> 00:09:42,880

aboard the international space station

197

00:09:48,630 --> 00:09:45,040

great well uh thank all all of you for

198

00:09:51,030 --> 00:09:48,640

having some time to talk with us today

199

00:09:52,790 --> 00:09:51,040

i wanted to uh let you know we did uh

200

00:09:54,790 --> 00:09:52,800

ask our readers if they had questions

201
00:09:56,790 --> 00:09:54,800
for you and the first one that came back

202
00:09:58,630 --> 00:09:56,800
uh you probably will be expecting was

203
00:10:00,470 --> 00:09:58,640
the first one i was going to have

204
00:10:02,310 --> 00:10:00,480
we all saw the failed progress launch

205
00:10:03,990 --> 00:10:02,320
tomorrow and we were wondering what your

206
00:10:05,350 --> 00:10:04,000
thoughts were on it if it caused any

207
00:10:07,750 --> 00:10:05,360
concerns on

208
00:10:08,630 --> 00:10:07,760
resupply or ron your your return to

209
00:10:09,990 --> 00:10:08,640
earth

210
00:10:14,949 --> 00:10:10,000
can you give us an insight on what

211
00:10:19,269 --> 00:10:17,350
well there's you know there's a lot of

212
00:10:21,030 --> 00:10:19,279
you know considerations to think about

213
00:10:23,269 --> 00:10:21,040

in light of the

214

00:10:24,790 --> 00:10:23,279

progress failure uh

215

00:10:26,230 --> 00:10:24,800

you know first is you know what about

216

00:10:27,990 --> 00:10:26,240

the cargo that was on there you know

217

00:10:30,069 --> 00:10:28,000

what you know we have to make do with

218

00:10:32,069 --> 00:10:30,079

now without that cargo what are the

219

00:10:33,509 --> 00:10:32,079

impacts of that you know was there time

220

00:10:35,430 --> 00:10:33,519

critical things on there that we needed

221

00:10:37,350 --> 00:10:35,440

to get on board other things that you

222

00:10:39,829 --> 00:10:37,360

know we were really running short on so

223

00:10:42,470 --> 00:10:39,839

we're looking at all those things um but

224

00:10:44,630 --> 00:10:42,480

probably a bigger impact is the booster

225

00:10:46,470 --> 00:10:44,640

itself and you know realizing that it's

226

00:10:49,190 --> 00:10:46,480

the same booster that we lost launched

227

00:10:50,630 --> 00:10:49,200

the soyuz spacecraft on we have a soyuz

228

00:10:51,990 --> 00:10:50,640

launch coming up right now and and

229

00:10:53,190 --> 00:10:52,000

what's the impact is going to be to that

230

00:10:54,949 --> 00:10:53,200

launch

231

00:10:56,790 --> 00:10:54,959

and then what is it going to be the

232

00:10:59,509 --> 00:10:56,800

impacts to to

233

00:11:01,750 --> 00:10:59,519

our our return to earth um that that is

234

00:11:03,509 --> 00:11:01,760

presently planned for september 8th so

235

00:11:05,750 --> 00:11:03,519

you know all those discussions are going

236

00:11:07,750 --> 00:11:05,760

on right now uh we don't

237

00:11:08,790 --> 00:11:07,760

have a lot of decisions made yet because

238

00:11:10,150 --> 00:11:08,800

you know we want to make sure that we

239

00:11:11,350 --> 00:11:10,160

have the right course of action and so

240

00:11:13,269 --> 00:11:11,360

we're going to take a little bit of time

241

00:11:15,350 --> 00:11:13,279

and think about it uh make sure that we

242

00:11:17,910 --> 00:11:15,360

have ever all the facts together before

243

00:11:18,949 --> 00:11:17,920

uh we go on again and pick on a game

244

00:11:21,110 --> 00:11:18,959

plan so

245

00:11:23,590 --> 00:11:21,120

um you know we're up here we're kind of

246

00:11:25,269 --> 00:11:23,600

in the wait and see uh mindset where we

247

00:11:26,870 --> 00:11:25,279

are fully prepared to support whatever

248

00:11:28,870 --> 00:11:26,880

decisions are made

249

00:11:30,949 --> 00:11:28,880

we've done a great job supplying the

250

00:11:32,790 --> 00:11:30,959

space station uh and getting ourselves

251
00:11:35,190 --> 00:11:32,800
ready for for really continued use

252
00:11:37,030 --> 00:11:35,200
throughout the the rest of the decade so

253
00:11:38,470 --> 00:11:37,040
you know from from a consumables point

254
00:11:40,389 --> 00:11:38,480
of view i think we're we're sitting

255
00:11:43,110 --> 00:11:40,399
pretty good for for a little while so uh

256
00:11:45,509 --> 00:11:43,120
that's not a major concern at the moment

257
00:11:46,870 --> 00:11:45,519
ron would you welcome uh an extra some

258
00:11:48,389 --> 00:11:46,880
extra time on the space station with

259
00:11:49,910 --> 00:11:48,399
your your russian crewmates if that was

260
00:11:53,430 --> 00:11:49,920
the case or are you pretty eager to get

261
00:11:57,190 --> 00:11:55,190
well i mean obviously i would have mixed

262
00:11:58,710 --> 00:11:57,200
feelings i mean i've been away from home

263
00:12:00,949 --> 00:11:58,720

for a long time but uh you know a lot of

264

00:12:03,509 --> 00:12:00,959

people are away from home you know doing

265

00:12:05,430 --> 00:12:03,519

things that they they believe in and um

266

00:12:07,509 --> 00:12:05,440

but you know what it would afford me is

267

00:12:08,150 --> 00:12:07,519

an opportunity to continue to you know

268

00:12:13,829 --> 00:12:08,160

the

269

00:12:15,110 --> 00:12:13,839

science that we're doing more time for

270

00:12:17,350 --> 00:12:15,120

the outreach more time to share the

271

00:12:19,430 --> 00:12:17,360

experience uh with as many people as we

272

00:12:21,509 --> 00:12:19,440

can on the ground so it you know there's

273

00:12:23,670 --> 00:12:21,519

uh you know there's an upside and a

274

00:12:25,670 --> 00:12:23,680

downside and uh you know whatever the

275

00:12:27,829 --> 00:12:25,680

decision is you know i think it'll be

276

00:12:30,230 --> 00:12:27,839

the best for the program and uh we'll

277

00:12:31,990 --> 00:12:30,240

fully support it

278

00:12:33,509 --> 00:12:32,000

thanks uh the other thing on on

279

00:12:36,310 --> 00:12:33,519

everyone's mind on at least the east

280

00:12:38,150 --> 00:12:36,320

coast here uh is hurricane irene and uh

281

00:12:39,350 --> 00:12:38,160

i've seen some of the amazing videos and

282

00:12:40,870 --> 00:12:39,360

images that

283

00:12:42,949 --> 00:12:40,880

uh you and your crewmates have been back

284

00:12:44,230 --> 00:12:42,959

down uh and i'm wondering uh maybe for

285

00:12:46,389 --> 00:12:44,240

uh for mike

286

00:12:48,150 --> 00:12:46,399

what your impressions are of of the

287

00:12:50,629 --> 00:12:48,160

storm itself uh

288

00:12:55,750 --> 00:12:50,639

and uh and the impact it might have um

289

00:12:59,030 --> 00:12:57,509

you bet tariq i grew up on the gulf

290

00:13:00,949 --> 00:12:59,040

coast of texas i've seen a lot of

291

00:13:02,550 --> 00:13:00,959

hurricanes uh through the years a

292

00:13:04,310 --> 00:13:02,560

hurricane is a scary thing it's

293

00:13:06,550 --> 00:13:04,320

certainly a scary thing when it's

294

00:13:07,910 --> 00:13:06,560

bearing down on top of you it's a scary

295

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

thing when you're out of town and

296

00:13:12,150 --> 00:13:09,680

watching it head towards your home like

297

00:13:13,910 --> 00:13:12,160

ron and i both were when i came ashore

298

00:13:15,590 --> 00:13:13,920

three years ago

299

00:13:17,990 --> 00:13:15,600

and it's a it's a terrifying thing from

300

00:13:19,590 --> 00:13:18,000

up above too we saw a big change in the

301

00:13:21,829 --> 00:13:19,600

structure of the storm over the several

302

00:13:24,150 --> 00:13:21,839

days that we've watched her especially

303

00:13:26,150 --> 00:13:24,160

yesterday the the differences were very

304

00:13:28,629 --> 00:13:26,160

pronounced it was very uniform kind of a

305

00:13:30,870 --> 00:13:28,639

dome shape to the whole thing with the

306

00:13:31,990 --> 00:13:30,880

eye fully formed we did not see the eye

307

00:13:33,829 --> 00:13:32,000

you could tell where it was starting to

308

00:13:35,750 --> 00:13:33,839

swirl tight uh two days ago but

309

00:13:36,710 --> 00:13:35,760

yesterday the eye you could see the eye

310

00:13:38,389 --> 00:13:36,720

wall

311

00:13:39,750 --> 00:13:38,399

and down into the wa uh down into the

312

00:13:42,069 --> 00:13:39,760

eye itself so you know that is a

313

00:13:43,350 --> 00:13:42,079

powerful storm and uh there's uh you

314

00:13:44,870 --> 00:13:43,360

know those are never good news when

315

00:13:46,629 --> 00:13:44,880

they're heading your way so our you know

316

00:13:49,350 --> 00:13:46,639

prayers and thoughts are really with the

317

00:13:50,710 --> 00:13:49,360

people in her path

318

00:13:52,550 --> 00:13:50,720

well thank you we're based in new york

319

00:13:54,790 --> 00:13:52,560

city i know we're we're keeping a close

320

00:13:57,590 --> 00:13:54,800

eye on it as well um some of the our

321

00:14:00,310 --> 00:13:57,600

readers uh uh are curious just how your

322

00:14:02,870 --> 00:14:00,320

your life is on on the space station and

323

00:14:04,550 --> 00:14:02,880

uh for satoshi um two readers chris

324

00:14:06,629 --> 00:14:04,560

maxwell and adrian ruiz they're

325

00:14:07,670 --> 00:14:06,639

wondering what you missed the most about

326

00:14:10,310 --> 00:14:07,680

uh

327

00:14:15,670 --> 00:14:10,320

earth your life at home and if you ever

328

00:14:21,110 --> 00:14:17,829

well uh

329

00:14:24,389 --> 00:14:21,120

with regard to everyday life

330

00:14:26,470 --> 00:14:24,399

i miss a hot bath tab most

331

00:14:29,030 --> 00:14:26,480

because it's it's a kind of japanese

332

00:14:33,110 --> 00:14:29,040

culture and that at the end of the day

333

00:14:33,910 --> 00:14:33,120

to sink in a hot bath tab and relax it's

334

00:14:37,030 --> 00:14:33,920

it's

335

00:14:38,870 --> 00:14:37,040

awesome so i missed that but uh

336

00:14:41,509 --> 00:14:38,880

living on board the station is very good

337

00:14:44,389 --> 00:14:41,519

because uh we perform scientific

338

00:14:48,150 --> 00:14:44,399

scientific experiments and we have

339

00:14:49,269 --> 00:14:48,160

excellent earth view and star views

340

00:14:54,150 --> 00:14:49,279

so i

341

00:14:59,110 --> 00:14:56,150

great thanks another question and this

342

00:15:01,350 --> 00:14:59,120

might be for you ron um uh is is from

343

00:15:05,430 --> 00:15:01,360

trisha harvey and she wants to know uh

344

00:15:08,310 --> 00:15:05,440

how the aurora borealis uh looks from uh

345

00:15:10,230 --> 00:15:08,320

from space uh if it undulates like it

346

00:15:15,110 --> 00:15:10,240

appears to on earth or is it just a

347

00:15:19,590 --> 00:15:17,189

well that's a really good question

348

00:15:21,990 --> 00:15:19,600

it depends it depends uh where you are

349

00:15:23,670 --> 00:15:22,000

in the orbit it depends where um you

350

00:15:26,150 --> 00:15:23,680

know what part of the earth you're over

351
00:15:28,310 --> 00:15:26,160
and usually when we see auroras you know

352
00:15:31,509 --> 00:15:28,320
we see them cut out towards the horizon

353
00:15:33,430 --> 00:15:31,519
and uh they're no matter where they are

354
00:15:35,430 --> 00:15:33,440
they're always spectacular and and yes

355
00:15:38,069 --> 00:15:35,440
they they look like you know dancing

356
00:15:39,670 --> 00:15:38,079
luminescent waves of a vapor

357
00:15:42,310 --> 00:15:39,680
it's just absolutely breathtaking but i

358
00:15:44,230 --> 00:15:42,320
had one opportunity a few months ago

359
00:15:46,389 --> 00:15:44,240
where uh you know i opened up the

360
00:15:48,870 --> 00:15:46,399
shutters of the cupola and i was just

361
00:15:50,949 --> 00:15:48,880
you know blown away by this view it it

362
00:15:53,269 --> 00:15:50,959
seemed as though we were flying through

363
00:15:55,350 --> 00:15:53,279

the auroras i mean it was just this you

364

00:15:57,350 --> 00:15:55,360

know glowing vapor all around us and it

365

00:15:59,829 --> 00:15:57,360

was just absolutely spectacular so it's

366

00:16:01,430 --> 00:15:59,839

uh you know it's always is great uh to

367

00:16:04,150 --> 00:16:01,440

see that mike's taking some great uh

368

00:16:05,590 --> 00:16:04,160

photos of the auroras so it's uh you

369

00:16:07,590 --> 00:16:05,600

know that's one of the fascinating

370

00:16:10,069 --> 00:16:07,600

things that we get to see uh on a fairly

371

00:16:11,509 --> 00:16:10,079

regular basis up here so it's a it's a

372

00:16:16,710 --> 00:16:11,519

you know one of the the joys that we

373

00:16:20,550 --> 00:16:18,069

thanks

374

00:16:22,310 --> 00:16:20,560

and this question uh comes from another

375

00:16:24,550 --> 00:16:22,320

reader and uh i was actually going to

376

00:16:26,550 --> 00:16:24,560

ask it as well um you're several months

377

00:16:28,629 --> 00:16:26,560

in to your increment now on the space

378

00:16:30,949 --> 00:16:28,639

station uh you travel around the planet

379

00:16:32,790 --> 00:16:30,959

at more than 17 000 miles an hour and

380

00:16:35,189 --> 00:16:32,800

you've already had one visiting shuttle

381

00:16:37,910 --> 00:16:35,199

and several months ahead um

382

00:16:40,230 --> 00:16:37,920

uh we're just wondering first of all how

383

00:16:42,389 --> 00:16:40,240

the mission has gone so far and does it

384

00:16:43,990 --> 00:16:42,399

feel like the time goes a lot faster in

385

00:16:50,790 --> 00:16:44,000

space because you're so busy than it

386

00:16:54,790 --> 00:16:52,870

well um yeah it's been you know i've

387

00:16:57,350 --> 00:16:54,800

been up here i guess closing on five

388

00:16:59,030 --> 00:16:57,360

months now and uh it's been a very very

389

00:17:00,310 --> 00:16:59,040

busy five months you know we saw two

390

00:17:03,269 --> 00:17:00,320

shuttle missions

391

00:17:05,590 --> 00:17:03,279

uh you know the uh undocking of a atv i

392

00:17:07,750 --> 00:17:05,600

i can't even remember how many

393

00:17:09,829 --> 00:17:07,760

progresses have come come and gone

394

00:17:12,789 --> 00:17:09,839

so it's uh it's been very very busy uh

395

00:17:15,829 --> 00:17:12,799

we've had soyuz docking soyuz undocking

396

00:17:18,390 --> 00:17:15,839

um but really the you know the main

397

00:17:19,350 --> 00:17:18,400

thing that that this time period i think

398

00:17:22,150 --> 00:17:19,360

uh

399

00:17:24,230 --> 00:17:22,160

is important for is we saw our

400

00:17:26,549 --> 00:17:24,240

transition we saw our transition from

401
00:17:28,390 --> 00:17:26,559
the construction of the international

402
00:17:30,549 --> 00:17:28,400
space station to full utilization of the

403
00:17:31,270 --> 00:17:30,559
international space station and we we've

404
00:17:33,270 --> 00:17:31,280
all

405
00:17:35,830 --> 00:17:33,280
been able to witness that and just see

406
00:17:37,190 --> 00:17:35,840
an amazement how you know the science

407
00:17:39,990 --> 00:17:37,200
that we're doing on board has just

408
00:17:42,390 --> 00:17:40,000
ramped up and uh you know

409
00:17:44,950 --> 00:17:42,400
every day you know the whole

410
00:17:47,029 --> 00:17:44,960
space station is is fully busy you know

411
00:17:48,230 --> 00:17:47,039
cranking out science and you know i

412
00:17:50,870 --> 00:17:48,240
think that's going to lead to some

413
00:17:52,710 --> 00:17:50,880

really great discoveries uh i think it's

414

00:17:54,230 --> 00:17:52,720

not only going to be you know a stepping

415

00:17:55,510 --> 00:17:54,240

stone for continued exploration of our

416

00:17:57,590 --> 00:17:55,520

solar system

417

00:17:59,669 --> 00:17:57,600

i think it's also going to show that you

418

00:18:01,590 --> 00:17:59,679

know we've the research that has been

419

00:18:03,750 --> 00:18:01,600

conducted on board here has improved

420

00:18:06,070 --> 00:18:03,760

life on earth because it simply can't be

421

00:18:08,470 --> 00:18:06,080

conducted anywhere else so

422

00:18:10,150 --> 00:18:08,480

seeing that and being a part of that

423

00:18:11,830 --> 00:18:10,160

has been very exciting to answer the

424

00:18:13,750 --> 00:18:11,840

other part of the question

425

00:18:15,669 --> 00:18:13,760

looking back over the last five months

426

00:18:18,470 --> 00:18:15,679

it because so much has happened it

427

00:18:20,470 --> 00:18:18,480

really does seem uh like a long time it

428

00:18:21,990 --> 00:18:20,480

it hasn't gone by in the blink of an eye

429

00:18:24,230 --> 00:18:22,000

because so much has has been

430

00:18:25,909 --> 00:18:24,240

accomplished um

431

00:18:27,750 --> 00:18:25,919

but you know on a day-to-day basis

432

00:18:31,990 --> 00:18:27,760

though the days go you're so busy though

433

00:18:37,350 --> 00:18:35,590

thanks and um perhaps for uh for mike um

434

00:18:40,070 --> 00:18:37,360

this question from ian garrett he wants

435

00:18:41,430 --> 00:18:40,080

to know um and i think i do too what you

436

00:18:43,350 --> 00:18:41,440

see

437

00:18:46,390 --> 00:18:43,360

from life on the station are the top

438

00:18:49,590 --> 00:18:46,400

three improvements uh that will be vital

439

00:18:52,549 --> 00:18:49,600

for um for say to actually make a colony

440

00:18:54,310 --> 00:18:52,559

uh living on a space station uh uh

441

00:18:55,110 --> 00:18:54,320

you know viable uh what do you really

442

00:19:02,070 --> 00:18:55,120

need

443

00:19:05,830 --> 00:19:03,990

wow that is a really interesting

444

00:19:07,190 --> 00:19:05,840

question the top three things we would

445

00:19:08,230 --> 00:19:07,200

need up here

446

00:19:10,150 --> 00:19:08,240

i think

447

00:19:12,390 --> 00:19:10,160

i mean to really colonize you'd need to

448

00:19:13,669 --> 00:19:12,400

have a way i think to grow some food we

449

00:19:15,830 --> 00:19:13,679

you know we eat a lot of the thermal

450

00:19:17,669 --> 00:19:15,840

stabilized food and dehydrated food and

451
00:19:19,830 --> 00:19:17,679
in a lot of ways it's like camping food

452
00:19:21,430 --> 00:19:19,840
or military mres

453
00:19:23,830 --> 00:19:21,440
that i think some fresh food would go a

454
00:19:26,549 --> 00:19:23,840
long way toward improving uh life on

455
00:19:28,230 --> 00:19:26,559
here you know life in space and we get a

456
00:19:29,510 --> 00:19:28,240
little bit on when the cargo vehicles

457
00:19:31,510 --> 00:19:29,520
come they bring some fruit and

458
00:19:33,909 --> 00:19:31,520
vegetables and that's a delight to a

459
00:19:35,909 --> 00:19:33,919
bite into a tomato or even believe it or

460
00:19:38,870 --> 00:19:35,919
not to bite into an onion we slice

461
00:19:40,070 --> 00:19:38,880
onions up into into big wedges and eat

462
00:19:42,549 --> 00:19:40,080
them with a little bit of salt because

463
00:19:44,710 --> 00:19:42,559

it's a taste of earth

464

00:19:46,950 --> 00:19:44,720

other than that i you know i

465

00:19:48,549 --> 00:19:46,960

we we have what we need uh the the

466

00:19:50,470 --> 00:19:48,559

window views i think are really

467

00:19:52,070 --> 00:19:50,480

important you if you don't have a window

468

00:19:54,390 --> 00:19:52,080

view then you could be you may as well

469

00:19:55,990 --> 00:19:54,400

be working uh you know in a trailer with

470

00:19:57,909 --> 00:19:56,000

a zero gravity machine which of course

471

00:19:59,830 --> 00:19:57,919

doesn't exist uh

472

00:20:01,830 --> 00:19:59,840

but uh the windows to see the earth to

473

00:20:03,350 --> 00:20:01,840

escape just a little bit and and look at

474

00:20:05,270 --> 00:20:03,360

places below that you dream about

475

00:20:07,350 --> 00:20:05,280

visiting someday as you enjoy the the

476

00:20:08,950 --> 00:20:07,360

sights from above

477

00:20:10,789 --> 00:20:08,960

i think the third thing that would be

478

00:20:13,270 --> 00:20:10,799

really great if you're going to colonize

479

00:20:14,870 --> 00:20:13,280

the space would be a transporters

480

00:20:20,549 --> 00:20:14,880

transporters would be really good so we

481

00:20:24,230 --> 00:20:21,669

thank you so much i think they'd be

482

00:20:25,909 --> 00:20:24,240

great here for life on earth too uh mike

483

00:20:27,750 --> 00:20:25,919

uh i would love to stay and chat with

484

00:20:29,590 --> 00:20:27,760

you all day but i unfortunately i'm out

485

00:20:31,909 --> 00:20:29,600

of time thank you all mike fossum ron

486

00:20:34,710 --> 00:20:31,919

garrett uh satoshi from uh for uh your

487

00:20:38,950 --> 00:20:34,720

time today and uh all the best for the

488

00:20:41,909 --> 00:20:40,549

thank you hey i think the last time i

489

00:20:43,029 --> 00:20:41,919

talked to you i was living on the bottom

490

00:20:44,950 --> 00:20:43,039

of the ocean

491

00:20:49,190 --> 00:20:44,960

so it's good good to talk to you again

492

00:20:57,909 --> 00:20:51,669

station this is houston acr thank you

493

00:21:03,029 --> 00:21:01,110

thank you to kgo tv and space.com