



1
00:00:06,950 --> 00:00:02,950
station this is houston are you ready

2
00:00:06,960 --> 00:00:11,110
houston i'm ready for the event

3
00:00:14,950 --> 00:00:13,030
boy scouts of the bay area this is

4
00:00:18,310 --> 00:00:14,960
mission control houston please call

5
00:00:22,950 --> 00:00:20,470
station this is keith trimble cub master

6
00:00:26,630 --> 00:00:22,960
of pac 643 the bay area how do you hear

7
00:00:40,069 --> 00:00:30,180
loud and clear how do you hear me

8
00:00:44,470 --> 00:00:41,990
what was the most challenging problem

9
00:00:48,310 --> 00:00:44,480
you encountered on your mission how did

10
00:00:52,630 --> 00:00:50,229
well that's a great that's a great

11
00:00:55,510 --> 00:00:52,640
question um i we have a lot of

12
00:00:58,069 --> 00:00:55,520
challenges every day but i think one of

13
00:01:01,910 --> 00:00:58,079

the more interesting ones was on my

14

00:01:04,549 --> 00:01:01,920

first spacewalk when we had a leak

15

00:01:07,109 --> 00:01:04,559

in the hose that we connect to the

16

00:01:09,190 --> 00:01:07,119

spacesuits while we're getting ready so

17

00:01:12,149 --> 00:01:09,200

we have to be in the spacesuits for a

18

00:01:14,630 --> 00:01:12,159

long time before we go outside and so

19

00:01:17,990 --> 00:01:14,640

these umbilicals connect to us and give

20

00:01:20,310 --> 00:01:18,000

us water and power and scrub our air

21

00:01:22,390 --> 00:01:20,320

they do everything for us

22

00:01:24,230 --> 00:01:22,400

so that the suit the space suit and all

23

00:01:27,429 --> 00:01:24,240

of its systems don't have to work so

24

00:01:29,510 --> 00:01:27,439

hard but unfortunately we had a bad leak

25

00:01:32,310 --> 00:01:29,520

and what that showed me

26
00:01:34,230 --> 00:01:32,320
um both peggy and i were pretty helpless

27
00:01:37,590 --> 00:01:34,240
we couldn't do much we were just sitting

28
00:01:39,510 --> 00:01:37,600
in the space suits but our incredible

29
00:01:42,149 --> 00:01:39,520
crewmate was able to

30
00:01:45,590 --> 00:01:42,159
reload the water that we had lost

31
00:01:49,270 --> 00:01:45,600
and get everything ready inside and this

32
00:01:51,030 --> 00:01:49,280
massive ground team was able to not only

33
00:01:53,590 --> 00:01:51,040
fix the systems

34
00:01:56,950 --> 00:01:53,600
but build a plan for us to go outside

35
00:01:59,350 --> 00:01:56,960
and do the main tasks that our our

36
00:02:01,910 --> 00:01:59,360
spacewalk was supposed to accomplish

37
00:02:03,350 --> 00:02:01,920
they had everything all the skids were

38
00:02:05,190 --> 00:02:03,360

greased

39

00:02:07,910 --> 00:02:05,200

they were ready to go so when we went

40

00:02:09,589 --> 00:02:07,920

out the robotic arm was ready and the

41

00:02:11,830 --> 00:02:09,599

lights were ready and the calm was ready

42

00:02:14,309 --> 00:02:11,840

and the plan was ready and it just

43

00:02:16,150 --> 00:02:14,319

showed me that for those

44

00:02:18,710 --> 00:02:16,160

absolutely

45

00:02:21,270 --> 00:02:18,720

incredible things for those super hard

46

00:02:23,430 --> 00:02:21,280

things you can't do it alone you have to

47

00:02:25,110 --> 00:02:23,440

work as a team and there's no better

48

00:02:27,270 --> 00:02:25,120

team when it comes to the impossible

49

00:02:31,589 --> 00:02:27,280

than nasa and and the crew that we get

50

00:02:37,190 --> 00:02:34,470

my name is donovan

51
00:02:42,869 --> 00:02:37,200
um what is the most surprising thing you

52
00:02:49,350 --> 00:02:45,270
man there's so many things obviously the

53
00:02:51,990 --> 00:02:49,360
space walk was so cool uh but it's it's

54
00:02:54,229 --> 00:02:52,000
you just get excited i'm like a 12 year

55
00:02:55,270 --> 00:02:54,239
old boy after a couple cappuccinos

56
00:02:58,390 --> 00:02:55,280
because

57
00:03:01,750 --> 00:02:58,400
everything i see is so cool whether i'm

58
00:03:02,949 --> 00:03:01,760
working on the toilet or doing a space

59
00:03:05,270 --> 00:03:02,959
walk

60
00:03:07,750 --> 00:03:05,280
it's just totally different than what i

61
00:03:09,110 --> 00:03:07,760
knew before

62
00:03:11,110 --> 00:03:09,120
you know

63
00:03:13,670 --> 00:03:11,120

looking out the window of course is

64

00:03:16,309 --> 00:03:13,680

amazing because you see the world in a

65

00:03:18,790 --> 00:03:16,319

totally different perspective

66

00:03:20,790 --> 00:03:18,800

eating your food totally different all

67

00:03:22,869 --> 00:03:20,800

of these things give you a different

68

00:03:25,589 --> 00:03:22,879

perspective on

69

00:03:27,350 --> 00:03:25,599

life and everything within it and it

70

00:03:30,149 --> 00:03:27,360

helps you grow

71

00:03:32,630 --> 00:03:30,159

uh i hope and i wish for all of you that

72

00:03:35,110 --> 00:03:32,640

you never stop learning that you keep

73

00:03:37,110 --> 00:03:35,120

your mind open to new ideas and new

74

00:03:40,630 --> 00:03:37,120

perspectives so that you can look at

75

00:03:44,949 --> 00:03:40,640

problems in multiple ways and and grow

76

00:03:50,470 --> 00:03:47,509

hi my name is cole and what was the

77

00:03:56,070 --> 00:03:50,480

biggest hardship you endured in coming

78

00:04:01,110 --> 00:03:58,309

well that's a good question you know and

79

00:04:03,910 --> 00:04:01,120

i i it was it was obviously pretty hard

80

00:04:05,670 --> 00:04:03,920

to learn how to fly a russian spaceship

81

00:04:08,229 --> 00:04:05,680

in the russian language

82

00:04:09,910 --> 00:04:08,239

but the hardest thing is being away from

83

00:04:11,750 --> 00:04:09,920

your family and it's the same thing that

84

00:04:13,110 --> 00:04:11,760

all of our brave men and women in the

85

00:04:14,949 --> 00:04:13,120

military

86

00:04:17,349 --> 00:04:14,959

endure every day

87

00:04:19,189 --> 00:04:17,359

all over the world uh being separated

88

00:04:20,949 --> 00:04:19,199

from your family is the biggest hardship

89

00:04:23,510 --> 00:04:20,959

and as an astronaut you actually are

90

00:04:26,790 --> 00:04:23,520

gone quite a bit uh so that's kind of

91

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

say your name

92

00:04:33,990 --> 00:04:30,400

my name is bryson

93

00:04:35,909 --> 00:04:34,000

what procedures do you follow if a fire

94

00:04:41,510 --> 00:04:35,919

brings up on the

95

00:04:47,590 --> 00:04:45,189

ah if a fire breaks out so

96

00:04:50,310 --> 00:04:47,600

there's three big emergencies that we

97

00:04:52,070 --> 00:04:50,320

have on the space station fire

98

00:04:54,790 --> 00:04:52,080

an ammonia leak

99

00:04:57,830 --> 00:04:54,800

or depress depressurization like we have

100

00:05:01,350 --> 00:04:57,840

a hole and those three

101
00:05:03,909 --> 00:05:01,360
emergencies we train for all the time we

102
00:05:05,990 --> 00:05:03,919
have these books that are in different

103
00:05:07,430 --> 00:05:06,000
places around the station

104
00:05:10,710 --> 00:05:07,440
excuse me

105
00:05:12,950 --> 00:05:10,720
and on our computers and then we train

106
00:05:15,749 --> 00:05:12,960
exactly what we're supposed to do like

107
00:05:18,870 --> 00:05:15,759
for a fire if this computer started on

108
00:05:20,950 --> 00:05:18,880
fire we know exactly okay i'm gonna

109
00:05:23,830 --> 00:05:20,960
press the button over there it's gonna

110
00:05:26,550 --> 00:05:23,840
shut off the ventilation if i i'm gonna

111
00:05:29,510 --> 00:05:26,560
unplug the computer hopefully that works

112
00:05:32,390 --> 00:05:29,520
then there's fire extinguishers we have

113
00:05:34,550 --> 00:05:32,400

a plan for all six people on board what

114

00:05:36,550 --> 00:05:34,560

they'll be doing maybe they'll grab the

115

00:05:37,830 --> 00:05:36,560

equipment out of the module or they'll

116

00:05:40,790 --> 00:05:37,840

help me

117

00:05:42,629 --> 00:05:40,800

fighting the fire or if a fire

118

00:05:44,150 --> 00:05:42,639

extinguisher doesn't work then maybe

119

00:05:47,510 --> 00:05:44,160

we'll power down

120

00:05:49,749 --> 00:05:47,520

racks or or the whole module so we have

121

00:05:52,150 --> 00:05:49,759

very strict procedures

122

00:05:54,710 --> 00:05:52,160

that we practice all the time so we know

123

00:05:57,430 --> 00:05:54,720

them cold because in the case of an

124

00:05:59,430 --> 00:05:57,440

emergency like that you really don't

125

00:06:02,870 --> 00:05:59,440

want to have to think about it you just

126
00:06:08,390 --> 00:06:02,880
want to do it and we can do that because

127
00:06:17,830 --> 00:06:11,110
hello my name is colin what part of

128
00:06:22,950 --> 00:06:20,390
man pretty much the whole darn thing

129
00:06:24,790 --> 00:06:22,960
it's exciting once you're here i imagine

130
00:06:27,430 --> 00:06:24,800
it's going to be exciting going home but

131
00:06:29,350 --> 00:06:27,440
i think the coolest part was was

132
00:06:31,510 --> 00:06:29,360
launching because it's like

133
00:06:34,550 --> 00:06:31,520
gas mileage for excitement it was the

134
00:06:36,790 --> 00:06:34,560
most bang for your buck in eight minutes

135
00:06:40,150 --> 00:06:36,800
i went from sitting still on a launch

136
00:06:43,510 --> 00:06:40,160
pad to being in orbit and that was just

137
00:06:45,990 --> 00:06:43,520
amazing i've flown a lot of planes and

138
00:06:48,469 --> 00:06:46,000

with lots of thrust but nothing really

139

00:06:50,390 --> 00:06:48,479

compared to having almost a million

140

00:06:52,629 --> 00:06:50,400

pounds under me

141

00:06:56,150 --> 00:06:52,639

get me to orbit in eight minutes it was

142

00:07:04,150 --> 00:06:56,160

just like riding a crazy wild bull that

143

00:07:08,469 --> 00:07:06,629

hi my name is jackson what are some of

144

00:07:11,590 --> 00:07:08,479

the studies and experiments you are

145

00:07:13,749 --> 00:07:11,600

working on in space

146

00:07:16,230 --> 00:07:13,759

[Music]

147

00:07:19,189 --> 00:07:16,240

boy there sure are a lot of them we uh

148

00:07:22,550 --> 00:07:19,199

we will probably work on about 300

149

00:07:25,589 --> 00:07:22,560

experiments over the six months or so

150

00:07:27,749 --> 00:07:25,599

that we're on orbit for my expedition

151
00:07:29,830 --> 00:07:27,759
and it they range

152
00:07:31,909 --> 00:07:29,840
the whole spectrum

153
00:07:33,670 --> 00:07:31,919
we have we have experiments from

154
00:07:35,909 --> 00:07:33,680
elementary schools

155
00:07:37,270 --> 00:07:35,919
middle school high school colleges

156
00:07:40,550 --> 00:07:37,280
universities

157
00:07:43,110 --> 00:07:40,560
cutting edge research everything and we

158
00:07:44,790 --> 00:07:43,120
are constantly pingping back and forth

159
00:07:46,790 --> 00:07:44,800
working on these

160
00:07:48,550 --> 00:07:46,800
as far as examples

161
00:07:52,150 --> 00:07:48,560
one that we're going to be working on

162
00:07:53,749 --> 00:07:52,160
here this week is a we're growing

163
00:07:55,749 --> 00:07:53,759

lung cancer

164

00:07:57,560 --> 00:07:55,759

cultures and testing a new drug that

165

00:07:58,790 --> 00:07:57,570

actually targets those

166

00:08:00,629 --> 00:07:58,800

[Music]

167

00:08:03,110 --> 00:08:00,639

stuff like that

168

00:08:05,830 --> 00:08:03,120

happens every day here and it's so

169

00:08:08,070 --> 00:08:05,840

exciting because you get to feel like

170

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

you're a part of something bigger than

171

00:08:12,390 --> 00:08:09,520

yourself and that you're actually going

172

00:08:14,869 --> 00:08:12,400

to make a difference so

173

00:08:17,110 --> 00:08:14,879

there's just so many experiments and

174

00:08:21,430 --> 00:08:17,120

we're really excited to see the the

175

00:08:25,110 --> 00:08:23,909

hi my name is matthew and

176

00:08:27,909 --> 00:08:25,120

if you could

177

00:08:33,990 --> 00:08:27,919

pilot a rocket ship anywhere in the in

178

00:08:38,709 --> 00:08:36,070

well i think it's important for us right

179

00:08:40,949 --> 00:08:38,719

now to get a permanent foothold in the

180

00:08:43,990 --> 00:08:40,959

stars and i think the best place to do

181

00:08:46,230 --> 00:08:44,000

that is mars so i would love to pilot a

182

00:08:48,870 --> 00:08:46,240

rocket ship to mars i think we have some

183

00:08:51,269 --> 00:08:48,880

work to do on some of our our systems

184

00:08:53,590 --> 00:08:51,279

especially propulsion but i think we're

185

00:08:57,430 --> 00:08:53,600

going to get there and i would love to

186

00:09:01,670 --> 00:08:59,829

hi my name is hanson what did you hope

187

00:09:07,670 --> 00:09:01,680

to gain personally and scientifically

188

00:09:13,910 --> 00:09:10,710

well i think uh being up here we we get

189

00:09:15,990 --> 00:09:13,920

this wonderful deal where we get to have

190

00:09:17,590 --> 00:09:16,000

the time of our lives and float around

191

00:09:19,350 --> 00:09:17,600

and play with our food and look out the

192

00:09:22,630 --> 00:09:19,360

window and just

193

00:09:24,550 --> 00:09:22,640

be a part of this amazing team but but

194

00:09:27,430 --> 00:09:24,560

that's that's kind of our personal

195

00:09:29,990 --> 00:09:27,440

reward we're not trying to gain anything

196

00:09:33,110 --> 00:09:30,000

out of it we're trying to be part of the

197

00:09:35,990 --> 00:09:33,120

team and we are the lucky few

198

00:09:38,550 --> 00:09:36,000

in this huge worldwide team that are

199

00:09:39,430 --> 00:09:38,560

able to be up here but we understand our

200

00:09:42,389 --> 00:09:39,440

place

201

00:09:44,470 --> 00:09:42,399

where our job is to do those last little

202

00:09:45,910 --> 00:09:44,480

tweaks to experiments to get the data

203

00:09:48,310 --> 00:09:45,920

back to the ground

204

00:09:49,590 --> 00:09:48,320

so the true heroes the people who come

205

00:09:52,230 --> 00:09:49,600

up with these

206

00:09:54,630 --> 00:09:52,240

experiments who do the the research the

207

00:09:56,389 --> 00:09:54,640

people who run this space station and

208

00:09:59,509 --> 00:09:56,399

make sure the power works and the

209

00:10:01,829 --> 00:09:59,519

waterworks and everything comes together

210

00:10:04,389 --> 00:10:01,839

those folks are the ones that are

211

00:10:07,350 --> 00:10:04,399

creating the science and all we're here

212

00:10:09,190 --> 00:10:07,360

to do is support them so that that

213

00:10:13,430 --> 00:10:09,200

science can get out to the world and

214

00:10:18,870 --> 00:10:16,310

hi my name is james what is it like

215

00:10:23,350 --> 00:10:18,880

communicating with your family and like

216

00:10:29,269 --> 00:10:26,150

well it's not bad we have a internet

217

00:10:31,670 --> 00:10:29,279

protocol phone so uh every now and again

218

00:10:32,550 --> 00:10:31,680

we can call on the telephone and talk to

219

00:10:36,389 --> 00:10:32,560

them

220

00:10:39,509 --> 00:10:36,399

and uh sometimes we even get a video

221

00:10:42,389 --> 00:10:39,519

link so that we can have kind of like a

222

00:10:44,069 --> 00:10:42,399

a video conference with our family

223

00:10:46,470 --> 00:10:44,079

i just had one

224

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

let's see it was yesterday i had one

225

00:10:51,430 --> 00:10:49,200

with my mom for her birthday so we get

226

00:10:55,910 --> 00:10:51,440

we get to talk with our families and and

227

00:10:59,350 --> 00:10:58,389

hi my name is jamie

228

00:11:01,350 --> 00:10:59,360

and

229

00:11:07,670 --> 00:11:01,360

what advice could you give to a young

230

00:11:10,710 --> 00:11:09,990

boy now that's a good question

231

00:11:13,590 --> 00:11:10,720

so

232

00:11:15,430 --> 00:11:13,600

my dad he died when i was pretty young

233

00:11:17,509 --> 00:11:15,440

and and the last thing he said to me was

234

00:11:19,269 --> 00:11:17,519

i dare you to dream and

235

00:11:20,230 --> 00:11:19,279

that's my advice

236

00:11:23,829 --> 00:11:20,240

because

237

00:11:26,710 --> 00:11:23,839

the dream part only you can define what

238

00:11:29,509 --> 00:11:26,720

it is that lights the fire in your soul

239

00:11:32,389 --> 00:11:29,519

the the passion within you you have to

240

00:11:34,470 --> 00:11:32,399

find something that you truly love

241

00:11:36,710 --> 00:11:34,480

and that you're passionate about

242

00:11:37,670 --> 00:11:36,720

and then the dare part you gotta work

243

00:11:39,670 --> 00:11:37,680

for it

244

00:11:43,509 --> 00:11:39,680

nobody's gonna give it to you not

245

00:11:47,269 --> 00:11:43,519

everybody gets a a trophy uh in life

246

00:11:49,910 --> 00:11:47,279

if you don't work really hard

247

00:11:54,790 --> 00:11:49,920

you'll never achieve those dreams so i

248

00:11:59,350 --> 00:11:57,430

hi my name is walker

249

00:12:06,629 --> 00:11:59,360

what is the most difficult task an

250

00:12:10,310 --> 00:12:07,590

boy

251
00:12:11,829 --> 00:12:10,320
the most difficult

252
00:12:12,710 --> 00:12:11,839
i think

253
00:12:14,710 --> 00:12:12,720
hmm

254
00:12:17,829 --> 00:12:14,720
i i guess it would just be being away

255
00:12:19,030 --> 00:12:17,839
from your family it's uh i really like

256
00:12:20,949 --> 00:12:19,040
my wife

257
00:12:23,670 --> 00:12:20,959
and my family and

258
00:12:26,230 --> 00:12:23,680
that's really the hardest part because

259
00:12:28,150 --> 00:12:26,240
everything we do up here is so darn much

260
00:12:31,670 --> 00:12:28,160
fun that

261
00:12:34,470 --> 00:12:31,680
it it's it's really not hard it's just

262
00:12:39,350 --> 00:12:34,480
awesome so i love being up here i just

263
00:12:45,590 --> 00:12:42,069

hi my name is gabriel

264

00:12:48,150 --> 00:12:45,600

has your time on the iss cause you to

265

00:12:52,230 --> 00:12:48,160

consider or discount a future crypt to

266

00:12:58,790 --> 00:12:55,350

well absolutely we're uh doing research

267

00:13:00,949 --> 00:12:58,800

on all sorts of systems for a mars trip

268

00:13:03,509 --> 00:13:00,959

so i absolutely

269

00:13:05,590 --> 00:13:03,519

consider that we will be going to mars i

270

00:13:07,030 --> 00:13:05,600

know we're going to go to mars

271

00:13:10,069 --> 00:13:07,040

we have

272

00:13:13,430 --> 00:13:10,079

tomorrow we're going to be testing a

273

00:13:15,990 --> 00:13:13,440

athletic or a training system for

274

00:13:18,629 --> 00:13:16,000

physical fitness for the vehicle that

275

00:13:21,430 --> 00:13:18,639

goes to mars so we're looking at all

276

00:13:23,269 --> 00:13:21,440

sorts of systems that we can use the the

277

00:13:26,470 --> 00:13:23,279

life support systems that we have on the

278

00:13:28,310 --> 00:13:26,480

station all sorts of things are to build

279

00:13:31,350 --> 00:13:28,320

the infrastructure

280

00:13:33,430 --> 00:13:31,360

so that when your generation is about my

281

00:13:39,670 --> 00:13:33,440

age or maybe a little less

282

00:13:45,430 --> 00:13:42,550

hi my name is andrew what is the one

283

00:13:50,310 --> 00:13:45,440

thing you miss the most about not being

284

00:13:55,829 --> 00:13:51,990

i might sound like a broken record

285

00:13:57,910 --> 00:13:55,839

aren't i i miss my wife my family my

286

00:13:59,430 --> 00:13:57,920

wife's my everything so

287

00:14:01,670 --> 00:13:59,440

that that's kind of

288

00:14:08,949 --> 00:14:01,680

she she's the battery that recharges my

289

00:14:14,310 --> 00:14:11,670

hi my name is miguel do you have any

290

00:14:18,949 --> 00:14:14,320

physical or mental rehab when you return

291

00:14:23,829 --> 00:14:21,430

well they they do go through quite a bit

292

00:14:25,750 --> 00:14:23,839

of rehab i don't think there's a whole

293

00:14:27,829 --> 00:14:25,760

lot of mental we still talk to our

294

00:14:29,030 --> 00:14:27,839

doctors and make sure that we're not

295

00:14:32,870 --> 00:14:29,040

crazy

296

00:14:35,750 --> 00:14:32,880

regardless but physical there's

297

00:14:38,629 --> 00:14:35,760

definitely a lot of rehab because when

298

00:14:41,670 --> 00:14:38,639

we come up here the body is really smart

299

00:14:43,509 --> 00:14:41,680

the brain goes okay i don't need to work

300

00:14:45,590 --> 00:14:43,519

as hard because i don't have to fight

301
00:14:46,389 --> 00:14:45,600
gravity to keep blood where it needs to

302
00:14:48,629 --> 00:14:46,399
be

303
00:14:51,189 --> 00:14:48,639
and the bones and the muscles they're

304
00:14:54,310 --> 00:14:51,199
like hey i can take a break so we have

305
00:14:56,470 --> 00:14:54,320
to fight those urges of our body to

306
00:14:58,870 --> 00:14:56,480
relax and adapt to this new environment

307
00:15:01,750 --> 00:14:58,880
because when we get back

308
00:15:03,829 --> 00:15:01,760
we have to re-acclimate to earth and

309
00:15:06,310 --> 00:15:03,839
it's a whole lot harder going back to

310
00:15:09,189 --> 00:15:06,320
earth than it is coming up here

311
00:15:11,910 --> 00:15:09,199
one of one of the main things

312
00:15:13,509 --> 00:15:11,920
not just your physical fitness

313
00:15:14,550 --> 00:15:13,519

but also

314

00:15:19,509 --> 00:15:14,560

just

315

00:15:21,430 --> 00:15:19,519

stuff floats so you

316

00:15:23,350 --> 00:15:21,440

when instead of putting it down on a

317

00:15:24,870 --> 00:15:23,360

table you just kind of sit there and you

318

00:15:27,110 --> 00:15:24,880

go over here and you do something and

319

00:15:29,749 --> 00:15:27,120

you come back and it's still there

320

00:15:33,749 --> 00:15:29,759

you you get used to

321

00:15:36,069 --> 00:15:33,759

stuff floating and flying and you try to

322

00:15:37,910 --> 00:15:36,079

fly stuff back on earth and it doesn't

323

00:15:40,629 --> 00:15:37,920

work so good so i've heard a lot of

324

00:15:42,470 --> 00:15:40,639

stories about people you know

325

00:15:44,470 --> 00:15:42,480

throwing a plate to their wife or

326

00:15:46,949 --> 00:15:44,480

floating a plate to their wife back home

327

00:15:49,030 --> 00:15:46,959

and it just hits the ground so there's

328

00:15:55,990 --> 00:15:49,040

definitely rehab we got to rewire our

329

00:16:02,069 --> 00:15:59,430

hi my name is nicholas and what res what

330

00:16:08,069 --> 00:16:02,079

aspect of your time on the iss is most

331

00:16:13,189 --> 00:16:10,710

i think every day is and it's because

332

00:16:16,230 --> 00:16:13,199

you really feel like you're part of a

333

00:16:19,269 --> 00:16:16,240

team and it's a worldwide team every

334

00:16:22,069 --> 00:16:19,279

morning we have a conference at around 7

335

00:16:24,790 --> 00:16:22,079

or 7 30 in the morning and it's 7 or 7

336

00:16:28,550 --> 00:16:24,800

30 at night and it is the entire world

337

00:16:33,030 --> 00:16:28,560

we have centers in japan in germany in

338

00:16:36,230 --> 00:16:33,040

france in canada in houston in alabama

339

00:16:38,870 --> 00:16:36,240

huntsville alabama in moscow all over

340

00:16:41,590 --> 00:16:38,880

the place and we all come together to

341

00:16:43,749 --> 00:16:41,600

talk about the plan for the day and then

342

00:16:45,430 --> 00:16:43,759

we execute that plan together and then

343

00:16:48,470 --> 00:16:45,440

we talk about what we did and what we're

344

00:16:51,189 --> 00:16:48,480

going to do the next day it is so cool

345

00:16:53,749 --> 00:16:51,199

to be even a small part of such an

346

00:16:57,910 --> 00:16:53,759

amazing team that's accomplishing

347

00:17:02,790 --> 00:16:59,990

hi my name is sebastian with all the

348

00:17:09,750 --> 00:17:02,800

space debris how do you

349

00:17:15,189 --> 00:17:12,710

well we have we have engines on the

350

00:17:17,189 --> 00:17:15,199

space station on the russian segment

351
00:17:21,189 --> 00:17:17,199
they're kind of on the back end

352
00:17:23,270 --> 00:17:21,199
and the air force tracks all the debris

353
00:17:26,150 --> 00:17:23,280
and when they determine

354
00:17:28,150 --> 00:17:26,160
that there's going to be a potential for

355
00:17:29,909 --> 00:17:28,160
something to hit us something big enough

356
00:17:33,990 --> 00:17:29,919
that's really going to hurt us

357
00:17:36,070 --> 00:17:34,000
then we try to do and burn a impulse out

358
00:17:38,390 --> 00:17:36,080
of those rocket engines to raise our

359
00:17:40,390 --> 00:17:38,400
altitude and get out of the way and

360
00:17:43,350 --> 00:17:40,400
sometimes we don't have enough time

361
00:17:45,110 --> 00:17:43,360
because we find out about it too late

362
00:17:47,909 --> 00:17:45,120
and when that happens

363
00:17:50,470 --> 00:17:47,919

we don't have time to do the impulse so

364

00:17:54,310 --> 00:17:50,480

we basically go and sit in our soyuz in

365

00:17:56,150 --> 00:17:54,320

our spacesuit and if the iss gets hit if

366

00:17:58,710 --> 00:17:56,160

the space station gets hit then we may

367

00:18:00,789 --> 00:17:58,720

have to leave so we

368

00:18:04,150 --> 00:18:00,799

prepare for the worst and hope for the

369

00:18:07,270 --> 00:18:04,160

best but most of the time the good old

370

00:18:10,470 --> 00:18:07,280

air force finds those things beforehand

371

00:18:12,950 --> 00:18:10,480

and tells us and then our team in

372

00:18:14,390 --> 00:18:12,960

mission control in houston and moscow

373

00:18:19,110 --> 00:18:14,400

determine how we're going to use the

374

00:18:24,230 --> 00:18:22,070

hi my name is joe without the protection

375

00:18:30,789 --> 00:18:24,240

of the earth's atmosphere how do you

376

00:18:35,190 --> 00:18:32,710

well that's a great question there's

377

00:18:37,029 --> 00:18:35,200

actually uh magnetic fields around the

378

00:18:39,190 --> 00:18:37,039

earth they're called the van allen belts

379

00:18:41,190 --> 00:18:39,200

and we're still within them so we still

380

00:18:43,270 --> 00:18:41,200

get a lot of the protection the same

381

00:18:45,510 --> 00:18:43,280

protection that the earth does from

382

00:18:47,510 --> 00:18:45,520

radiation that's not to say that we

383

00:18:50,470 --> 00:18:47,520

don't get a lot more than folks on the

384

00:18:52,549 --> 00:18:50,480

ground we will glow just a little bit

385

00:18:58,310 --> 00:18:52,559

when we get home but for the most part

386

00:19:02,390 --> 00:19:00,230

hi my name is ella

387

00:19:04,789 --> 00:19:02,400

how do you feel private space vehicles

388

00:19:09,990 --> 00:19:04,799

have changed nasa's ability to complete

389

00:19:17,029 --> 00:19:13,750

they're a huge huge boon to us because

390

00:19:20,470 --> 00:19:17,039

they are allowing nasa to focus on deep

391

00:19:22,549 --> 00:19:20,480

space exploration so nasa now is

392

00:19:25,750 --> 00:19:22,559

focusing on building the space launch

393

00:19:28,789 --> 00:19:25,760

system the biggest rocket ever

394

00:19:31,110 --> 00:19:28,799

and then the orion vehicle to go further

395

00:19:33,190 --> 00:19:31,120

and deeper into space

396

00:19:35,430 --> 00:19:33,200

those are the things that

397

00:19:36,549 --> 00:19:35,440

nasa gets to focus on because the

398

00:19:39,270 --> 00:19:36,559

commercial

399

00:19:41,669 --> 00:19:39,280

industry is focusing on how to get

400

00:19:43,750 --> 00:19:41,679

astronauts and cosmonauts to the space

401
00:19:45,909 --> 00:19:43,760
station

402
00:19:49,590 --> 00:19:45,919
they are building the infrastructure so

403
00:19:52,710 --> 00:19:49,600
that we can have this wide broad strong

404
00:19:57,110 --> 00:19:52,720
base to jump off into the universe and

405
00:20:01,990 --> 00:19:59,510
hi my name is carson

406
00:20:07,590 --> 00:20:02,000
what surprised you most about life in

407
00:20:11,830 --> 00:20:09,750
you know i think you know we talked

408
00:20:14,950 --> 00:20:11,840
about it earlier i think the the most

409
00:20:16,149 --> 00:20:14,960
surprising thing is just how cool it is

410
00:20:18,870 --> 00:20:16,159
you just

411
00:20:21,590 --> 00:20:18,880
everything's cool you're you're eating

412
00:20:23,909 --> 00:20:21,600
you're pudding and it's

413
00:20:25,990 --> 00:20:23,919

squirting into a big old mountain that

414

00:20:29,350 --> 00:20:26,000

wobbles all about you look out the

415

00:20:32,390 --> 00:20:29,360

window and the aurora is just alive and

416

00:20:34,549 --> 00:20:32,400

these green and purple and white ribbons

417

00:20:36,789 --> 00:20:34,559

dancing across the sky

418

00:20:39,669 --> 00:20:36,799

you you go outside on a spacewalk and

419

00:20:41,830 --> 00:20:39,679

you look up and see at night more stars

420

00:20:44,630 --> 00:20:41,840

than you thought were possible

421

00:20:46,789 --> 00:20:44,640

everything about this place is just

422

00:20:49,510 --> 00:20:46,799

awesome and it really stretches your

423

00:20:51,029 --> 00:20:49,520

mind and forces you to grow and i love

424

00:20:53,830 --> 00:20:51,039

that so

425

00:20:56,230 --> 00:20:53,840

why is the most surprising thing is that

426
00:20:56,950 --> 00:20:56,240
i never could have imagined how cool it

427
00:20:58,789 --> 00:20:56,960
is

428
00:21:00,630 --> 00:20:58,799
to be in space and i want to do

429
00:21:02,549 --> 00:21:00,640
everything that i can

430
00:21:08,470 --> 00:21:02,559
in the future to get more people just

431
00:21:13,909 --> 00:21:10,630
hi my name is kyla how has the

432
00:21:19,590 --> 00:21:13,919
development of space science changed

433
00:21:24,710 --> 00:21:21,750
boy that's a good question the

434
00:21:26,950 --> 00:21:24,720
the space station has been evolving and

435
00:21:29,190 --> 00:21:26,960
still evolves every single time a new

436
00:21:31,909 --> 00:21:29,200
vehicle comes up because every time a

437
00:21:33,990 --> 00:21:31,919
vehicle comes up we bring new

438
00:21:35,669 --> 00:21:34,000

technology new equipment

439

00:21:38,710 --> 00:21:35,679

new racks

440

00:21:41,029 --> 00:21:38,720

new experiments new supplies to make

441

00:21:43,110 --> 00:21:41,039

this place better and to continue to

442

00:21:46,630 --> 00:21:43,120

grow

443

00:21:47,510 --> 00:21:46,640

right next to me is a rack that has uh

444

00:21:50,149 --> 00:21:47,520

these

445

00:21:52,470 --> 00:21:50,159

small experiments called nanoracks and

446

00:21:54,630 --> 00:21:52,480

they're a great example of a very

447

00:21:56,549 --> 00:21:54,640

flexible uh

448

00:21:59,110 --> 00:21:56,559

lower cost

449

00:22:02,390 --> 00:21:59,120

but not necessarily lower technology

450

00:22:06,310 --> 00:22:02,400

experiments that are able to be flown

451
00:22:09,430 --> 00:22:06,320
and run and returned at a much

452
00:22:11,909 --> 00:22:09,440
faster rate and that allows the science

453
00:22:14,230 --> 00:22:11,919
on the space station to keep up with the

454
00:22:15,669 --> 00:22:14,240
science on the earth and now start to

455
00:22:19,110 --> 00:22:15,679
outpace it

456
00:22:21,270 --> 00:22:19,120
because in addition to having

457
00:22:23,909 --> 00:22:21,280
the lack of gravity and and some of the

458
00:22:25,830 --> 00:22:23,919
other forces that can dominate problems

459
00:22:27,990 --> 00:22:25,840
and models on the ground we don't have

460
00:22:30,549 --> 00:22:28,000
those so if we can get the best

461
00:22:32,230 --> 00:22:30,559
technology up here as well then we're

462
00:22:34,230 --> 00:22:32,240
going to be able to do even better

463
00:22:36,630 --> 00:22:34,240

science and

464

00:22:38,789 --> 00:22:36,640

over the last couple of years

465

00:22:40,630 --> 00:22:38,799

just an example

466

00:22:43,510 --> 00:22:40,640

five years ago say

467

00:22:44,630 --> 00:22:43,520

if we got 30 hours of science for a

468

00:22:47,190 --> 00:22:44,640

whole crew

469

00:22:48,070 --> 00:22:47,200

in one week it was amazing

470

00:22:50,070 --> 00:22:48,080

now

471

00:22:52,710 --> 00:22:50,080

we'll probably break a hundred hours

472

00:22:55,750 --> 00:22:52,720

this week with the people we have on

473

00:22:58,470 --> 00:22:55,760

board because the program and the

474

00:23:00,870 --> 00:22:58,480

the the team is so much better at

475

00:23:02,630 --> 00:23:00,880

getting science done and making that the

476

00:23:04,950 --> 00:23:02,640

focus of this place

477

00:23:07,669 --> 00:23:04,960

so it is it has been an evolution it

478

00:23:11,830 --> 00:23:07,679

continues to evolve and i just can't

479

00:23:16,070 --> 00:23:13,830

jack this is keith trimble i'm the cup

480

00:23:18,070 --> 00:23:16,080

master at pax 643 that was our last

481

00:23:25,270 --> 00:23:18,080

question she wanted to thank you so much

482

00:23:28,310 --> 00:23:26,710

i want to thank you for your service to

483

00:23:30,310 --> 00:23:28,320

our country and thank you so much for

484

00:23:32,740 --> 00:23:30,320

sharing your energy and expanding the

485

00:23:35,430 --> 00:23:32,750

horizons of our young children thank you

486

00:23:37,350 --> 00:23:35,440

[Applause]

487

00:23:40,149 --> 00:23:37,360

you bet i'll try to do a flip while you

488

00:23:41,190 --> 00:23:40,159

guys are watching woo

489

00:23:43,669 --> 00:23:41,200

see

490

00:23:45,269 --> 00:23:43,679

everything's cooler in space well thanks

491

00:23:47,990 --> 00:23:45,279

for having me and and it was great

492

00:23:50,149 --> 00:23:48,000

talking to y'all

493

00:23:54,230 --> 00:23:50,159

station this is houston acr that

494

00:23:59,029 --> 00:23:56,470

thank you to all participants from boy

495

00:24:00,870 --> 00:23:59,039

scouts of the bay area station we are