



1
00:00:08,870 --> 00:00:06,070
the baikonur cosmodrome

2
00:00:11,509 --> 00:00:08,880
it's from here that humans first dare to

3
00:00:13,830 --> 00:00:11,519
escape into the heavens

4
00:00:16,630 --> 00:00:13,840
it's from here that a new flight crew

5
00:00:18,870 --> 00:00:16,640
will add to the history of this desert

6
00:00:21,349 --> 00:00:18,880
spaceport

7
00:00:24,870 --> 00:00:21,359
from tennessee butch wilmore has logged

8
00:00:27,109 --> 00:00:24,880
more than 259 hours in space the navy

9
00:00:30,070 --> 00:00:27,119
captain was a flight test instructor and

10
00:00:32,630 --> 00:00:30,080
has over 600 carrier landings which will

11
00:00:35,990 --> 00:00:32,640
be a flight engineer on expedition 41

12
00:00:38,709 --> 00:00:36,000
and command expedition 42

13
00:00:41,910 --> 00:00:38,719

alexander semakutia will also return to

14

00:00:43,830 --> 00:00:41,920

the station the veteran has flown 164

15

00:00:46,549 --> 00:00:43,840

days in orbit and has performed a

16

00:00:49,430 --> 00:00:46,559

spacewalk alex retired as a colonel from

17

00:00:51,430 --> 00:00:49,440

the russian air force and performed 250

18

00:00:53,510 --> 00:00:51,440

parachute jumps

19

00:00:55,590 --> 00:00:53,520

elena sorova will become the first

20

00:00:57,910 --> 00:00:55,600

female russian cosmonaut to live and

21

00:00:59,910 --> 00:00:57,920

work on the international space station

22

00:01:02,310 --> 00:00:59,920

prior to her selection as a cosmonaut

23

00:01:04,549 --> 00:01:02,320

elena worked as an engineer for rsc in

24

00:01:06,230 --> 00:01:04,559

ergia and in the mission control center

25

00:01:09,510 --> 00:01:06,240

in moscow

26
00:01:11,990 --> 00:01:09,520
with the launch of expedition 4142 butch

27
00:01:13,429 --> 00:01:12,000
alex and elena will add the next chapter

28
00:01:22,789 --> 00:01:13,439
to the history

29
00:01:25,670 --> 00:01:24,230
good afternoon thanks for joining us

30
00:01:27,429 --> 00:01:25,680
here at the johnson space center we're

31
00:01:28,950 --> 00:01:27,439
here with the crew the next crew headed

32
00:01:31,030 --> 00:01:28,960
to the international space station thank

33
00:01:33,270 --> 00:01:31,040
you all for joining us we have

34
00:01:34,950 --> 00:01:33,280
nasa astronaut butch wilmore who's going

35
00:01:37,109 --> 00:01:34,960
to serve as the flight engineer for

36
00:01:39,590 --> 00:01:37,119
expedition 41 and then transition to

37
00:01:41,030 --> 00:01:39,600
commander for expedition 42 alexander

38
00:01:43,109 --> 00:01:41,040

who will be the commander for the soyuz

39

00:01:45,190 --> 00:01:43,119

spacecraft and elena sarova who will be

40

00:01:46,230 --> 00:01:45,200

the first russian female cosmonaut on

41

00:01:48,230 --> 00:01:46,240

the board the international space

42

00:01:49,830 --> 00:01:48,240

station so thanks again for joining us i

43

00:01:51,270 --> 00:01:49,840

know we've got a full house and a lot of

44

00:01:53,350 --> 00:01:51,280

special guests here

45

00:01:55,350 --> 00:01:53,360

um so you're about two months out launch

46

00:01:58,389 --> 00:01:55,360

is planned for september 25th correct

47

00:01:59,749 --> 00:01:58,399

just after 3 p.m central time um you're

48

00:02:02,149 --> 00:01:59,759

going to be departing to go to russia in

49

00:02:03,270 --> 00:02:02,159

about a month so once you go there i

50

00:02:05,350 --> 00:02:03,280

know there's still a lot of final

51
00:02:06,789 --> 00:02:05,360
preparations including your final exams

52
00:02:08,070 --> 00:02:06,799
we don't hear a whole lot about that why

53
00:02:09,270 --> 00:02:08,080
don't you start by telling us what

54
00:02:11,110 --> 00:02:09,280
that's like when you get over there for

55
00:02:12,470 --> 00:02:11,120
that final phase yeah we arrive in

56
00:02:14,869 --> 00:02:12,480
russia actually sasha and lane always

57
00:02:17,110 --> 00:02:14,879
already be there i get there mid-august

58
00:02:18,869 --> 00:02:17,120
and we go through several preparatory

59
00:02:20,710 --> 00:02:18,879
classes review of a lot of different

60
00:02:22,470 --> 00:02:20,720
systems on the space station the russian

61
00:02:23,990 --> 00:02:22,480
segment specifically sasha and lane have

62
00:02:25,190 --> 00:02:24,000
been here for three weeks and at johnson

63
00:02:27,350 --> 00:02:25,200

space center so we've been going through

64

00:02:28,550 --> 00:02:27,360

a lot of reviews for the u.s segment so

65

00:02:30,470 --> 00:02:28,560

we'll get the russian segment review

66

00:02:32,470 --> 00:02:30,480

there we'll do a whole lot of work in

67

00:02:34,309 --> 00:02:32,480

the soyuz simulator prepping for those

68

00:02:36,390 --> 00:02:34,319

exams you mentioned and i think you know

69

00:02:37,750 --> 00:02:36,400

myself included when i you know years

70

00:02:38,790 --> 00:02:37,760

ago you hear about the russian exams i

71

00:02:40,790 --> 00:02:38,800

thought they were you know maybe sitting

72

00:02:42,710 --> 00:02:40,800

at a table taking a test and it's not

73

00:02:44,150 --> 00:02:42,720

exactly like that uh it's not actually

74

00:02:45,750 --> 00:02:44,160

it's nothing like that the exams

75

00:02:47,990 --> 00:02:45,760

actually entail

76
00:02:49,509 --> 00:02:48,000
doing your job in the russian segment so

77
00:02:51,350 --> 00:02:49,519
they'll give us a day in the life type

78
00:02:53,110 --> 00:02:51,360
of simulation and we'll go through and

79
00:02:55,030 --> 00:02:53,120
we'll do all of these different various

80
00:02:57,110 --> 00:02:55,040
tasks in the russian segment and they

81
00:02:58,869 --> 00:02:57,120
usually conclude with one sometimes two

82
00:03:00,949 --> 00:02:58,879
emergency scenarios that we're all

83
00:03:01,910 --> 00:03:00,959
trained to do and we'll go through those

84
00:03:03,910 --> 00:03:01,920
and then

85
00:03:06,309 --> 00:03:03,920
we'll be graded on how we performed same

86
00:03:08,869 --> 00:03:06,319
thing in the soyuz the soyuz is a full

87
00:03:10,309 --> 00:03:08,879
day the exam is a full day so you start

88
00:03:11,910 --> 00:03:10,319

off and you saw the picture there when

89

00:03:13,990 --> 00:03:11,920

we started in our russian spacesuits

90

00:03:16,229 --> 00:03:14,000

called a scofonder and we start off in

91

00:03:18,149 --> 00:03:16,239

that we do a preparatory launch all the

92

00:03:19,910 --> 00:03:18,159

way up through launch all the way up to

93

00:03:21,350 --> 00:03:19,920

a rendezvous phase and then we they

94

00:03:23,589 --> 00:03:21,360

actually let us get that's about four

95

00:03:25,750 --> 00:03:23,599

hours so we actually finally take off

96

00:03:27,509 --> 00:03:25,760

the scaffolder we do a rendezvous phase

97

00:03:29,350 --> 00:03:27,519

up to docking

98

00:03:31,270 --> 00:03:29,360

in our just flight suits and then we put

99

00:03:32,390 --> 00:03:31,280

the scofonder back on

100

00:03:33,830 --> 00:03:32,400

and we simulate

101
00:03:36,229 --> 00:03:33,840
leaving the station

102
00:03:37,910 --> 00:03:36,239
doing the orbit burn the re-entry and

103
00:03:40,710 --> 00:03:37,920
all the way down to touchdown and that

104
00:03:42,789 --> 00:03:40,720
is a full 10 to 12-hour day and that

105
00:03:44,789 --> 00:03:42,799
again is different specific tasks are

106
00:03:46,550 --> 00:03:44,799
graded on that and hopefully we had to

107
00:03:48,869 --> 00:03:46,560
get a passing grade and we move on from

108
00:03:50,470 --> 00:03:48,879
there so that's really what exam means

109
00:03:51,910 --> 00:03:50,480
it's actually doing what we'll be doing

110
00:03:53,270 --> 00:03:51,920
really uh

111
00:03:54,869 --> 00:03:53,280
as we launch when we get back and of

112
00:03:56,470 --> 00:03:54,879
course while we're on station gotcha so

113
00:03:57,990 --> 00:03:56,480

it definitely is a big milestone though

114

00:03:59,429 --> 00:03:58,000

oh yeah it's a big milestone after

115

00:04:01,270 --> 00:03:59,439

that's done then you can really read the

116

00:04:02,630 --> 00:04:01,280

sci relief and coast in and get ready

117

00:04:04,309 --> 00:04:02,640

for launch well i don't know about coast

118

00:04:06,309 --> 00:04:04,319

but yeah get ready for launch exactly

119

00:04:08,229 --> 00:04:06,319

gotcha um so speaking of launch and then

120

00:04:09,270 --> 00:04:08,239

when you get uh underway on the mission

121

00:04:10,869 --> 00:04:09,280

tell us a little bit about what's in

122

00:04:12,789 --> 00:04:10,879

store for your increment well our

123

00:04:15,030 --> 00:04:12,799

increment we'll sit here right now we're

124

00:04:17,349 --> 00:04:15,040

prepping like we said but you know also

125

00:04:20,150 --> 00:04:17,359

on on orbit right now you know swanny

126
00:04:22,550 --> 00:04:20,160
and reed and alex the crew up there just

127
00:04:23,990 --> 00:04:22,560
uh grappled the cygnus and brought it on

128
00:04:25,350 --> 00:04:24,000
board it's attached to the station just

129
00:04:27,189 --> 00:04:25,360
before we started i saw some videos

130
00:04:29,430 --> 00:04:27,199
there taking down all the different

131
00:04:30,790 --> 00:04:29,440
apparatus that that helps to put it on

132
00:04:32,629 --> 00:04:30,800
the station so they're taking all that

133
00:04:34,070 --> 00:04:32,639
stuff apart and won't be long they'll be

134
00:04:36,310 --> 00:04:34,080
opening the hatch so we'll we'll take

135
00:04:38,070 --> 00:04:36,320
the opportunity to throw out a job well

136
00:04:40,790 --> 00:04:38,080
done to the crew up on orbit for that

137
00:04:42,629 --> 00:04:40,800
and we will be doing similar stuff

138
00:04:45,510 --> 00:04:42,639

we'll be have several visiting vehicles

139

00:04:47,430 --> 00:04:45,520

that'll come up bringing experiments

140

00:04:49,749 --> 00:04:47,440

bringing food bringing clothes bringing

141

00:04:51,830 --> 00:04:49,759

all you know air water those type of

142

00:04:54,230 --> 00:04:51,840

things so we'll be have several those

143

00:04:56,150 --> 00:04:54,240

vehicles so we get a i think two maybe

144

00:04:57,350 --> 00:04:56,160

three spacex's we get another cygnus

145

00:04:59,430 --> 00:04:57,360

shows up

146

00:05:00,950 --> 00:04:59,440

atv will be there when we arrive foggles

147

00:05:02,230 --> 00:05:00,960

is planned and it will depart you know

148

00:05:03,990 --> 00:05:02,240

almost towards the end of our mission so

149

00:05:05,029 --> 00:05:04,000

we've got a lot of that vehicle traffic

150

00:05:07,670 --> 00:05:05,039

as well

151
00:05:09,990 --> 00:05:07,680
sasha is scheduled for a what we call

152
00:05:11,590 --> 00:05:10,000
eva extra vehicular activity or space

153
00:05:14,150 --> 00:05:11,600
walk he's scheduled for that in the

154
00:05:15,670 --> 00:05:14,160
october front time frame and then terry

155
00:05:17,909 --> 00:05:15,680
verts and i are also scheduled for a

156
00:05:19,590 --> 00:05:17,919
couple of spacewalks january february so

157
00:05:21,749 --> 00:05:19,600
we're excited about that opportunity as

158
00:05:23,430 --> 00:05:21,759
well if it all happens and it all comes

159
00:05:24,710 --> 00:05:23,440
to fruition so big picture that's kind

160
00:05:26,150 --> 00:05:24,720
of what what our mission what we're

161
00:05:28,070 --> 00:05:26,160
doing going to hit the ground running

162
00:05:29,590 --> 00:05:28,080
yeah lots of planned okay well let's

163
00:05:30,950 --> 00:05:29,600

turn it over here um we've got some

164

00:05:32,230 --> 00:05:30,960

media here in the audience so we'll

165

00:05:33,749 --> 00:05:32,240

start with them with some questions if

166

00:05:35,110 --> 00:05:33,759

you can just raise your hand state your

167

00:05:38,150 --> 00:05:35,120

name and affiliation we'll start over on

168

00:05:40,230 --> 00:05:38,160

the side gina gina cincer abc news so

169

00:05:42,629 --> 00:05:40,240

how tight is that fitness soyuz during

170

00:05:44,950 --> 00:05:42,639

your tests compared to

171

00:05:46,550 --> 00:05:44,960

being in a fighter jet is it similar i

172

00:05:48,469 --> 00:05:46,560

mean it looks pretty cramped in there

173

00:05:50,710 --> 00:05:48,479

you know i've been in many fighter jets

174

00:05:52,310 --> 00:05:50,720

in my career and it's pretty tight

175

00:05:53,749 --> 00:05:52,320

but you've got a little bit elbow room

176

00:05:56,230 --> 00:05:53,759

so you've got open maps and that type of

177

00:05:58,629 --> 00:05:56,240

stuff but in the soyuz it's a leave it a

178

00:05:59,990 --> 00:05:58,639

little bit tighter i'm really when we

179

00:06:01,350 --> 00:06:00,000

sat down it's strange for me to sit on

180

00:06:02,870 --> 00:06:01,360

this side of sasha because i'm a right

181

00:06:04,309 --> 00:06:02,880

seeder in the soyuz i'm usually over

182

00:06:06,629 --> 00:06:04,319

there inside and elaine is sitting on

183

00:06:08,309 --> 00:06:06,639

the left side but we're so close i can

184

00:06:10,230 --> 00:06:08,319

reach over and i can touch elena on the

185

00:06:13,749 --> 00:06:10,240

other side of the soil so it is a tight

186

00:06:15,749 --> 00:06:13,759

snug fit but the soyuz is a very robust

187

00:06:18,309 --> 00:06:15,759

vehicle that is designed for obviously

188

00:06:21,029 --> 00:06:18,319

launch on orbit operations and entry and

189

00:06:22,150 --> 00:06:21,039

because of uh the smallness of it as if

190

00:06:24,309 --> 00:06:22,160

you know anything about how you build

191

00:06:25,590 --> 00:06:24,319

aircraft or spacecraft as you make it if

192

00:06:27,990 --> 00:06:25,600

you can make it smaller you can make

193

00:06:29,670 --> 00:06:28,000

your propulsion even less uh less weight

194

00:06:31,749 --> 00:06:29,680

going to orbit so the russians were very

195

00:06:33,749 --> 00:06:31,759

wise and putting this orbital module on

196

00:06:36,230 --> 00:06:33,759

the top that we call give us an extra

197

00:06:37,909 --> 00:06:36,240

volume that we have while we're on orbit

198

00:06:39,350 --> 00:06:37,919

but the capsule the part that returns

199

00:06:40,870 --> 00:06:39,360

back to earth with the thermal

200

00:06:42,790 --> 00:06:40,880

protective valve is very small and very

201
00:06:44,710 --> 00:06:42,800
tiny which is a very very smart and wise

202
00:06:47,590 --> 00:06:44,720
design yeah

203
00:06:49,990 --> 00:06:47,600
all right next question mark

204
00:06:52,309 --> 00:06:50,000
uh mark corral for aviation week and uh

205
00:06:53,909 --> 00:06:52,319
this is for captain wilmore as well uh

206
00:06:56,230 --> 00:06:53,919
could you talk a little bit about the

207
00:06:58,309 --> 00:06:56,240
activities uh you envisioned for the

208
00:07:01,350 --> 00:06:58,319
spacewalks that you'll do with terry

209
00:07:02,870 --> 00:07:01,360
burts is any of this related to

210
00:07:06,950 --> 00:07:02,880
the docking

211
00:07:11,510 --> 00:07:08,950
improvements or modifications to the

212
00:07:13,189 --> 00:07:11,520
station yeah it is actually

213
00:07:15,670 --> 00:07:13,199

as you know we have commercial crew

214

00:07:18,070 --> 00:07:15,680

vehicles that are under design right now

215

00:07:20,150 --> 00:07:18,080

and those vehicles are planned to dock

216

00:07:23,029 --> 00:07:20,160

to the station and right now the only

217

00:07:25,749 --> 00:07:23,039

docking apparatus we have are soyuz and

218

00:07:28,150 --> 00:07:25,759

the space shuttle apparatus so we need

219

00:07:30,070 --> 00:07:28,160

to change the soyuz excuse me the

220

00:07:31,670 --> 00:07:30,080

shuttle apparatus we need to put an

221

00:07:34,150 --> 00:07:31,680

adapter on the end of that to allow

222

00:07:35,990 --> 00:07:34,160

these new vehicles to dock so eventually

223

00:07:38,710 --> 00:07:36,000

those integrated docking adapters those

224

00:07:40,390 --> 00:07:38,720

idas will be installed but before you

225

00:07:43,029 --> 00:07:40,400

even get those up there we have to have

226

00:07:44,309 --> 00:07:43,039

power run to those adapters so

227

00:07:45,909 --> 00:07:44,319

terry and i they kind of call us the

228

00:07:48,390 --> 00:07:45,919

cable guys because we're going to route

229

00:07:50,309 --> 00:07:48,400

cables from the power source at the base

230

00:07:51,510 --> 00:07:50,319

of the station if you will and take it

231

00:07:53,110 --> 00:07:51,520

all the way out to these where these

232

00:07:55,029 --> 00:07:53,120

docking adapters will eventually be

233

00:07:56,869 --> 00:07:55,039

installed so we'll route the cables

234

00:07:58,309 --> 00:07:56,879

we'll strap them down we'll undo some

235

00:08:00,550 --> 00:07:58,319

other cables that are there that are no

236

00:08:03,189 --> 00:08:00,560

longer needed and plug these these newer

237

00:08:04,869 --> 00:08:03,199

cables into those spots and prepare for

238

00:08:06,710 --> 00:08:04,879

the future those when those docking

239

00:08:08,469 --> 00:08:06,720

doctors arrive so eventually we'll get

240

00:08:09,749 --> 00:08:08,479

those commercial crew vehicles docking

241

00:08:11,110 --> 00:08:09,759

yeah just a couple of years down the

242

00:08:13,909 --> 00:08:11,120

road

243

00:08:15,510 --> 00:08:13,919

okay so we are taking uh questions via

244

00:08:17,110 --> 00:08:15,520

twitter and social media channels so we

245

00:08:18,629 --> 00:08:17,120

want to encourage our viewers to use the

246

00:08:20,309 --> 00:08:18,639

hashtag ask nasa and we're going to

247

00:08:21,830 --> 00:08:20,319

switch over to amiko i think who's been

248

00:08:24,230 --> 00:08:21,840

tracking some of those questions for us

249

00:08:26,230 --> 00:08:24,240

we have quite a few coming in now um one

250

00:08:28,710 --> 00:08:26,240

of the questions comes to us on twitter

251
00:08:31,990 --> 00:08:28,720
and the question is what experiments

252
00:08:33,990 --> 00:08:32,000
will you be doing aboard the iss

253
00:08:37,029 --> 00:08:34,000
i don't want to hog all the questions

254
00:08:37,990 --> 00:08:37,039
so we can open that up to any

255
00:09:15,990 --> 00:08:38,000
you want to talk about some of the

256
00:09:19,590 --> 00:09:18,230
we have several experiments uh among

257
00:09:22,070 --> 00:09:19,600
them there are a few medical and

258
00:09:23,269 --> 00:09:22,080
biological experiments for example take

259
00:09:26,230 --> 00:09:23,279
bio risk

260
00:09:28,150 --> 00:09:26,240
we take samples of fungi and bacteria

261
00:09:31,190 --> 00:09:28,160
that can be found in the

262
00:09:34,630 --> 00:09:31,200
environment on the station's structure

263
00:09:48,870 --> 00:09:34,640

and we analyze it later

264

00:09:48,880 --> 00:09:55,590

is

265

00:10:00,630 --> 00:09:57,990

another example a biological technical

266

00:10:03,269 --> 00:10:00,640

experiment called relaxation we take

267

00:10:04,790 --> 00:10:03,279

snails and we study how they regenerate

268

00:10:07,990 --> 00:10:04,800

limbs that

269

00:10:18,710 --> 00:10:08,000

have been grown on in space and how that

270

00:10:27,910 --> 00:10:20,949

one more area it's the impact of

271

00:10:27,920 --> 00:10:32,870

experience

272

00:10:36,069 --> 00:10:34,069

there is also a number of other

273

00:10:42,470 --> 00:10:36,079

experiments that are conducted during

274

00:10:42,480 --> 00:10:49,030

yesterday

275

00:10:52,310 --> 00:10:50,710

i could probably add a few words for

276
00:10:56,949 --> 00:10:52,320
example have a group of experiments that

277
00:10:56,959 --> 00:11:04,949
experiments

278
00:11:08,470 --> 00:11:07,269
hereby i mean observing the earth's

279
00:11:12,069 --> 00:11:08,480
surface

280
00:11:25,269 --> 00:11:12,079
watching the ocean the world ocean and

281
00:11:39,350 --> 00:11:28,949
also watching different uh space

282
00:11:43,430 --> 00:11:41,509
when i'll be doing my space work i also

283
00:11:53,110 --> 00:11:43,440
have two interesting experiments on the

284
00:11:56,790 --> 00:11:55,110
the first one is relatively new it's a

285
00:11:58,150 --> 00:11:56,800
very recent experiment that has just

286
00:12:06,150 --> 00:11:58,160
been started

287
00:12:06,160 --> 00:12:31,269
um

288
00:12:35,990 --> 00:12:33,750

it's called test and the purpose is to

289

00:12:39,269 --> 00:12:36,000

take samples on the outer environment of

290

00:12:41,190 --> 00:12:39,279

the station to take space dust space mud

291

00:12:43,350 --> 00:12:41,200

if you want and so that it can be

292

00:12:45,990 --> 00:12:43,360

brought later to the earth to be

293

00:12:49,030 --> 00:12:46,000

analyzed and studied for the presence of

294

00:13:05,269 --> 00:12:49,040

microbes and germs that have probably

295

00:13:10,550 --> 00:13:08,550

and the first trials showed yes that yes

296

00:13:12,870 --> 00:13:10,560

indeed there are certain

297

00:13:14,790 --> 00:13:12,880

basic microorganisms present in the

298

00:13:17,590 --> 00:13:14,800

outer space and

299

00:13:20,069 --> 00:13:17,600

if we go on we'll probably be

300

00:13:33,509 --> 00:13:20,079

one step further into discovering what

301
00:13:38,310 --> 00:13:35,829
one more experiment which is called

302
00:13:39,350 --> 00:13:38,320
venus levest it's uh probably not that

303
00:13:41,350 --> 00:13:39,360
uh

304
00:13:43,350 --> 00:13:41,360
difficult but it's still very important

305
00:13:46,790 --> 00:13:43,360
for present science

306
00:13:46,800 --> 00:14:09,430
materials

307
00:14:13,030 --> 00:14:11,110
this experiment sees a number of

308
00:14:16,150 --> 00:14:13,040
different materials with different

309
00:14:17,269 --> 00:14:16,160
properties different stress properties

310
00:14:19,670 --> 00:14:17,279
different composition different

311
00:14:22,550 --> 00:14:19,680
molecular structure uh brought to the

312
00:14:25,430 --> 00:14:22,560
iss and observed how those materials

313
00:14:28,389 --> 00:14:25,440

evolve and behave with the time and this

314

00:14:29,829 --> 00:14:28,399

can be a foundation for the building for

315

00:14:32,069 --> 00:14:29,839

the construction of future space

316

00:15:00,069 --> 00:14:32,079

vehicles and construction materials to

317

00:15:04,550 --> 00:15:02,150

overall only our increment will see

318

00:15:06,069 --> 00:15:04,560

about 50 experiments alone and most of

319

00:15:08,870 --> 00:15:06,079

them involve

320

00:15:11,910 --> 00:15:08,880

the activities of the operator that is a

321

00:15:12,870 --> 00:15:11,920

human cosmos or an astronaut will be

322

00:15:15,269 --> 00:15:12,880

working

323

00:15:17,509 --> 00:15:15,279

in the practical way with those uh

324

00:15:21,110 --> 00:15:17,519

subjects of experiments and only very

325

00:15:21,829 --> 00:15:21,120

few of them require uh just the dispos

326

00:15:26,790 --> 00:15:21,839

the

327

00:15:28,150 --> 00:15:26,800

thank you that's a good overview i think

328

00:15:29,749 --> 00:15:28,160

we're going to jump back for another

329

00:15:30,949 --> 00:15:29,759

social media question amica we do have

330

00:15:32,629 --> 00:15:30,959

another one and

331

00:15:34,310 --> 00:15:32,639

barry i know you don't want to talk the

332

00:15:35,670 --> 00:15:34,320

questions but this one is specifically

333

00:15:37,189 --> 00:15:35,680

for butch

334

00:15:38,710 --> 00:15:37,199

what has been the biggest challenge in

335

00:15:41,910 --> 00:15:38,720

training for this mission versus a

336

00:15:44,629 --> 00:15:41,920

shuttle mission oh wow that's easy

337

00:15:47,749 --> 00:15:44,639

when i was in high school in college

338

00:15:50,230 --> 00:15:47,759

i never had to learn a foreign language

339

00:15:52,150 --> 00:15:50,240

but when i got assigned to this mission

340

00:15:54,470 --> 00:15:52,160

understanding at least some portion of

341

00:15:57,030 --> 00:15:54,480

russian was a requirement so the hardest

342

00:15:58,389 --> 00:15:57,040

thing that i've done is learning russian

343

00:16:00,150 --> 00:15:58,399

by far

344

00:16:01,670 --> 00:16:00,160

there's certain challenges involved with

345

00:16:03,350 --> 00:16:01,680

learning a new vehicle all those things

346

00:16:04,790 --> 00:16:03,360

all those uh type of things that you

347

00:16:06,150 --> 00:16:04,800

would consider about learning the soyuz

348

00:16:08,230 --> 00:16:06,160

and in the russian segment things that i

349

00:16:10,550 --> 00:16:08,240

hadn't known before but learning the

350

00:16:12,949 --> 00:16:10,560

language is is difficult and it's tough

351

00:16:14,949 --> 00:16:12,959

and i'm still learning

352

00:16:16,230 --> 00:16:14,959

okay um with that we're going to turn it

353

00:16:18,069 --> 00:16:16,240

over to some questions from some of the

354

00:16:19,509 --> 00:16:18,079

students we have uh participants from

355

00:16:20,790 --> 00:16:19,519

our high school aerospace scholars with

356

00:16:23,590 --> 00:16:20,800

us today so if you'll just raise your

357

00:16:25,110 --> 00:16:23,600

hand and state your name go ahead um hi

358

00:16:26,629 --> 00:16:25,120

i'm alex a student with the high school

359

00:16:28,710 --> 00:16:26,639

aerospace college program and this

360

00:16:30,310 --> 00:16:28,720

question is for captain butch wilmore

361

00:16:32,310 --> 00:16:30,320

i'm considering an engineering degree

362

00:16:34,949 --> 00:16:32,320

but not sure which type so chemical

363

00:16:36,389 --> 00:16:34,959

mechanical or electrical so why did you

364

00:16:38,069 --> 00:16:36,399

choose electrical engineering that's a

365

00:16:39,910 --> 00:16:38,079

good question so uh how long have you

366

00:16:41,990 --> 00:16:39,920

been with high school aerospace scholars

367

00:16:44,150 --> 00:16:42,000

uh we started the program uh last

368

00:16:46,230 --> 00:16:44,160

december so in your junior year and this

369

00:16:48,069 --> 00:16:46,240

is like the 15th year that y'all have uh

370

00:16:49,829 --> 00:16:48,079

it's kind of a 15th anniversary of the

371

00:16:51,910 --> 00:16:49,839

program right yes sir that's what i hear

372

00:16:53,590 --> 00:16:51,920

and so congratulations to all of you 15

373

00:16:55,829 --> 00:16:53,600

years and those that have been working

374

00:16:57,829 --> 00:16:55,839

in the program teachers and and whatnot

375

00:16:59,590 --> 00:16:57,839

over those years preparing these young

376

00:17:01,430 --> 00:16:59,600

people in science technology engineering

377

00:17:03,189 --> 00:17:01,440

math so so congratulations to all of you

378

00:17:04,390 --> 00:17:03,199

and thank you for being here start off

379

00:17:06,390 --> 00:17:04,400

so why did i choose electrical

380

00:17:08,309 --> 00:17:06,400

engineering um

381

00:17:10,710 --> 00:17:08,319

you know electrical engineering was a

382

00:17:12,470 --> 00:17:10,720

quite challenging topic i i didn't know

383

00:17:14,789 --> 00:17:12,480

a lot about engineering i had i knew

384

00:17:15,990 --> 00:17:14,799

some engineers when i was younger and

385

00:17:17,350 --> 00:17:16,000

they sort of pointed me into the

386

00:17:19,669 --> 00:17:17,360

engineering field but it was kind of a

387

00:17:21,590 --> 00:17:19,679

broad field and i kind of narrowed it

388

00:17:23,189 --> 00:17:21,600

down based on many reasons to electrical

389

00:17:25,429 --> 00:17:23,199

engineering and chemistry or chemical

390

00:17:27,270 --> 00:17:25,439

engineering and my freshman year in

391

00:17:28,789 --> 00:17:27,280

college i took chemistry and that

392

00:17:31,029 --> 00:17:28,799

decided for me that i wasn't going into

393

00:17:33,029 --> 00:17:31,039

chemical engineering so

394

00:17:35,830 --> 00:17:33,039

that's why ultimately i chose electrical

395

00:17:38,070 --> 00:17:35,840

it was very challenging and uh something

396

00:17:40,070 --> 00:17:38,080

i've i'm glad that i did i haven't used

397

00:17:41,750 --> 00:17:40,080

it a lot uh in my in my professional

398

00:17:44,230 --> 00:17:41,760

career but it certainly set a great

399

00:17:46,230 --> 00:17:44,240

foundation for for life beyond school

400

00:17:48,870 --> 00:17:46,240

for me

401

00:17:50,230 --> 00:17:48,880

okay and a second student question

402

00:17:52,710 --> 00:17:50,240

all right go ahead

403

00:17:54,950 --> 00:17:52,720

hi my name is alondra and my question is

404

00:17:56,710 --> 00:17:54,960

for captain walmart um i was just

405

00:17:59,430 --> 00:17:56,720

wondering how do you plan to cope with

406

00:18:01,510 --> 00:17:59,440

any psychological condition

407

00:18:03,430 --> 00:18:01,520

uh of not being on earth like during

408

00:18:05,029 --> 00:18:03,440

holidays like for example your birthday

409

00:18:07,830 --> 00:18:05,039

or any other

410

00:18:10,470 --> 00:18:07,840

you say alona alondra alondra okay thank

411

00:18:13,190 --> 00:18:10,480

you alondra you know um i'm very

412

00:18:14,950 --> 00:18:13,200

fortunate in that i'm as you said i'm a

413

00:18:16,789 --> 00:18:14,960

captain in the navy and before i was

414

00:18:19,990 --> 00:18:16,799

assigned to nash nasa i was in the

415

00:18:21,830 --> 00:18:20,000

operational navy so i went on four

416

00:18:23,750 --> 00:18:21,840

deployments that were six months or

417

00:18:26,470 --> 00:18:23,760

longer and that was a very good

418

00:18:28,470 --> 00:18:26,480

preparatory field for what we do now um

419

00:18:29,990 --> 00:18:28,480

you go away for long periods of time

420

00:18:31,510 --> 00:18:30,000

early in my career you believe this or

421

00:18:33,430 --> 00:18:31,520

not there was no email or any kind of

422

00:18:34,710 --> 00:18:33,440

that kind of stuff so you went on a ship

423

00:18:36,950 --> 00:18:34,720

and you didn't have a lot of ability to

424

00:18:38,870 --> 00:18:36,960

communicate with the outside world and

425

00:18:41,110 --> 00:18:38,880

that was a good prep for this um

426
00:18:43,190 --> 00:18:41,120
basically you know you compartmentalize

427
00:18:45,029 --> 00:18:43,200
you see your task you know i think about

428
00:18:47,590 --> 00:18:45,039
i'm i'm going up there i have a very

429
00:18:51,029 --> 00:18:47,600
unique opportunity to do my part for my

430
00:18:52,630 --> 00:18:51,039
country in this very um

431
00:18:54,549 --> 00:18:52,640
narrow field if you will not many people

432
00:18:55,990 --> 00:18:54,559
have the opportunity and i feel honestly

433
00:18:57,590 --> 00:18:56,000
humbled and blessed by the opportunity

434
00:18:59,270 --> 00:18:57,600
to do it so

435
00:19:01,110 --> 00:18:59,280
to compartmentalize that and realize i'm

436
00:19:03,110 --> 00:19:01,120
going to work for the program that's my

437
00:19:05,110 --> 00:19:03,120
plan to work for the program and flip

438
00:19:07,110 --> 00:19:05,120

that switch and

439

00:19:09,190 --> 00:19:07,120

go and do that and yeah birthdays will

440

00:19:10,789 --> 00:19:09,200

come but i'm hopeful that i'll have many

441

00:19:12,470 --> 00:19:10,799

more birthdays down the road and we'll

442

00:19:13,990 --> 00:19:12,480

celebrate those with family which is

443

00:19:15,590 --> 00:19:14,000

what would be our preference but here we

444

00:19:17,590 --> 00:19:15,600

don't have that opportunity but one

445

00:19:20,230 --> 00:19:17,600

thing that nasa does do and does very

446

00:19:23,270 --> 00:19:20,240

well is now that we have the ability

447

00:19:24,950 --> 00:19:23,280

with technology my wife is given an ipad

448

00:19:26,310 --> 00:19:24,960

and once a week i can actually do a

449

00:19:27,270 --> 00:19:26,320

video conference with them and my

450

00:19:31,590 --> 00:19:27,280

daughters

451
00:19:33,190 --> 00:19:31,600
a very special thing to be able to do as

452
00:19:35,029 --> 00:19:33,200
well so we'll probably schedule that on

453
00:19:36,470 --> 00:19:35,039
birthdays and and those type of events

454
00:19:38,310 --> 00:19:36,480
as well

455
00:19:39,830 --> 00:19:38,320
you bet okay we are going to take a

456
00:19:41,590 --> 00:19:39,840
couple questions from our phone bridge

457
00:19:44,870 --> 00:19:41,600
we have two reporters on the line um

458
00:19:46,710 --> 00:19:44,880
elizabeth howell with space.com

459
00:19:48,710 --> 00:19:46,720
hello this question is for elena can you

460
00:19:50,870 --> 00:19:48,720
talk a little bit about

461
00:19:53,029 --> 00:19:50,880
the magnitude of being the first woman

462
00:20:05,270 --> 00:19:53,039
to be flying in state from russia for

463
00:20:16,789 --> 00:20:07,669

i will be the first female cosmonaut of

464

00:20:21,909 --> 00:20:18,230

there have been quite a few female

465

00:20:29,990 --> 00:20:21,919

astronauts before me and i don't see my

466

00:20:35,110 --> 00:20:32,710

each year of one uh each of us is first

467

00:20:43,510 --> 00:20:35,120

and foremost going to perform his or her

468

00:20:51,029 --> 00:20:45,990

so i would say that this is a regular

469

00:20:51,039 --> 00:20:55,350

oh as far as spaceflights go of course

470

00:20:59,029 --> 00:20:56,710

okay and elizabeth did you have a

471

00:20:59,830 --> 00:20:59,039

follow-up

472

00:21:01,510 --> 00:20:59,840

okay

473

00:21:03,350 --> 00:21:01,520

sorry you were saying that from your

474

00:21:05,990 --> 00:21:03,360

perspective it's sort of a regular

475

00:21:07,830 --> 00:21:06,000

occurrence as far as space flight goes

476
00:21:12,310 --> 00:21:07,840
at least that for you it's something

477
00:21:12,320 --> 00:21:28,830
yesterday

478
00:21:35,270 --> 00:21:31,750
foreign i would say that this is a

479
00:21:37,190 --> 00:21:35,280
nominal regular hard work uh we

480
00:21:40,470 --> 00:21:37,200
spend lots of years preparing for our

481
00:21:42,789 --> 00:21:40,480
space flight so we sleep very little and

482
00:21:44,789 --> 00:21:42,799
we do our utmost and all our years of

483
00:21:46,789 --> 00:21:44,799
training are that fun

484
00:21:55,110 --> 00:21:46,799
foundation on which

485
00:21:57,830 --> 00:21:56,630
and i wouldn't say i'm performing

486
00:22:00,630 --> 00:21:57,840
anything

487
00:22:03,270 --> 00:22:00,640
more or doing something uh which is more

488
00:22:05,350 --> 00:22:03,280

understanding than what my colleagues uh

489

00:22:10,149 --> 00:22:05,360

astronauts and cosmonauts do

490

00:22:15,190 --> 00:22:13,190

i'm only uh going into space i'm going

491

00:22:17,590 --> 00:22:15,200

to be a space engineer space flight

492

00:22:20,230 --> 00:22:17,600

engineer and i want to perform my job

493

00:22:22,549 --> 00:22:20,240

really well and that's it

494

00:22:24,070 --> 00:22:22,559

thank you okay and next on the phone

495

00:22:30,549 --> 00:22:24,080

bridge i believe we have elizabeth wood

496

00:22:30,559 --> 00:22:33,909

elizabeth are you with us

497

00:22:36,390 --> 00:22:35,350

okay

498

00:22:38,070 --> 00:22:36,400

we're gonna go ahead and switch back

499

00:22:39,909 --> 00:22:38,080

here to johnson space center with the

500

00:22:41,270 --> 00:22:39,919

reporters in the room if you'll okay go

501

00:22:43,190 --> 00:22:41,280

ahead and state your name and fill in

502

00:22:45,750 --> 00:22:43,200

with the german space agency and space

503

00:22:47,830 --> 00:22:45,760

expo association question for which when

504

00:22:49,669 --> 00:22:47,840

you arrive in baikonur two weeks before

505

00:22:51,830 --> 00:22:49,679

launch what kind of preparation do you

506

00:22:54,149 --> 00:22:51,840

have to go through until launch

507

00:22:56,390 --> 00:22:54,159

yeah there's uh um there is some

508

00:22:58,870 --> 00:22:56,400

continuation of training it's not as

509

00:23:00,549 --> 00:22:58,880

intense of course there's no exams um

510

00:23:02,630 --> 00:23:00,559

the russians do it very well though uh

511

00:23:04,310 --> 00:23:02,640

we sasha elaine and i were there for

512

00:23:06,230 --> 00:23:04,320

steve swanson and their his crews

513

00:23:08,149 --> 00:23:06,240

launched as a backup crew the back up

514

00:23:10,470 --> 00:23:08,159

crew's always there typically six months

515

00:23:11,909 --> 00:23:10,480

prior so we were there in march for that

516

00:23:13,750 --> 00:23:11,919

and one of the things the russians do

517

00:23:15,110 --> 00:23:13,760

very well is they prepare their crews

518

00:23:16,789 --> 00:23:15,120

for launch

519

00:23:18,950 --> 00:23:16,799

technically but they also give them this

520

00:23:21,669 --> 00:23:18,960

rest period as well two full weeks where

521

00:23:23,909 --> 00:23:21,679

they kind of rest kick back and spend a

522

00:23:25,830 --> 00:23:23,919

little bit of time with family and

523

00:23:28,310 --> 00:23:25,840

prepare themselves physically and

524

00:23:30,230 --> 00:23:28,320

mentally for the task that is coming so

525

00:23:31,990 --> 00:23:30,240

uh i look forward to that as well it's

526
00:23:33,430 --> 00:23:32,000
as you would expect training for space

527
00:23:35,029 --> 00:23:33,440
flight is kind of go go go i mean

528
00:23:37,110 --> 00:23:35,039
there's a lot of things that

529
00:23:38,789 --> 00:23:37,120
that you need to at least have a basic

530
00:23:40,390 --> 00:23:38,799
understanding of and especially as you

531
00:23:42,950 --> 00:23:40,400
get towards the end there's a lot of

532
00:23:44,390 --> 00:23:42,960
reviews like i said earlier and because

533
00:23:46,390 --> 00:23:44,400
people you know you want to be ready and

534
00:23:48,149 --> 00:23:46,400
and the program wants you to be ready as

535
00:23:50,149 --> 00:23:48,159
well but those last two weeks is

536
00:23:52,549 --> 00:23:50,159
primarily rest getting yourself

537
00:23:54,549 --> 00:23:52,559
physically ready to go and uh i look

538
00:23:56,230 --> 00:23:54,559

forward to that as well like i said

539

00:23:57,990 --> 00:23:56,240

and what are you looking for most on

540

00:24:00,310 --> 00:23:58,000

your six months on the station because

541

00:24:02,630 --> 00:24:00,320

with your already one shuttle flight

542

00:24:04,549 --> 00:24:02,640

14 days or so

543

00:24:06,230 --> 00:24:04,559

you know like i said earlier i i'm going

544

00:24:08,549 --> 00:24:06,240

to work for the program i'm going to you

545

00:24:09,990 --> 00:24:08,559

know my nation's goals in space with

546

00:24:12,149 --> 00:24:10,000

respect to human spaceflight that's kind

547

00:24:13,909 --> 00:24:12,159

of what i think about but personal goals

548

00:24:15,909 --> 00:24:13,919

personal thing i'd like to do uh during

549

00:24:18,310 --> 00:24:15,919

the shuttle mission roughly two weeks in

550

00:24:20,390 --> 00:24:18,320

length and a shuttle mission there was a

551
00:24:22,630 --> 00:24:20,400
lot to do in a short period of time and

552
00:24:24,230 --> 00:24:22,640
it was go go go go go and very little

553
00:24:25,750 --> 00:24:24,240
time to

554
00:24:27,269 --> 00:24:25,760
self time if you will just to stick your

555
00:24:28,870 --> 00:24:27,279
face in the window and look outside i

556
00:24:30,789 --> 00:24:28,880
think the longest period i had on the

557
00:24:32,630 --> 00:24:30,799
shuttle mission was maybe at most 20

558
00:24:34,950 --> 00:24:32,640
minutes so i look forward to the

559
00:24:37,269 --> 00:24:34,960
opportunity to the cupola which is the

560
00:24:39,029 --> 00:24:37,279
window on the station was not there when

561
00:24:40,230 --> 00:24:39,039
i was there last so i look forward to

562
00:24:42,230 --> 00:24:40,240
sticking my nose in the window the

563
00:24:43,510 --> 00:24:42,240

cupola for at least two revolutions

564

00:24:45,190 --> 00:24:43,520

around the earth you know about three

565

00:24:47,830 --> 00:24:45,200

hours and just watching the beauty of

566

00:24:49,669 --> 00:24:47,840

the earth go by i look forward to that

567

00:24:52,390 --> 00:24:49,679

okay switching over jim did you have a

568

00:24:54,950 --> 00:24:52,400

question mike

569

00:24:56,789 --> 00:24:54,960

uh jim oberger nbc just to kick off your

570

00:24:58,630 --> 00:24:56,799

question though but for sasha

571

00:25:00,789 --> 00:24:58,640

we've heard about the cupola and the

572

00:25:02,390 --> 00:25:00,799

view from the cupola on the station but

573

00:25:04,630 --> 00:25:02,400

i understand there's also very good

574

00:25:06,710 --> 00:25:04,640

windows on the russian segment for

575

00:25:08,870 --> 00:25:06,720

watching the earth can you describe from

576

00:25:10,630 --> 00:25:08,880

your own experience

577

00:25:13,029 --> 00:25:10,640

your favorite windows

578

00:25:14,789 --> 00:25:13,039

to observe the earth and just to do

579

00:25:25,750 --> 00:25:14,799

just to look out the window where are

580

00:25:25,760 --> 00:25:46,230

watching

581

00:25:52,149 --> 00:25:48,950

i know i had dreamed about being able to

582

00:25:53,590 --> 00:25:52,159

take a look at 360 degrees all around

583

00:26:02,789 --> 00:25:53,600

and this was the first module i was

584

00:26:07,110 --> 00:26:05,269

it feels as if you had a hatch in the

585

00:26:29,669 --> 00:26:07,120

roof of your vehicle and you were

586

00:26:34,149 --> 00:26:31,669

as for the russian segment we have a

587

00:26:37,190 --> 00:26:34,159

very good window window number nine

588

00:26:40,149 --> 00:26:37,200

which allows a perfect view all around

589

00:26:48,310 --> 00:26:40,159

and this is done in part thanks to its

590

00:26:53,830 --> 00:26:50,789

and this structure this material the

591

00:26:56,310 --> 00:26:53,840

substance allows for perfect uh

592

00:27:03,750 --> 00:26:56,320

shortage of the earth's surfaces using

593

00:27:07,029 --> 00:27:04,789

the

594

00:27:11,430 --> 00:27:07,039

cool quarters called coyotes in russian

595

00:27:17,830 --> 00:27:13,029

that's probably what butch was dreaming

596

00:27:22,310 --> 00:27:20,630

to fall asleep while watching sunrises

597

00:27:23,990 --> 00:27:22,320

and sunsets

598

00:27:25,190 --> 00:27:24,000

jim if i could add to that uh

599

00:27:27,269 --> 00:27:25,200

interesting you asked about the russian

600

00:27:29,750 --> 00:27:27,279

segment windows the soyuz patch our

601
00:27:31,990 --> 00:27:29,760
soyuz patch is actually looking out of

602
00:27:33,909 --> 00:27:32,000
window nine and it's got you know that

603
00:27:35,269 --> 00:27:33,919
that window has you know connection

604
00:27:36,789 --> 00:27:35,279
bolts if you will around the outside it

605
00:27:38,630 --> 00:27:36,799
has the same number of bolts around the

606
00:27:41,350 --> 00:27:38,640
outside as the actual window on the

607
00:27:43,510 --> 00:27:41,360
patch and it's a view looking out of a

608
00:27:45,029 --> 00:27:43,520
docking soyuz right at sunrise so it's

609
00:27:46,470 --> 00:27:45,039
kind of got an orange tint to it like it

610
00:27:48,149 --> 00:27:46,480
would look at sunrise a very interesting

611
00:27:50,070 --> 00:27:48,159
patch that sasha and elena work to

612
00:27:51,430 --> 00:27:50,080
design and uh anyway interesting that

613
00:27:53,590 --> 00:27:51,440

it's out of that window nine like your

614

00:27:55,430 --> 00:27:53,600

question once in a while the last cruise

615

00:27:56,630 --> 00:27:55,440

seeing things like rocket launches is

616

00:27:58,389 --> 00:27:56,640

obviously

617

00:27:59,590 --> 00:27:58,399

by surprise uh

618

00:28:05,510 --> 00:27:59,600

you're gonna you're gonna keep your eyes

619

00:28:05,520 --> 00:28:08,789

unusual things

620

00:28:08,799 --> 00:28:45,029

i hope you are pleased

621

00:28:48,070 --> 00:28:46,630

absolutely crew members are always on

622

00:28:50,470 --> 00:28:48,080

the hunt for something unusual

623

00:28:52,710 --> 00:28:50,480

interesting new phenomena it can be a

624

00:28:54,310 --> 00:28:52,720

task related to the work we're doing can

625

00:28:57,510 --> 00:28:54,320

be some

626

00:29:00,230 --> 00:28:57,520

interesting uh sunshine sun beams or

627

00:29:03,909 --> 00:29:00,240

some reflection or whatnot i think last

628

00:29:05,669 --> 00:29:03,919

time i took over 5 000 pictures and all

629

00:29:06,870 --> 00:29:05,679

of those were of high quality i mean i

630

00:29:09,110 --> 00:29:06,880

mentioned only those that are of high

631

00:29:10,549 --> 00:29:09,120

quality

632

00:29:11,830 --> 00:29:10,559

okay we're going to switch back now to

633

00:29:13,350 --> 00:29:11,840

social media mikko do you have another

634

00:29:16,070 --> 00:29:13,360

question for a simple question but maybe

635

00:29:17,669 --> 00:29:16,080

one that each of you can answer briefly

636

00:29:21,669 --> 00:29:17,679

what are you looking forward to when you

637

00:29:25,269 --> 00:29:24,230

the cupola like i said earlier like i

638

00:29:26,630 --> 00:29:25,279

said i haven't seen it i've seen

639

00:29:29,350 --> 00:29:26,640

pictures of it i've seen pictures out of

640

00:29:31,350 --> 00:29:29,360

it and uh just looking back at the at

641

00:29:33,830 --> 00:29:31,360

the world and the beauty of the world

642

00:29:34,950 --> 00:29:33,840

from that vantage point and that big 360

643

00:29:52,549 --> 00:29:34,960

degree view i think will be pretty

644

00:29:57,830 --> 00:29:55,430

of course just as butch i'd like to come

645

00:30:02,230 --> 00:29:57,840

back to that visual perception of the

646

00:30:02,240 --> 00:30:06,389

photography

647

00:30:06,399 --> 00:30:13,110

and

648

00:30:18,470 --> 00:30:15,669

as i said no matter the number of photos

649

00:30:19,990 --> 00:30:18,480

i took 5 000 as i mentioned still no

650

00:30:22,230 --> 00:30:20,000

matter how good

651
00:30:26,230 --> 00:30:22,240
quality pictures you have how good your

652
00:30:29,190 --> 00:30:26,240
devices separately are still a human eye

653
00:30:32,630 --> 00:30:29,200
takes all those images in in a different

654
00:30:43,190 --> 00:30:32,640
way than the camera can transmit to you

655
00:30:47,669 --> 00:30:45,909
besides we have lots of things to do at

656
00:30:57,350 --> 00:30:47,679
least as the as far as the russian

657
00:31:03,430 --> 00:31:00,789
for me i would like to

658
00:31:09,029 --> 00:31:03,440
understand what this feeling of flight

659
00:31:16,630 --> 00:31:11,110
and i do hope that butch will let me in

660
00:31:16,640 --> 00:31:28,230
at

661
00:31:32,630 --> 00:31:30,870
and certainly i want to do a quality job

662
00:31:34,070 --> 00:31:32,640
up there and to perform all the tasks

663
00:31:35,990 --> 00:31:34,080

assigned

664

00:31:38,070 --> 00:31:36,000

i have a follow-up to that real quick

665

00:31:39,509 --> 00:31:38,080

you know you said that on station and

666

00:31:41,350 --> 00:31:39,519

that's what i thought of but also i

667

00:31:43,590 --> 00:31:41,360

think we all look forward to you know

668

00:31:45,750 --> 00:31:43,600

when you see a vehicle launched from

669

00:31:47,590 --> 00:31:45,760

earth you see it you watch it you see

670

00:31:48,630 --> 00:31:47,600

the different parts come off like in the

671

00:31:50,070 --> 00:31:48,640

shuttle you see the solid rocket

672

00:31:52,149 --> 00:31:50,080

boosters come off but you don't think

673

00:31:53,750 --> 00:31:52,159

about what's taking place when you're

674

00:31:55,190 --> 00:31:53,760

physically in it at least i hadn't

675

00:31:56,789 --> 00:31:55,200

really before i launched in the shuttle

676
00:31:58,470 --> 00:31:56,799
but when those solids came off i mean

677
00:32:01,110 --> 00:31:58,480
there's an explosion and there's a

678
00:32:02,950 --> 00:32:01,120
jarring that happens as the solids leave

679
00:32:05,750 --> 00:32:02,960
and then it's ride smooths out a little

680
00:32:07,190 --> 00:32:05,760
bit and then when you get uh to orbit

681
00:32:08,630 --> 00:32:07,200
and you separate from the external tank

682
00:32:11,269 --> 00:32:08,640
there's a bang and there's a big

683
00:32:14,149 --> 00:32:11,279
explosion that goes off and and the

684
00:32:16,470 --> 00:32:14,159
jarring it takes place and it's very

685
00:32:18,389 --> 00:32:16,480
similar but different in the soyuz in

686
00:32:20,230 --> 00:32:18,399
that as you go through launch there are

687
00:32:22,870 --> 00:32:20,240
some physical sensations that you don't

688
00:32:24,630 --> 00:32:22,880

get anywhere else except for launching

689

00:32:25,830 --> 00:32:24,640

and leaving the planet and that's when

690

00:32:27,110 --> 00:32:25,840

you know we're covered up inside the

691

00:32:28,389 --> 00:32:27,120

soyuz we can look out the window you

692

00:32:30,149 --> 00:32:28,399

can't see anything because it's covered

693

00:32:31,909 --> 00:32:30,159

by a nacelle and about a minute and a

694

00:32:33,430 --> 00:32:31,919

half into a flight or two minutes that

695

00:32:34,870 --> 00:32:33,440

nacelle goes away and i look forward to

696

00:32:36,710 --> 00:32:34,880

that explosion and being able to peek

697

00:32:39,750 --> 00:32:36,720

out and see if i can see it fall away as

698

00:32:41,430 --> 00:32:39,760

it as it falls and then you know the uh

699

00:32:43,029 --> 00:32:41,440

the size it's called it's the emergency

700

00:32:45,590 --> 00:32:43,039

rocket that would pull the orbiter off

701
00:32:47,669 --> 00:32:45,600
the off the stack i'm sorry the capsule

702
00:32:49,029 --> 00:32:47,679
off the stack if there was a problem it

703
00:32:51,029 --> 00:32:49,039
shoots off and there's a big jar when

704
00:32:53,029 --> 00:32:51,039
that happens and then staging you know

705
00:32:55,190 --> 00:32:53,039
stage one burns out and there's a jar

706
00:32:58,149 --> 00:32:55,200
and things are exploding and that's just

707
00:32:59,750 --> 00:32:58,159
a fascinating thing to experience and

708
00:33:02,389 --> 00:32:59,760
have the opportunity to experience and i

709
00:33:04,549 --> 00:33:02,399
try to share with you how it feels it's

710
00:33:07,590 --> 00:33:04,559
hard to do in words but i look forward

711
00:33:08,710 --> 00:33:07,600
to that too that'll be really neat

712
00:33:10,630 --> 00:33:08,720
we're looking forward to hearing more

713
00:33:12,310 --> 00:33:10,640

about it okay we're going to switch back

714

00:33:14,230 --> 00:33:12,320

to some questions from the students here

715

00:33:16,230 --> 00:33:14,240

if you'll just raise your hand go ahead

716

00:33:17,669 --> 00:33:16,240

oh hi my name is aaron uh this is for

717

00:33:19,430 --> 00:33:17,679

alexander

718

00:33:20,950 --> 00:33:19,440

what type of educational background or

719

00:33:22,789 --> 00:33:20,960

skills would you recommend for someone

720

00:33:43,269 --> 00:33:22,799

who's preserving to be a pilot astronaut

721

00:33:48,230 --> 00:33:45,590

a modern space science uh

722

00:33:57,750 --> 00:33:48,240

uh takes into account a range of

723

00:34:01,750 --> 00:33:59,669

of course traditional military palace

724

00:34:22,950 --> 00:34:01,760

were the ones most close to the space

725

00:34:27,030 --> 00:34:25,669

but this was due to the fact that uh

726

00:34:29,829 --> 00:34:27,040

back then there was not enough

727

00:34:31,669 --> 00:34:29,839

experience related to space flights uh

728

00:34:34,550 --> 00:34:31,679

there was not enough knowledge about the

729

00:34:37,510 --> 00:34:34,560

impact of space flights and military jet

730

00:34:40,149 --> 00:34:37,520

pilots were the ones most close to what

731

00:34:46,550 --> 00:34:40,159

a potential people could experience when

732

00:34:50,149 --> 00:34:49,109

so it was difficult for me to advise you

733

00:35:04,870 --> 00:34:50,159

on

734

00:35:10,630 --> 00:35:07,910

but i would guess that the engineering

735

00:35:12,310 --> 00:35:10,640

path or the medical

736

00:35:18,390 --> 00:35:12,320

path will be

737

00:35:21,670 --> 00:35:20,790

but since i'm militia pilot myself uh

738

00:35:27,589 --> 00:35:21,680

the

739

00:35:29,829 --> 00:35:28,470

okay

740

00:35:31,670 --> 00:35:29,839

all right we'll go to our next student

741

00:35:33,990 --> 00:35:31,680

question go ahead this is for captain

742

00:35:36,310 --> 00:35:34,000

wilmore i'm connor um could you please

743

00:35:37,750 --> 00:35:36,320

discuss the uh how the cultural

744

00:35:40,069 --> 00:35:37,760

diversity comes together on the

745

00:35:41,190 --> 00:35:40,079

international space station in work and

746

00:35:44,710 --> 00:35:41,200

free time

747

00:35:46,950 --> 00:35:44,720

yes uh that's a good question connor um

748

00:35:50,230 --> 00:35:46,960

it it doesn't vary much from from

749

00:35:53,030 --> 00:35:50,240

training um they speak some english i

750

00:35:55,030 --> 00:35:53,040

speak some russian so rushless is kind

751

00:35:57,510 --> 00:35:55,040

of what we call it and we kind of mix it

752

00:35:59,750 --> 00:35:57,520

as we go as we converse and that's kind

753

00:36:00,870 --> 00:35:59,760

of fun actually it's kind of neat and

754

00:36:02,310 --> 00:36:00,880

been i have an opportunity we've been

755

00:36:04,230 --> 00:36:02,320

working together now for two and a half

756

00:36:05,589 --> 00:36:04,240

years almost and we've come to know each

757

00:36:08,790 --> 00:36:05,599

other pretty well we've met each other's

758

00:36:10,790 --> 00:36:08,800

families and that's an interesting and

759

00:36:12,790 --> 00:36:10,800

very special aspect of this entire

760

00:36:13,990 --> 00:36:12,800

evolution as well to actually mix

761

00:36:15,430 --> 00:36:14,000

cultures the cultures are different

762

00:36:17,030 --> 00:36:15,440

there's no doubt about it but they're

763

00:36:18,710 --> 00:36:17,040

able to learn about their culture and

764

00:36:19,750 --> 00:36:18,720

the strengths in their cultures and and

765

00:36:21,030 --> 00:36:19,760

learn from them and hopefully they've

766

00:36:22,950 --> 00:36:21,040

been able to learn a little bit from us

767

00:36:24,069 --> 00:36:22,960

as well and we take that to the station

768

00:36:26,950 --> 00:36:24,079

you know the official language

769

00:36:27,829 --> 00:36:26,960

thankfully on station is english so

770

00:36:29,589 --> 00:36:27,839

um

771

00:36:31,510 --> 00:36:29,599

but we also speak a little russian up

772

00:36:33,190 --> 00:36:31,520

there as well we go you know back and

773

00:36:35,349 --> 00:36:33,200

forth in the segments and and there will

774

00:36:37,109 --> 00:36:35,359

be a time i know uh that i'll say sasha

775

00:36:39,030 --> 00:36:37,119

i need help with this and i'll he'll

776

00:36:40,630 --> 00:36:39,040

come floating down and he'll help me and

777

00:36:42,710 --> 00:36:40,640

and he's liable to say butch come come

778

00:36:44,550 --> 00:36:42,720

here i need need your assistance and

779

00:36:46,230 --> 00:36:44,560

i'll go floating down and help him out

780

00:36:48,790 --> 00:36:46,240

as well because we're we're a team we're

781

00:36:50,630 --> 00:36:48,800

an international team um and we're even

782

00:36:52,230 --> 00:36:50,640

working now within our program to make

783

00:36:53,430 --> 00:36:52,240

sure we're not as segmented as we've

784

00:36:55,190 --> 00:36:53,440

been in the past you know working in the

785

00:36:57,510 --> 00:36:55,200

russian segment and in the u.s segment

786

00:36:59,030 --> 00:36:57,520

and we're trying to mix together to work

787

00:37:00,630 --> 00:36:59,040

together even more and we're making

788

00:37:02,790 --> 00:37:00,640

efforts to make that happen too so

789

00:37:04,550 --> 00:37:02,800

that's a good question thanks it also

790

00:37:06,710 --> 00:37:04,560

seems like meals sometimes are good

791

00:37:08,390 --> 00:37:06,720

shared absolutely is that something it

792

00:37:10,069 --> 00:37:08,400

seems like some crews always try to have

793

00:37:11,349 --> 00:37:10,079

their evening meal together

794

00:37:12,550 --> 00:37:11,359

um or lunch is that something that you

795

00:37:14,390 --> 00:37:12,560

guys have already briefed or talked with

796

00:37:15,430 --> 00:37:14,400

on orbit yeah we plan on having meals

797

00:37:16,870 --> 00:37:15,440

together you know one of my fondest

798

00:37:18,470 --> 00:37:16,880

memories from my you know my two weeks

799

00:37:20,390 --> 00:37:18,480

on orbit last time was when we get

800

00:37:22,230 --> 00:37:20,400

together for meals and we we have even

801

00:37:23,910 --> 00:37:22,240

in our a little video that we ever you

802

00:37:25,990 --> 00:37:23,920

know we made when we got back there's a

803

00:37:27,589 --> 00:37:26,000

section where there's all 13 of us

804

00:37:28,870 --> 00:37:27,599

around the table you know on the ceiling

805

00:37:31,349 --> 00:37:28,880

on the floor on the sides everywhere

806

00:37:32,710 --> 00:37:31,359

floating everywhere and and sharing in a

807

00:37:34,390 --> 00:37:32,720

meal together those like i said those

808

00:37:36,710 --> 00:37:34,400

are my fondest memories laughing having

809

00:37:39,430 --> 00:37:36,720

fun and and just enjoying the

810

00:37:41,270 --> 00:37:39,440

unique cuisine

811

00:37:42,710 --> 00:37:41,280

absolutely okay another student question

812

00:37:45,430 --> 00:37:42,720

go ahead

813

00:37:47,270 --> 00:37:45,440

hi my name is jillian and my question is

814

00:37:49,030 --> 00:37:47,280

for helena

815

00:37:50,870 --> 00:37:49,040

as only the fourth russian female

816

00:37:52,710 --> 00:37:50,880

cosmonaut do you feel you've inspired

817

00:38:00,310 --> 00:37:52,720

young russian women to study science and

818

00:38:06,150 --> 00:38:04,150

it was not heard very well

819

00:38:08,470 --> 00:38:06,160

as only the fourth russian female

820

00:38:10,630 --> 00:38:08,480

cosmonaut do you feel you've inspired

821

00:38:39,510 --> 00:38:10,640

young russian women to study science and

822

00:38:44,150 --> 00:38:42,069

i hope that my example can inspire those

823

00:38:46,710 --> 00:38:44,160

who are thinking about working in a

824

00:38:48,310 --> 00:38:46,720

space or in the space area in the future

825

00:38:53,430 --> 00:38:48,320

and who would like to

826

00:38:53,440 --> 00:38:57,510

and i hope i'll be a role model

827

00:39:00,470 --> 00:38:59,270

okay we'll switch back to journalist

828

00:39:02,630 --> 00:39:00,480

questions do we have any more media with

829

00:39:04,230 --> 00:39:02,640

questions go ahead robert hi rob perlman

830

00:39:05,670 --> 00:39:04,240

with collectspace.com with a question

831

00:39:07,190 --> 00:39:05,680

for you butch because i think you're the

832

00:39:08,390 --> 00:39:07,200

only one on the crew who was alive for

833

00:39:11,030 --> 00:39:08,400

it uh

834

00:39:13,910 --> 00:39:11,040

40. thank you

835

00:39:15,109 --> 00:39:13,920

45 years ago today apollo 11 launched

836

00:39:17,270 --> 00:39:15,119

for the moon

837

00:39:18,870 --> 00:39:17,280

and i wonder if you can share where you

838

00:39:21,589 --> 00:39:18,880

were at that point how it inspired your

839

00:39:23,109 --> 00:39:21,599

career but also how you see the work

840

00:39:25,670 --> 00:39:23,119

being done on the international space

841

00:39:28,069 --> 00:39:25,680

station is advancing the time when

842

00:39:29,990 --> 00:39:28,079

humans will venture beyond earth again

843

00:39:31,990 --> 00:39:30,000

yeah that's a that's a good question rob

844

00:39:33,750 --> 00:39:32,000

i was

845

00:39:36,150 --> 00:39:33,760

a small child

846

00:39:37,750 --> 00:39:36,160

watching my black and white television

847

00:39:40,310 --> 00:39:37,760

sitting in my uh it was kind of between

848

00:39:42,230 --> 00:39:40,320

our living room and our kitchen and i

849

00:39:45,510 --> 00:39:42,240

can remember vividly watching seeing the

850

00:39:47,430 --> 00:39:45,520

launch and watching it go i was not

851

00:39:49,270 --> 00:39:47,440

specifically inspired by that launch i

852

00:39:51,430 --> 00:39:49,280

think i was inspired by

853

00:39:54,390 --> 00:39:51,440

the entire human space flight program i

854

00:39:56,790 --> 00:39:54,400

mean i can slightly remember gemini

855

00:39:58,630 --> 00:39:56,800

going back that far and uh the guys that

856

00:40:01,109 --> 00:39:58,640

came after that first uh that first

857

00:40:03,030 --> 00:40:01,119

launch and on all the the guys that were

858

00:40:04,550 --> 00:40:03,040

were involved in those those uni that

859

00:40:06,630 --> 00:40:04,560

unique time frame were actually left

860

00:40:08,390 --> 00:40:06,640

this this this planet and went to

861

00:40:10,390 --> 00:40:08,400

another heavenly body that's certainly a

862

00:40:13,829 --> 00:40:10,400

unique period but even i wasn't you know

863

00:40:15,750 --> 00:40:13,839

i was enamored by uh skylab and

864

00:40:17,910 --> 00:40:15,760

apollo soyuz in the early years of the

865

00:40:20,550 --> 00:40:17,920

space shuttle and all of that so i was

866

00:40:22,150 --> 00:40:20,560

kind of enamored by all of those uh

867

00:40:24,230 --> 00:40:22,160

people men and women that were involved

868

00:40:26,950 --> 00:40:24,240

in those didn't know all their names but

869

00:40:29,829 --> 00:40:26,960

it was more the the position and the

870

00:40:31,510 --> 00:40:29,839

opportunity that they had to uh they

871

00:40:32,710 --> 00:40:31,520

were they were in they were involved in

872

00:40:35,589 --> 00:40:32,720

that they were furthering our

873

00:40:37,349 --> 00:40:35,599

understanding of things that you know

874

00:40:39,990 --> 00:40:37,359

just decades earlier we didn't even know

875

00:40:41,190 --> 00:40:40,000

existed and that is i think the legacy

876

00:40:42,790 --> 00:40:41,200

as we continue with the international

877

00:40:45,109 --> 00:40:42,800

space station we're involved in some

878

00:40:46,630 --> 00:40:45,119

some things now as we as we move forward

879

00:40:48,150 --> 00:40:46,640

and we'll be involved in some science

880

00:40:49,430 --> 00:40:48,160

that looks back to things that we we

881

00:40:52,230 --> 00:40:49,440

didn't know existed before the space

882

00:40:54,230 --> 00:40:52,240

station era started and uh simple with

883

00:40:56,309 --> 00:40:54,240

the genome and bacteria and other cells

884

00:40:58,150 --> 00:40:56,319

and and some combustion that takes place

885

00:40:59,349 --> 00:40:58,160

at much lower temperatures than we knew

886

00:41:01,750 --> 00:40:59,359

that could happen and those type of

887

00:41:03,829 --> 00:41:01,760

things that we will continue to you know

888

00:41:06,390 --> 00:41:03,839

plot dots on a curve basically just like

889

00:41:07,670 --> 00:41:06,400

you do here on earth to to see and get

890

00:41:09,670 --> 00:41:07,680

an understanding of how do some of these

891

00:41:11,670 --> 00:41:09,680

things work and how they can be of

892

00:41:13,510 --> 00:41:11,680

benefit to us so it's been a building

893

00:41:15,910 --> 00:41:13,520

block approach from day one and the

894

00:41:18,710 --> 00:41:15,920

space station is continuing in a

895

00:41:21,670 --> 00:41:18,720

magnificent way to build that

896

00:41:23,349 --> 00:41:21,680

those understandings that again we roll

897

00:41:25,030 --> 00:41:23,359

back in i mean there's there's books

898

00:41:26,390 --> 00:41:25,040

been made every year about spin-offs

899

00:41:27,829 --> 00:41:26,400

from nasa technology and things we've

900

00:41:30,309 --> 00:41:27,839

done specifically with international

901
00:41:32,790 --> 00:41:30,319
space station and uh to be play a part

902
00:41:35,030 --> 00:41:32,800
in that no matter how big or how small

903
00:41:36,790 --> 00:41:35,040
is like i said for all of us it's a true

904
00:41:38,309 --> 00:41:36,800
honor and

905
00:41:40,230 --> 00:41:38,319
we don't take it lightly that's why we

906
00:41:41,750 --> 00:41:40,240
study hard that's why we train hard and

907
00:41:43,349 --> 00:41:41,760
that's why we want to make sure that

908
00:41:45,109 --> 00:41:43,359
when we get there we're ready to do what

909
00:41:46,870 --> 00:41:45,119
the program and our nations want us to

910
00:41:49,750 --> 00:41:46,880
do

911
00:41:51,829 --> 00:41:49,760
okay all right uh any last questions on

912
00:41:54,870 --> 00:41:51,839
this side okay i'm going to go back to

913
00:41:59,349 --> 00:41:57,510

this is for captain gilmer wilmer did

914

00:42:02,470 --> 00:41:59,359

your first experience in space aboard

915

00:42:05,270 --> 00:42:02,480

the space shuttle 129 mission change any

916

00:42:07,030 --> 00:42:05,280

abuse in your life and if so what ideas

917

00:42:08,230 --> 00:42:07,040

did it bring back to improve your way of

918

00:42:12,710 --> 00:42:08,240

life

919

00:42:17,109 --> 00:42:14,550

i don't know that i would say it changed

920

00:42:19,109 --> 00:42:17,119

any ideas the way i looked at life the

921

00:42:21,829 --> 00:42:19,119

way i approached life i didn't need a

922

00:42:23,750 --> 00:42:21,839

space flight mission to make me see the

923

00:42:25,270 --> 00:42:23,760

need you know for

924

00:42:26,550 --> 00:42:25,280

for being concerned about others you

925

00:42:28,390 --> 00:42:26,560

know my parents

926
00:42:29,670 --> 00:42:28,400
instilled that at me when i was young my

927
00:42:31,670 --> 00:42:29,680
friends and still that didn't mean when

928
00:42:34,230 --> 00:42:31,680
i was young my wife helps me stay on a

929
00:42:36,550 --> 00:42:34,240
course that keeps me focused on on a

930
00:42:37,750 --> 00:42:36,560
purpose for uh being in a position to

931
00:42:39,430 --> 00:42:37,760
help others when the opportunity

932
00:42:41,349 --> 00:42:39,440
presents itself so in that respect it

933
00:42:43,829 --> 00:42:41,359
didn't change anything but i can tell

934
00:42:46,309 --> 00:42:43,839
you seeing the earth from that

935
00:42:49,270 --> 00:42:46,319
perspective and seeing the

936
00:42:51,190 --> 00:42:49,280
i can't even explain the brilliant

937
00:42:52,550 --> 00:42:51,200
colors of a sunrise and sunset you've

938
00:42:55,190 --> 00:42:52,560

seen pictures of it i know you've seen

939

00:42:56,710 --> 00:42:55,200

videos of it i know but what you see

940

00:42:59,030 --> 00:42:56,720

with your eyes

941

00:43:02,230 --> 00:42:59,040

can really give you a certain

942

00:43:04,550 --> 00:43:02,240

perspective on wow this is a truly

943

00:43:07,030 --> 00:43:04,560

amazing place that we live and truly

944

00:43:09,589 --> 00:43:07,040

amazing opportunities that with a little

945

00:43:11,589 --> 00:43:09,599

bit of effort can be afforded to to many

946

00:43:13,670 --> 00:43:11,599

hopefully one day to go up and see and

947

00:43:15,670 --> 00:43:13,680

experience that and i think that's if

948

00:43:16,710 --> 00:43:15,680

there's anything that changes me i don't

949

00:43:18,550 --> 00:43:16,720

know that like i said i don't know that

950

00:43:21,270 --> 00:43:18,560

it changes me but it it gives me a

951

00:43:22,150 --> 00:43:21,280

desire to do my part what little part it

952

00:43:24,390 --> 00:43:22,160

may be

953

00:43:25,990 --> 00:43:24,400

so that many can go and experience those

954

00:43:28,230 --> 00:43:26,000

things that just a few of us have had

955

00:43:30,630 --> 00:43:28,240

the opportunity relatively speaking

956

00:43:31,829 --> 00:43:30,640

to do and see

957

00:43:33,750 --> 00:43:31,839

okay i think we have time for another

958

00:43:35,910 --> 00:43:33,760

question at least hello my name is

959

00:43:37,910 --> 00:43:35,920

hunter and my question is for alexander

960

00:43:39,589 --> 00:43:37,920

in dealing with cultural diversity what

961

00:43:41,349 --> 00:43:39,599

training have you taken to improve

962

00:43:50,309 --> 00:43:41,359

international communication and

963

00:44:13,910 --> 00:43:52,710

i think butch has already partially

964

00:44:18,630 --> 00:44:16,309

but uh just uh taken in my experience

965

00:44:20,710 --> 00:44:18,640

from my previous flight we had indeed a

966

00:44:23,670 --> 00:44:20,720

mix of cultures we had

967

00:44:32,150 --> 00:44:23,680

a of a european on board russians

968

00:44:49,430 --> 00:44:34,870

and indeed we're all united by the same

969

00:44:54,069 --> 00:44:51,670

and for the mission to be performed

970

00:44:55,750 --> 00:44:54,079

properly and for the safety of all of us

971

00:45:10,150 --> 00:44:55,760

this means that we need to have a joint

972

00:45:14,710 --> 00:45:12,150

besides it's not that we see each other

973

00:45:16,710 --> 00:45:14,720

first time when on the space station

974

00:45:18,870 --> 00:45:16,720

before the flight we spend years

975

00:45:20,630 --> 00:45:18,880

training together and uh

976

00:45:30,829 --> 00:45:20,640

getting to know each other as part of

977

00:45:34,069 --> 00:45:32,550

arises

978

00:45:38,710 --> 00:45:34,079

moreover what is important for the

979

00:45:40,069 --> 00:45:38,720

success of animation is a respect and

980

00:45:41,829 --> 00:45:40,079

understanding of the cultural

981

00:45:46,630 --> 00:45:41,839

differences and respect for those

982

00:45:47,990 --> 00:45:46,640

differences and uh cultural interaction

983

00:45:48,790 --> 00:45:48,000

okay i think we have time for one more

984

00:45:50,710 --> 00:45:48,800

question

985

00:45:53,190 --> 00:45:50,720

over there hi my name is karina my

986

00:45:54,950 --> 00:45:53,200

question's for captain wilmore when you

987

00:45:56,950 --> 00:45:54,960

first came to work for nasa were there

988

00:45:59,349 --> 00:45:56,960

any advantages from serving your country

989

00:46:01,430 --> 00:45:59,359

as a us navy pilot

990

00:46:04,550 --> 00:46:01,440

karina is that what you said yes yes

991

00:46:07,510 --> 00:46:04,560

that's a good question uh certainly um

992

00:46:10,230 --> 00:46:07,520

the navy helped lay the foundation like

993

00:46:11,670 --> 00:46:10,240

i said earlier for compartmentalization

994

00:46:12,790 --> 00:46:11,680

when you jump in an airplane and you're

995

00:46:14,470 --> 00:46:12,800

launching off the front end of an

996

00:46:16,790 --> 00:46:14,480

aircraft carrier you need to be focused

997

00:46:18,390 --> 00:46:16,800

on what your job is and and there's

998

00:46:20,309 --> 00:46:18,400

other issues of life that are going on

999

00:46:22,069 --> 00:46:20,319

at the same time and you really got to

1000

00:46:23,910 --> 00:46:22,079

compartmentalize and and put those

1001
00:46:25,910 --> 00:46:23,920
things kind of aside because of the task

1002
00:46:28,150 --> 00:46:25,920
at hand and

1003
00:46:31,349 --> 00:46:28,160
that's just one example of many things

1004
00:46:33,589 --> 00:46:31,359
that the navy provided for me uh in

1005
00:46:37,589 --> 00:46:33,599
preparatory to come into this position

1006
00:46:40,309 --> 00:46:37,599
of working with nasa in this role um

1007
00:46:42,230 --> 00:46:40,319
and i i can't i i can i would encourage

1008
00:46:43,670 --> 00:46:42,240
every one of y'all to go join the navy

1009
00:46:49,270 --> 00:46:43,680
and

1010
00:46:51,270 --> 00:46:49,280
fascinating way the navy's been great

1011
00:46:52,790 --> 00:46:51,280
great to me and i and i'm grateful that

1012
00:46:56,550 --> 00:46:52,800
uh for the opportunity that my country

1013
00:46:57,990 --> 00:46:56,560

gave me to serve in that capacity

1014

00:46:59,829 --> 00:46:58,000

great all right well i think these

1015

00:47:01,829 --> 00:46:59,839

students are well on their way to doing

1016

00:47:03,349 --> 00:47:01,839

a great job so thank you all for joining

1017

00:47:05,910 --> 00:47:03,359

us the students the journalists those of

1018

00:47:07,430 --> 00:47:05,920

us uh those folks watching on tv and via

1019

00:47:09,589 --> 00:47:07,440

social media and thank you especially to

1020

00:47:12,950 --> 00:47:09,599

the crew for more information on their