



1  
00:00:07,510 --> 00:00:03,510  
station this is houston are you ready

2  
00:00:12,070 --> 00:00:10,230  
that's affirmative we are ready

3  
00:00:14,230 --> 00:00:12,080  
cnn international this is mission

4  
00:00:17,750 --> 00:00:14,240  
control houston please call station for

5  
00:00:23,429 --> 00:00:19,510  
listen to the internet international how

6  
00:00:28,070 --> 00:00:24,950  
cnn we got you loud and clear on the

7  
00:00:31,910 --> 00:00:30,070  
fantastic lovely to meet you i'm robin

8  
00:00:34,389 --> 00:00:31,920  
kerner i'm coming to you from the cnn

9  
00:00:36,069 --> 00:00:34,399  
center in atlanta georgia just wanted to

10  
00:00:39,830 --> 00:00:36,079  
know where you are right now where are

11  
00:00:43,110 --> 00:00:41,430  
uh you know when we last checked we were

12  
00:00:44,869 --> 00:00:43,120  
passing australia i'm not sure we are

13  
00:00:49,430 --> 00:00:44,879

right at this very moment but uh we're

14

00:00:52,549 --> 00:00:51,029

somewhere what's it like up there what

15

00:00:54,229 --> 00:00:52,559

is it like to feel

16

00:00:57,990 --> 00:00:54,239

spaceless in the space must be an

17

00:01:01,830 --> 00:01:00,470

it is truly incredible robin i mean it

18

00:01:04,070 --> 00:01:01,840

doesn't get old i've been up here two

19

00:01:05,830 --> 00:01:04,080

and a half almost three months and every

20

00:01:08,550 --> 00:01:05,840

morning i wake up i float down the

21

00:01:10,469 --> 00:01:08,560

passageway and i honestly think is this

22

00:01:14,630 --> 00:01:10,479

really happening it does not get old

23

00:01:17,670 --> 00:01:16,070

you're going to be doing some space

24

00:01:19,910 --> 00:01:17,680

walks one of you has done a space walk

25

00:01:21,590 --> 00:01:19,920

already you've got a few more lined up

26  
00:01:27,830 --> 00:01:21,600  
in the in the coming weeks i mean what

27  
00:01:33,030 --> 00:01:30,390  
again it's it's fantastic i mean when

28  
00:01:34,469 --> 00:01:33,040  
you get outside there's no atmosphere to

29  
00:01:37,350 --> 00:01:34,479  
obstruct any light there's no dust

30  
00:01:39,109 --> 00:01:37,360  
particles it's absolutely clear i spit

31  
00:01:42,069 --> 00:01:39,119  
shine my visor before i went out because

32  
00:01:43,990 --> 00:01:42,079  
i knew this and it is an amazing view

33  
00:01:45,910 --> 00:01:44,000  
you know 360 degrees as you turn your

34  
00:01:47,429 --> 00:01:45,920  
head about 160 degrees that you can see

35  
00:01:49,109 --> 00:01:47,439  
from side to side

36  
00:01:51,510 --> 00:01:49,119  
the beauty of the earth in all the

37  
00:01:52,469 --> 00:01:51,520  
magnificent colors it is absolutely

38  
00:01:55,510 --> 00:01:52,479

thrilling

39

00:01:56,950 --> 00:01:55,520

but regrettably there's minimal time for

40

00:01:58,950 --> 00:01:56,960

that because

41

00:02:01,030 --> 00:01:58,960

98 of the time we're outside we're

42

00:02:05,350 --> 00:02:01,040

actually very very busy accomplishing

43

00:02:12,309 --> 00:02:06,709

are you nervous about going on your

44

00:02:16,309 --> 00:02:14,790

well i'm not nervous at all we've had a

45

00:02:18,869 --> 00:02:16,319

lot of great training from the folks on

46

00:02:20,790 --> 00:02:18,879

the ground in houston and butch is going

47

00:02:22,710 --> 00:02:20,800

to be the spacewalk lead on that one so

48

00:02:23,910 --> 00:02:22,720

i'm not nervous about it i'm i just want

49

00:02:26,070 --> 00:02:23,920

to make sure that we get all the work

50

00:02:27,430 --> 00:02:26,080

done every time you go outside that's

51  
00:02:28,470 --> 00:02:27,440  
kind of the main focus and we need to

52  
00:02:33,270 --> 00:02:28,480  
make sure

53  
00:02:37,350 --> 00:02:35,190  
you've been posting photographs to

54  
00:02:39,430 --> 00:02:37,360  
twitter it's an amazing connection with

55  
00:02:41,830 --> 00:02:39,440  
you guys up there i mean you seem to

56  
00:02:44,070 --> 00:02:41,840  
have a fondness for clouds i mean

57  
00:02:45,910 --> 00:02:44,080  
obviously as you're going and orbiting

58  
00:02:47,750 --> 00:02:45,920  
around the earth the smallest things

59  
00:02:51,910 --> 00:02:47,760  
look so beautiful isn't it i'm sure i'm

60  
00:02:56,710 --> 00:02:54,070  
it does we just passed out the southern

61  
00:02:58,790 --> 00:02:56,720  
tip of south america and we're as close

62  
00:03:00,630 --> 00:02:58,800  
as we can get to antarctica right now

63  
00:03:02,070 --> 00:03:00,640

and the other day it was actually clear

64

00:03:04,149 --> 00:03:02,080

in antarctica and i got a chance to see

65

00:03:06,070 --> 00:03:04,159

the continent for the first time but the

66

00:03:08,149 --> 00:03:06,080

clouds in the southern hemisphere

67

00:03:10,550 --> 00:03:08,159

especially the southern ocean especially

68

00:03:12,790 --> 00:03:10,560

are always amazing

69

00:03:14,630 --> 00:03:12,800

funny funny you say about tweeting and

70

00:03:17,190 --> 00:03:14,640

clouds because just this morning i sent

71

00:03:19,509 --> 00:03:17,200

a picture down that had a

72

00:03:21,110 --> 00:03:19,519

the peak of a volcano at the galapagos

73

00:03:22,390 --> 00:03:21,120

items peeking above the clouds i think

74

00:03:25,270 --> 00:03:22,400

it'll be an interesting thing people may

75

00:03:29,030 --> 00:03:26,710

okay we'll go and check on it when we

76

00:03:31,110 --> 00:03:29,040

get off air but i mean you also got to

77

00:03:32,949 --> 00:03:31,120

see the devastation perhaps or the power

78

00:03:38,229 --> 00:03:32,959

of mother nature amazing photographs

79

00:03:42,229 --> 00:03:40,869

yeah that that was uh it was amazing to

80

00:03:43,509 --> 00:03:42,239

see and when we were in the cupola

81

00:03:45,350 --> 00:03:43,519

looking at it

82

00:03:47,110 --> 00:03:45,360

i thought man this thing is amazing it's

83

00:03:49,670 --> 00:03:47,120

beautiful but the bad part about it is

84

00:03:51,350 --> 00:03:49,680

it's a dangerous storm um i know that

85

00:03:53,030 --> 00:03:51,360

personally hurricane andrew came right

86

00:03:54,789 --> 00:03:53,040

over my house 20 years ago in south

87

00:03:56,630 --> 00:03:54,799

florida and i knew that was a pretty

88

00:03:57,990 --> 00:03:56,640

dangerous storm unfortunately people

89

00:03:59,589 --> 00:03:58,000

lost their lives here in the philippines

90

00:04:00,470 --> 00:03:59,599

so our thoughts and prayers were with

91

00:04:02,550 --> 00:04:00,480

them but

92

00:04:04,470 --> 00:04:02,560

um to see it at night was especially

93

00:04:06,550 --> 00:04:04,480

amazing we had a full moon this past

94

00:04:08,229 --> 00:04:06,560

week and you could see

95

00:04:09,830 --> 00:04:08,239

a typhoon

96

00:04:12,789 --> 00:04:09,840

at night it was amazing to see that from

97

00:04:17,430 --> 00:04:15,030

just watching you uh on my monitor

98

00:04:19,590 --> 00:04:17,440

obviously the weightlessness must be a

99

00:04:21,110 --> 00:04:19,600

hard to describe i mean do you spend a

100

00:04:26,830 --> 00:04:21,120

lot of time being like a kid and just

101  
00:04:31,510 --> 00:04:29,590  
yes it's um

102  
00:04:33,590 --> 00:04:31,520  
every day at least once

103  
00:04:35,590 --> 00:04:33,600  
i we just say man this is great floating

104  
00:04:37,189 --> 00:04:35,600  
it's so much fun you can uh

105  
00:04:38,710 --> 00:04:37,199  
there's nothing you can't describe it

106  
00:04:40,550 --> 00:04:38,720  
because it doesn't really exist on earth

107  
00:04:42,710 --> 00:04:40,560  
you can be weightless for maybe one or

108  
00:04:43,830 --> 00:04:42,720  
two seconds or if there's some airplanes

109  
00:04:45,670 --> 00:04:43,840  
that do

110  
00:04:47,189 --> 00:04:45,680  
zero g flights where they push over for

111  
00:04:49,590 --> 00:04:47,199  
about 20 seconds of weightlessness but

112  
00:04:51,990 --> 00:04:49,600  
here it never ends and your body adapts

113  
00:04:53,830 --> 00:04:52,000

to it which has been a lot of fun to see

114

00:04:55,510 --> 00:04:53,840

experience how your body learns how to

115

00:04:56,870 --> 00:04:55,520

walk and move around in space it's kind

116

00:04:58,310 --> 00:04:56,880

of like being one again learning how to

117

00:05:01,430 --> 00:04:58,320

walk on earth

118

00:05:03,350 --> 00:05:01,440

except for we have to learn immediately

119

00:05:05,590 --> 00:05:03,360

one good thing about zero or

120

00:05:07,990 --> 00:05:05,600

weightlessness and this time of year is

121

00:05:10,070 --> 00:05:08,000

at one moment your christmas tree can be

122

00:05:11,590 --> 00:05:10,080

on the ceiling and then just a couple of

123

00:05:13,749 --> 00:05:11,600

seconds later

124

00:05:18,150 --> 00:05:13,759

it can be on the floor so that's very

125

00:05:22,390 --> 00:05:20,629

yeah i'm sure it is it looks very handy

126  
00:05:24,710 --> 00:05:22,400  
some serious questions though i mean

127  
00:05:26,790 --> 00:05:24,720  
you're all in a very small environment

128  
00:05:29,670 --> 00:05:26,800  
so far away and there's been so much

129  
00:05:31,909 --> 00:05:29,680  
political geopolitical tension between

130  
00:05:33,909 --> 00:05:31,919  
russia and the west and u.s how do you

131  
00:05:35,510 --> 00:05:33,919  
deal with those kinds of

132  
00:05:37,189 --> 00:05:35,520  
issues that are happening on the ground

133  
00:05:41,110 --> 00:05:37,199  
when you're really needing to co-exist

134  
00:05:45,350 --> 00:05:43,350  
yeah there's no differences or problems

135  
00:05:47,270 --> 00:05:45,360  
here at all our russian crewmates are

136  
00:05:48,629 --> 00:05:47,280  
great friends

137  
00:05:51,110 --> 00:05:48,639  
during the day we're all working

138  
00:05:53,110 --> 00:05:51,120

together and at night time i always

139

00:05:55,270 --> 00:05:53,120

be sure to spend some time 30 minutes or

140

00:05:57,510 --> 00:05:55,280

an hour with those guys watching tv

141

00:05:59,029 --> 00:05:57,520

speaking russian and and uh we get along

142

00:05:59,909 --> 00:05:59,039

very well as a crew

143

00:06:01,830 --> 00:05:59,919

and

144

00:06:03,189 --> 00:06:01,840

we have no problems at all so

145

00:06:04,230 --> 00:06:03,199

whatever's happening on the ground it's

146

00:06:07,350 --> 00:06:04,240

definitely not happening here on the

147

00:06:08,790 --> 00:06:07,360

space station

148

00:06:10,950 --> 00:06:08,800

because you had to learn russian and

149

00:06:12,950 --> 00:06:10,960

obviously the u.s space program relies

150

00:06:14,950 --> 00:06:12,960

heavily on the russian space program you

151

00:06:18,550 --> 00:06:14,960

get there on on

152

00:06:23,189 --> 00:06:20,469

we do i just launched two and a half

153

00:06:24,790 --> 00:06:23,199

weeks ago on a russian soyuz and

154

00:06:26,070 --> 00:06:24,800

right now that's how all of our

155

00:06:27,029 --> 00:06:26,080

astronauts are getting up with the

156

00:06:29,510 --> 00:06:27,039

russians

157

00:06:31,749 --> 00:06:29,520

both programs work together uh we both

158

00:06:32,950 --> 00:06:31,759

rely on each other americans bring an

159

00:06:34,309 --> 00:06:32,960

awful lot to the table in the

160

00:06:37,270 --> 00:06:34,319

international space program and the

161

00:06:39,189 --> 00:06:37,280

russians do also as do the europeans the

162

00:06:41,830 --> 00:06:39,199

japanese and the canadians so this truly

163

00:06:43,990 --> 00:06:41,840

is an international space station

164

00:06:48,070 --> 00:06:44,000

and i wouldn't say that we're dependent

165

00:06:56,629 --> 00:06:49,350

and i also understand that you have

166

00:06:59,749 --> 00:06:58,790

actually i do we've been doing some 3d

167

00:07:02,469 --> 00:06:59,759

printing

168

00:07:04,309 --> 00:07:02,479

and i'm calling this my honey jar and

169

00:07:08,230 --> 00:07:04,319

it's it's amazing to watch it it printed

170

00:07:10,150 --> 00:07:08,240

up in separate pieces and actually

171

00:07:11,430 --> 00:07:10,160

screws together the cap actually screws

172

00:07:13,909 --> 00:07:11,440

on the bottom

173

00:07:15,270 --> 00:07:13,919

and works perfectly it's it's just just

174

00:07:16,710 --> 00:07:15,280

amazing what we're doing no it's just

175

00:07:18,950 --> 00:07:16,720

baby stuff we're just getting started

176

00:07:21,110 --> 00:07:18,960

here but eventually hopefully we can

177

00:07:22,710 --> 00:07:21,120

make parts and install those parts while

178

00:07:23,990 --> 00:07:22,720

we're in deep space who knows where to

179

00:07:27,029 --> 00:07:24,000

leave but right now i mean this is

180

00:07:30,710 --> 00:07:28,309

who knows where everything will lead

181

00:07:33,029 --> 00:07:30,720

they've been too successful space

182

00:07:35,510 --> 00:07:33,039

programs in the last few weeks

183

00:07:37,909 --> 00:07:35,520

talking about orion and of course

184

00:07:39,749 --> 00:07:37,919

the issue over landing on a comet i mean

185

00:07:46,629 --> 00:07:39,759

does that make you excited and do you

186

00:07:51,510 --> 00:07:49,189

yeah i absolutely see further deep space

187

00:07:53,270 --> 00:07:51,520

deep space exploration uh that's really

188

00:07:55,510 --> 00:07:53,280

what we're about at nasa the space

189

00:07:56,710 --> 00:07:55,520

station is one step and i think hundreds

190

00:07:58,550 --> 00:07:56,720

of years from now we'll look back and

191

00:08:00,469 --> 00:07:58,560

see the space station as the first big

192

00:08:02,469 --> 00:08:00,479

stepping stone towards moving humans out

193

00:08:04,390 --> 00:08:02,479

into the solar system orion is an

194

00:08:06,309 --> 00:08:04,400

important part of that it's the the

195

00:08:07,510 --> 00:08:06,319

capsule that will allow people to get

196

00:08:10,469 --> 00:08:07,520

from earth

197

00:08:12,230 --> 00:08:10,479

to whatever destination moon mars uh

198

00:08:15,110 --> 00:08:12,240

comets hopefully eventually maybe the

199

00:08:16,710 --> 00:08:15,120

moons of jupiter um but that is a piece

200

00:08:17,990 --> 00:08:16,720

of that it's just one piece of the

201  
00:08:19,909 --> 00:08:18,000  
exploration puzzle that we're going to

202  
00:08:23,909 --> 00:08:19,919  
need to put together as we start to move

203  
00:08:26,950 --> 00:08:25,350  
and a lot of your fellow astronauts

204  
00:08:29,270 --> 00:08:26,960  
suggesting perhaps that's a bit too

205  
00:08:37,350 --> 00:08:29,280  
ambitious why don't you just set up a

206  
00:08:40,630 --> 00:08:39,110  
hey that's an interesting proposition

207  
00:08:42,389 --> 00:08:40,640  
we're all for it but we're gonna go

208  
00:08:46,550 --> 00:08:42,399  
wherever we're told to go we're good

209  
00:08:53,190 --> 00:08:48,470  
well have a wonderful christmas up there

210  
00:08:58,389 --> 00:08:54,949  
super merry christmas to all y'all thank

211  
00:09:03,269 --> 00:09:00,710  
station this is houston acr that

212  
00:09:05,590 --> 00:09:03,279  
concludes the cnn international portion

213  
00:09:10,310 --> 00:09:05,600

of the event please stand by for a voice

214

00:09:15,350 --> 00:09:11,990

station this is navy times how do you

215

00:09:19,430 --> 00:09:17,670

navy times we catch you loud and clear

216

00:09:21,590 --> 00:09:19,440

welcome aboard i got another camera hey

217

00:09:23,430 --> 00:09:21,600

thank you so much gentlemen uh and happy

218

00:09:24,870 --> 00:09:23,440

holidays to you

219

00:09:27,269 --> 00:09:24,880

and happy holidays

220

00:09:29,750 --> 00:09:27,279

happy holidays to you as well

221

00:09:31,829 --> 00:09:29,760

great uh captain wilmore since i'm a

222

00:09:33,590 --> 00:09:31,839

navy times reporter the first question

223

00:09:35,190 --> 00:09:33,600

is for you when you took command of the

224

00:09:37,910 --> 00:09:35,200

international space station did you have

225

00:09:41,110 --> 00:09:37,920

a ceremony and uh what did it mean for

226

00:09:44,389 --> 00:09:42,790

we actually did have a small ceremony

227

00:09:46,550 --> 00:09:44,399

where we handed over command i took over

228

00:09:48,630 --> 00:09:46,560

from maxime sarai my russian counterpart

229

00:09:50,470 --> 00:09:48,640

he's now back on earth they left about

230

00:09:51,829 --> 00:09:50,480

just about a little over a month ago now

231

00:09:54,070 --> 00:09:51,839

and we had a little ceremony it was

232

00:09:55,910 --> 00:09:54,080

actually very nice very special as most

233

00:09:57,829 --> 00:09:55,920

of you know in the navy as soon as you

234

00:10:00,630 --> 00:09:57,839

come in you start groom for leadership

235

00:10:02,790 --> 00:10:00,640

and this is the first opportunity in my

236

00:10:04,630 --> 00:10:02,800

career which is now better than 20 years

237

00:10:07,030 --> 00:10:04,640

that i've had opportunity to command

238

00:10:09,110 --> 00:10:07,040

anything so it's it's a it's an honor

239

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

it's a privilege to to be the guy they

240

00:10:12,310 --> 00:10:10,240

call commander of the international

241

00:10:15,030 --> 00:10:12,320

space station and i'm i'm grateful for

242

00:10:16,710 --> 00:10:15,040

the opportunity

243

00:10:19,269 --> 00:10:16,720

well captain wilmore what are your

244

00:10:20,949 --> 00:10:19,279

duties and responsibilities as uh ceo of

245

00:10:22,870 --> 00:10:20,959

the international space station how long

246

00:10:25,509 --> 00:10:22,880

are you gonna be in charge

247

00:10:28,790 --> 00:10:26,790

just like the native it's good order and

248

00:10:30,710 --> 00:10:28,800

discipline

249

00:10:33,590 --> 00:10:30,720

uh there's very little actually there's

250

00:10:34,870 --> 00:10:33,600

no no no discipline it's all good order

251

00:10:37,190 --> 00:10:34,880

you know everybody up here is very

252

00:10:38,949 --> 00:10:37,200

motivated very high energy they want to

253

00:10:40,870 --> 00:10:38,959

do their job and they want to perform it

254

00:10:42,230 --> 00:10:40,880

well and as the guy that's in command

255

00:10:44,069 --> 00:10:42,240

that's that's obviously a very nice

256

00:10:45,670 --> 00:10:44,079

thing uh you know there's a little bit

257

00:10:47,990 --> 00:10:45,680

of direction here and there because it

258

00:10:49,829 --> 00:10:48,000

is different living in space is far far

259

00:10:52,069 --> 00:10:49,839

different than living on earth and just

260

00:10:53,990 --> 00:10:52,079

adapting to the environment and you know

261

00:10:56,069 --> 00:10:54,000

you have to think of every single thing

262

00:10:57,670 --> 00:10:56,079

you do you can't just you know place

263

00:10:59,269 --> 00:10:57,680

something on the table and it's there if

264

00:11:01,670 --> 00:10:59,279

you let go of something it's going to be

265

00:11:03,110 --> 00:11:01,680

gone and you have to train yourself and

266

00:11:05,190 --> 00:11:03,120

discipline yourself

267

00:11:07,030 --> 00:11:05,200

every single step of everything you do

268

00:11:09,110 --> 00:11:07,040

and realize what you're doing and think

269

00:11:10,550 --> 00:11:09,120

think cognitively about what's going on

270

00:11:12,230 --> 00:11:10,560

or things float away and then you're in

271

00:11:15,190 --> 00:11:12,240

a hurt locker

272

00:11:17,509 --> 00:11:15,200

yes sir uh to colonel verts what

273

00:11:22,150 --> 00:11:17,519

projects and uh milestones are you guys

274

00:11:26,310 --> 00:11:24,310

well uh every week there it seems to be

275

00:11:28,150 --> 00:11:26,320

a different themed week last week butch

276

00:11:30,069 --> 00:11:28,160

and i worked on the carbon dioxide

277

00:11:32,230 --> 00:11:30,079

removal equipment it was a big giant

278

00:11:35,430 --> 00:11:32,240

project that uh luckily we were able to

279

00:11:37,030 --> 00:11:35,440

repair this week he and samantha are

280

00:11:39,430 --> 00:11:37,040

another one of our crewmates are working

281

00:11:40,630 --> 00:11:39,440

on my spacesuit so i've been i've been

282

00:11:41,670 --> 00:11:40,640

down there keeping an eye to make sure

283

00:11:43,190 --> 00:11:41,680

they're doing a good job on it because

284

00:11:44,870 --> 00:11:43,200

i'm about to go out in the space in that

285

00:11:46,150 --> 00:11:44,880

thing next month

286

00:11:49,350 --> 00:11:46,160

but that's kind of the theme of this

287

00:11:51,430 --> 00:11:49,360

week for them for me it's human research

288

00:11:53,430 --> 00:11:51,440

the last two days have been a lot of

289

00:11:55,269 --> 00:11:53,440

tests on me for my eye we've done

290

00:11:58,389 --> 00:11:55,279

ultrasounds

291

00:12:00,470 --> 00:11:58,399

a machine called an oct scanner

292

00:12:01,829 --> 00:12:00,480

another camera an infrared camera that's

293

00:12:03,829 --> 00:12:01,839

been looking into my eye we're trying to

294

00:12:05,110 --> 00:12:03,839

study the effects of space

295

00:12:06,949 --> 00:12:05,120

on eye

296

00:12:08,870 --> 00:12:06,959

health and try and learn how to maybe

297

00:12:11,990 --> 00:12:08,880

improve eye health on earth and also

298

00:12:14,550 --> 00:12:12,000

here in space for us astronauts

299

00:12:17,350 --> 00:12:14,560

oh it's interesting uh for both of you

300

00:12:19,190 --> 00:12:17,360

it's obviously been an exciting week in

301

00:12:21,350 --> 00:12:19,200

uh space exploration with the launch of

302

00:12:23,269 --> 00:12:21,360

the orion aircraft uh excuse me the

303

00:12:24,949 --> 00:12:23,279

space capsule what does this new capsule

304

00:12:26,790 --> 00:12:24,959

mean for the space program and are

305

00:12:31,829 --> 00:12:26,800

either of you looking to hitch a ride on

306

00:12:35,030 --> 00:12:33,030

shotgun

307

00:12:37,030 --> 00:12:35,040

i think we both love to fly on orion

308

00:12:38,870 --> 00:12:37,040

orion's a very important a very

309

00:12:40,870 --> 00:12:38,880

important part of uh

310

00:12:42,710 --> 00:12:40,880

the the future of our space program it's

311

00:12:43,990 --> 00:12:42,720

a it's not the entire program but it's

312

00:12:45,509 --> 00:12:44,000

an important part of it because that's

313

00:12:47,670 --> 00:12:45,519

the capsule that

314

00:12:49,509 --> 00:12:47,680

allows people to leave earth and come

315

00:12:50,949 --> 00:12:49,519

back to earth

316

00:12:52,870 --> 00:12:50,959

at very high speeds right now we're

317

00:12:54,550 --> 00:12:52,880

going to 17 000 miles an hour in earth

318

00:12:56,710 --> 00:12:54,560

orbit but when you're coming back from

319

00:12:59,269 --> 00:12:56,720

the moon or mars or other places in the

320

00:13:01,509 --> 00:12:59,279

solar system you'd be going over 25 000

321

00:13:03,509 --> 00:13:01,519

which is a lot higher and you need a lot

322

00:13:04,790 --> 00:13:03,519

sturdier capsule for that so orion is

323

00:13:06,550 --> 00:13:04,800

the part of the system that's going to

324

00:13:09,269 --> 00:13:06,560

allow us to get

325

00:13:11,030 --> 00:13:09,279

there and back and um so it's a it was a

326

00:13:13,269 --> 00:13:11,040

big day it was very good news for

327

00:13:16,069 --> 00:13:13,279

america and for nasa that that it worked

328

00:13:17,590 --> 00:13:16,079

as well as it did

329

00:13:18,870 --> 00:13:17,600

yes sir

330

00:13:20,790 --> 00:13:18,880

the

331

00:13:23,670 --> 00:13:20,800

i hear you guys have a 3d printer up

332

00:13:24,949 --> 00:13:23,680

there what are you using it for and uh

333

00:13:29,590 --> 00:13:24,959

what does it add to the mission up there

334

00:13:32,870 --> 00:13:31,670

well actually we are we're just this is

335

00:13:34,389 --> 00:13:32,880

just taking baby steps we're just

336

00:13:36,310 --> 00:13:34,399

getting started he just arrived on the

337

00:13:37,829 --> 00:13:36,320

last cargo vehicle that came up we just

338

00:13:39,670 --> 00:13:37,839

installed it a couple about three weeks

339

00:13:42,069 --> 00:13:39,680

ago and we're just starting to print

340

00:13:43,750 --> 00:13:42,079

objects out and uh you know you've got

341

00:13:45,350 --> 00:13:43,760

to walk before you run and we're in the

342

00:13:46,710 --> 00:13:45,360

we're in the walking stage right now

343

00:13:48,470 --> 00:13:46,720

learning about the aspects of the

344

00:13:50,550 --> 00:13:48,480

weightless environment what it does to

345

00:13:52,230 --> 00:13:50,560

this type of device and we've learned a

346

00:13:53,910 --> 00:13:52,240

great deal as a matter of fact i've got

347

00:13:56,790 --> 00:13:53,920

in my hand here a little jar that was

348

00:13:58,790 --> 00:13:56,800

printed just a day before yesterday and

349

00:14:00,310 --> 00:13:58,800

it's printed in two separate pieces they

350

00:14:03,430 --> 00:14:00,320

printed at the same time two separate

351

00:14:05,430 --> 00:14:03,440

pieces and it actually just a little jar

352

00:14:08,069 --> 00:14:05,440

and it actually screws together and

353

00:14:10,470 --> 00:14:08,079

works the lid goes on the jar and it's a

354

00:14:11,670 --> 00:14:10,480

it's a perfect perfect fit so it's

355

00:14:13,430 --> 00:14:11,680

amazing the things you can do and

356

00:14:15,430 --> 00:14:13,440

imagine imagine if this was metal which

357

00:14:17,269 --> 00:14:15,440

which we hope to maybe do one day we can

358

00:14:19,590 --> 00:14:17,279

make parts we can make

359

00:14:21,750 --> 00:14:19,600

tools to install parts and so the

360

00:14:24,470 --> 00:14:21,760

capabilities and the possibilities are

361

00:14:26,310 --> 00:14:24,480

absolutely endless with this technology

362

00:14:27,910 --> 00:14:26,320

yes sir

363

00:14:30,550 --> 00:14:27,920

both of you like your distinguished

364

00:14:33,189 --> 00:14:30,560

predecessors are test pilots what

365

00:14:35,750 --> 00:14:33,199

qualities do service members generally

366

00:14:42,870 --> 00:14:35,760

and test pilots specifically bring to

367

00:14:46,069 --> 00:14:44,389

well that's an interesting question i've

368

00:14:48,629 --> 00:14:46,079

never really pondered that i think you

369

00:14:52,389 --> 00:14:48,639

know and and and the test work you have

370

00:14:56,710 --> 00:14:52,399

to be disciplined uh you you plan before

371

00:14:59,350 --> 00:14:56,720

you fly a test you execute your plan you

372

00:15:01,990 --> 00:14:59,360

don't deviate from that plan and i think

373

00:15:03,829 --> 00:15:02,000

space flight is very very similar like

374

00:15:06,470 --> 00:15:03,839

like terry said we're working on a space

375

00:15:08,230 --> 00:15:06,480

suit we briefed our plan we got with the

376

00:15:09,509 --> 00:15:08,240

guys on the ground that went through

377

00:15:11,829 --> 00:15:09,519

those procedures and developed the

378

00:15:13,590 --> 00:15:11,839

procedures and we briefed together and

379

00:15:15,030 --> 00:15:13,600

we are going by the plan there are some

380

00:15:16,790 --> 00:15:15,040

deviations we have to take along the way

381

00:15:19,350 --> 00:15:16,800

because that's where the where the the

382

00:15:20,790 --> 00:15:19,360

details lead us but we are tied together

383

00:15:22,790 --> 00:15:20,800

and we're disciplined in our approach

384

00:15:24,870 --> 00:15:22,800

we're disciplining our techniques to

385

00:15:26,310 --> 00:15:24,880

accomplish the tasks and the goals that

386

00:15:27,829 --> 00:15:26,320

are set before us and i think there's a

387

00:15:29,189 --> 00:15:27,839

that's where the primary similarities

388

00:15:30,069 --> 00:15:29,199

are

389

00:15:31,189 --> 00:15:30,079

roger

390

00:15:33,670 --> 00:15:31,199

um

391

00:15:35,509 --> 00:15:33,680

so for uh either or both of you what

392

00:15:37,189 --> 00:15:35,519

advice would you give to service members

393

00:15:43,269 --> 00:15:37,199

or troops that were interested in

394

00:15:45,910 --> 00:15:44,150

um

395

00:15:48,150 --> 00:15:45,920

it takes a lot of effort a lot of

396

00:15:49,829 --> 00:15:48,160

discipline like i said and if you've got

397

00:15:52,550 --> 00:15:49,839

a dream something you want to do that

398

00:15:54,470 --> 00:15:52,560

you desire to do whatever it is

399

00:15:56,150 --> 00:15:54,480

progress down that road you know all my

400

00:15:57,430 --> 00:15:56,160

dreams have not come true the things so

401  
00:15:59,509 --> 00:15:57,440  
many things that i've desired to do in

402  
00:16:02,069 --> 00:15:59,519  
my life didn't happen but i learned a

403  
00:16:04,310 --> 00:16:02,079  
great deal and the journey is what's

404  
00:16:05,509 --> 00:16:04,320  
been thrilling the goal's not always the

405  
00:16:07,829 --> 00:16:05,519  
great thing now being here obviously

406  
00:16:10,230 --> 00:16:07,839  
it's it's special it's terrific but the

407  
00:16:12,230 --> 00:16:10,240  
journey has been even better so i would

408  
00:16:13,829 --> 00:16:12,240  
say enjoy the journey and while i'm

409  
00:16:15,910 --> 00:16:13,839  
talking to about the troops i would like

410  
00:16:17,350 --> 00:16:15,920  
to to say that uh

411  
00:16:19,269 --> 00:16:17,360  
there's many people

412  
00:16:20,470 --> 00:16:19,279  
in the navy other all our other forces

413  
00:16:22,310 --> 00:16:20,480

around the globe right now many are

414

00:16:24,949 --> 00:16:22,320

separated from their families and i want

415

00:16:27,030 --> 00:16:24,959

to thank them for their sacrifice and i

416

00:16:29,509 --> 00:16:27,040

want them to know that what they are

417

00:16:31,509 --> 00:16:29,519

doing is worth it because freedom is

418

00:16:33,829 --> 00:16:31,519

worth the sacrifices you make so thank

419

00:16:35,590 --> 00:16:33,839

you to each and every one of you

420

00:16:37,509 --> 00:16:35,600

yes sir um

421

00:16:39,509 --> 00:16:37,519

and uh talk to me a little bit about

422

00:16:41,430 --> 00:16:39,519

where you see the future of space flight

423

00:16:43,749 --> 00:16:41,440

going uh obviously there's the orion

424

00:16:46,150 --> 00:16:43,759

capsule and and uh there's been some

425

00:16:47,829 --> 00:16:46,160

increasing uh commercial participation

426

00:16:49,350 --> 00:16:47,839

in space flight could you talk a little

427

00:16:51,110 --> 00:16:49,360

bit about where you see this going and

428

00:16:53,350 --> 00:16:51,120

and the sort of the synergy that's

429

00:16:54,870 --> 00:16:53,360

created between the private and public

430

00:16:58,790 --> 00:16:54,880

sector in space

431

00:17:01,350 --> 00:17:00,150

yes i think

432

00:17:03,269 --> 00:17:01,360

like i was saying before i think the

433

00:17:05,909 --> 00:17:03,279

space station is a great first step as

434

00:17:07,909 --> 00:17:05,919

we move out into the solar system

435

00:17:09,270 --> 00:17:07,919

using the new commercial model that

436

00:17:11,990 --> 00:17:09,280

we've used for

437

00:17:14,150 --> 00:17:12,000

cargo delivery to the space station and

438

00:17:15,590 --> 00:17:14,160

hopefully for crew delivery here in a

439

00:17:18,789 --> 00:17:15,600

few years

440

00:17:20,230 --> 00:17:18,799

that can we hope reduce the cost of uh

441

00:17:22,150 --> 00:17:20,240

getting to space which of course has

442

00:17:24,309 --> 00:17:22,160

been pretty high in the past and by

443

00:17:26,150 --> 00:17:24,319

reducing that cost hopefully we can impr

444

00:17:28,549 --> 00:17:26,160

increase the amount of access that we

445

00:17:30,789 --> 00:17:28,559

have but in the long term i think mars

446

00:17:32,630 --> 00:17:30,799

is really the place that everybody

447

00:17:34,390 --> 00:17:32,640

acknowledges that we need to go

448

00:17:36,150 --> 00:17:34,400

uh it's a planet very similar to earth

449

00:17:38,310 --> 00:17:36,160

it had had a history somewhat similar to

450

00:17:39,590 --> 00:17:38,320

earth there's water there there's a thin

451  
00:17:41,350 --> 00:17:39,600  
atmosphere there

452  
00:17:42,470 --> 00:17:41,360  
and it's probably the place in the solar

453  
00:17:45,029 --> 00:17:42,480  
system that's

454  
00:17:47,590 --> 00:17:45,039  
most able to be inhabited by humans

455  
00:17:49,430 --> 00:17:47,600  
eventually so

456  
00:17:51,350 --> 00:17:49,440  
the work we're doing now is really in

457  
00:17:53,350 --> 00:17:51,360  
the long term is going to help us get to

458  
00:17:55,990 --> 00:17:53,360  
mars i think

459  
00:17:58,070 --> 00:17:56,000  
thank you there's uh been increasing

460  
00:17:59,909 --> 00:17:58,080  
tensions here on earth between the u.s

461  
00:18:01,590 --> 00:17:59,919  
and russian militaries and i'm wondering

462  
00:18:06,630 --> 00:18:01,600  
if any of that has manifested itself up

463  
00:18:10,710 --> 00:18:08,230

i can tell you throughout our training

464

00:18:12,390 --> 00:18:10,720

in my three months on board absolutely

465

00:18:13,750 --> 00:18:12,400

none at all if it wasn't for the news i

466

00:18:15,830 --> 00:18:13,760

would not know there were any tensions

467

00:18:18,470 --> 00:18:15,840

whatsoever because in the jobs that we

468

00:18:19,830 --> 00:18:18,480

do day to day day in day out the russian

469

00:18:21,350 --> 00:18:19,840

trainers that we had when we were in

470

00:18:22,549 --> 00:18:21,360

star city russia training prior to

471

00:18:24,470 --> 00:18:22,559

launch

472

00:18:27,110 --> 00:18:24,480

there was no tension whatsoever no

473

00:18:28,710 --> 00:18:27,120

discussion about it and then very kind

474

00:18:30,230 --> 00:18:28,720

very cordial those people are passionate

475

00:18:32,630 --> 00:18:30,240

about their work passionate about

476  
00:18:35,510 --> 00:18:32,640  
training us for what we're doing now so

477  
00:18:37,190 --> 00:18:35,520  
you'd never know anything about it

478  
00:18:39,750 --> 00:18:37,200  
and captain wilmore last questions to

479  
00:18:41,669 --> 00:18:39,760  
you uh what's more stressful landing on

480  
00:18:47,430 --> 00:18:41,679  
an aircraft carrier or docking with the

481  
00:18:51,270 --> 00:18:50,310  
there is very little very few things in

482  
00:18:53,590 --> 00:18:51,280  
life

483  
00:18:56,789 --> 00:18:53,600  
that are more stressful than landing on

484  
00:18:58,630 --> 00:18:56,799  
an aircraft carrier at night in bad

485  
00:19:00,470 --> 00:18:58,640  
weather actually there's nothing more

486  
00:19:02,950 --> 00:19:00,480  
stressful that that's the coup de gras

487  
00:19:04,630 --> 00:19:02,960  
that's the top of the list

488  
00:19:06,310 --> 00:19:04,640

well thank you gentlemen for taking the

489

00:19:10,310 --> 00:19:06,320

time out and uh good luck on your

490

00:19:12,070 --> 00:19:10,320

mission and thanks for joining us

491

00:19:13,990 --> 00:19:12,080

and thank you and uh hello to all your

492

00:19:17,029 --> 00:19:14,000

lessons and merry christmas

493

00:19:21,190 --> 00:19:18,870

station this is houston acr that

494

00:19:23,190 --> 00:19:21,200

concludes the event thank you

495

00:19:25,029 --> 00:19:23,200

thank you cnn international and the navy