



1
00:00:05,240 --> 00:00:03,470
good afternoon thank you for joining us

2
00:00:07,460 --> 00:00:05,250
for today's news conference with members

3
00:00:09,829 --> 00:00:07,470
of the expedition 30 and 31 space

4
00:00:12,379 --> 00:00:09,839
station crews joining us today our nasa

5
00:00:15,079 --> 00:00:12,389
astronaut don pettit russian cosmonaut

6
00:00:17,150 --> 00:00:15,089
oleg kononenko and european space agency

7
00:00:18,830 --> 00:00:17,160
astronaut andre kuipers the three are

8
00:00:21,109 --> 00:00:18,840
scheduled to launch on or near december

9
00:00:22,310 --> 00:00:21,119
26 from kazakhstan and will round out

10
00:00:24,290 --> 00:00:22,320
the six-person crew aboard the

11
00:00:25,400 --> 00:00:24,300
International Space Station we'll start

12
00:00:28,040 --> 00:00:25,410
with introductions and then take

13
00:00:29,480 --> 00:00:28,050

questions to my left is NASA astronaut

14

00:00:32,089 --> 00:00:29,490

Don Pettit who will serve as flight

15

00:00:34,160 --> 00:00:32,099

engineer for expedition 30 and 31 don

16

00:00:35,900 --> 00:00:34,170

was born in silverton oregon and holds

17

00:00:38,570 --> 00:00:35,910

degrees from oregon state university in

18

00:00:40,490 --> 00:00:38,580

the university of arizona after college

19

00:00:42,560 --> 00:00:40,500

he worked as a scientist at Los Alamos

20

00:00:45,170 --> 00:00:42,570

National Laboratory in Los Alamos New

21

00:00:47,720 --> 00:00:45,180

Mexico on projects including experiments

22

00:00:50,690 --> 00:00:47,730

on board nasa's kc-135 reduced gravity

23

00:00:53,210 --> 00:00:50,700

aircraft selected as a nasa astronaut in

24

00:00:54,800 --> 00:00:53,220

April 1996 dr. Pettit is a veteran of

25

00:00:56,690 --> 00:00:54,810

two space flights and has logged more

26
00:00:58,760 --> 00:00:56,700
than one hundred and seventy six days in

27
00:01:01,130 --> 00:00:58,770
space and more than 13 hours of

28
00:01:02,720 --> 00:01:01,140
spacewalk experience he lived aboard the

29
00:01:05,600 --> 00:01:02,730
International Space Station for five and

30
00:01:08,360 --> 00:01:05,610
a half months in 2002 in 2003 as part of

31
00:01:10,610 --> 00:01:08,370
the expedition six crew and in 2008

32
00:01:14,390 --> 00:01:10,620
returned to space as a member of the 126

33
00:01:15,970 --> 00:01:14,400
crew to his legs I'm sorry to his left

34
00:01:18,260 --> 00:01:15,980
we have Russian cosmonaut Oleg Kononenko

35
00:01:20,149 --> 00:01:18,270
who will serve as flight engineer for

36
00:01:23,360 --> 00:01:20,159
expedition 30 and his commander for

37
00:01:25,370 --> 00:01:23,370
expedition 31 Oleg was born in turkey

38
00:01:28,010 --> 00:01:25,380

mania and graduated from Kharkov

39

00:01:29,810 --> 00:01:28,020

Aviation Institute after graduation he

40

00:01:32,750 --> 00:01:29,820

worked at the central design bureau as a

41

00:01:34,520 --> 00:01:32,760

design engineer in 1996 Oleg was

42

00:01:36,890 --> 00:01:34,530

selected to the cosmonaut Corps and in

43

00:01:39,340 --> 00:01:36,900

2008 flew aboard the space station as a

44

00:01:41,840 --> 00:01:39,350

flight engineer during expedition 17

45

00:01:44,390 --> 00:01:41,850

last we have European Space Agency

46

00:01:45,770 --> 00:01:44,400

astronaut Andre Kuiper's who will serve

47

00:01:47,990 --> 00:01:45,780

as a flight engineer for the mission

48

00:01:49,580 --> 00:01:48,000

Andre was born in Amsterdam of the

49

00:01:51,130 --> 00:01:49,590

Netherlands and received his physicians

50

00:01:53,750 --> 00:01:51,140

degree from the University of Amsterdam

51
00:01:55,310 --> 00:01:53,760
he worked with the European Space Agency

52
00:01:57,230 --> 00:01:55,320
in support of physiological experiments

53
00:01:59,690 --> 00:01:57,240
before joining the European astronaut

54
00:02:01,520 --> 00:01:59,700
corps in 1999 and travelled to the

55
00:02:04,310 --> 00:02:01,530
international space station on the Delta

56
00:02:05,870 --> 00:02:04,320
mission in 2004 would that will now take

57
00:02:07,760 --> 00:02:05,880
questions here from the Johnson Space

58
00:02:09,289 --> 00:02:07,770
Center and will start over on the left

59
00:02:12,790 --> 00:02:09,299
if you can please start by stating your

60
00:02:15,240 --> 00:02:12,800
name and affiliation thank you Mark

61
00:02:17,560 --> 00:02:15,250
for aviation we can space technology and

62
00:02:20,530 --> 00:02:17,570
sort of interested in what you're

63
00:02:24,700 --> 00:02:20,540

trained and what you're prepared to do

64

00:02:29,470 --> 00:02:24,710

with either the spacex dragon or the

65

00:02:33,870 --> 00:02:29,480

orbital sciences Cygnus demonstration

66

00:02:40,870 --> 00:02:38,140

well Andre and I and Dan Burbank have

67

00:02:43,870 --> 00:02:40,880

been training primarily for the track

68

00:02:47,800 --> 00:02:43,880

and capture phase because both of these

69

00:02:50,650 --> 00:02:47,810

vehicles come close to Space Station and

70

00:02:53,290 --> 00:02:50,660

then we sort of have to lasso um with

71

00:02:55,870 --> 00:02:53,300

the robotic arm and and reel them in to

72

00:02:59,410 --> 00:02:55,880

the station and we've been practicing

73

00:03:01,960 --> 00:02:59,420

the dynamics of how you do that and we

74

00:03:04,600 --> 00:03:01,970

practice that a lot and then once you

75

00:03:06,960 --> 00:03:04,610

get these vehicles birth to station then

76

00:03:09,130 --> 00:03:06,970

it's pretty much standard ops for any

77

00:03:10,990 --> 00:03:09,140

visiting vehicle where you open up the

78

00:03:13,570 --> 00:03:11,000

hatches and there's a whole bunch of

79

00:03:16,990 --> 00:03:13,580

goodies inside that you offload and then

80

00:03:19,990 --> 00:03:17,000

we fill it full of a bunch of I guess I

81

00:03:21,940 --> 00:03:20,000

call them anti goodies are garbage and

82

00:03:26,140 --> 00:03:21,950

things that we want to dispose of and

83

00:03:28,420 --> 00:03:26,150

then we reverse the process we unbirth

84

00:03:30,490 --> 00:03:28,430

the vehicle using the robotic arm and

85

00:03:32,890 --> 00:03:30,500

hold it out as far as we can with the

86

00:03:36,190 --> 00:03:32,900

arm safely and then let go of the

87

00:03:37,870 --> 00:03:36,200

vehicle and it does a burn and then for

88

00:03:41,620 --> 00:03:37,880

some vehicles they'll burn up in the

89

00:03:44,460 --> 00:03:41,630

atmosphere some vehicles will be coming

90

00:03:49,870 --> 00:03:44,470

back to earth bringing payload with them

91

00:03:52,810 --> 00:03:49,880

and just to follow up if I may what are

92

00:03:54,970 --> 00:03:52,820

you expecting or what are you prepared

93

00:03:57,550 --> 00:03:54,980

for each of these vehicle in other words

94

00:03:59,650 --> 00:03:57,560

are you thinking you'll see dragon

95

00:04:03,490 --> 00:03:59,660

perhaps during your stay on the station

96

00:04:05,770 --> 00:04:03,500

will you see a birthing we see cygnus is

97

00:04:09,910 --> 00:04:05,780

it still sort of endowed and you're

98

00:04:13,060 --> 00:04:09,920

prepared for whatever comes in terms of

99

00:04:15,090 --> 00:04:13,070

schedule like so many schedules dealing

100

00:04:17,740 --> 00:04:15,100

with the space program there are always

101
00:04:22,390 --> 00:04:17,750
actually more than up in the air they're

102
00:04:25,060 --> 00:04:22,400
out there in in a vacuum and we we are

103
00:04:25,830 --> 00:04:25,070
prepared to do whatever happens during

104
00:04:29,520 --> 00:04:25,840
our mission

105
00:04:31,200 --> 00:04:29,530
in terms of a visiting vehicle profile

106
00:04:33,810 --> 00:04:31,210
at one time we had nine visiting

107
00:04:35,550 --> 00:04:33,820
vehicles coming to our mission to the

108
00:04:39,210 --> 00:04:35,560
point where we were going to be

109
00:04:41,129 --> 00:04:39,220
longshoremen and now it looks like a

110
00:04:45,150 --> 00:04:41,139
number of those vehicles have pushed off

111
00:04:47,790 --> 00:04:45,160
to missions in the future so we'll just

112
00:04:49,620 --> 00:04:47,800
have to see what happens in terms of

113
00:04:53,219 --> 00:04:49,630

vehicle showing up we'll be prepared in

114

00:04:57,180 --> 00:04:53,229

any case hi Robert Pearlman with

115

00:04:59,520 --> 00:04:57,190

collectspace.com with the August loss of

116

00:05:02,340 --> 00:04:59,530

progress and the schedule changes that

117

00:05:04,920 --> 00:05:02,350

came after how has your preparation for

118

00:05:06,840 --> 00:05:04,930

this flight changed and and how will

119

00:05:11,000 --> 00:05:06,850

your activities onboard the station as

120

00:05:14,580 --> 00:05:11,010

was originally planned change if at all

121

00:05:16,740 --> 00:05:14,590

in terms of training my training is

122

00:05:21,029 --> 00:05:16,750

still basically on track for original

123

00:05:22,890 --> 00:05:21,039

November 30th launch date this Thursday

124

00:05:24,900 --> 00:05:22,900

is my last day of training here at the

125

00:05:27,930 --> 00:05:24,910

Johnson Space Center per the schedule

126

00:05:30,900 --> 00:05:27,940

and then it's off to Japan and off to

127

00:05:34,409 --> 00:05:30,910

Germany eventually ending up in its Star

128

00:05:37,740 --> 00:05:34,419

City there may be a stretch point where

129

00:05:39,930 --> 00:05:37,750

I might be able to grab a week or so of

130

00:05:43,589 --> 00:05:39,940

needed vacation and spend some time with

131

00:05:48,659 --> 00:05:43,599

my family but in terms of training it's

132

00:05:51,029 --> 00:05:48,669

it's pretty much going on track and if

133

00:05:55,320 --> 00:05:51,039

if each of you could comment if there

134

00:05:56,760 --> 00:05:55,330

are any particular science science

135

00:05:59,460 --> 00:05:56,770

worker experiments that are going to be

136

00:06:01,589 --> 00:05:59,470

started during your stay on board that

137

00:06:08,580 --> 00:06:01,599

stand out in terms of what you've been

138

00:06:14,970 --> 00:06:11,010

well we have a lot I think I have

139

00:06:18,600 --> 00:06:14,980

something like 57 experiments and from

140

00:06:21,240 --> 00:06:18,610

from NASA from from Esau and also from

141

00:06:24,510 --> 00:06:21,250

jaksa and there's a lot of experiments

142

00:06:25,980 --> 00:06:24,520

for for which I'm one of the subjects if

143

00:06:29,670 --> 00:06:25,990

we talk about medical experiments we

144

00:06:32,490 --> 00:06:29,680

need always a lot of people to get good

145

00:06:37,260 --> 00:06:32,500

statistics so there will be experiments

146

00:06:41,760 --> 00:06:37,270

where I'm the last one to do yeah to be

147

00:06:46,050 --> 00:06:41,770

a subject I look forward to experiments

148

00:06:49,500 --> 00:06:46,060

that are new for me experiments on in

149

00:06:52,770 --> 00:06:49,510

different fields fluid physiology food

150

00:06:54,480 --> 00:06:52,780

physics and things like that so it's

151
00:06:56,700 --> 00:06:54,490
there's a whole bunch of experiment that

152
00:06:58,890 --> 00:06:56,710
that i'm looking forward to and it's

153
00:07:01,280 --> 00:06:58,900
it's very hard to pick out as a specific

154
00:07:04,890 --> 00:07:01,290
one one of the things i like very much

155
00:07:06,990 --> 00:07:04,900
is the fact that we going we're going to

156
00:07:10,170 --> 00:07:07,000
do a lot of ultrasounds and that's a

157
00:07:14,060 --> 00:07:10,180
nice skill especially my background it's

158
00:07:17,100 --> 00:07:14,070
nice to make nice pics of blood vessels

159
00:07:20,640 --> 00:07:17,110
your heart etc so i look forward to that

160
00:07:23,490 --> 00:07:20,650
one get down with the German Aerospace

161
00:07:26,250 --> 00:07:23,500
Sun and space exploration question for

162
00:07:27,930 --> 00:07:26,260
android are there any specific European

163
00:07:30,180 --> 00:07:27,940

experiments planned on your mission

164

00:07:33,890 --> 00:07:30,190

which are not already at the Columbus

165

00:07:36,570 --> 00:07:33,900

module for example that's a whole set of

166

00:07:39,390 --> 00:07:36,580

experiments that I'm going to do for for

167

00:07:43,500 --> 00:07:39,400

ISA a lot of different ones also in the

168

00:07:50,070 --> 00:07:43,510

Columbus module and I ferry from human

169

00:07:53,460 --> 00:07:50,080

physiology to to fluid physics so the

170

00:07:54,840 --> 00:07:53,470

whole list and of course it's an

171

00:07:57,900 --> 00:07:54,850

international space station so that

172

00:08:00,150 --> 00:07:57,910

means that Columbus is not only used for

173

00:08:02,280 --> 00:08:00,160

your field experiments but also for for

174

00:08:04,490 --> 00:08:02,290

experiments from NASA and we will do

175

00:08:07,080 --> 00:08:04,500

experiments allow for the space station

176

00:08:11,970 --> 00:08:07,090

but for sure will be a whole lot of

177

00:08:14,220 --> 00:08:11,980

these experiments and performed Gina

178

00:08:16,740 --> 00:08:14,230

sincerely ABC News for Don if i recall

179

00:08:19,080 --> 00:08:16,750

correctly you took a toolbox up to the

180

00:08:21,150 --> 00:08:19,090

space station on your first mission will

181

00:08:21,990 --> 00:08:21,160

you be bringing a tool box box with you

182

00:08:23,550 --> 00:08:22,000

on this and what

183

00:08:25,320 --> 00:08:23,560

skills do you think are most needed your

184

00:08:27,270 --> 00:08:25,330

plumbing skills your electrical skills

185

00:08:31,110 --> 00:08:27,280

your mechanical skills where do you

186

00:08:33,740 --> 00:08:31,120

think you'll be needed most our tools we

187

00:08:38,580 --> 00:08:33,750

tools are one of my favorite subjects

188

00:08:41,010 --> 00:08:38,590

you should see my garage at home we have

189

00:08:43,350 --> 00:08:41,020

lots and lots of tools on Space Station

190

00:08:46,410 --> 00:08:43,360

we've added a lot more tools since the

191

00:08:48,690 --> 00:08:46,420

last time I was there and I don't really

192

00:08:50,340 --> 00:08:48,700

need to bring any more tools because

193

00:08:52,020 --> 00:08:50,350

everything I could think of that I might

194

00:08:54,660 --> 00:08:52,030

need well almost everything I could

195

00:08:56,430 --> 00:08:54,670

think of is already there in terms of

196

00:08:58,650 --> 00:08:56,440

repairs what's my favorite kind of

197

00:09:01,200 --> 00:08:58,660

repair well I guess it sort of depends

198

00:09:03,720 --> 00:09:01,210

on what happens to be broken if liquid

199

00:09:07,520 --> 00:09:03,730

squirting out someplace then then it's

200

00:09:10,110 --> 00:09:07,530

like I'm plumber for the day if if

201
00:09:14,880 --> 00:09:10,120
electronic box isn't working right then

202
00:09:17,100 --> 00:09:14,890
then your electrical repair man for the

203
00:09:19,440 --> 00:09:17,110
day so whatever needs to be repaired I'm

204
00:09:21,510 --> 00:09:19,450
getting to jump in and try to see if I

205
00:09:23,700 --> 00:09:21,520
can't help in concert with the ground

206
00:09:27,180 --> 00:09:23,710
and you have to remember that that space

207
00:09:30,090 --> 00:09:27,190
station is so complicated no one person

208
00:09:32,340 --> 00:09:30,100
can keep everything all the details in

209
00:09:34,680 --> 00:09:32,350
your mind ed and that's where we need

210
00:09:36,720 --> 00:09:34,690
all these folks on the ground that could

211
00:09:39,240 --> 00:09:36,730
tell you what this screw did and what

212
00:09:40,800 --> 00:09:39,250
that terminal does and what kind of

213
00:09:43,800 --> 00:09:40,810

fluid is flowing in that pipe that

214

00:09:47,310 --> 00:09:43,810

happens to be leaking out and add so

215

00:09:50,400 --> 00:09:47,320

between our crew on station and working

216

00:09:53,370 --> 00:09:50,410

with the ground will be able to tackle

217

00:09:57,090 --> 00:09:53,380

almost any kind of repair function that

218

00:09:59,700 --> 00:09:57,100

needs to be done Kevin Quinn with Katie

219

00:10:02,040 --> 00:09:59,710

RK TV here in Houston specifically for

220

00:10:04,620 --> 00:10:02,050

Don Pettit how concerning is this report

221

00:10:07,170 --> 00:10:04,630

now about the the long-term spaceflight

222

00:10:09,810 --> 00:10:07,180

effects on astronaut I side and have any

223

00:10:15,000 --> 00:10:09,820

of you actually noticed any effect on

224

00:10:18,930 --> 00:10:15,010

your own eyesight one of the scientific

225

00:10:20,730 --> 00:10:18,940

purposes for going into frontiers is to

226

00:10:23,070 --> 00:10:20,740

figure out what happens to human

227

00:10:25,350 --> 00:10:23,080

physiology when you go there and so

228

00:10:27,840 --> 00:10:25,360

whether it's bone density issues or

229

00:10:30,150 --> 00:10:27,850

vascular issues fades dealy with

230

00:10:32,730 --> 00:10:30,160

circulation your immune system gets

231

00:10:34,790 --> 00:10:32,740

affected there's lots of effects that

232

00:10:37,519 --> 00:10:34,800

happen to the human body

233

00:10:40,820 --> 00:10:37,529

and we're just getting a handle around

234

00:10:44,269 --> 00:10:40,830

some of these I retinal issues that are

235

00:10:46,310 --> 00:10:44,279

occurring and and what the total effect

236

00:10:48,620 --> 00:10:46,320

is going to be I don't think anybody

237

00:10:50,500 --> 00:10:48,630

knows right now it's a fascinating area

238

00:10:53,000 --> 00:10:50,510

research something that doesn't

239

00:10:56,269 --> 00:10:53,010

something that we can't do here on earth

240

00:10:57,980 --> 00:10:56,279

right now in terms of the physiology the

241

00:11:00,079 --> 00:10:57,990

physiological forces that are that are

242

00:11:02,090 --> 00:11:00,089

driving these issues so this is one of

243

00:11:04,370 --> 00:11:02,100

the the neat things about venturing off

244

00:11:06,860 --> 00:11:04,380

into space is that we we we have another

245

00:11:09,139 --> 00:11:06,870

knob that we can experiment with it's

246

00:11:11,630 --> 00:11:09,149

called a gravity knob and we can look at

247

00:11:12,860 --> 00:11:11,640

its effect on human physiology how

248

00:11:15,949 --> 00:11:12,870

concerned are you though about the

249

00:11:18,680 --> 00:11:15,959

long-term effects on your own I site and

250

00:11:22,519 --> 00:11:18,690

you noticed anything I'm not concerned

251

00:11:24,440 --> 00:11:22,529

about that these Said's seem to be

252

00:11:26,180 --> 00:11:24,450

reversible when you come back to earth

253

00:11:29,840 --> 00:11:26,190

for example you regain your bone density

254

00:11:32,090 --> 00:11:29,850

your vascular system springs back so

255

00:11:34,490 --> 00:11:32,100

does your immune system and right now we

256

00:11:38,420 --> 00:11:34,500

don't have enough data on this to to see

257

00:11:40,670 --> 00:11:38,430

what is going to happen jeremy diesel

258

00:11:42,590 --> 00:11:40,680

with KHOU here in Houston what if

259

00:11:46,430 --> 00:11:42,600

anything is different in the training

260

00:11:48,680 --> 00:11:46,440

mode knowing that it's possible that you

261

00:11:56,060 --> 00:11:48,690

could arrive depending on how things go

262

00:11:59,060 --> 00:11:56,070

to a space station that's empty we

263

00:12:00,800 --> 00:11:59,070

actually train that scenario we train

264

00:12:05,360 --> 00:12:00,810

the scenario where you're the last crew

265

00:12:07,100 --> 00:12:05,370

that has to mothball station and you

266

00:12:10,850 --> 00:12:07,110

know showing up to a station with nobody

267

00:12:16,310 --> 00:12:10,860

on it is is just one more facet of what

268

00:12:19,730 --> 00:12:16,320

it means to to go off and explore it's

269

00:12:27,470 --> 00:12:19,740

certainly an option that I hope doesn't

270

00:12:30,920 --> 00:12:27,480

happen beside personal questions Jim

271

00:12:32,720 --> 00:12:30,930

Oberg with NBC is a big change in your

272

00:12:34,699 --> 00:12:32,730

EV a training since the assembly is

273

00:12:36,590 --> 00:12:34,709

complete and now you're all going to be

274

00:12:39,550 --> 00:12:36,600

Don Pettit you're all going to be ready

275

00:12:42,829 --> 00:12:39,560

to go out and take care of unexpected

276

00:12:44,870 --> 00:12:42,839

failures so how has that affected all of

277

00:12:46,140 --> 00:12:44,880

your training for UVA all three of you

278

00:12:48,420 --> 00:12:46,150

please because

279

00:12:51,330 --> 00:12:48,430

mr. Connor anchor you like to go out and

280

00:12:53,640 --> 00:12:51,340

remove a pyrotechnic charge unexpectedly

281

00:12:55,980 --> 00:12:53,650

on your last last space flight and that

282

00:12:57,690 --> 00:12:55,990

was pretty amazing piece of work but

283

00:13:00,090 --> 00:12:57,700

you're gonna have to do unexpected EVs

284

00:13:02,130 --> 00:13:00,100

rather than scheduled EVs how has the

285

00:13:06,720 --> 00:13:02,140

train changed your training and your

286

00:13:11,190 --> 00:13:06,730

attitude about spacewalks know you like

287

00:13:13,190 --> 00:13:11,200

it better let's cancer actually the way

288

00:13:18,090 --> 00:13:13,200

most of the training for space station

289

00:13:20,910 --> 00:13:18,100

crews it's based on skills and in order

290

00:13:22,440 --> 00:13:20,920

to learn the set of skills needed to put

291

00:13:26,040 --> 00:13:22,450

together a spacesuit while you're inside

292

00:13:28,260 --> 00:13:26,050

the station and service it and do

293

00:13:30,000 --> 00:13:28,270

everything you need by the time you open

294

00:13:32,940 --> 00:13:30,010

the door the airlock those are pretty

295

00:13:36,690 --> 00:13:32,950

much generic skills and then what you do

296

00:13:41,300 --> 00:13:36,700

when you get outside we train a generic

297

00:13:46,530 --> 00:13:41,310

set of skills based on ten to twelve big

298

00:13:50,700 --> 00:13:46,540

probable failures pump packages fhr sees

299

00:13:54,660 --> 00:13:50,710

these rotary hose couplings boxes filled

300

00:13:58,640 --> 00:13:54,670

with switching units batteries we get

301
00:14:01,200 --> 00:13:58,650
trade for all these generic kinds of

302
00:14:04,050 --> 00:14:01,210
repair functions that maybe you'll have

303
00:14:05,460 --> 00:14:04,060
to do maybe you don't and then if

304
00:14:07,710 --> 00:14:05,470
something else comes up that doesn't

305
00:14:12,050 --> 00:14:07,720
fall in that category you have the skill

306
00:14:18,480 --> 00:14:16,140
you're going to help Ernest assist your

307
00:14:21,750 --> 00:14:18,490
fully EV a train for repair work that's

308
00:14:23,400 --> 00:14:21,760
correct yes so this is one of the nice

309
00:14:26,070 --> 00:14:23,410
aspects of the whole training as of

310
00:14:28,530 --> 00:14:26,080
course the EPA preparation and we spent

311
00:14:32,100 --> 00:14:28,540
a lot of time in preparing this this

312
00:14:35,550 --> 00:14:32,110
maintenance task so I feel fully ready

313
00:14:40,410 --> 00:14:35,560

if anything comes up and have to go out

314

00:14:42,630 --> 00:14:40,420

of food ready to do so that and I might

315

00:14:45,540 --> 00:14:42,640

add one of the more difficult tasks when

316

00:14:47,160 --> 00:14:45,550

you're doing a complex EV a everybody's

317

00:14:50,070 --> 00:14:47,170

focused on the people that are outside

318

00:14:52,920 --> 00:14:50,080

but one of the most complicated tasks is

319

00:14:54,780 --> 00:14:52,930

the person inside flying a robotic arm

320

00:14:57,510 --> 00:14:54,790

because that is not necessarily an easy

321

00:14:59,670 --> 00:14:57,520

thing to do and you're flying a really

322

00:15:03,240 --> 00:14:59,680

complicated trajectory that you

323

00:15:07,230 --> 00:15:03,250

never rehearsed before and and and so

324

00:15:09,210 --> 00:15:07,240

it's really a team of of at least three

325

00:15:10,950 --> 00:15:09,220

on or but working in conjunction with

326

00:15:14,160 --> 00:15:10,960

all the folks on the ground where you

327

00:15:16,290 --> 00:15:14,170

have the two people outside coupled with

328

00:15:22,050 --> 00:15:16,300

a person inside that are that's flying

329

00:15:24,540 --> 00:15:22,060

the arm Jill told representing the

330

00:15:26,460 --> 00:15:24,550

statesman journal in Salem Oregon since

331

00:15:29,040 --> 00:15:26,470

that's your hometown area Don you know

332

00:15:32,490 --> 00:15:29,050

this questions for you back when you

333

00:15:34,530 --> 00:15:32,500

flew on 126 social media was just kind

334

00:15:36,570 --> 00:15:34,540

of blossoming at that time but Twitter

335

00:15:39,389 --> 00:15:36,580

and Facebook and such things weren't as

336

00:15:41,370 --> 00:15:39,399

popular at that point as they are now I

337

00:15:43,380 --> 00:15:41,380

know you have a Twitter account but what

338

00:15:45,780 --> 00:15:43,390

are your plans for sharing your mission

339

00:15:49,920 --> 00:15:45,790

via social media and perhaps blogging

340

00:15:52,230 --> 00:15:49,930

for fragile oasis I'm planning to use

341

00:15:56,660 --> 00:15:52,240

Twitter I have a hard time saying

342

00:16:00,180 --> 00:15:56,670

anything in less than 140 characters add

343

00:16:02,519 --> 00:16:00,190

so I'm still groping with how can I use

344

00:16:05,130 --> 00:16:02,529

that kind of medium I'm think I'm going

345

00:16:07,860 --> 00:16:05,140

to use Twitter to announce one of my

346

00:16:12,750 --> 00:16:07,870

blogs which will appear on on NASA

347

00:16:14,850 --> 00:16:12,760

website or elsewhere and then I've got a

348

00:16:17,610 --> 00:16:14,860

facebook account and I just figured out

349

00:16:20,850 --> 00:16:17,620

how to convert it from one of your

350

00:16:24,000 --> 00:16:20,860

personal profile pages into I guess they

351

00:16:25,829 --> 00:16:24,010

just call it a page so that way anybody

352

00:16:28,440 --> 00:16:25,839

that wants to go in there and see what's

353

00:16:31,230 --> 00:16:28,450

happening can just go in and visit your

354

00:16:34,890 --> 00:16:31,240

facebook account and add so I'm planning

355

00:16:37,079 --> 00:16:34,900

to to keep well I personally won't keep

356

00:16:39,480 --> 00:16:37,089

those all up to date but i'll send the

357

00:16:42,720 --> 00:16:39,490

information down and folks here will

358

00:16:44,400 --> 00:16:42,730

populate those during my mission thanks

359

00:16:47,040 --> 00:16:44,410

very much now a very important

360

00:16:48,990 --> 00:16:47,050

scientific question for you how might

361

00:16:53,060 --> 00:16:49,000

you incorporate hatch chilis into your

362

00:16:57,050 --> 00:16:53,070

mission Oh hatch chili from New Mexico I

363

00:17:00,420 --> 00:16:57,060

tried to fly hatch chili on one on

364

00:17:02,880 --> 00:17:00,430

expedition six but it was fresh hatch

365

00:17:06,720 --> 00:17:02,890

chili and that didn't meet the food

366

00:17:10,199 --> 00:17:06,730

standards so I wasn't able to do that in

367

00:17:12,949 --> 00:17:10,209

fresh form so we had some canned chili

368

00:17:20,049 --> 00:17:12,959

this time this time

369

00:17:23,659 --> 00:17:22,159

okay with that will now switch over to

370

00:17:32,350 --> 00:17:23,669

the Kennedy Space Center where we have a

371

00:17:36,169 --> 00:17:32,360

reporter todd halverson of florida today

372

00:17:39,430 --> 00:17:36,179

for any of you i was just wondering what

373

00:17:42,080 --> 00:17:39,440

is the latest you've heard on the

374

00:17:45,200 --> 00:17:42,090

investigation into the August

375

00:17:52,580 --> 00:17:45,210

twenty-fourth soyuz failure and and the

376

00:17:57,950 --> 00:17:52,590

return to flight effort that sounds like

377

00:18:00,350 --> 00:17:57,960

an ala question no your digital couture

378

00:18:03,380 --> 00:18:00,360

store marcin I'm sorry rose cosmos alien

379

00:18:06,789 --> 00:18:03,390

formats Direction robotics on a

380

00:18:10,399 --> 00:18:06,799

commission camisas tunable apprec no

381

00:18:13,279 --> 00:18:10,409

notice periods de Chelly grotto reboot

382

00:18:16,820 --> 00:18:13,289

and olena NOS dice necrotic auto reboot

383

00:18:20,899 --> 00:18:16,830

/ dietro slishno Kosminski travelin no

384

00:18:25,909 --> 00:18:20,909

quiero que otros cosmos Ozma Viva movil

385

00:18:28,490 --> 00:18:25,919

pretora gamma dot a futurama start I can

386

00:18:31,810 --> 00:18:28,500

only say that Ross cosmos and roscoes my

387

00:18:34,389 --> 00:18:31,820

site there is information of about this

388

00:18:38,330 --> 00:18:34,399

there is special committee that

389

00:18:41,240 --> 00:18:38,340

finalized its activities and published

390

00:18:43,760 --> 00:18:41,250

this statement they found the route

391

00:18:46,820 --> 00:18:43,770

course of the matter and now the news

392

00:18:49,419 --> 00:18:46,830

rosters have been manufactured and they

393

00:18:53,149 --> 00:18:49,429

will be tested on different rockets and

394

00:19:00,520 --> 00:18:53,159

roscoes must also is announcing in you

395

00:19:08,900 --> 00:19:05,060

thanks and I was just wondering for for

396

00:19:11,930 --> 00:19:08,910

any of you what your thoughts are on the

397

00:19:16,160 --> 00:19:11,940

reliability of the Soyuz launcher as

398

00:19:19,340 --> 00:19:16,170

well as the reliability of the Soyuz

399

00:19:24,110 --> 00:19:19,350

spacecraft that you'll return to earth

400

00:19:25,970 --> 00:19:24,120

and are you concerned at all mr. Pettit

401
00:19:30,560 --> 00:19:25,980
about the possibility of a ballistic

402
00:19:32,960 --> 00:19:30,570
reentry ballistic reentry's are just

403
00:19:36,289 --> 00:19:32,970
sort of one of those little facts of

404
00:19:38,030 --> 00:19:36,299
life that happen and I'm I'm actually

405
00:19:39,980 --> 00:19:38,040
happy to have a ballistic entry

406
00:19:43,580 --> 00:19:39,990
capability because that's like carrying

407
00:19:45,470 --> 00:19:43,590
a spare tire at and so when the normal

408
00:19:48,020 --> 00:19:45,480
guided entry doesn't work right then you

409
00:19:52,490 --> 00:19:48,030
download to a ballistic entry in terms

410
00:19:54,560 --> 00:19:52,500
of anxiety getting on a rocket I have

411
00:19:56,270 --> 00:19:54,570
more anxiety sitting here in front of

412
00:20:01,310 --> 00:19:56,280
all of these news cameras and I do

413
00:20:02,750 --> 00:20:01,320

climbing up on top of a rocket okay with

414

00:20:04,460 --> 00:20:02,760

that will be switching over to the phone

415

00:20:06,110 --> 00:20:04,470

bridge where we have three reporters

416

00:20:10,940 --> 00:20:06,120

will start with Tracy Watson

417

00:20:13,669 --> 00:20:10,950

representing USA Today hi can you hear

418

00:20:16,159 --> 00:20:13,679

me all right yes we can hear you okay

419

00:20:19,010 --> 00:20:16,169

thanks to dr. Clippers I'd like to ask a

420

00:20:22,190 --> 00:20:19,020

variation of odds question how does it

421

00:20:24,350 --> 00:20:22,200

affect your calculation of the risk of

422

00:20:26,630 --> 00:20:24,360

the Spoils ride to have these recent

423

00:20:30,200 --> 00:20:26,640

incidents in the past it's a very very

424

00:20:33,770 --> 00:20:30,210

reliable vehicle so do these do these

425

00:20:36,890 --> 00:20:33,780

recent unfortunate mishaps can't tweak

426

00:20:39,740 --> 00:20:36,900

that perception at all or how do you how

427

00:20:41,720 --> 00:20:39,750

do you view it thanks no it doesn't i

428

00:20:43,850 --> 00:20:41,730

mean it indeed there have been hundreds

429

00:20:47,480 --> 00:20:43,860

of good launches it's a fairly reliable

430

00:20:49,130 --> 00:20:47,490

rocket a very liable spaceship one of

431

00:20:52,310 --> 00:20:49,140

the first things that that you have to

432

00:20:53,690 --> 00:20:52,320

remember is that if this would have been

433

00:20:57,830 --> 00:20:53,700

a man so use that would have been

434

00:21:01,539 --> 00:20:57,840

another situation i started in 1975 we

435

00:21:05,030 --> 00:21:01,549

have a great escape system as well and

436

00:21:08,960 --> 00:21:05,040

the saw would have been mended nicely by

437

00:21:11,210 --> 00:21:08,970

parachute so when it happened I I didn't

438

00:21:16,370 --> 00:21:11,220

have for a moment to doubt that

439

00:21:18,980 --> 00:21:16,380

that we would continue and that we would

440

00:21:22,360 --> 00:21:18,990

be in a safe rocket so no problems like

441

00:21:26,539 --> 00:21:22,370

Don said to to board the spacecraft

442

00:21:30,620 --> 00:21:26,549

thank you okay next on the line we have

443

00:21:33,380 --> 00:21:30,630

clara moskowitz with space com hi this

444

00:21:34,880 --> 00:21:33,390

is also a question for dr. coiours I was

445

00:21:36,950 --> 00:21:34,890

just wondering if you could tell us um

446

00:21:38,659 --> 00:21:36,960

what does it mean to people back in the

447

00:21:40,970 --> 00:21:38,669

Netherlands to have you going into space

448

00:21:44,110 --> 00:21:40,980

and and how closely do you think people

449

00:21:48,260 --> 00:21:44,120

will be following your mission back home

450

00:21:50,270 --> 00:21:48,270

well a bit to my surprise there so a lot

451
00:21:52,789 --> 00:21:50,280
of attention again this is the second

452
00:21:56,049 --> 00:21:52,799
flight but it's of course a complete new

453
00:21:59,930 --> 00:21:56,059
generation of young people as well

454
00:22:02,210 --> 00:21:59,940
interested so for small countries of

455
00:22:04,149 --> 00:22:02,220
course flight different for national

456
00:22:06,110 --> 00:22:04,159
astronaut this is a big thing and I

457
00:22:08,870 --> 00:22:06,120
think there's also a good thing because

458
00:22:11,600 --> 00:22:08,880
it's a way to make clear that science

459
00:22:16,220 --> 00:22:11,610
the technology is very exciting and

460
00:22:19,159 --> 00:22:16,230
interesting so I think there's a lot of

461
00:22:22,820 --> 00:22:19,169
attention now and the European Space

462
00:22:24,799 --> 00:22:22,830
Agency also uses it to to have a great

463
00:22:30,230 --> 00:22:24,809

educational program as part of the

464

00:22:32,240 --> 00:22:30,240

mission so yet surprisingly a lot maybe

465

00:22:34,850 --> 00:22:32,250

even more than last time also because of

466

00:22:38,510 --> 00:22:34,860

the social media are nowadays and I

467

00:22:42,909 --> 00:22:38,520

think that it will be followed during

468

00:22:45,529 --> 00:22:42,919

the whole period of the flight thank

469

00:22:47,240 --> 00:22:45,539

okay our last question from the phone

470

00:22:55,920 --> 00:22:47,250

bridge will be from Ian overton with

471

00:23:02,430 --> 00:22:58,380

is still hard what I've got a question

472

00:23:05,920 --> 00:23:02,440

okay well hold in and go ahead bill

473

00:23:07,720 --> 00:23:05,930

thanks for Don Pettit are we going to

474

00:23:10,090 --> 00:23:07,730

have a revival of science Saturday Oh

475

00:23:13,330 --> 00:23:10,100

are we going to have a revival of

476

00:23:15,930 --> 00:23:13,340

science Saturday yes we are but it will

477

00:23:19,780 --> 00:23:15,940

have to be done during off-duty time and

478

00:23:21,730 --> 00:23:19,790

as you know crews on Space Station or

479

00:23:23,920 --> 00:23:21,740

kept pretty busy doing just the

480

00:23:25,960 --> 00:23:23,930

programmatic work and the maintenance on

481

00:23:29,890 --> 00:23:25,970

Space Station we do have some off-duty

482

00:23:32,790 --> 00:23:29,900

time and I plan to use my off-duty time

483

00:23:35,380 --> 00:23:32,800

to working on simple scientific

484

00:23:37,800 --> 00:23:35,390

demonstrations and I'll downlink them

485

00:23:41,920 --> 00:23:37,810

when I can they'll probably be done on a

486

00:23:43,540 --> 00:23:41,930

Saturday afternoon thanks in a you know

487

00:23:46,300 --> 00:23:43,550

during your first day on the station it

488

00:23:48,040 --> 00:23:46,310

was in you know assembly phase and all

489

00:23:50,200 --> 00:23:48,050

of that whereas now its utilization what

490

00:23:51,700 --> 00:23:50,210

are you looking forward to the most for

491

00:23:53,380 --> 00:23:51,710

your second visit is it doing the

492

00:23:56,380 --> 00:23:53,390

experiments is it or is it just simply

493

00:23:59,830 --> 00:23:56,390

being back up there again I like working

494

00:24:02,320 --> 00:23:59,840

on what the purpose of space station is

495

00:24:05,320 --> 00:24:02,330

which is using it to do something

496

00:24:08,980 --> 00:24:05,330

meaningful in terms of facilitating

497

00:24:11,320 --> 00:24:08,990

human exploration and that falls into

498

00:24:14,020 --> 00:24:11,330

two categories that I see there's

499

00:24:16,510 --> 00:24:14,030

scientific research and then there's a

500

00:24:19,630 --> 00:24:16,520

category i like to call engineering

501
00:24:21,340 --> 00:24:19,640
research and whenever you use the word

502
00:24:23,950 --> 00:24:21,350
research have to remember what that

503
00:24:25,870 --> 00:24:23,960
means is the answers are not in the back

504
00:24:27,190 --> 00:24:25,880
of the book you're doing something that

505
00:24:30,280 --> 00:24:27,200
you really don't know what the outcome

506
00:24:31,570 --> 00:24:30,290
is going to be and scientific research I

507
00:24:34,630 --> 00:24:31,580
think folks have a pretty good idea

508
00:24:38,530 --> 00:24:34,640
about what that means engineering

509
00:24:41,110 --> 00:24:38,540
research is involved with the spacecraft

510
00:24:42,810 --> 00:24:41,120
systems themselves for example on

511
00:24:45,400 --> 00:24:42,820
station we're working with this

512
00:24:48,310 --> 00:24:45,410
regenerative life support system and

513
00:24:50,980 --> 00:24:48,320

that's a fancy way of saying that we try

514

00:24:54,100 --> 00:24:50,990

to recycle as much as we can in terms of

515

00:24:58,930 --> 00:24:54,110

all the the the things that human beings

516

00:25:01,450 --> 00:24:58,940

consume and it isn't easy and we've got

517

00:25:03,640 --> 00:25:01,460

some equipment up there to do this and

518

00:25:06,430 --> 00:25:03,650

we're we're working on it every day

519

00:25:07,460 --> 00:25:06,440

trying to keep keep keep it running and

520

00:25:09,549 --> 00:25:07,470

figuring out how to

521

00:25:12,289 --> 00:25:09,559

make out robust so that we can use

522

00:25:14,630 --> 00:25:12,299

technology like that when we really do

523

00:25:18,440 --> 00:25:14,640

venture away from Planet Earth and and

524

00:25:21,169 --> 00:25:18,450

that's one of many legitimate functions

525

00:25:23,419 --> 00:25:21,179

for Space Station and I look forward to

526

00:25:27,860 --> 00:25:23,429

doing either the scientific research or

527

00:25:29,990 --> 00:25:27,870

the engineering research thank you okay

528

00:25:32,870 --> 00:25:30,000

I believe that concludes our questions

529

00:25:34,430 --> 00:25:32,880

from the phone bridge so with that we

530

00:25:37,730 --> 00:25:34,440

will switch back here to Johnson Space

531

00:25:39,740 --> 00:25:37,740

Center and yeah hi lan overton with 21st

532

00:25:41,390 --> 00:25:39,750

century science technology a question

533

00:25:44,690 --> 00:25:41,400

especially for our Russian friend but

534

00:25:47,049 --> 00:25:44,700

anyone can also take it the United

535

00:25:49,760 --> 00:25:47,059

States and Russia has a long history of

536

00:25:53,440 --> 00:25:49,770

collaboration in terms of national

537

00:25:55,789 --> 00:25:53,450

strategic missions from the

538

00:25:58,490 --> 00:25:55,799

Transcontinental Railroad and hopefully

539

00:26:00,470 --> 00:25:58,500

far far into the future and so the

540

00:26:05,630 --> 00:26:00,480

question that I have is what what do you

541

00:26:07,330 --> 00:26:05,640

see as a direction for long-term future

542

00:26:10,430 --> 00:26:07,340

collaboration between the United States

543

00:26:15,730 --> 00:26:10,440

Russia and also China on space

544

00:26:22,070 --> 00:26:17,750

discuss the Turkish for personal

545

00:26:24,649 --> 00:26:22,080

Dominion Romney agosto cosmos Peter stop

546

00:26:27,080 --> 00:26:24,659

with Sparky venerian a media card

547

00:26:30,440 --> 00:26:27,090

estrenando hajna demonstrable stoniton

548

00:26:33,740 --> 00:26:30,450

postre Sydney Alicia near gerster stow

549

00:26:36,049 --> 00:26:33,750

danisha is for Giovanni isla de vieques

550

00:26:38,779 --> 00:26:36,059

misoprostol so Muslim paro valley

551
00:26:42,020 --> 00:26:38,789
Turkish armies nuh Tom lady Fani cake

552
00:26:45,890 --> 00:26:42,030
eater pelota Tom Whalley Globo gear

553
00:26:47,960 --> 00:26:45,900
cosmos twists yes Raja Muda church tomo

554
00:26:51,830 --> 00:26:47,970
bueno raboty semester not see me

555
00:26:53,960 --> 00:26:51,840
Kosminski origami I can only express my

556
00:26:56,870 --> 00:26:53,970
personal opinion on that I think that

557
00:26:59,270 --> 00:26:56,880
the space has long ceased to be a sports

558
00:27:03,169 --> 00:26:59,280
arena where every participant

559
00:27:06,140 --> 00:27:03,179
demonstrates how fast or how cute they

560
00:27:08,810 --> 00:27:06,150
are think that the future of the space

561
00:27:12,590 --> 00:27:08,820
exploration is only belongs only to

562
00:27:15,880 --> 00:27:12,600
joint exploration and we will be able to

563
00:27:19,549 --> 00:27:15,890

do deep space missions only if we

564

00:27:26,050 --> 00:27:19,559

calculate together so I see our future

565

00:27:32,750 --> 00:27:29,630

ok any other follow-ups on this side of

566

00:27:42,570 --> 00:27:32,760

the room ok we'll come back over here

567

00:27:47,350 --> 00:27:45,549

thanks again mark row for aviation week

568

00:27:49,859 --> 00:27:47,360

and I wanted to follow up on an earlier

569

00:27:51,999 --> 00:27:49,869

question by Jim Oberg on the spacewalks

570

00:27:55,060 --> 00:27:52,009

at this point is there anything

571

00:27:58,239 --> 00:27:55,070

scheduled during your stay for

572

00:28:01,619 --> 00:27:58,249

spacewalks or are you basically only in

573

00:28:04,989 --> 00:28:01,629

a response mode to if there's a problem

574

00:28:09,879 --> 00:28:04,999

currently there's nothing scheduled

575

00:28:12,009 --> 00:28:09,889

we're in our response mode there's a one

576

00:28:13,869 --> 00:28:12,019

maintenance activity that's kind of in

577

00:28:17,739 --> 00:28:13,879

the wings right now dealing with the

578

00:28:19,810 --> 00:28:17,749

with the s-band antenna and it's

579

00:28:22,570 --> 00:28:19,820

currently working it doesn't need to be

580

00:28:26,529 --> 00:28:22,580

replaced but it seems like it it has

581

00:28:30,279 --> 00:28:26,539

some some issues and we'll leave it up

582

00:28:32,049 --> 00:28:30,289

to the folks with the long-range plans

583

00:28:36,940 --> 00:28:32,059

to figure out when that needs to be

584

00:28:39,759 --> 00:28:36,950

replaced we are as a crew ready to go

585

00:28:43,330 --> 00:28:39,769

out and and do such an EV a if it were

586

00:28:44,649 --> 00:28:43,340

to fall during our our mission okay I

587

00:28:48,399 --> 00:28:44,659

believe we have another follow-up on the

588

00:28:49,869 --> 00:28:48,409

left Kevin point again with Katie RK

589

00:28:51,999 --> 00:28:49,879

just a follow-up for my previous

590

00:28:53,950 --> 00:28:52,009

question about astronaut eyesight have

591

00:29:02,289 --> 00:28:53,960

any of you ever experienced blurred

592

00:29:05,409 --> 00:29:02,299

vision on orbit or post well up you know

593

00:29:08,139 --> 00:29:05,419

sometimes your eyes start to water just

594

00:29:10,239 --> 00:29:08,149

because you're looking at Earth and it's

595

00:29:11,980 --> 00:29:10,249

such a beautiful sight and of course

596

00:29:18,029 --> 00:29:11,990

you're gonna have some blurred vision

597

00:29:21,129 --> 00:29:18,039

after that all right over to the side

598

00:29:22,810 --> 00:29:21,139

Jill talk representing the Statesman

599

00:29:26,080 --> 00:29:22,820

Journal I want to follow up on till her

600

00:29:27,460 --> 00:29:26,090

words question regarding not necessarily

601
00:29:29,169 --> 00:29:27,470
saturday morning science for perhaps

602
00:29:30,999 --> 00:29:29,179
saturday afternoon science could you

603
00:29:33,239 --> 00:29:31,009
give a specific example off the top of

604
00:29:35,680 --> 00:29:33,249
your head not to put you on the spot but

605
00:29:37,509 --> 00:29:35,690
something that would illustrate to your

606
00:29:43,899 --> 00:29:37,519
hometown perhaps it might interest them

607
00:29:47,590 --> 00:29:43,909
oh well one activity that i want to do

608
00:29:49,480 --> 00:29:47,600
is to sort of a continuation or

609
00:29:52,359 --> 00:29:49,490
something i did on expedition 6 and this

610
00:29:54,250 --> 00:29:52,369
is with stretched thin films which is

611
00:29:58,770 --> 00:29:54,260
just a fancy way of saying

612
00:30:01,300 --> 00:29:58,780
soap films and soap films have

613
00:30:03,850 --> 00:30:01,310

gravitational effects here which is why

614

00:30:06,400 --> 00:30:03,860

a lot of bubbles pop they drain down to

615

00:30:09,430 --> 00:30:06,410

the bottom soap films drain and then

616

00:30:12,160 --> 00:30:09,440

they pop and if you make such films in a

617

00:30:14,470 --> 00:30:12,170

weightless environment they they don't

618

00:30:16,630 --> 00:30:14,480

drain and they can last for days

619

00:30:18,790 --> 00:30:16,640

sometimes weeks I made some of these

620

00:30:21,430 --> 00:30:18,800

films that lasted over a month if you

621

00:30:24,100 --> 00:30:21,440

could keep them from evaporating and

622

00:30:25,810 --> 00:30:24,110

then you can make films that have no

623

00:30:29,770 --> 00:30:25,820

surfactant in them at all you can just

624

00:30:31,930 --> 00:30:29,780

make stretched films of pure water and

625

00:30:34,840 --> 00:30:31,940

this is something you can't do down here

626
00:30:36,790 --> 00:30:34,850
on on earth add and these water films i

627
00:30:39,300 --> 00:30:36,800
could make them to last over a month so

628
00:30:42,160 --> 00:30:39,310
i have a series of investigations

629
00:30:45,630 --> 00:30:42,170
dealing with just little bits of wire

630
00:30:48,130 --> 00:30:45,640
and a water that we get from our

631
00:30:50,230 --> 00:30:48,140
regenerative life-support system so you

632
00:30:55,360 --> 00:30:50,240
know what that water was the day before

633
00:30:58,570 --> 00:30:55,370
and anyway I have some ideas on what I

634
00:31:03,340 --> 00:30:58,580
want to do with these stretched thin

635
00:31:05,740 --> 00:31:03,350
films thank you Jim Oberg with embassy

636
00:31:08,440 --> 00:31:05,750
again you are an all experienced crew

637
00:31:09,850 --> 00:31:08,450
and going back to the same spate not the

638
00:31:13,360 --> 00:31:09,860

same a different space station it's got

639

00:31:15,940 --> 00:31:13,370

Q pool out there but how has going back

640

00:31:18,730 --> 00:31:15,950

to the station made your training your

641

00:31:21,760 --> 00:31:18,740

training and preparation easier or

642

00:31:29,220 --> 00:31:21,770

harder how is going back there a change

643

00:31:31,600 --> 00:31:29,230

that your training this time when I were

644

00:31:33,840 --> 00:31:31,610

when the first time I think the station

645

00:31:37,720 --> 00:31:33,850

was half the size of what it is now and

646

00:31:39,520 --> 00:31:37,730

any people ask me so why do you have to

647

00:31:41,220 --> 00:31:39,530

turn so much how many years I mean

648

00:31:45,520 --> 00:31:41,230

you've been there already can't you just

649

00:31:46,960 --> 00:31:45,530

get on board and go well it's it's it's

650

00:31:51,820 --> 00:31:46,970

pretty much different a lot of new

651
00:31:55,240 --> 00:31:51,830
modules a lot of new experiment Rex so

652
00:31:57,820 --> 00:31:55,250
use that we fly in it as a new person so

653
00:32:00,730 --> 00:31:57,830
with the term that and of course a lot

654
00:32:05,379 --> 00:32:00,740
of it skills based so if you're flying

655
00:32:08,019 --> 00:32:05,389
in 2004 and then again 2011 is

656
00:32:10,180 --> 00:32:08,029
not something that you can just do so

657
00:32:14,229 --> 00:32:10,190
it's a lot of additional training but of

658
00:32:16,779 --> 00:32:14,239
course you have at least a good idea of

659
00:32:20,229 --> 00:32:16,789
what it's like to be weightless and how

660
00:32:22,359 --> 00:32:20,239
to to to deal with equipment it's

661
00:32:25,869 --> 00:32:22,369
floating around and how to stabilize

662
00:32:28,119 --> 00:32:25,879
yourself so you have a good idea of what

663
00:32:31,239 --> 00:32:28,129

it will be like to do perform certain

664

00:32:35,109 --> 00:32:31,249

operations so that's absolutely helps

665

00:32:37,599 --> 00:32:35,119

but yeah it still required a lot of

666

00:32:40,060 --> 00:32:37,609

additional training of course all right

667

00:32:41,919 --> 00:32:40,070

I believe we have one last fall hello my

668

00:32:44,139 --> 00:32:41,929

name is Juliet I'm with 21st science and

669

00:32:47,560 --> 00:32:44,149

technology have a follow-up question on

670

00:32:49,899 --> 00:32:47,570

the russian-us collaboration and also

671

00:32:52,180 --> 00:32:49,909

international collaboration on the

672

00:32:54,879 --> 00:32:52,190

future of mankind in deep space I'm just

673

00:32:57,759 --> 00:32:54,889

wondering what type of collaboration do

674

00:32:59,609 --> 00:32:57,769

you think is necessary and also are you

675

00:33:02,949 --> 00:32:59,619

thinking what do you think about the

676

00:33:05,680 --> 00:33:02,959

potential threat of cyclical mass

677

00:33:08,889 --> 00:33:05,690

extinctions every 62 million years we've

678

00:33:11,560 --> 00:33:08,899

seen on the earth and how mankind may

679

00:33:16,719 --> 00:33:11,570

begin to address that bigger galactic

680

00:33:20,829 --> 00:33:16,729

question I'll tackle the the Galactic

681

00:33:24,579 --> 00:33:20,839

question here I'm a firm believer that

682

00:33:27,279 --> 00:33:24,589

one planet is not enough and I like to

683

00:33:29,109 --> 00:33:27,289

say that perhaps the ultimate reason for

684

00:33:32,440 --> 00:33:29,119

exploring space can be learned from the

685

00:33:34,769 --> 00:33:32,450

dinosaurs if the dinosaurs had explored

686

00:33:38,589 --> 00:33:34,779

space if they'd colonize other planets

687

00:33:40,930 --> 00:33:38,599

they would still be alive today so I I

688

00:33:42,819 --> 00:33:40,940

think this is ultimately why human

689

00:33:46,299 --> 00:33:42,829

beings if we want to live on the time

690

00:33:48,819 --> 00:33:46,309

scale of 10 to 20 s of millions of years

691

00:33:50,529 --> 00:33:48,829

we're going to have to have more we're

692

00:33:55,389 --> 00:33:50,539

going to have to have our DNA on more

693

00:33:56,589 --> 00:33:55,399

than one planet okay anyone want to

694

00:34:00,780 --> 00:33:56,599

respond to the other portion of our

695

00:34:06,160 --> 00:34:03,750

strongest on el problema resources

696

00:34:11,470 --> 00:34:06,170

brahmos chelovek so Stanley Perez

697

00:34:19,660 --> 00:34:11,480

nakayama CEO Lovato de Sevilla puedo

698

00:34:25,090 --> 00:34:19,670

domoi scars on taka Perez nepali

699

00:34:28,000 --> 00:34:25,100

mr. he's led of a druggie planeta well I

700

00:34:31,390 --> 00:34:28,010

think that the problem with resources

701
00:34:33,220 --> 00:34:31,400
will be before the humanity sooner or

702
00:34:37,600 --> 00:34:33,230
later the manager will face this problem

703
00:34:40,510 --> 00:34:37,610
and so the manager will have to actually

704
00:34:43,660 --> 00:34:40,520
look for some other additional means of

705
00:34:48,370 --> 00:34:43,670
existence and I think it will be an

706
00:34:52,230 --> 00:34:48,380
urgent need to explore other Galactic's

707
00:34:57,490 --> 00:34:52,240
and other planets that's what I think

708
00:35:00,580 --> 00:34:57,500
okay oh sorry all right guys we are

709
00:35:04,480 --> 00:35:00,590
around only for since a short time

710
00:35:07,090 --> 00:35:04,490
actually and if we think in cosmic terms

711
00:35:09,850 --> 00:35:07,100
I mean I don't know who set this first

712
00:35:11,290 --> 00:35:09,860
but we are standing at the edge of an

713
00:35:15,970 --> 00:35:11,300

ocean we're only with our toes in the

714

00:35:18,520 --> 00:35:15,980

water and as an ocean to discover so if

715

00:35:21,250 --> 00:35:18,530

you look back to our H from the far

716

00:35:23,800 --> 00:35:21,260

future and then people will see an

717

00:35:25,690 --> 00:35:23,810

Sputnik a garden Armstrong and then

718

00:35:27,670 --> 00:35:25,700

first base or more space station will be

719

00:35:29,620 --> 00:35:27,680

skipped because it would be normal you

720

00:35:31,090 --> 00:35:29,630

have several industry old ones except

721

00:35:33,730 --> 00:35:31,100

for our mining on the moon that's all

722

00:35:35,740 --> 00:35:33,740

these things will happen I'm convinced

723

00:35:37,930 --> 00:35:35,750

that that humanity will spread out

724

00:35:40,810 --> 00:35:37,940

through solar system who knows beyond I

725

00:35:43,990 --> 00:35:40,820

mean requires quite a technology there

726

00:35:48,160 --> 00:35:44,000

but that's for sure but for the moment

727

00:35:50,380 --> 00:35:48,170

we only have our planet and and that's a

728

00:35:52,600 --> 00:35:50,390

very limited planet of its limited

729

00:35:54,330 --> 00:35:52,610

resources and I take back to be very

730

00:35:58,030 --> 00:35:54,340

careful with the explainers first

731

00:36:00,220 --> 00:35:58,040

because before we colonize other places

732

00:36:03,130 --> 00:36:00,230

that will take some time so we have to

733

00:36:05,170 --> 00:36:03,140

be careful there okay but that we have

734

00:36:08,110 --> 00:36:05,180

three questions that were submitted from

735

00:36:09,760 --> 00:36:08,120

the Dutch news agency A&P these first

736

00:36:11,110 --> 00:36:09,770

two are for Andre specifically in the

737

00:36:12,700 --> 00:36:11,120

last one will be for all three of you on

738

00:36:14,140 --> 00:36:12,710

Andre the question

739

00:36:16,060 --> 00:36:14,150

is your launch date is still to be

740

00:36:17,650 --> 00:36:16,070

formally determined the launch was

741

00:36:19,329 --> 00:36:17,660

scheduled for late November at first but

742

00:36:21,190 --> 00:36:19,339

has been pushed back to late December

743

00:36:23,680 --> 00:36:21,200

how does this affect your training for

744

00:36:25,599 --> 00:36:23,690

the mission but i think this question

745

00:36:29,020 --> 00:36:25,609

has already been answered partly at

746

00:36:32,260 --> 00:36:29,030

least by dawn the training is continuing

747

00:36:35,109 --> 00:36:32,270

as planned and there will be some

748

00:36:37,510 --> 00:36:35,119

additional time and we will fill that

749

00:36:41,140 --> 00:36:37,520

with some extra leave but also some well

750

00:36:45,490 --> 00:36:41,150

if we wanted some refresher training but

751
00:36:47,859 --> 00:36:45,500
in principle we are ready to go actually

752
00:36:50,079 --> 00:36:47,869
as a backup crew from the half a year

753
00:36:53,950 --> 00:36:50,089
ago be we could already launched in that

754
00:36:58,390 --> 00:36:53,960
sense so it doesn't affect training so

755
00:37:00,849 --> 00:36:58,400
much and yeah if they if they say

756
00:37:03,690 --> 00:37:00,859
tomorrow oh you who fly anyway when the

757
00:37:06,430 --> 00:37:03,700
third hit of November we are ready to go

758
00:37:08,079 --> 00:37:06,440
ok the next question is two-part

759
00:37:09,760 --> 00:37:08,089
question the Dutch people are becoming

760
00:37:11,800 --> 00:37:09,770
more and more aware of your mission how

761
00:37:14,070 --> 00:37:11,810
do you intend to maintain that and what

762
00:37:16,270 --> 00:37:14,080
are your plans when you return to Earth

763
00:37:19,180 --> 00:37:16,280

well I'm an astronaut of the European

764

00:37:23,680 --> 00:37:19,190

Space Agency that means that whole

765

00:37:25,359 --> 00:37:23,690

Europe is involved and after a flight of

766

00:37:28,660 --> 00:37:25,369

course one of the tasks that the

767

00:37:32,079 --> 00:37:28,670

astronauts have is to to to tell and to

768

00:37:34,690 --> 00:37:32,089

inform the people of what we did and to

769

00:37:39,280 --> 00:37:34,700

follow it up with presentations and

770

00:37:42,099 --> 00:37:39,290

debriefings of course and yeah for the

771

00:37:43,599 --> 00:37:42,109

for the dust people i mean the European

772

00:37:47,140 --> 00:37:43,609

Space Oddity takes care of all the

773

00:37:49,599 --> 00:37:47,150

member states so it is important for

774

00:37:52,990 --> 00:37:49,609

astronauts to be ambassadors for

775

00:37:54,940 --> 00:37:53,000

spaceflight so will be I will be around

776

00:37:57,940 --> 00:37:54,950

in Europe besides of course the normal

777

00:37:59,950 --> 00:37:57,950

work that will pick up again to tell

778

00:38:02,950 --> 00:37:59,960

about the flight and the things we do up

779

00:38:05,410 --> 00:38:02,960

there ok this last question is for all

780

00:38:06,760 --> 00:38:05,420

three crew members like every team the

781

00:38:08,589 --> 00:38:06,770

three of you have different characters

782

00:38:10,180 --> 00:38:08,599

and personalities how would you describe

783

00:38:15,099 --> 00:38:10,190

each other what are your strengths and

784

00:38:20,070 --> 00:38:15,109

weaknesses I'll start with Don oh so you

785

00:38:23,060 --> 00:38:20,080

want me to describe my team is uh uh

786

00:38:27,240 --> 00:38:23,070

gosh

787

00:38:29,490 --> 00:38:27,250

I'll make one comment about Andre I've

788

00:38:31,950 --> 00:38:29,500

never seen him without a smile on his

789

00:38:34,560 --> 00:38:31,960

face even if he had plenty of reason to

790

00:38:39,060 --> 00:38:34,570

not smile he just has a smile on his

791

00:38:41,280 --> 00:38:39,070

face and it makes getting through both

792

00:38:42,750 --> 00:38:41,290

the good times in the bad times it

793

00:38:44,610 --> 00:38:42,760

facilitates getting through the good

794

00:38:48,380 --> 00:38:44,620

times in the bad times when you have a

795

00:38:53,010 --> 00:38:48,390

crewmate that you can work well with

796

00:38:56,010 --> 00:38:53,020

Oleg Oleg knows the Russian side a

797

00:38:58,860 --> 00:38:56,020

station so well that if I have any

798

00:39:02,550 --> 00:38:58,870

questions about health aides are going

799

00:39:05,790 --> 00:39:02,560

there I know with all execs / teased for

800

00:39:08,160 --> 00:39:05,800

both operating the Soyuz spacecraft and

801
00:39:14,720 --> 00:39:08,170
the Russia a part of the segment I know

802
00:39:21,560 --> 00:39:18,450
maestra de hecho de voyage to Don E and

803
00:39:25,890 --> 00:39:21,570
Rio chinya which is never be ye

804
00:39:28,290 --> 00:39:25,900
optimization alutia ocean aletta vaniqa

805
00:39:32,490 --> 00:39:28,300
touch our top 80 odd emotional would

806
00:39:35,430 --> 00:39:32,500
propose a mr. woods on my part I would

807
00:39:38,880 --> 00:39:35,440
like to add that dhananand rare are very

808
00:39:41,640 --> 00:39:38,890
optimistic people a full of life all

809
00:39:46,200 --> 00:39:41,650
words and i think i'm looking forward to

810
00:39:50,220 --> 00:39:46,210
working with them i'm flying with two

811
00:39:52,800 --> 00:39:50,230
great minds Mychal Mulder I mean it's

812
00:39:55,650 --> 00:39:52,810
very it's a very pleasant to who to fly

813
00:40:00,000 --> 00:39:55,660

with with Alec and to be in a simulator

814

00:40:02,850 --> 00:40:00,010

and the way he knows the system and very

815

00:40:04,470 --> 00:40:02,860

pleasant I relaxed to to go through all

816

00:40:09,210 --> 00:40:04,480

kind of emergencies with him and that's

817

00:40:12,480 --> 00:40:09,220

very good feeling and Adonis what we

818

00:40:14,230 --> 00:40:12,490

talked about the Saturday shines don't

819

00:40:18,520 --> 00:40:14,240

as a brilliant mind and I

820

00:40:23,650 --> 00:40:18,530

I love the way he thinks and the way in

821

00:40:25,510 --> 00:40:23,660

his humor so I must say I enjoy the

822

00:40:27,040 --> 00:40:25,520

training besides that the training

823

00:40:29,530 --> 00:40:27,050

itself is interesting in the preparation

824

00:40:32,859 --> 00:40:29,540

but I enjoy the characters as well very

825

00:40:35,020 --> 00:40:32,869

pleasant all right with that will wrap

826

00:40:36,940 --> 00:40:35,030

up our briefing thank you gentlemen one

827

00:40:38,890 --> 00:40:36,950

programming note at three-thirty central

828

00:40:40,900 --> 00:40:38,900

time we will be carrying live satellite

829

00:40:42,520 --> 00:40:40,910

interviews with astronaut don pettit on

830

00:40:44,470 --> 00:40:42,530

NASA television again that beginning at

831

00:40:45,880 --> 00:40:44,480

three-thirty p.m. central time to find

832

00:40:47,080 --> 00:40:45,890

out more information about the crew and