



1
00:00:03,909 --> 00:00:02,389
good afternoon thank you for joining us

2
00:00:06,869 --> 00:00:03,919
for today's crew news conference with

3
00:00:08,710 --> 00:00:06,879
members of the expedition 34 and 35 crew

4
00:00:09,830 --> 00:00:08,720
joining me are nasa astronaut tom

5
00:00:12,709 --> 00:00:09,840
marshburn

6
00:00:14,910 --> 00:00:12,719
russian cosmonaut roman romanenko and

7
00:00:16,950 --> 00:00:14,920
canadian space agency astronaut chris

8
00:00:18,950 --> 00:00:16,960
hadfield the three will launch to the

9
00:00:20,029 --> 00:00:18,960
international space station aboard the

10
00:00:23,429 --> 00:00:20,039
soyuz

11
00:00:25,029 --> 00:00:23,439
tma-07m spacecraft on december 5th

12
00:00:26,470 --> 00:00:25,039
once they've launched they will join

13
00:00:28,470 --> 00:00:26,480

three crew members already on board the

14

00:00:30,710 --> 00:00:28,480

international space station joining nasa

15

00:00:33,350 --> 00:00:30,720

astronaut kevin ford as well as russian

16

00:00:35,910 --> 00:00:33,360

cosmonauts evgeny taurelkin and oleg

17

00:00:37,670 --> 00:00:35,920

novitskiy their long-duration mission is

18

00:00:39,910 --> 00:00:37,680

expected to include among other things

19

00:00:42,229 --> 00:00:39,920

the arrival of the third spacex dragon

20

00:00:44,790 --> 00:00:42,239

spacecraft as well as the first orbital

21

00:00:46,790 --> 00:00:44,800

sciences cygnus cargo craft

22

00:00:48,950 --> 00:00:46,800

and in march when their three crew

23

00:00:50,549 --> 00:00:48,960

crewmates have departed canadian space

24

00:00:51,990 --> 00:00:50,559

agency astronaut chris hadfield will

25

00:00:54,790 --> 00:00:52,000

become the first canadian to serve as

26
00:00:56,630 --> 00:00:54,800
the commander for the expedition 35 crew

27
00:00:59,189 --> 00:00:56,640
i'll now turn it over to opening remarks

28
00:01:01,270 --> 00:00:59,199
turn it over to you tom hi i'm tom

29
00:01:03,430 --> 00:01:01,280
marshburn and this will be my second

30
00:01:05,270 --> 00:01:03,440
space flight i'm going to be one of the

31
00:01:06,550 --> 00:01:05,280
flight engineers on both the soyuz

32
00:01:08,469 --> 00:01:06,560
that's bringing us up to station and

33
00:01:09,830 --> 00:01:08,479
returning us from station and i'll be a

34
00:01:12,310 --> 00:01:09,840
flight engineer onboard the space

35
00:01:14,230 --> 00:01:12,320
station as well just real quick i was

36
00:01:15,910 --> 00:01:14,240
born in north carolina i

37
00:01:18,149 --> 00:01:15,920
got a physics degree at davidson college

38
00:01:19,670 --> 00:01:18,159

got graduate degrees and from university

39

00:01:21,670 --> 00:01:19,680

of virginia and the wake forest school

40

00:01:23,510 --> 00:01:21,680

of medicine i was an er doc for a while

41

00:01:25,429 --> 00:01:23,520

became before i became a nasa flight

42

00:01:27,830 --> 00:01:25,439

surgeon and then became an astronaut in

43

00:01:31,350 --> 00:01:27,840

2004. i did have a chance to go to the

44

00:01:32,710 --> 00:01:31,360

space station in 2009 spent 11 days

45

00:01:33,749 --> 00:01:32,720

docked to it

46

00:01:35,910 --> 00:01:33,759

um

47

00:01:37,270 --> 00:01:35,920

and so for the flight here i'm going to

48

00:01:38,870 --> 00:01:37,280

be

49

00:01:40,710 --> 00:01:38,880

hopefully doing some robotic arm

50

00:01:43,030 --> 00:01:40,720

operations i'll be certified to do space

51

00:01:44,789 --> 00:01:43,040

walks if we need them but

52

00:01:46,230 --> 00:01:44,799

as with most of us our main focus is

53

00:01:48,550 --> 00:01:46,240

going to be conducting a lot of

54

00:01:50,630 --> 00:01:48,560

experiments on board and looking very

55

00:01:52,069 --> 00:01:50,640

much forward to after two and a half

56

00:01:54,230 --> 00:01:52,079

years of training to get our hands on

57

00:01:55,190 --> 00:01:54,240

the experiments and to see what we find

58

00:02:23,910 --> 00:01:55,200

out

59

00:02:28,150 --> 00:02:25,510

good afternoon my name is roman

60

00:02:29,350 --> 00:02:28,160

romanenko and i'm representative of ross

61

00:02:31,750 --> 00:02:29,360

cosmos

62

00:02:34,229 --> 00:02:31,760

and i'll try to be short and brief and

63

00:02:36,150 --> 00:02:34,239

out of safe words about myself

64

00:02:39,190 --> 00:02:36,160

i've already been in space it was back

65

00:02:43,270 --> 00:02:39,200

in 2009 actually together with tom who

66

00:02:48,070 --> 00:02:43,280

were together on the iss and i spent 188

67

00:03:27,350 --> 00:03:16,470

um

68

00:03:33,509 --> 00:03:29,830

i was born in russia in the neighborhood

69

00:03:35,830 --> 00:03:33,519

of moscow and i graduated from a school

70

00:03:38,149 --> 00:03:35,840

in swissney then i went to military

71

00:03:41,030 --> 00:03:38,159

school and became a military pilot

72

00:03:42,630 --> 00:03:41,040

i served in a regiment as a pilot until

73

00:03:44,149 --> 00:03:42,640

2008

74

00:03:47,190 --> 00:03:44,159

and present seven

75

00:03:49,110 --> 00:03:47,200

i'm sorry 1997 when i left the air force

76

00:03:51,830 --> 00:03:49,120

and uh became part of the cosmonaut

77

00:03:53,589 --> 00:03:51,840

corps and since 1998 i've been serving

78

00:04:02,229 --> 00:03:53,599

on the cosmonaut corps

79

00:04:07,030 --> 00:04:05,190

and i'm married i have two children and

80

00:04:12,149 --> 00:04:07,040

i'm getting prepared for my next

81

00:04:16,069 --> 00:04:14,149

good afternoon uh my name is chris

82

00:04:17,749 --> 00:04:16,079

hadfield i think it's

83

00:04:19,590 --> 00:04:17,759

uh a really

84

00:04:21,830 --> 00:04:19,600

interesting time for the three of us to

85

00:04:24,550 --> 00:04:21,840

be having a press conference with the

86

00:04:26,390 --> 00:04:24,560

the history that is personified by uh by

87

00:04:28,950 --> 00:04:26,400

the recent passing of a couple space

88

00:04:30,469 --> 00:04:28,960

pioneers of sally ride and and neil

89

00:04:31,590 --> 00:04:30,479

armstrong and with neil armstrong's

90

00:04:33,110 --> 00:04:31,600

memorial

91

00:04:34,950 --> 00:04:33,120

uh this morning

92

00:04:37,510 --> 00:04:34,960

and also the recent events on space

93

00:04:39,749 --> 00:04:37,520

station uh some really critical

94

00:04:42,070 --> 00:04:39,759

operations done in the last couple weeks

95

00:04:44,469 --> 00:04:42,080

overcoming some big significant hurdles

96

00:04:45,990 --> 00:04:44,479

and having the space station

97

00:04:48,390 --> 00:04:46,000

with the combination of the electrical

98

00:04:51,909 --> 00:04:48,400

repair and the evas and the complexities

99

00:04:53,909 --> 00:04:51,919

of releasing the japanese htv yesterday

100

00:04:57,590 --> 00:04:53,919

demonstrating the necessity for

101
00:04:59,670 --> 00:04:57,600
continued expertise and uh and skill

102
00:05:01,749 --> 00:04:59,680
in this thing that is space flight

103
00:05:03,990 --> 00:05:01,759
and for us to be looking forward to our

104
00:05:05,670 --> 00:05:04,000
flight today is really helps put that

105
00:05:06,870 --> 00:05:05,680
into perspective

106
00:05:09,110 --> 00:05:06,880
uh

107
00:05:10,550 --> 00:05:09,120
i'm really lucky to be flying with these

108
00:05:12,469 --> 00:05:10,560
gentlemen i'm from canada from the

109
00:05:14,469 --> 00:05:12,479
canadian space agency

110
00:05:17,189 --> 00:05:14,479
i was raised on a farm not too far from

111
00:05:18,790 --> 00:05:17,199
toronto in the town of milton and two

112
00:05:20,469 --> 00:05:18,800
brothers and two sisters

113
00:05:22,830 --> 00:05:20,479

joined the air force

114

00:05:25,029 --> 00:05:22,840

uh i flew

115

00:05:26,710 --> 00:05:25,039

cf-18s i did a

116

00:05:28,629 --> 00:05:26,720

training as a test pilot with the u.s

117

00:05:30,629 --> 00:05:28,639

air force and flew as an exchange test

118

00:05:32,310 --> 00:05:30,639

pilot with the united states navy and

119

00:05:33,830 --> 00:05:32,320

i've been an astronaut for a little over

120

00:05:34,790 --> 00:05:33,840

20 years

121

00:05:37,029 --> 00:05:34,800

uh

122

00:05:38,790 --> 00:05:37,039

i've flown in space for 20 days and i've

123

00:05:40,150 --> 00:05:38,800

been in the astronaut program for 20

124

00:05:42,550 --> 00:05:40,160

years to this point so i'm looking

125

00:05:43,990 --> 00:05:42,560

forward to the six months on orbit my

126

00:05:45,830 --> 00:05:44,000

first flight was to help build the

127

00:05:48,230 --> 00:05:45,840

russian space station mir

128

00:05:49,189 --> 00:05:48,240

and my second flight to do spacewalks

129

00:05:50,390 --> 00:05:49,199

and uh

130

00:05:51,670 --> 00:05:50,400

and to help build the international

131

00:05:54,550 --> 00:05:51,680

space station

132

00:05:56,150 --> 00:05:54,560

i'm really looking forward to the suite

133

00:05:57,830 --> 00:05:56,160

of international experiments that on

134

00:05:59,590 --> 00:05:57,840

board we've been training all around the

135

00:06:01,430 --> 00:05:59,600

world

136

00:06:03,110 --> 00:06:01,440

not only be able to run that laboratory

137

00:06:05,270 --> 00:06:03,120

up there but to be able to do the

138

00:06:07,110 --> 00:06:05,280

science that's on board and we

139

00:06:08,950 --> 00:06:07,120

are ready to do whatever we're asked of

140

00:06:10,070 --> 00:06:08,960

so back to you nicole

141

00:06:11,350 --> 00:06:10,080

thank you so much we're going to start

142

00:06:13,029 --> 00:06:11,360

here with questions from the johnson

143

00:06:14,309 --> 00:06:13,039

space center if you could please

144

00:06:16,390 --> 00:06:14,319

indicate if you have a question and

145

00:06:26,390 --> 00:06:16,400

state your name and affiliation

146

00:06:32,790 --> 00:06:29,909

uh the first one i i think is for

147

00:06:35,189 --> 00:06:32,800

roman romanenko i've seen some

148

00:06:38,469 --> 00:06:35,199

scheduling that shows possibly the

149

00:06:40,870 --> 00:06:38,479

russian multi-purpose

150

00:06:43,830 --> 00:06:40,880

laboratory module might show up in the

151
00:06:45,110 --> 00:06:43,840
spring time frame during

152
00:06:46,950 --> 00:06:45,120
during your

153
00:06:48,950 --> 00:06:46,960
cruise time on the space station and i

154
00:06:51,189 --> 00:06:48,960
wonder if that's if you guys are

155
00:06:59,110 --> 00:06:51,199
expecting that with i think the module

156
00:06:59,120 --> 00:07:19,990
no model

157
00:07:25,430 --> 00:07:21,909
actually docking of the new russian

158
00:07:27,430 --> 00:07:25,440
module is not planned until 2014 but

159
00:07:29,830 --> 00:07:27,440
certain parts of the structure will

160
00:07:30,870 --> 00:07:29,840
arrive on the russian progress vehicles

161
00:07:32,870 --> 00:07:30,880
and

162
00:07:56,390 --> 00:07:32,880
will use them before the new module

163
00:07:56,400 --> 00:08:05,909

a

164

00:08:10,550 --> 00:08:08,070

of course if the schedule uh

165

00:08:12,710 --> 00:08:10,560

held we probably would have a couple of

166

00:08:14,230 --> 00:08:12,720

space works planned and this was

167

00:08:15,749 --> 00:08:14,240

something would be something really good

168

00:08:18,950 --> 00:08:15,759

for me because this is something that

169

00:08:21,830 --> 00:08:18,960

i've been getting ready for my entire

170

00:08:23,990 --> 00:08:21,840

space life getting ready for space works

171

00:08:27,670 --> 00:08:24,000

but unfortunately this is not probably

172

00:08:32,310 --> 00:08:30,309

thank you and i also had a question for

173

00:08:34,230 --> 00:08:32,320

chris hadfield

174

00:08:36,550 --> 00:08:34,240

towards the end of your stay you'll take

175

00:08:37,589 --> 00:08:36,560

command of the space station and given

176

00:08:38,949 --> 00:08:37,599

some of the

177

00:08:42,550 --> 00:08:38,959

comments you

178

00:08:44,949 --> 00:08:42,560

made as you were introducing yourself

179

00:08:48,070 --> 00:08:44,959

what does this sort of mean for canada

180

00:08:49,590 --> 00:08:48,080

in a big picture sense to have

181

00:08:50,310 --> 00:08:49,600

um

182

00:10:07,590 --> 00:08:50,320

a

183

00:10:10,389 --> 00:10:07,600

to

184

00:10:12,389 --> 00:10:10,399

julie payet being the the main mission

185

00:10:13,590 --> 00:10:12,399

specialist or flight engineer on this on

186

00:10:15,910 --> 00:10:13,600

the shuttle

187

00:10:18,230 --> 00:10:15,920

bob thurst six months on station it

188

00:10:20,389 --> 00:10:18,240

almost forms if you were to plot it on a

189

00:10:23,269 --> 00:10:20,399

graph some sort of straight line of

190

00:10:24,949 --> 00:10:23,279

increased experience and responsibility

191

00:10:26,550 --> 00:10:24,959

and even though

192

00:10:28,630 --> 00:10:26,560

it's very hard to predict the future i

193

00:10:30,829 --> 00:10:28,640

think canada has done

194

00:10:33,269 --> 00:10:30,839

an admirable job of

195

00:10:35,269 --> 00:10:33,279

participating and where we can leading

196

00:10:37,670 --> 00:10:35,279

in the world space program managed now

197

00:10:38,710 --> 00:10:37,680

through the canadian space agency and i

198

00:10:41,750 --> 00:10:38,720

see

199

00:10:44,069 --> 00:10:41,760

this opportunity to work internationally

200

00:10:47,110 --> 00:10:44,079

to uh to help out with the best of my

201
00:10:49,829 --> 00:10:47,120
abilities as a continuation of that

202
00:10:53,750 --> 00:10:49,839
and when when neil armstrong walked on

203
00:10:56,230 --> 00:10:53,760
the moon back in 69 i was so inspired by

204
00:10:58,230 --> 00:10:56,240
this new human capability and even

205
00:10:59,829 --> 00:10:58,240
though the doors were all closed i

206
00:11:02,870 --> 00:10:59,839
thought someday

207
00:11:04,470 --> 00:11:02,880
maybe those doors will open and and a

208
00:11:06,389 --> 00:11:04,480
little canadian kid might have a chance

209
00:11:07,509 --> 00:11:06,399
to do that and and so i see what we're

210
00:11:10,630 --> 00:11:07,519
doing now

211
00:11:12,310 --> 00:11:10,640
as just a long hallway of doors that are

212
00:11:13,750 --> 00:11:12,320
continuing to open

213
00:11:14,870 --> 00:11:13,760

uh to help

214

00:11:17,269 --> 00:11:14,880

both

215

00:11:19,110 --> 00:11:17,279

perhaps inspire and motivate

216

00:11:21,110 --> 00:11:19,120

young canadian kids and young kids all

217

00:11:23,269 --> 00:11:21,120

around the world in those same footsteps

218

00:11:29,509 --> 00:11:23,279

that neil and buzz put up there

219

00:11:32,949 --> 00:11:31,269

tom given your extensive medical

220

00:11:34,550 --> 00:11:32,959

background i would feel really good

221

00:11:35,590 --> 00:11:34,560

being on the space station and having

222

00:11:37,190 --> 00:11:35,600

you there

223

00:11:39,350 --> 00:11:37,200

i mean tell me how

224

00:11:41,829 --> 00:11:39,360

your medical background would translate

225

00:11:44,949 --> 00:11:41,839

on the space station what that skill set

226

00:11:46,470 --> 00:11:44,959

brings to a long duration mission

227

00:11:48,389 --> 00:11:46,480

when i worked as a flight surgeon on the

228

00:11:49,750 --> 00:11:48,399

mir for the mirror space station i

229

00:11:51,829 --> 00:11:49,760

wasn't on board

230

00:11:54,310 --> 00:11:51,839

but i supported the us astronauts that

231

00:11:56,470 --> 00:11:54,320

were up there i was extremely curious to

232

00:11:59,269 --> 00:11:56,480

experience what they're experiencing to

233

00:12:01,750 --> 00:11:59,279

better understand human physiology

234

00:12:03,350 --> 00:12:01,760

just to feel it on the inside there

235

00:12:04,470 --> 00:12:03,360

but

236

00:12:05,990 --> 00:12:04,480

the

237

00:12:07,350 --> 00:12:06,000

so i'm looking forward to getting back

238

00:12:08,629 --> 00:12:07,360

up there again

239

00:12:11,110 --> 00:12:08,639

to experience what it's like to be a

240

00:12:12,550 --> 00:12:11,120

human being for a long duration

241

00:12:14,389 --> 00:12:12,560

you undergo changes not just when you

242

00:12:17,590 --> 00:12:14,399

get there but for weeks and weeks and a

243

00:12:19,190 --> 00:12:17,600

month later so adding to

244

00:12:20,949 --> 00:12:19,200

medical knowledge to the extent that i

245

00:12:22,629 --> 00:12:20,959

can for be able to come back as a

246

00:12:24,629 --> 00:12:22,639

physician talking to physicians who take

247

00:12:26,949 --> 00:12:24,639

care of astronauts

248

00:12:28,389 --> 00:12:26,959

and saying this is this is what

249

00:12:30,069 --> 00:12:28,399

we know by the science and this is what

250

00:12:32,389 --> 00:12:30,079

it feels like and this is the symptom

251

00:12:34,790 --> 00:12:32,399

complex of being in space i'm looking

252

00:12:37,590 --> 00:12:34,800

forward to that um one thing is you know

253

00:12:39,829 --> 00:12:37,600

nasa has worked very hard on bringing

254

00:12:40,870 --> 00:12:39,839

the trauma center bringing really good

255

00:12:44,550 --> 00:12:40,880

medicine

256

00:12:45,590 --> 00:12:44,560

on the space station

257

00:12:47,590 --> 00:12:45,600

we can do that with someone with

258

00:12:49,509 --> 00:12:47,600

technology we can do it with putting

259

00:12:50,310 --> 00:12:49,519

experienced people up there

260

00:12:52,069 --> 00:12:50,320

but

261

00:12:53,910 --> 00:12:52,079

we're always looking at ways to getting

262

00:12:55,509 --> 00:12:53,920

even better medical judgment up there

263

00:12:57,269 --> 00:12:55,519

and in a small way i'm

264

00:12:58,550 --> 00:12:57,279

my medical judgment is what's going to

265

00:13:00,949 --> 00:12:58,560

add to the

266

00:13:02,629 --> 00:13:00,959

to the medical care on board so i want

267

00:13:06,069 --> 00:13:02,639

to be a part of

268

00:13:06,949 --> 00:13:06,079

getting that on board a spacecraft even

269

00:13:08,310 --> 00:13:06,959

more

270

00:13:09,990 --> 00:13:08,320

for a couple of reasons not only to

271

00:13:12,069 --> 00:13:10,000

enable

272

00:13:14,069 --> 00:13:12,079

exploration class missions

273

00:13:16,069 --> 00:13:14,079

which are not going to have the option

274

00:13:18,230 --> 00:13:16,079

of de-orbiting if a medical problem

275

00:13:20,870 --> 00:13:18,240

comes up probably won't have enough

276

00:13:23,190 --> 00:13:20,880

equipment to do surgery although

277

00:13:25,030 --> 00:13:23,200

we're working on that somewhat

278

00:13:26,389 --> 00:13:25,040

but not only that but

279

00:13:29,110 --> 00:13:26,399

those kind of things were directly

280

00:13:31,670 --> 00:13:29,120

relatable to health care on earth and

281

00:13:33,670 --> 00:13:31,680

increasing health care not only to

282

00:13:35,350 --> 00:13:33,680

outposts and to

283

00:13:37,430 --> 00:13:35,360

underserved areas remote locations

284

00:13:38,230 --> 00:13:37,440

around the globe but one could consider

285

00:13:44,310 --> 00:13:38,240

a

286

00:13:47,110 --> 00:13:44,320

we know to get in to see the doctor so

287

00:13:50,629 --> 00:13:47,120

all the earth benefits are huge i feel

288

00:13:52,310 --> 00:13:50,639

like and so i'm very excited about that

289

00:13:53,990 --> 00:13:52,320

you've got an extensive musical

290

00:13:55,670 --> 00:13:54,000

background and i think they're a variety

291

00:13:57,590 --> 00:13:55,680

of instruments up there in the space

292

00:13:59,030 --> 00:13:57,600

station planning anything or taking

293

00:14:00,470 --> 00:13:59,040

anything with you and

294

00:14:02,230 --> 00:14:00,480

what kind of music are you planning to

295

00:14:03,990 --> 00:14:02,240

listen to up there it turns out all

296

00:14:05,829 --> 00:14:04,000

three of us are musicians in our spare

297

00:14:08,710 --> 00:14:05,839

time uh

298

00:14:09,910 --> 00:14:08,720

most of us guitar based so and on board

299

00:14:11,430 --> 00:14:09,920

space station there's a guitar a

300

00:14:13,350 --> 00:14:11,440

canadian guitar

301

00:14:15,110 --> 00:14:13,360

luckily enough made in vancouver but

302

00:14:16,870 --> 00:14:15,120

there's also a keyboard and most

303

00:14:18,389 --> 00:14:16,880

recently there's a ukulele on the space

304

00:14:19,189 --> 00:14:18,399

station so

305

00:14:21,670 --> 00:14:19,199

uh

306

00:14:23,269 --> 00:14:21,680

you know our job is is of course to work

307

00:14:24,870 --> 00:14:23,279

and keep the station healthy and get all

308

00:14:26,870 --> 00:14:24,880

the experiments done but we do have

309

00:14:27,670 --> 00:14:26,880

evenings and sometime on the weekends

310

00:14:30,069 --> 00:14:27,680

and

311

00:14:31,670 --> 00:14:30,079

just as we do on earth

312

00:14:33,750 --> 00:14:31,680

astronauts have different hobbies and

313

00:14:36,389 --> 00:14:33,760

pastimes and

314

00:14:38,389 --> 00:14:36,399

mine is music and so the opportunity to

315

00:14:40,629 --> 00:14:38,399

play the songs that i know up there to

316

00:14:42,550 --> 00:14:40,639

record songs that i've written

317

00:14:44,550 --> 00:14:42,560

i'm working with several musical

318

00:14:47,269 --> 00:14:44,560

organizations on earth

319

00:14:49,430 --> 00:14:47,279

working nationally in canada to record a

320

00:14:51,750 --> 00:14:49,440

song along with with the band the

321

00:14:55,910 --> 00:14:51,760

barenaked ladies actually

322

00:14:57,509 --> 00:14:55,920

to uh it'll be in schools and choirs and

323

00:14:58,550 --> 00:14:57,519

high school orchestras and things all

324

00:15:02,069 --> 00:14:58,560

this year

325

00:15:03,910 --> 00:15:02,079

a song that we've written together so

326

00:15:06,629 --> 00:15:03,920

it's an extension really of

327

00:15:07,990 --> 00:15:06,639

communication we can talk in russian we

328

00:15:10,389 --> 00:15:08,000

can talk in french we can talk in

329

00:15:13,350 --> 00:15:10,399

english we can talk in music

330

00:15:16,790 --> 00:15:13,360

and it's a really fundamental human

331

00:15:18,310 --> 00:15:16,800

uh form of artistic communication and it

332

00:15:21,269 --> 00:15:18,320

touches people at a different level in a

333

00:15:23,189 --> 00:15:21,279

different way and for me music is really

334

00:15:24,870 --> 00:15:23,199

important on earth and i'm

335

00:15:27,189 --> 00:15:24,880

really looking forward to the

336

00:15:28,949 --> 00:15:27,199

opportunity to float weightless by the

337

00:15:31,189 --> 00:15:28,959

huge cupola window

338

00:15:32,069 --> 00:15:31,199

uh playing and writing and recording

339

00:15:33,829 --> 00:15:32,079

music

340

00:15:36,550 --> 00:15:33,839

from that amazing new human vantage

341

00:15:40,949 --> 00:15:38,470

for for christopher tom earth

342

00:15:43,269 --> 00:15:40,959

observations i know it's a mandate on

343

00:15:45,590 --> 00:15:43,279

the space station but talk to me about

344

00:15:47,829 --> 00:15:45,600

what you will be looking for in your

345

00:15:49,030 --> 00:15:47,839

earth observations on your personal list

346

00:15:50,710 --> 00:15:49,040

and then

347

00:15:52,629 --> 00:15:50,720

what you're looking for scientifically

348

00:15:53,990 --> 00:15:52,639

as well

349

00:15:55,829 --> 00:15:54,000

i you know i

350

00:15:57,430 --> 00:15:55,839

don't want to speak for chris but he's a

351

00:15:59,110 --> 00:15:57,440

traveler and explorer on the earth as

352

00:16:00,790 --> 00:15:59,120

well as me and i would love to see a lot

353

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

of those places i've been to uh from

354

00:16:05,110 --> 00:16:02,480

space and many places i haven't been

355

00:16:08,310 --> 00:16:05,120

which for me involves mountain ranges uh

356

00:16:10,470 --> 00:16:08,320

in remote areas both at each pole as far

357

00:16:11,670 --> 00:16:10,480

as our orbit will allow so i'm looking

358

00:16:13,509 --> 00:16:11,680

forward to that

359

00:16:14,790 --> 00:16:13,519

but

360

00:16:17,110 --> 00:16:14,800

large

361

00:16:18,150 --> 00:16:17,120

climate events that occur i've heard

362

00:16:19,990 --> 00:16:18,160

about

363

00:16:23,030 --> 00:16:20,000

crew members being able to observe that

364

00:16:25,829 --> 00:16:23,040

photograph it to bring back

365

00:16:28,150 --> 00:16:25,839

the view to people on earth can have a

366

00:16:29,910 --> 00:16:28,160

huge impact on how people feel about the

367

00:16:31,110 --> 00:16:29,920

earth how they feel about processes that

368

00:16:32,949 --> 00:16:31,120

are occurring on the earth something you

369

00:16:35,269 --> 00:16:32,959

can't necessarily get with the with the

370

00:16:37,350 --> 00:16:35,279

satellite with the pre-planned uh

371

00:16:40,150 --> 00:16:37,360

series of photographs to be executed by

372

00:16:41,670 --> 00:16:40,160

a remote satellite so i'm

373

00:16:43,590 --> 00:16:41,680

looking forward to

374

00:16:45,110 --> 00:16:43,600

using my brain my eyes

375

00:16:47,030 --> 00:16:45,120

to see things both under the direction

376

00:16:48,550 --> 00:16:47,040

from the ground but also to

377

00:16:51,509 --> 00:16:48,560

see what i can pick out as to what's

378

00:16:53,749 --> 00:16:51,519

going on we have some wonderful

379

00:16:55,829 --> 00:16:53,759

satellites that take great earth images

380

00:16:58,150 --> 00:16:55,839

right now and google earth is as good a

381

00:17:00,550 --> 00:16:58,160

a record of that as possible

382

00:17:02,790 --> 00:17:00,560

but the the chance

383

00:17:04,309 --> 00:17:02,800

artistry that looking at the earth

384

00:17:06,630 --> 00:17:04,319

brings when you're outside on a space

385

00:17:08,150 --> 00:17:06,640

walk and you look at the earth

386

00:17:09,029 --> 00:17:08,160

it more than

387

00:17:12,630 --> 00:17:09,039

then

388

00:17:15,990 --> 00:17:12,640

your entire mind

389

00:17:18,309 --> 00:17:16,000

it is just an overwhelming beauty and

390

00:17:20,309 --> 00:17:18,319

once in a while uh some aspect of it

391

00:17:21,429 --> 00:17:20,319

we'll be able to capture with a camera

392

00:17:22,949 --> 00:17:21,439

not just

393

00:17:25,270 --> 00:17:22,959

the technical side of earth and the

394

00:17:26,789 --> 00:17:25,280

geography of earth but the the the

395

00:17:28,470 --> 00:17:26,799

beauty that comes from seeing earth

396

00:17:30,710 --> 00:17:28,480

through a different vantage point i'm

397

00:17:31,510 --> 00:17:30,720

flying a japanese experiment

398

00:17:33,029 --> 00:17:31,520

that

399

00:17:34,789 --> 00:17:33,039

mirrors their

400

00:17:36,710 --> 00:17:34,799

earthbound

401
00:17:38,789 --> 00:17:36,720
tradition of looking at the moon as a

402
00:17:41,110 --> 00:17:38,799
reflection in liquid

403
00:17:42,950 --> 00:17:41,120
through artistry and description

404
00:17:44,549 --> 00:17:42,960
and a japanese artist came up with the

405
00:17:46,070 --> 00:17:44,559
idea of looking at the world through

406
00:17:48,070 --> 00:17:46,080
reflections in liquid and i have a

407
00:17:50,630 --> 00:17:48,080
payload that will float water droplets

408
00:17:52,390 --> 00:17:50,640
and use a high definition video camera

409
00:17:54,950 --> 00:17:52,400
looking at the earth's horizon through

410
00:17:56,070 --> 00:17:54,960
the various windows of the space station

411
00:17:59,430 --> 00:17:56,080
to

412
00:18:00,390 --> 00:17:59,440
see the earth as an artistic human place

413
00:18:04,549 --> 00:18:00,400

not

414

00:18:05,990 --> 00:18:04,559

as a fact or places that have been or

415

00:18:07,350 --> 00:18:06,000

places i want to go and of course i'm

416

00:18:09,350 --> 00:18:07,360

interested in those

417

00:18:11,270 --> 00:18:09,360

but the bigger human side of it of the

418

00:18:13,270 --> 00:18:11,280

artistry and beauty of it i'm really

419

00:18:15,669 --> 00:18:13,280

looking forward to the wealth and the

420

00:18:16,950 --> 00:18:15,679

privilege of time during our six months

421

00:18:22,549 --> 00:18:16,960

to see the world

422

00:18:29,110 --> 00:18:24,710

he's here at the newsroom okay with that

423

00:18:33,990 --> 00:18:31,909

i wonder if you might discuss what your

424

00:18:36,630 --> 00:18:34,000

and even the timing of the

425

00:18:40,390 --> 00:18:36,640

commercial us commercial

426

00:18:42,310 --> 00:18:40,400

cargo craft you anticipate during your

427

00:18:43,909 --> 00:18:42,320

six months

428

00:18:45,750 --> 00:18:43,919

i know the schedule's changed i just

429

00:18:47,750 --> 00:18:45,760

kind of wonder how it looks now actually

430

00:18:49,830 --> 00:18:47,760

mark we just came from a meeting uh with

431

00:18:51,830 --> 00:18:49,840

our flight directors just prior to

432

00:18:53,270 --> 00:18:51,840

coming over to speak with you

433

00:18:55,669 --> 00:18:53,280

um

434

00:18:57,510 --> 00:18:55,679

of course there's a combination of the

435

00:18:59,510 --> 00:18:57,520

uh the well-proven

436

00:19:00,870 --> 00:18:59,520

uh vehicles that are coming up and then

437

00:19:03,590 --> 00:19:00,880

the newer ones

438

00:19:05,830 --> 00:19:03,600

uh we have a succession of uh

439

00:19:07,029 --> 00:19:05,840

progresses and and of course the soyuz

440

00:19:09,270 --> 00:19:07,039

is rotating

441

00:19:10,630 --> 00:19:09,280

um when we arrive all of the russian

442

00:19:13,590 --> 00:19:10,640

ports will be full there'll be two

443

00:19:16,390 --> 00:19:13,600

progresses there as well as the soyuz

444

00:19:19,510 --> 00:19:16,400

and then not too long after we arrive

445

00:19:21,430 --> 00:19:19,520

on we launched december 5th of course

446

00:19:22,710 --> 00:19:21,440

there is scheduled to have a dragon come

447

00:19:24,470 --> 00:19:22,720

up

448

00:19:25,510 --> 00:19:24,480

about in the order of six weeks after we

449

00:19:26,789 --> 00:19:25,520

get there

450

00:19:31,029 --> 00:19:26,799

and

451

00:19:32,390 --> 00:19:31,039

we're expecting an atv uh towards the

452

00:19:34,310 --> 00:19:32,400

end into april

453

00:19:36,630 --> 00:19:34,320

and then the last piece is the is the

454

00:19:39,590 --> 00:19:36,640

absolutely new commercial vehicle coming

455

00:19:41,350 --> 00:19:39,600

up which is orbital cygnus and the date

456

00:19:44,630 --> 00:19:41,360

on that of course is still in flux it's

457

00:19:45,830 --> 00:19:44,640

very hard to get to space and they're

458

00:19:48,549 --> 00:19:45,840

trying to make sure they do everything

459

00:19:50,390 --> 00:19:48,559

right and we don't know the current date

460

00:19:52,870 --> 00:19:50,400

we're looking to see it towards the end

461

00:19:55,350 --> 00:19:52,880

of our of our six months we land

462

00:19:58,150 --> 00:19:55,360

middle of may uh sometime and somewhere

463

00:20:00,630 --> 00:19:58,160

in the last uh quarter of our time we're

464

00:20:02,630 --> 00:20:00,640

expecting to see cygnus come up as well

465

00:20:03,830 --> 00:20:02,640

and the atv will be in around that same

466

00:20:05,590 --> 00:20:03,840

time frame

467

00:20:07,909 --> 00:20:05,600

so that's the signa the sequence that

468

00:20:09,270 --> 00:20:07,919

we're uh we're expecting

469

00:20:10,710 --> 00:20:09,280

but it's

470

00:20:12,549 --> 00:20:10,720

it's not an airline it's it's a

471

00:20:15,830 --> 00:20:12,559

complicated uh

472

00:20:18,390 --> 00:20:15,840

step-by-step stage uh

473

00:20:20,390 --> 00:20:18,400

flow and as a result we've been trained

474

00:20:22,230 --> 00:20:20,400

all the crew members to uh to take care

475

00:20:25,270 --> 00:20:22,240

of each one of those vehicles whether

476

00:20:28,789 --> 00:20:27,110

okay with that now we will switch to

477

00:20:30,789 --> 00:20:28,799

take questions from canadian media

478

00:20:37,590 --> 00:20:30,799

located at the canadian space agency

479

00:20:41,909 --> 00:20:39,990

boschman from ctv news high uh hi chris

480

00:20:43,669 --> 00:20:41,919

hadfield i wanted to ask you when this

481

00:20:45,990 --> 00:20:43,679

was announced two years ago you talked

482

00:20:47,510 --> 00:20:46,000

about the challenges of preparing for

483

00:20:49,270 --> 00:20:47,520

emission that would be much longer than

484

00:20:52,630 --> 00:20:49,280

the missions you've done in the past

485

00:20:56,070 --> 00:20:54,630

the training uh

486

00:20:58,710 --> 00:20:56,080

is a really

487

00:21:01,669 --> 00:20:58,720

fascinating process actually

488

00:21:02,390 --> 00:21:01,679

you spent so much of it alone

489

00:21:04,070 --> 00:21:02,400

because

490

00:21:06,230 --> 00:21:04,080

the the skills that are necessary are

491

00:21:07,270 --> 00:21:06,240

skills you have to gather yourself

492

00:21:09,590 --> 00:21:07,280

you have to

493

00:21:10,470 --> 00:21:09,600

fully understand how to fix everything

494

00:21:12,549 --> 00:21:10,480

say

495

00:21:14,390 --> 00:21:12,559

inside the japanese laboratory or the

496

00:21:16,950 --> 00:21:14,400

euopean laboratory this morning i had a

497

00:21:19,110 --> 00:21:16,960

two hour class on refreshing all of my

498

00:21:21,350 --> 00:21:19,120

knowledge of how to fix the complex

499

00:21:23,750 --> 00:21:21,360

computer and cooling and thermal control

500

00:21:24,549 --> 00:21:23,760

systems in the european laboratory

501
00:21:28,390 --> 00:21:24,559
and

502
00:21:30,470 --> 00:21:28,400
whole crew to each one of those so for

503
00:21:32,789 --> 00:21:30,480
years in advance of the flight you are

504
00:21:35,270 --> 00:21:32,799
traveling from simulator to simulator

505
00:21:36,310 --> 00:21:35,280
and classroom to classroom learning all

506
00:21:38,390 --> 00:21:36,320
of

507
00:21:40,710 --> 00:21:38,400
what what might be viewed in an olympic

508
00:21:42,950 --> 00:21:40,720
comparison as the compulsories

509
00:21:45,669 --> 00:21:42,960
before you get to any of the freestyle

510
00:21:47,590 --> 00:21:45,679
and now for the last six months or nine

511
00:21:50,230 --> 00:21:47,600
months we've really started to move in

512
00:21:52,070 --> 00:21:50,240
lock step as a crew where it makes more

513
00:21:54,390 --> 00:21:52,080

sense now that all of us have the

514

00:21:56,149 --> 00:21:54,400

requisite knowledge and proven skills

515

00:21:58,789 --> 00:21:56,159

that now we can start functioning both

516

00:22:01,669 --> 00:21:58,799

in this in the station as a crew for

517

00:22:03,990 --> 00:22:01,679

emergencies and day-to-day ops and maybe

518

00:22:05,270 --> 00:22:04,000

even more critically in the soyuz as a

519

00:22:06,390 --> 00:22:05,280

crew of three

520

00:22:08,230 --> 00:22:06,400

because

521

00:22:10,549 --> 00:22:08,240

that's the most dynamic phase of flight

522

00:22:12,310 --> 00:22:10,559

things can happen the most

523

00:22:13,830 --> 00:22:12,320

the quickest that we really have to be

524

00:22:17,029 --> 00:22:13,840

able to react to

525

00:22:18,950 --> 00:22:17,039

and it's maybe like building a pyramid

526

00:22:21,270 --> 00:22:18,960

all of those huge

527

00:22:23,430 --> 00:22:21,280

area of skills all getting focused more

528

00:22:26,710 --> 00:22:23,440

and more with the very apex of our

529

00:22:29,110 --> 00:22:26,720

training pyramid being um december 5th

530

00:22:31,510 --> 00:22:29,120

when we climb into the soyuz on the same

531

00:22:34,549 --> 00:22:31,520

launch pad that yuri gagarin climbed

532

00:22:36,630 --> 00:22:34,559

into his spaceship and the three of us

533

00:22:37,669 --> 00:22:36,640

light the fires underneath and and leave

534

00:22:41,830 --> 00:22:37,679

earth

535

00:22:45,350 --> 00:22:41,840

it's it's a complicated a demanding

536

00:22:47,430 --> 00:22:45,360

uh long process but a necessary process

537

00:22:49,029 --> 00:22:47,440

and one that i think

538

00:22:50,549 --> 00:22:49,039

turns out

539

00:22:55,990 --> 00:22:50,559

a group of people that are really ready

540

00:22:59,510 --> 00:22:57,750

mr hatfield this is max harold from the

541

00:23:01,669 --> 00:22:59,520

montreal gazette i wonder if you could

542

00:23:03,590 --> 00:23:01,679

uh continuing along that line if you

543

00:23:05,669 --> 00:23:03,600

could tell us what some of the toughest

544

00:23:07,830 --> 00:23:05,679

parts of your training have been and

545

00:23:11,110 --> 00:23:07,840

what are the most riskiest scenarios you

546

00:23:15,430 --> 00:23:11,120

prepare for such as i guess a fire or

547

00:23:19,830 --> 00:23:18,390

the the toughest parts of the training

548

00:23:24,470 --> 00:23:19,840

i think

549

00:23:27,590 --> 00:23:24,480

your head over all that time

550

00:23:29,669 --> 00:23:27,600

you you go to uh cologne germany to

551
00:23:32,870 --> 00:23:29,679
study on the european part and of course

552
00:23:34,630 --> 00:23:32,880
they very ardently and and uh

553
00:23:37,110 --> 00:23:34,640
conscientiously teach you everything you

554
00:23:38,630 --> 00:23:37,120
need to know and then a year later you

555
00:23:40,070 --> 00:23:38,640
come back for a refresher and another

556
00:23:41,350 --> 00:23:40,080
year later you come back for a refresher

557
00:23:44,070 --> 00:23:41,360
and then the next time you see it you're

558
00:23:45,830 --> 00:23:44,080
in orbit and how do you filter that in

559
00:23:47,909 --> 00:23:45,840
your mind how do you keep track of the

560
00:23:49,590 --> 00:23:47,919
really critical items how do you keep

561
00:23:52,149 --> 00:23:49,600
them fresh in your head

562
00:23:53,590 --> 00:23:52,159
you know i build a one pager okay when

563
00:23:55,190 --> 00:23:53,600

i'm going to think about the columbus

564

00:23:57,269 --> 00:23:55,200

module i have this one piece of paper

565

00:23:59,269 --> 00:23:57,279

and i've tried to list all of the mental

566

00:24:00,950 --> 00:23:59,279

reminders so that i can then picture

567

00:24:02,950 --> 00:24:00,960

myself back three years ago in the

568

00:24:04,470 --> 00:24:02,960

classroom in cologne remembering all

569

00:24:06,630 --> 00:24:04,480

those things i needed to know and that's

570

00:24:07,990 --> 00:24:06,640

true for the the canadarm2 and for

571

00:24:10,230 --> 00:24:08,000

spacewalking

572

00:24:11,990 --> 00:24:10,240

trying to keep it all in your brain for

573

00:24:14,310 --> 00:24:12,000

that length of time so that when the

574

00:24:16,630 --> 00:24:14,320

moment comes

575

00:24:18,710 --> 00:24:16,640

you can remember what that instructor

576

00:24:21,750 --> 00:24:18,720

told you that day in

577

00:24:23,350 --> 00:24:21,760

sevastopol in the ukraine that makes all

578

00:24:25,110 --> 00:24:23,360

the difference between success failure

579

00:24:27,590 --> 00:24:25,120

or life or death

580

00:24:29,909 --> 00:24:27,600

and as you mentioned the the three

581

00:24:32,310 --> 00:24:29,919

leading dangers that we have

582

00:24:33,830 --> 00:24:32,320

are a depressurization

583

00:24:36,470 --> 00:24:33,840

uh a fire

584

00:24:39,990 --> 00:24:36,480

or a toxic atmosphere caused by some

585

00:24:42,789 --> 00:24:40,000

other cause and we train in in great uh

586

00:24:45,269 --> 00:24:42,799

detail as well as enough repetition that

587

00:24:47,190 --> 00:24:45,279

it becomes sort of automatic

588

00:24:49,350 --> 00:24:47,200

we train individually to understand it

589

00:24:51,350 --> 00:24:49,360

all and then we train as a crew

590

00:24:53,830 --> 00:24:51,360

and in our soyuz sims we can be sitting

591

00:24:55,510 --> 00:24:53,840

there and and the soyuz sim actually

592

00:24:57,190 --> 00:24:55,520

fills up with smoke

593

00:24:59,110 --> 00:24:57,200

we're wearing our pressure suits and

594

00:25:00,789 --> 00:24:59,120

smoke starts pouring out of our

595

00:25:01,909 --> 00:25:00,799

instrument panel on the soyuz in the

596

00:25:03,830 --> 00:25:01,919

simulator

597

00:25:05,990 --> 00:25:03,840

and you immediately of course have to

598

00:25:07,430 --> 00:25:06,000

react shut off all the power sources get

599

00:25:10,230 --> 00:25:07,440

your mask closed get on the ship's

600

00:25:11,909 --> 00:25:10,240

oxygen and you the smoke gets so thick

601
00:25:15,830 --> 00:25:11,919
you can't even see the instrument panel

602
00:25:17,430 --> 00:25:15,840
in front of you really high fidelity

603
00:25:19,350 --> 00:25:17,440
simulation so that we end up with all

604
00:25:21,430 --> 00:25:19,360
the right responses learning how to

605
00:25:22,310 --> 00:25:21,440
communicate with each other so that we

606
00:25:24,070 --> 00:25:22,320
can

607
00:25:25,830 --> 00:25:24,080
get rid of the source of the fire clear

608
00:25:27,269 --> 00:25:25,840
the atmosphere out assess the health of

609
00:25:28,870 --> 00:25:27,279
the vehicle and do the most logical

610
00:25:31,430 --> 00:25:28,880
thing that comes next

611
00:25:32,630 --> 00:25:31,440
and if you took just a regular person

612
00:25:34,310 --> 00:25:32,640
off the street and gave them the

613
00:25:36,870 --> 00:25:34,320

circumstances it would be just way too

614

00:25:39,350 --> 00:25:36,880

much to ask but after the years of

615

00:25:41,510 --> 00:25:39,360

preparation and the chance to prepare

616

00:25:42,950 --> 00:25:41,520

for it together you can then go

617

00:25:45,430 --> 00:25:42,960

confidently

618

00:25:47,430 --> 00:25:45,440

uh almost comfortably into what could be

619

00:25:49,590 --> 00:25:47,440

a pretty hairy situation

620

00:25:50,789 --> 00:25:49,600

uh with the knowledge that that you've

621

00:25:52,789 --> 00:25:50,799

gained over all these years and

622

00:25:55,430 --> 00:25:52,799

hopefully are retaining somewhere in

623

00:25:57,830 --> 00:25:55,440

your your frontal lobes so that we can

624

00:26:02,950 --> 00:25:57,840

react appropriately whether things go

625

00:26:06,710 --> 00:26:05,110

mr hatfield to me again from the gazette

626
00:26:08,549 --> 00:26:06,720
i was wondering you were being rather

627
00:26:11,669 --> 00:26:08,559
philosophical before i was wondering if

628
00:26:13,430 --> 00:26:11,679
your preparation for your mission gives

629
00:26:15,190 --> 00:26:13,440
you a different perspective on issues

630
00:26:17,669 --> 00:26:15,200
here on earth such as

631
00:26:20,470 --> 00:26:17,679
violence in libya and even separatism in

632
00:26:26,549 --> 00:26:22,630
you know when i'm when i'm looking at

633
00:26:29,830 --> 00:26:28,549
it's it's possible to get really excited

634
00:26:32,549 --> 00:26:29,840
about the things that have happened in

635
00:26:35,750 --> 00:26:32,559
the last 20 minutes or the last week or

636
00:26:39,510 --> 00:26:36,710
but

637
00:26:41,830 --> 00:26:39,520
i try and and not to overreact or to

638
00:26:43,990 --> 00:26:41,840

under react i try and look at things in

639

00:26:45,750 --> 00:26:44,000

the context of the big picture and

640

00:26:47,590 --> 00:26:45,760

that's true for

641

00:26:49,909 --> 00:26:47,600

for political events for people

642

00:26:51,510 --> 00:26:49,919

misbehaving uh doing things that people

643

00:26:52,470 --> 00:26:51,520

just shouldn't do

644

00:26:53,909 --> 00:26:52,480

um

645

00:26:56,630 --> 00:26:53,919

for uh

646

00:26:58,710 --> 00:26:56,640

natural disasters that happen for the

647

00:27:00,310 --> 00:26:58,720

wonderful achievements that happen and

648

00:27:01,430 --> 00:27:00,320

for the deaths of some of the great

649

00:27:03,110 --> 00:27:01,440

people

650

00:27:04,950 --> 00:27:03,120

at a personal and a professional level

651
00:27:08,789 --> 00:27:04,960
that that go by

652
00:27:10,950 --> 00:27:08,799
and i think one of the benefits of

653
00:27:12,549 --> 00:27:10,960
the great privilege that we have of

654
00:27:15,190 --> 00:27:12,559
leaving the earth

655
00:27:17,110 --> 00:27:15,200
and going around our entire planet

656
00:27:18,630 --> 00:27:17,120
in about the time it takes to run this

657
00:27:20,870 --> 00:27:18,640
press conference

658
00:27:22,230 --> 00:27:20,880
is that it does give you

659
00:27:24,149 --> 00:27:22,240
uh

660
00:27:26,710 --> 00:27:24,159
a different perspective

661
00:27:28,549 --> 00:27:26,720
you see the world as one place

662
00:27:30,630 --> 00:27:28,559
it's almost like looking at your family

663
00:27:31,830 --> 00:27:30,640

and you know you have some relatives

664

00:27:33,110 --> 00:27:31,840

that that

665

00:27:34,789 --> 00:27:33,120

you know you're a little embarrassed

666

00:27:36,230 --> 00:27:34,799

about her that don't behave properly or

667

00:27:38,310 --> 00:27:36,240

that have different ideas in you and

668

00:27:40,789 --> 00:27:38,320

it's a big fractious group but you're

669

00:27:42,070 --> 00:27:40,799

all the same family and you need to

670

00:27:43,990 --> 00:27:42,080

figure out how to make it all work

671

00:27:47,029 --> 00:27:44,000

together and

672

00:27:48,789 --> 00:27:47,039

so many people that that focus i mean we

673

00:27:50,070 --> 00:27:48,799

we don't do everything right on earth by

674

00:27:50,789 --> 00:27:50,080

any means

675

00:27:52,950 --> 00:27:50,799

but

676
00:27:54,549 --> 00:27:52,960
the opportunity to see it from a

677
00:27:57,430 --> 00:27:54,559
slightly removed vantage point

678
00:27:59,350 --> 00:27:57,440
physically i think has a real nice

679
00:28:01,510 --> 00:27:59,360
effect on our ability to look at it

680
00:28:04,070 --> 00:28:01,520
philosophically and with a little more

681
00:28:06,950 --> 00:28:04,080
global view and it's a perspective that

682
00:28:09,430 --> 00:28:06,960
we do our very best to to share and to

683
00:28:11,830 --> 00:28:09,440
spread and hopefully with increased

684
00:28:13,190 --> 00:28:11,840
capability to fly to space one that more

685
00:28:13,909 --> 00:28:13,200
and more people

686
00:28:20,870 --> 00:28:13,919
will

687
00:28:24,149 --> 00:28:22,630
again just one more question chris about

688
00:28:25,669 --> 00:28:24,159

you talked about the memorial for neil

689

00:28:27,590 --> 00:28:25,679

armstrong this morning just tell me

690

00:28:29,830 --> 00:28:27,600

about how much he influenced your career

691

00:28:31,909 --> 00:28:29,840

choice

692

00:28:34,950 --> 00:28:31,919

uh well i think every one of the

693

00:28:36,870 --> 00:28:34,960

astronauts even the ones born after neil

694

00:28:38,149 --> 00:28:36,880

and buzz and when mike collins was

695

00:28:39,830 --> 00:28:38,159

orbiting the moon when they made that

696

00:28:42,549 --> 00:28:39,840

historic flight

697

00:28:45,510 --> 00:28:42,559

will tell you uh that this was a

698

00:28:48,230 --> 00:28:45,520

a watershed moment in exploration and of

699

00:28:50,549 --> 00:28:48,240

course in in space exploration

700

00:28:53,269 --> 00:28:50,559

uh for me personally

701
00:28:56,149 --> 00:28:53,279
i was nine years old it was july so i

702
00:28:59,269 --> 00:28:56,159
was at a summer cottage and that that

703
00:29:00,389 --> 00:28:59,279
day that july day i was just about to

704
00:29:04,310 --> 00:29:00,399
turn 10

705
00:29:06,549 --> 00:29:04,320
becoming aware of the world and to see

706
00:29:08,310 --> 00:29:06,559
something that was not only

707
00:29:10,149 --> 00:29:08,320
really hard but something that was

708
00:29:12,149 --> 00:29:10,159
completely optional

709
00:29:14,470 --> 00:29:12,159
we weren't doing this because we were

710
00:29:17,269 --> 00:29:14,480
forced to we weren't doing this

711
00:29:18,710 --> 00:29:17,279
because it was a natural progression of

712
00:29:21,190 --> 00:29:18,720
what we were doing we were doing this

713
00:29:22,870 --> 00:29:21,200

because we just barely could for the

714

00:29:25,190 --> 00:29:22,880

very first time

715

00:29:27,350 --> 00:29:25,200

and it took us right to the limits

716

00:29:29,269 --> 00:29:27,360

brought out the very best of what people

717

00:29:31,830 --> 00:29:29,279

could do i found that hugely

718

00:29:34,870 --> 00:29:31,840

motivational and of course the fact that

719

00:29:37,990 --> 00:29:34,880

it was uh successful that that somehow

720

00:29:39,750 --> 00:29:38,000

despite the apollo one fire despite the

721

00:29:41,830 --> 00:29:39,760

problems they were having trying to do

722

00:29:42,870 --> 00:29:41,840

the same thing in the soviet union all

723

00:29:45,669 --> 00:29:42,880

of that

724

00:29:47,430 --> 00:29:45,679

somehow magically within our arbitrary

725

00:29:49,830 --> 00:29:47,440

timeline that president kennedy had

726

00:29:51,990 --> 00:29:49,840

issued of the end of the decade all

727

00:29:54,549 --> 00:29:52,000

managed to come true through great human

728

00:29:56,389 --> 00:29:54,559

ingenuity and capability was immensely

729

00:29:58,710 --> 00:29:56,399

inspiring not just

730

00:30:00,389 --> 00:29:58,720

in the united states but for me in

731

00:30:02,470 --> 00:30:00,399

southern ontario and for people all

732

00:30:04,230 --> 00:30:02,480

around the world and

733

00:30:06,310 --> 00:30:04,240

that night

734

00:30:08,389 --> 00:30:06,320

i decided boy i'm going to grow up and

735

00:30:10,710 --> 00:30:08,399

be something i want to be that

736

00:30:11,669 --> 00:30:10,720

that is a wonderful thing to be part of

737

00:30:15,590 --> 00:30:11,679

and

738

00:30:17,269 --> 00:30:15,600

walking on the moon but we are still

739

00:30:20,310 --> 00:30:17,279

doing something that is very new in the

740

00:30:23,430 --> 00:30:20,320

human experience and as astronauts and

741

00:30:25,510 --> 00:30:23,440

cosmonauts we speak with students across

742

00:30:27,350 --> 00:30:25,520

our own countries and around the world

743

00:30:30,230 --> 00:30:27,360

and that same

744

00:30:32,389 --> 00:30:30,240

uh light bulb coming on and the new

745

00:30:34,230 --> 00:30:32,399

realization that the horizons can be

746

00:30:36,149 --> 00:30:34,240

moved back and that you can do something

747

00:30:38,630 --> 00:30:36,159

that is new in the human experience

748

00:30:41,590 --> 00:30:38,640

using your own ingenuity and creativity

749

00:30:43,990 --> 00:30:41,600

for us to be able to subsequently carry

750

00:30:47,430 --> 00:30:44,000

on that that uh

751
00:30:49,590 --> 00:30:47,440
that mantle of

752
00:30:51,430 --> 00:30:49,600
inspiration is is something that really

753
00:30:55,029 --> 00:30:51,440
motivates us because it so hugely

754
00:30:56,950 --> 00:30:55,039
motivated me as a nine-year-old kid

755
00:30:58,230 --> 00:30:56,960
all right with that we will return here

756
00:31:01,509 --> 00:30:58,240
to the johnson space center for any

757
00:31:03,350 --> 00:31:01,519
final follow-up questions

758
00:31:04,950 --> 00:31:03,360
and seeing none that will wrap up our

759
00:31:07,110 --> 00:31:04,960
briefing thank you so much for joining

760
00:31:08,549 --> 00:31:07,120
us as a reminder to find out more about

761
00:31:10,070 --> 00:31:08,559
this crew and the international space