



1
00:01:21,670 --> 00:00:18,310
thank you

2
00:01:21,680 --> 00:01:27,350
foreign

3
00:01:27,360 --> 00:02:00,310
very good

4
00:02:00,320 --> 00:02:53,589
foreign

5
00:02:53,599 --> 00:03:08,710
what

6
00:03:08,720 --> 00:03:51,350
um

7
00:03:51,360 --> 00:04:02,149
foreign

8
00:04:02,159 --> 00:04:22,390
okay

9
00:04:22,400 --> 00:04:41,270
my legends

10
00:04:41,280 --> 00:05:47,350
is

11
00:05:47,360 --> 00:06:05,270
oh

12
00:06:05,280 --> 00:06:29,590
thank you

13
00:06:29,600 --> 00:07:14,469

yes

14

00:07:14,479 --> 00:07:27,589

all right

15

00:07:27,599 --> 00:07:31,830

11 years

16

00:08:17,350 --> 00:07:48,150

foreign

17

00:08:17,360 --> 00:08:32,709

okay

18

00:08:32,719 --> 00:08:52,150

oh

19

00:08:52,160 --> 00:09:05,910

if you remember

20

00:09:37,590 --> 00:09:08,470

i'm very sorry from my friends who wake

21

00:09:37,600 --> 00:09:52,310

okay

22

00:09:52,320 --> 00:10:44,870

uh

23

00:10:44,880 --> 00:11:08,069

he yeah

24

00:11:08,079 --> 00:12:00,069

oh

25

00:12:00,079 --> 00:12:22,310

um

26

00:12:22,320 --> 00:12:33,190

that's my

27

00:12:33,200 --> 00:12:47,430

lot of green

28

00:12:47,440 --> 00:12:57,829

oh

29

00:12:57,839 --> 00:13:14,230

foreign

30

00:13:14,240 --> 00:13:18,790

much smaller than i thought

31

00:13:18,800 --> 00:14:23,030

how do you get it

32

00:14:23,040 --> 00:15:23,269

oh

33

00:15:23,279 --> 00:15:27,910

foreign

34

00:15:32,069 --> 00:15:29,990

expedition 43 flight engineer scott

35

00:15:34,310 --> 00:15:32,079

kelly here in baikonur scott thanks for

36

00:15:37,910 --> 00:15:34,320

making the time for us as the clock

37

00:15:41,030 --> 00:15:37,920

ticks toward launch uh in a few days

38

00:15:42,629 --> 00:15:41,040

it's so intriguing to try to

39

00:15:44,629 --> 00:15:42,639

put through your mind what you must be

40

00:15:47,829 --> 00:15:44,639

going through right now mentally

41

00:15:49,990 --> 00:15:47,839

as uh as we approach launch the couple

42

00:15:51,509 --> 00:15:50,000

of years in the making of training all

43

00:15:53,030 --> 00:15:51,519

that goes into being away from the

44

00:15:55,189 --> 00:15:53,040

planet for a year

45

00:15:56,550 --> 00:15:55,199

what is going through your mind as you

46

00:15:58,949 --> 00:15:56,560

approach launch

47

00:16:01,030 --> 00:15:58,959

well it's uh clearly a different

48

00:16:03,829 --> 00:16:01,040

experience than my my previous three

49

00:16:05,269 --> 00:16:03,839

flights um and let me explain why my

50

00:16:07,189 --> 00:16:05,279

first flight it was the first time i was

51
00:16:08,949 --> 00:16:07,199
flying in space you know you're very

52
00:16:11,829 --> 00:16:08,959
excited about it something you've maybe

53
00:16:13,350 --> 00:16:11,839
dreamed about for a really long time

54
00:16:15,430 --> 00:16:13,360
and it was something brand new i had

55
00:16:17,990 --> 00:16:15,440
never done it before my second flight it

56
00:16:19,430 --> 00:16:18,000
was also a new experience because i was

57
00:16:22,069 --> 00:16:19,440
going to be the commander of the the

58
00:16:25,030 --> 00:16:22,079
space shuttle to the space station and

59
00:16:26,870 --> 00:16:25,040
my third flight was on the soyuz for a

60
00:16:28,790 --> 00:16:26,880
long duration flight to the space

61
00:16:30,389 --> 00:16:28,800
station so again

62
00:16:32,550 --> 00:16:30,399
you know something that was a brand new

63
00:16:33,269 --> 00:16:32,560

experience and you're very excited about

64

00:16:35,189 --> 00:16:33,279

it

65

00:16:37,189 --> 00:16:35,199

and i wouldn't say i'm not

66

00:16:39,749 --> 00:16:37,199

excited about this but

67

00:16:41,990 --> 00:16:39,759

it's very similar to my last flight

68

00:16:44,870 --> 00:16:42,000

except it'll be you know more than twice

69

00:16:47,110 --> 00:16:44,880

the duration so uh so harder

70

00:16:49,590 --> 00:16:47,120

so uh you know because of that it's

71

00:16:51,910 --> 00:16:49,600

definitely a different feeling i uh

72

00:16:54,949 --> 00:16:51,920

you know i'm not uh i i guess i could

73

00:16:56,550 --> 00:16:54,959

say i'm not as excited as i was the uh

74

00:16:57,749 --> 00:16:56,560

the previous three times only because

75

00:17:00,150 --> 00:16:57,759

they were going to be completely new

76

00:17:02,710 --> 00:17:00,160

experiences for me

77

00:17:04,949 --> 00:17:02,720

do you in your mind have pages

78

00:17:05,829 --> 00:17:04,959

on a calendar that are floating around

79

00:17:07,669 --> 00:17:05,839

like

80

00:17:10,710 --> 00:17:07,679

are you thinking about milestones

81

00:17:13,429 --> 00:17:10,720

already september halfway mark october

82

00:17:15,429 --> 00:17:13,439

you pass the u.s single flight endurance

83

00:17:17,750 --> 00:17:15,439

record those types of things or is this

84

00:17:19,750 --> 00:17:17,760

just going to be task by task week by

85

00:17:22,870 --> 00:17:19,760

week month by month up there i am

86

00:17:25,990 --> 00:17:22,880

intentionally not thinking of any kind

87

00:17:29,750 --> 00:17:26,000

of countdown or milestone

88

00:17:32,390 --> 00:17:29,760

or uh you know ways to to to see the

89

00:17:33,750 --> 00:17:32,400

time pass i think uh

90

00:17:35,510 --> 00:17:33,760

that would be the wrong approach you

91

00:17:37,990 --> 00:17:35,520

know i i think i have to

92

00:17:41,029 --> 00:17:38,000

you know handle this flight on a a day

93

00:17:43,350 --> 00:17:41,039

by day basis and uh

94

00:17:45,830 --> 00:17:43,360

you know and and just just take it

95

00:17:50,390 --> 00:17:45,840

very slow and methodical and not not be

96

00:17:54,230 --> 00:17:52,310

scott this flight has been more than a

97

00:17:56,150 --> 00:17:54,240

couple of years in formulation between

98

00:17:59,430 --> 00:17:56,160

nasa and rose cosmos a very unique

99

00:18:03,510 --> 00:18:01,990

what was the attraction of spending a

100

00:18:05,909 --> 00:18:03,520

year in space

101
00:18:07,750 --> 00:18:05,919
that provided the incentive for you to

102
00:18:10,310 --> 00:18:07,760
put your name in an available pool of

103
00:18:11,430 --> 00:18:10,320
candidates and ultimately to say yes

104
00:18:14,630 --> 00:18:11,440
i'll go

105
00:18:16,230 --> 00:18:14,640
well i uh initially i wasn't uh

106
00:18:18,710 --> 00:18:16,240
too interested in doing it was something

107
00:18:21,110 --> 00:18:18,720
i had considered um

108
00:18:22,950 --> 00:18:21,120
i wanted to fly in space again uh

109
00:18:26,230 --> 00:18:22,960
definitely that was something i wanted

110
00:18:27,029 --> 00:18:26,240
to do and as i got to thinking about the

111
00:18:30,870 --> 00:18:27,039
the

112
00:18:32,710 --> 00:18:30,880
more longer and had more time to

113
00:18:34,710 --> 00:18:32,720

consider it it was something that i

114

00:18:36,710 --> 00:18:34,720

warmed up to just because it was going

115

00:18:38,950 --> 00:18:36,720

to be you know twice as long and

116

00:18:40,950 --> 00:18:38,960

therefore more challenging and something

117

00:18:42,310 --> 00:18:40,960

that i i saw is a little bit different

118

00:18:44,070 --> 00:18:42,320

than just you then going back to the

119

00:18:45,590 --> 00:18:44,080

space station even though a six-month

120

00:18:47,909 --> 00:18:45,600

flight is very challenging but doing

121

00:18:50,549 --> 00:18:47,919

kind of very much the same thing as i

122

00:18:54,070 --> 00:18:50,559

did on my previous flight

123

00:18:56,390 --> 00:18:54,080

so for a full year in space is it um

124

00:18:58,470 --> 00:18:56,400

is it more of a physiological adjustment

125

00:19:01,110 --> 00:18:58,480

or is it really all about the

126

00:19:02,870 --> 00:19:01,120

psychological adjustment of losing all

127

00:19:04,950 --> 00:19:02,880

the creature comforts of home and your

128

00:19:06,870 --> 00:19:04,960

normal earthbound routine

129

00:19:09,669 --> 00:19:06,880

well there's certainly you know physical

130

00:19:11,110 --> 00:19:09,679

aspects to being in space for any length

131

00:19:12,950 --> 00:19:11,120

of time and that's one of the reasons

132

00:19:14,549 --> 00:19:12,960

we're doing this is to see you know if

133

00:19:17,270 --> 00:19:14,559

there's a cliff out there with regards

134

00:19:18,870 --> 00:19:17,280

to you know bone loss muscle loss our

135

00:19:20,950 --> 00:19:18,880

immune system

136

00:19:22,390 --> 00:19:20,960

you know the effects on our vision so

137

00:19:24,070 --> 00:19:22,400

you know that's part of the reason why

138

00:19:26,150 --> 00:19:24,080

we're doing this but some of that stuff

139

00:19:27,750 --> 00:19:26,160

is kind of transparent to the person

140

00:19:29,990 --> 00:19:27,760

like i won't be able to tell in flight

141

00:19:31,510 --> 00:19:30,000

for instance if i'm losing more

142

00:19:33,990 --> 00:19:31,520

bone mass

143

00:19:35,510 --> 00:19:34,000

or my immune system is affected you know

144

00:19:37,270 --> 00:19:35,520

certainly i could i could tell with the

145

00:19:40,470 --> 00:19:37,280

vision issues

146

00:19:42,470 --> 00:19:40,480

um but i think for as far as a challenge

147

00:19:44,789 --> 00:19:42,480

for me the the it's more of a

148

00:19:47,190 --> 00:19:44,799

psychological uh

149

00:19:49,350 --> 00:19:47,200

the psychological aspect of it you know

150

00:19:51,909 --> 00:19:49,360

maintaining my level of uh of energy

151

00:19:53,909 --> 00:19:51,919

throughout the flight my focus

152

00:19:55,830 --> 00:19:53,919

you know not feeling all you know kind

153

00:19:57,350 --> 00:19:55,840

of cramped up and wanting to get outside

154

00:19:59,669 --> 00:19:57,360

those kind of things i think is going to

155

00:20:01,430 --> 00:19:59,679

be what uh what's more challenging for

156

00:20:03,590 --> 00:20:01,440

me

157

00:20:04,390 --> 00:20:03,600

was there a point

158

00:20:07,430 --> 00:20:04,400

where

159

00:20:09,510 --> 00:20:07,440

the reality of what lies ahead here

160

00:20:11,430 --> 00:20:09,520

where it really sank in was it the day

161

00:20:13,830 --> 00:20:11,440

you left houston was it the day you got

162

00:20:15,909 --> 00:20:13,840

down here to baikonur will it be on

163

00:20:18,230 --> 00:20:15,919

launch day when you're sitting in your

164

00:20:20,950 --> 00:20:18,240

circle suit uh looking out at the

165

00:20:22,310 --> 00:20:20,960

audience in the suit up room i think it

166

00:20:24,950 --> 00:20:22,320

hasn't uh

167

00:20:25,990 --> 00:20:24,960

sunk in yet um

168

00:20:27,669 --> 00:20:26,000

you know i

169

00:20:30,070 --> 00:20:27,679

recognize we're getting closer it's

170

00:20:31,909 --> 00:20:30,080

about a week uh maybe about 10 days away

171

00:20:34,789 --> 00:20:31,919

now and

172

00:20:36,549 --> 00:20:34,799

but yeah i think it'll probably be

173

00:20:38,950 --> 00:20:36,559

you know probably the time i say goodbye

174

00:20:41,669 --> 00:20:38,960

to my family you know the last time

175

00:20:43,909 --> 00:20:41,679

and can see them face to face

176

00:20:46,230 --> 00:20:43,919

which is the day before launch in the

177

00:20:48,789 --> 00:20:46,240

morning and uh that's when it'll

178

00:20:50,470 --> 00:20:48,799

probably start sinking in

179

00:20:51,590 --> 00:20:50,480

scott sending a crew to the station for

180

00:20:53,430 --> 00:20:51,600

a year

181

00:20:56,310 --> 00:20:53,440

is really designed to understand better

182

00:20:57,750 --> 00:20:56,320

how the human body reacts and adapts to

183

00:21:00,630 --> 00:20:57,760

weightlessness

184

00:21:02,870 --> 00:21:00,640

over an extended period of time to help

185

00:21:03,909 --> 00:21:02,880

develop countermeasures so that we can

186

00:21:06,070 --> 00:21:03,919

go

187

00:21:07,590 --> 00:21:06,080

out into deep space perhaps one day to

188

00:21:09,430 --> 00:21:07,600

mars

189

00:21:12,470 --> 00:21:09,440

do you believe in that sense that you

190

00:21:13,350 --> 00:21:12,480

and misha are pioneers in a way to

191

00:21:16,789 --> 00:21:13,360

further

192

00:21:18,470 --> 00:21:16,799

the understanding of this phenomenon

193

00:21:20,470 --> 00:21:18,480

i think you know all the the crew

194

00:21:22,789 --> 00:21:20,480

members that have you know built upon

195

00:21:23,590 --> 00:21:22,799

one another and have have preceded us

196

00:21:28,390 --> 00:21:23,600

and

197

00:21:30,789 --> 00:21:28,400

in this in this effort uh you know you

198

00:21:33,270 --> 00:21:30,799

know we're just you know two guys that

199

00:21:34,789 --> 00:21:33,280

are in this unique position right now uh

200

00:21:36,390 --> 00:21:34,799

you know being the first to do this but

201
00:21:37,110 --> 00:21:36,400
hopefully you know more people will do

202
00:21:38,390 --> 00:21:37,120
it

203
00:21:40,390 --> 00:21:38,400
and you know all these flights are

204
00:21:41,190 --> 00:21:40,400
important and i think we're all

205
00:21:45,190 --> 00:21:41,200
uh

206
00:21:46,149 --> 00:21:45,200
you know critical to someday

207
00:21:48,070 --> 00:21:46,159
you know

208
00:21:49,909 --> 00:21:48,080
international coalition leaving low

209
00:21:51,430 --> 00:21:49,919
earth orbit going uh

210
00:21:53,510 --> 00:21:51,440
you know the moon to the moon perhaps

211
00:21:55,510 --> 00:21:53,520
for an extended period of time or onto

212
00:21:56,710 --> 00:21:55,520
mars or elsewhere

213
00:21:58,630 --> 00:21:56,720

some people

214

00:22:00,470 --> 00:21:58,640

sort of view this as

215

00:22:02,230 --> 00:22:00,480

scott kelly and mikhail kornienko

216

00:22:03,750 --> 00:22:02,240

signing up to be guinea pigs for a year

217

00:22:04,870 --> 00:22:03,760

in space but

218

00:22:06,230 --> 00:22:04,880

really if you look at the whole

219

00:22:07,430 --> 00:22:06,240

complement of the year's worth of

220

00:22:09,430 --> 00:22:07,440

activities

221

00:22:12,230 --> 00:22:09,440

it's busy up there visiting vehicles

222

00:22:13,830 --> 00:22:12,240

spacewalks just any number of things

223

00:22:15,990 --> 00:22:13,840

other research that will be done on

224

00:22:17,750 --> 00:22:16,000

board that doesn't involve you guys

225

00:22:20,070 --> 00:22:17,760

specifically

226

00:22:21,990 --> 00:22:20,080

is this is this going to be

227

00:22:23,510 --> 00:22:22,000

the most challenging

228

00:22:24,710 --> 00:22:23,520

period of time you've ever spent in

229

00:22:26,230 --> 00:22:24,720

space

230

00:22:28,630 --> 00:22:26,240

it'll be the most challenging time for

231

00:22:29,430 --> 00:22:28,640

me certainly um you know there's a lot

232

00:22:31,110 --> 00:22:29,440

to

233

00:22:32,549 --> 00:22:31,120

be a lot going on on the space station

234

00:22:34,549 --> 00:22:32,559

and we'll be doing it

235

00:22:35,909 --> 00:22:34,559

uh you know for a whole year but you

236

00:22:37,990 --> 00:22:35,919

make a very good point i mean there's

237

00:22:40,390 --> 00:22:38,000

this the one-year

238

00:22:43,350 --> 00:22:40,400

science is a is a small part of this i

239

00:22:45,350 --> 00:22:43,360

mean you know misha and i are primarily

240

00:22:47,590 --> 00:22:45,360

space station crew members that are

241

00:22:48,950 --> 00:22:47,600

involved in all the activities whether

242

00:22:50,630 --> 00:22:48,960

it's uh

243

00:22:52,950 --> 00:22:50,640

you know the normal science program we

244

00:22:55,029 --> 00:22:52,960

have which is very large uh

245

00:22:56,470 --> 00:22:55,039

you know we'll have 400 uh different

246

00:22:58,070 --> 00:22:56,480

experiments over 400 different

247

00:22:59,350 --> 00:22:58,080

experiments going on throughout that

248

00:23:01,430 --> 00:22:59,360

whole year

249

00:23:04,070 --> 00:23:01,440

you know only a small subset of that is

250

00:23:05,669 --> 00:23:04,080

related to this the one-year mission

251
00:23:07,270 --> 00:23:05,679
you know those experiments are in much

252
00:23:09,710 --> 00:23:07,280
different categories from you know

253
00:23:12,070 --> 00:23:09,720
improving life on earth to

254
00:23:14,310 --> 00:23:12,080
exploration-based uh research you know

255
00:23:17,110 --> 00:23:14,320
how to get further away from earth

256
00:23:18,630 --> 00:23:17,120
with you know people and and systems

257
00:23:20,870 --> 00:23:18,640
and also the international science

258
00:23:23,110 --> 00:23:20,880
program but uh you know on top of that

259
00:23:24,390 --> 00:23:23,120
we're we're regular crew members will be

260
00:23:26,149 --> 00:23:24,400
participating

261
00:23:28,789 --> 00:23:26,159
in spacewalks and the robotics

262
00:23:30,230 --> 00:23:28,799
activities in the uh maintenance of the

263
00:23:32,070 --> 00:23:30,240

space station

264

00:23:33,990 --> 00:23:32,080

you know taking care of the systems

265

00:23:36,470 --> 00:23:34,000

repairing the systems so you know

266

00:23:37,430 --> 00:23:36,480

there's a lot a lot more that that goes

267

00:23:39,909 --> 00:23:37,440

on

268

00:23:41,669 --> 00:23:39,919

uh you know for us but also the rest of

269

00:23:44,789 --> 00:23:41,679

the crew members that makes this uh you

270

00:23:47,029 --> 00:23:44,799

know this mission uh what it is

271

00:23:50,390 --> 00:23:47,039

scott uh only four humans all russians

272

00:23:52,549 --> 00:23:50,400

have spent a year or more in space on a

273

00:23:56,390 --> 00:23:52,559

single mission no one since sergey

274

00:23:58,549 --> 00:23:56,400

avdeyov almost 16 years ago

275

00:24:00,549 --> 00:23:58,559

with the more sophisticated research

276
00:24:03,350 --> 00:24:00,559
equipment that's available today than

277
00:24:04,549 --> 00:24:03,360
there was almost two decades ago

278
00:24:06,230 --> 00:24:04,559
how

279
00:24:08,070 --> 00:24:06,240
important do you think the data

280
00:24:09,830 --> 00:24:08,080
collected from this mission

281
00:24:11,830 --> 00:24:09,840
will be in furthering the goal of

282
00:24:13,830 --> 00:24:11,840
sending humans to mars

283
00:24:15,669 --> 00:24:13,840
i think you know just the way like you

284
00:24:17,750 --> 00:24:15,679
said technology has developed

285
00:24:20,230 --> 00:24:17,760
significantly since

286
00:24:22,390 --> 00:24:20,240
the russians had the last crew members

287
00:24:24,549 --> 00:24:22,400
spend that that amount of time in space

288
00:24:26,870 --> 00:24:24,559

not only you know russian technology but

289

00:24:30,070 --> 00:24:26,880

our technology as well i mean the types

290

00:24:31,750 --> 00:24:30,080

of mri imaging capability between mris

291

00:24:34,549 --> 00:24:31,760

cat scans ultrasound we have an

292

00:24:36,149 --> 00:24:34,559

ultrasound on orbit

293

00:24:37,510 --> 00:24:36,159

you know in in

294

00:24:38,310 --> 00:24:37,520

probably

295

00:24:41,909 --> 00:24:38,320

all

296

00:24:44,149 --> 00:24:41,919

ways that we collect data it has gotten

297

00:24:46,390 --> 00:24:44,159

better since this was done the last time

298

00:24:47,909 --> 00:24:46,400

so you know i suspect we're going to

299

00:24:51,190 --> 00:24:47,919

learn a lot about you know our

300

00:24:53,350 --> 00:24:51,200

physiology and how longer durations uh

301
00:24:55,029 --> 00:24:53,360
space flight affects it and hopefully

302
00:24:57,430 --> 00:24:55,039
ways to mitigate those effects

303
00:24:59,909 --> 00:24:57,440
especially with the with regards to the

304
00:25:02,070 --> 00:24:59,919
the vision issues we we've had on board

305
00:25:04,470 --> 00:25:02,080
so you know i think it's very important

306
00:25:06,870 --> 00:25:04,480
to us getting uh you know out of low

307
00:25:08,789 --> 00:25:06,880
earth orbit for longer periods of time

308
00:25:10,390 --> 00:25:08,799
um and like i said before you know it's

309
00:25:12,549 --> 00:25:10,400
not only this flight but it's you know

310
00:25:15,190 --> 00:25:12,559
all the other flights that that preceded

311
00:25:16,390 --> 00:25:15,200
this and and will follow this as well

312
00:25:19,029 --> 00:25:16,400
have there been

313
00:25:21,110 --> 00:25:19,039

any additional

314

00:25:23,269 --> 00:25:21,120
measures or steps taken

315

00:25:25,430 --> 00:25:23,279
from the psychological support folks

316

00:25:27,909 --> 00:25:25,440
back in houston that

317

00:25:29,750 --> 00:25:27,919
would exceed perhaps what a normal

318

00:25:31,909 --> 00:25:29,760
six-month expedition crew member would

319

00:25:32,950 --> 00:25:31,919
have available

320

00:25:35,590 --> 00:25:32,960
you know i think

321

00:25:39,190 --> 00:25:35,600
i think we've discussed maybe allocating

322

00:25:44,149 --> 00:25:42,630
for uplinking like entertainment kind of

323

00:25:46,549 --> 00:25:44,159
things i don't know if that actually

324

00:25:48,310 --> 00:25:46,559
ever happened but uh you know probably

325

00:25:49,830 --> 00:25:48,320
if i if i needed it

326

00:25:51,590 --> 00:25:49,840

you know after a while you kind of feel

327

00:25:53,510 --> 00:25:51,600

like you're running out of uh you know

328

00:25:55,269 --> 00:25:53,520

entertainment on board

329

00:25:56,470 --> 00:25:55,279

and you know having some extra bandwidth

330

00:25:58,549 --> 00:25:56,480

if you're going to be there longer would

331

00:26:00,070 --> 00:25:58,559

be a be a nice thing

332

00:26:01,269 --> 00:26:00,080

i get a little bit you know they

333

00:26:03,350 --> 00:26:01,279

probably give me a little bit more

334

00:26:05,990 --> 00:26:03,360

conferences with family and friends if i

335

00:26:07,750 --> 00:26:06,000

if i desired that i'm sure

336

00:26:09,350 --> 00:26:07,760

um

337

00:26:11,909 --> 00:26:09,360

you know on top of that though really

338

00:26:13,909 --> 00:26:11,919

not not a whole lot different than a

339

00:26:16,149 --> 00:26:13,919

than a six month fight which is also a

340

00:26:19,350 --> 00:26:16,159

long time

341

00:26:21,269 --> 00:26:19,360

so uh without respect to pages on a

342

00:26:23,830 --> 00:26:21,279

calendar what do you think for you

343

00:26:26,470 --> 00:26:23,840

personally just you personally will be

344

00:26:27,990 --> 00:26:26,480

the hardest part of flying for a year

345

00:26:30,549 --> 00:26:28,000

the year

346

00:26:32,230 --> 00:26:30,559

i mean it's a long time if you think

347

00:26:34,230 --> 00:26:32,240

back you know what you were doing a year

348

00:26:36,390 --> 00:26:34,240

ago

349

00:26:39,029 --> 00:26:36,400

which was i guess around

350

00:26:41,190 --> 00:26:39,039

you know st patrick's day holiday

351
00:26:42,789 --> 00:26:41,200
one year ago i can't even remember what

352
00:26:44,390 --> 00:26:42,799
i was doing

353
00:26:46,470 --> 00:26:44,400
but uh you know occasionally i'll see

354
00:26:47,430 --> 00:26:46,480
something in the in the media

355
00:26:49,750 --> 00:26:47,440
about

356
00:26:52,950 --> 00:26:49,760
the you know an anniversary of some

357
00:26:55,430 --> 00:26:52,960
something that occurred in the news and

358
00:26:58,789 --> 00:26:55,440
i'll think back wow that was that was a

359
00:27:00,710 --> 00:26:58,799
year it seems like it was a lot longer

360
00:27:02,630 --> 00:27:00,720
one of the interesting things in my

361
00:27:04,710 --> 00:27:02,640
opinion about all of this is that you

362
00:27:05,590 --> 00:27:04,720
and mikhail will be part of four

363
00:27:07,350 --> 00:27:05,600

different

364

00:27:08,310 --> 00:27:07,360

expeditions

365

00:27:10,149 --> 00:27:08,320

and

366

00:27:12,070 --> 00:27:10,159

a taxi crew a visiting crew will bring

367

00:27:13,190 --> 00:27:12,080

up a fresh soyuz which will be your ride

368

00:27:14,950 --> 00:27:13,200

home

369

00:27:17,510 --> 00:27:14,960

a year from now

370

00:27:19,510 --> 00:27:17,520

is it going to be

371

00:27:21,110 --> 00:27:19,520

difficult or challenging

372

00:27:23,110 --> 00:27:21,120

to keep track of the different

373

00:27:25,110 --> 00:27:23,120

personalities coming and going it's

374

00:27:28,870 --> 00:27:25,120

almost like an air traffic control

375

00:27:37,510 --> 00:27:29,830

you know

376

00:27:41,029 --> 00:27:37,520

the russians or

377

00:27:42,950 --> 00:27:41,039

european japanese the americans we all

378

00:27:44,549 --> 00:27:42,960

get along very well

379

00:27:47,350 --> 00:27:44,559

um

380

00:27:48,870 --> 00:27:47,360

you know we're all professionals uh

381

00:27:51,430 --> 00:27:48,880

you know this will be my fourth time in

382

00:27:53,990 --> 00:27:51,440

space and i have never once had any kind

383

00:27:55,430 --> 00:27:54,000

of real conflict with any of my fellow

384

00:27:56,310 --> 00:27:55,440

crew members i think they've all been

385

00:27:57,750 --> 00:27:56,320

great

386

00:28:00,310 --> 00:27:57,760

they work you know worked very hard

387

00:28:02,710 --> 00:28:00,320

together and uh so i don't really

388

00:28:04,630 --> 00:28:02,720

see any you know potential you know like

389

00:28:06,310 --> 00:28:04,640

personality issues based on the number

390

00:28:07,350 --> 00:28:06,320

of people we have it's certainly

391

00:28:08,870 --> 00:28:07,360

interesting when you're on the space

392

00:28:10,310 --> 00:28:08,880

station and you get like

393

00:28:13,430 --> 00:28:10,320

when i was there a space shuttle crew

394

00:28:14,950 --> 00:28:13,440

come on board or a new

395

00:28:16,630 --> 00:28:14,960

a new uh

396

00:28:18,870 --> 00:28:16,640

you know person who had never flown in

397

00:28:21,110 --> 00:28:18,880

space before coming up on the soyuz it's

398

00:28:23,510 --> 00:28:21,120

always fun to to see them

399

00:28:25,190 --> 00:28:23,520

come come up to space for the first time

400

00:28:27,350 --> 00:28:25,200

especially now when we're doing the the

401
00:28:28,870 --> 00:28:27,360
flight day one rendezvous so

402
00:28:30,389 --> 00:28:28,880
you know the first time flyers will be

403
00:28:31,909 --> 00:28:30,399
seeing them on the space station

404
00:28:33,510 --> 00:28:31,919
you know several hours after they've

405
00:28:35,909 --> 00:28:33,520
left earth so that's going to be

406
00:28:39,110 --> 00:28:35,919
entertaining

407
00:28:41,590 --> 00:28:39,120
i'm just struck by the fact that

408
00:28:43,750 --> 00:28:41,600
this whole episode this whole odyssey is

409
00:28:45,590 --> 00:28:43,760
about to unfold for you

410
00:28:47,190 --> 00:28:45,600
the last several days leading up to

411
00:28:49,430 --> 00:28:47,200
launch are always jam-packed with

412
00:28:51,669 --> 00:28:49,440
ceremonial activities here in baikonur

413
00:28:52,549 --> 00:28:51,679

for the crew you're in quarantine you're

414

00:28:53,909 --> 00:28:52,559

getting

415

00:28:56,549 --> 00:28:53,919

set for launch

416

00:29:01,269 --> 00:28:56,559

final reviews the families come in all

417

00:29:07,269 --> 00:29:01,990

so

418

00:29:09,110 --> 00:29:07,279

strap in and it's quiet up there what do

419

00:29:11,990 --> 00:29:09,120

you think those thoughts are going to be

420

00:29:14,789 --> 00:29:12,000

for you personally as you await liftoff

421

00:29:18,149 --> 00:29:14,799

probably similar to the last time uh you

422

00:29:20,310 --> 00:29:18,159

know the soyuz is very cramped um

423

00:29:22,310 --> 00:29:20,320

you know like anytime you

424

00:29:24,630 --> 00:29:22,320

fly in space there's a

425

00:29:25,669 --> 00:29:24,640

there's a lot that can happen and you

426

00:29:27,110 --> 00:29:25,679

know you're trained for all the

427

00:29:28,630 --> 00:29:27,120

contingencies but you used to think

428

00:29:31,029 --> 00:29:28,640

about that you think about mostly about

429

00:29:31,909 --> 00:29:31,039

doing your job and focusing on that

430

00:29:33,110 --> 00:29:31,919

um

431

00:29:35,510 --> 00:29:33,120

but in the soil you just sit in a very

432

00:29:36,470 --> 00:29:35,520

awkward position it'd be kind of painful

433

00:29:38,230 --> 00:29:36,480

so

434

00:29:39,430 --> 00:29:38,240

i'll be hoping my knees don't hurt too

435

00:29:41,430 --> 00:29:39,440

much after

436

00:29:42,310 --> 00:29:41,440

being like in that position for a few

437

00:29:44,149 --> 00:29:42,320

hours

438

00:29:45,350 --> 00:29:44,159

one thing's for sure when you land a

439

00:29:47,830 --> 00:29:45,360

year from now

440

00:29:50,630 --> 00:29:47,840

it'll be pretty cold near carraganda

441

00:29:55,430 --> 00:29:53,350

when you come home a year from now

442

00:29:57,510 --> 00:29:55,440

regardless of your physical condition

443

00:30:00,230 --> 00:29:57,520

they open the hatch and you smell

444

00:30:01,750 --> 00:30:00,240

earth again what's that going to be like

445

00:30:03,190 --> 00:30:01,760

well i remember the last time i landed

446

00:30:05,430 --> 00:30:03,200

and you were there in this big giant

447

00:30:07,669 --> 00:30:05,440

parka and complaining about how cold it

448

00:30:09,830 --> 00:30:07,679

was and it was this blizzard

449

00:30:11,669 --> 00:30:09,840

and uh for us it was great i mean it was

450

00:30:13,830 --> 00:30:11,679

refreshing the snow was blowing on our

451

00:30:15,350 --> 00:30:13,840

face you know we hadn't hadn't felt

452

00:30:18,630 --> 00:30:15,360

different air

453

00:30:20,549 --> 00:30:18,640

for for six months so a blizzard was

454

00:30:22,630 --> 00:30:20,559

very welcome so

455

00:30:25,510 --> 00:30:22,640

uh it's great and i uh

456

00:30:26,630 --> 00:30:25,520

yeah i really look forward to that

457

00:30:29,190 --> 00:30:26,640

and what do you think you're going to be

458

00:30:31,510 --> 00:30:29,200

commander of two expeditions half a year

459

00:30:33,029 --> 00:30:31,520

of this one-year mission

460

00:30:35,269 --> 00:30:33,039

when it's all said and done when you're

461

00:30:37,590 --> 00:30:35,279

back home in houston a year from now

462

00:30:41,669 --> 00:30:37,600

what do you hope will be the legacy of

463

00:30:46,549 --> 00:30:43,909

hmm

464

00:30:48,389 --> 00:30:46,559

you know i always say you know my goals

465

00:30:50,149 --> 00:30:48,399

on these flights maybe that'll be the

466

00:30:52,230 --> 00:30:50,159

legacy is what you know what i hope to

467

00:30:54,149 --> 00:30:52,240

achieve and that is always

468

00:30:57,029 --> 00:30:54,159

you know the number one thing is no one

469

00:30:58,549 --> 00:30:57,039

gets physically hurt

470

00:31:00,630 --> 00:30:58,559

you know the second thing is we don't

471

00:31:02,630 --> 00:31:00,640

break anything we protect the space

472

00:31:05,430 --> 00:31:02,640

station because it's a very valuable

473

00:31:06,950 --> 00:31:05,440

asset

474

00:31:08,789 --> 00:31:06,960

third thing is we complete all the

475

00:31:10,789 --> 00:31:08,799

mission objectives so you know obviously

476

00:31:12,389 --> 00:31:10,799

i hope to do that and the fourth thing

477

00:31:14,070 --> 00:31:12,399

we leave is friends you know and that's

478

00:31:16,149 --> 00:31:14,080

very important too so

479

00:31:17,430 --> 00:31:16,159

you know i hope the legacy of this

480

00:31:20,310 --> 00:31:17,440

flight will be

481

00:31:21,509 --> 00:31:20,320

i've met all of those four objectives

482

00:31:24,149 --> 00:31:21,519

which i've had on every one of my

483

00:31:26,870 --> 00:31:24,159

flights and we've done that so far

484

00:31:28,630 --> 00:31:26,880

mikhail korniyenko in baikonur

485

00:31:30,630 --> 00:31:28,640

misha thank you so much for making the

486

00:31:33,190 --> 00:31:30,640

time for us

487

00:31:35,509 --> 00:31:33,200

let me start off by asking as uh as the

488

00:31:37,669 --> 00:31:35,519

hours count down towards your launch to

489

00:31:39,509 --> 00:31:37,679

spend a year in space

490

00:31:41,029 --> 00:31:39,519

uh what are the thoughts going through

491

00:31:44,149 --> 00:31:41,039

your mind right now

492

00:32:17,110 --> 00:31:44,159

as the magic moment approaches

493

00:32:21,750 --> 00:32:19,430

i'm thinking mostly of my family about

494

00:32:23,110 --> 00:32:21,760

my wife who's going to have a pretty

495

00:32:25,430 --> 00:32:23,120

difficult time

496

00:32:27,110 --> 00:32:25,440

my grandson's going to turn seven years

497

00:32:29,110 --> 00:32:27,120

seven months old

498

00:32:31,029 --> 00:32:29,120

over my flight

499

00:32:33,590 --> 00:32:31,039

so but i believe

500

00:32:35,909 --> 00:32:33,600

we trained we get prepared and

501
00:32:38,149 --> 00:32:35,919
everything is going to be all right

502
00:32:40,630 --> 00:32:38,159
when we talked in houston uh about a

503
00:32:43,750 --> 00:32:40,640
year ago

504
00:32:47,029 --> 00:32:43,760
we talked about what the attraction was

505
00:32:49,669 --> 00:32:47,039
for you to spend a year in space that uh

506
00:32:52,230 --> 00:32:49,679
provided the incentive for you to be

507
00:32:54,870 --> 00:32:52,240
considered to do this job and then

508
00:33:36,549 --> 00:32:54,880
ultimately to be selected

509
00:33:36,559 --> 00:33:40,230
so um

510
00:33:46,950 --> 00:33:42,310
the uniqueness of this mission was the

511
00:33:53,029 --> 00:33:49,509
no one flew for this long for quite a

512
00:33:55,350 --> 00:33:53,039
long time and over that time the methods

513
00:33:58,870 --> 00:33:55,360

to study the human body the biomedical

514

00:34:01,269 --> 00:33:58,880

research and medical research has gone

515

00:34:03,509 --> 00:34:01,279

further ahead so i believe

516

00:34:06,630 --> 00:34:03,519

our scientific program the mission we'll

517

00:34:08,470 --> 00:34:06,640

be carrying out together with scott will

518

00:34:11,589 --> 00:34:08,480

help the people who will follow us on

519

00:34:18,310 --> 00:34:15,030

and in fact misha it has been

520

00:34:20,470 --> 00:34:18,320

almost 16 years since sergey avdey have

521

00:34:23,109 --> 00:34:20,480

spent more than a year in space that any

522

00:34:24,550 --> 00:34:23,119

human has spent a year or more

523

00:34:26,790 --> 00:34:24,560

in orbit

524

00:34:29,109 --> 00:34:26,800

so with today's

525

00:34:31,829 --> 00:34:29,119

medical measures and

526
00:34:34,149 --> 00:34:31,839
biomedical research capabilities up on

527
00:34:35,669 --> 00:34:34,159
the space station how important will

528
00:35:20,550 --> 00:34:35,679
this flight be

529
00:35:25,910 --> 00:35:23,030
so one of the go of our goals in space

530
00:35:27,430 --> 00:35:25,920
is preparing for the missions further

531
00:35:29,190 --> 00:35:27,440
away from the earth

532
00:35:31,910 --> 00:35:29,200
say to mars and

533
00:35:33,750 --> 00:35:31,920
this is one of our goals and

534
00:35:35,349 --> 00:35:33,760
this is the goal of this mission to

535
00:35:38,710 --> 00:35:35,359
prepare for

536
00:35:39,670 --> 00:35:38,720
such kind of expedition

537
00:35:42,710 --> 00:35:39,680
will

538
00:35:43,750 --> 00:35:42,720

being in orbit for a full year

539

00:35:46,230 --> 00:35:43,760

be

540

00:35:48,310 --> 00:35:46,240

a physiological adjustment as you go

541

00:35:50,710 --> 00:35:48,320

month to month to month

542

00:35:52,150 --> 00:35:50,720

or is the psychological adjustment

543

00:35:54,630 --> 00:35:52,160

really the big

544

00:35:56,230 --> 00:35:54,640

hurdle that you will have to clear as

545

00:36:11,829 --> 00:35:56,240

you get comfortable in orbit and then

546

00:36:11,839 --> 00:36:51,270

a

547

00:36:55,190 --> 00:36:52,790

so

548

00:36:57,670 --> 00:36:55,200

it's a complex question it involves both

549

00:36:58,630 --> 00:36:57,680

psychology and physiology and psychology

550

00:37:01,270 --> 00:36:58,640

wise

551
00:37:03,190 --> 00:37:01,280
um the scientists have already come out

552
00:37:05,510 --> 00:37:03,200
with the ideas how to arrange the

553
00:37:07,589 --> 00:37:05,520
interior of the spacecraft for the

554
00:37:10,310 --> 00:37:07,599
martian expedition and some elements of

555
00:37:12,310 --> 00:37:10,320
those ideas will be validated over our

556
00:37:14,710 --> 00:37:12,320
mission it involves medical and

557
00:37:15,910 --> 00:37:14,720
biological aspects as well and all

558
00:37:16,710 --> 00:37:15,920
together

559
00:37:19,270 --> 00:37:16,720
uh

560
00:37:21,589 --> 00:37:19,280
carried out in our mission it will make

561
00:37:24,630 --> 00:37:21,599
it possible to make us closer to the

562
00:37:28,950 --> 00:37:25,589
the

563
00:37:31,349 --> 00:37:28,960

and scott really have signed up to be

564

00:37:33,990 --> 00:37:31,359

guinea pigs for a year in space with

565

00:37:36,710 --> 00:37:34,000

this unique research over this long

566

00:37:38,710 --> 00:37:36,720

period of time but there's much more to

567

00:37:40,710 --> 00:37:38,720

these four expeditions is there not that

568

00:37:43,190 --> 00:37:40,720

with spacewalks and visiting vehicles

569

00:37:44,790 --> 00:37:43,200

and all the normal activity on a

570

00:37:47,190 --> 00:37:44,800

day-to-day basis aboard the space

571

00:37:48,069 --> 00:37:47,200

station how busy will you guys be for a

572

00:38:30,710 --> 00:37:48,079

year

573

00:38:35,910 --> 00:38:33,190

well we will be pretty busy only i will

574

00:38:37,990 --> 00:38:35,920

be involved in 66 experiments including

575

00:38:40,150 --> 00:38:38,000

seven us experience

576

00:38:42,630 --> 00:38:40,160

scott will have two evas performed and

577

00:38:45,510 --> 00:38:42,640

i'll have only one so we will be fairly

578

00:38:49,270 --> 00:38:47,510

are you going to be looking uh month to

579

00:38:50,950 --> 00:38:49,280

month at various milestones on the

580

00:38:52,710 --> 00:38:50,960

calendar or

581

00:38:55,190 --> 00:38:52,720

are you going to put the calendar

582

00:38:57,990 --> 00:38:55,200

out of your mind and just

583

00:39:00,390 --> 00:38:58,000

plow ahead day to day week to week

584

00:39:01,910 --> 00:39:00,400

without paying attention to the hours

585

00:39:32,150 --> 00:39:01,920

and days that will go by that will

586

00:39:37,190 --> 00:39:33,910

yeah uh well

587

00:39:39,349 --> 00:39:37,200

i believe i will try to

588

00:39:41,430 --> 00:39:39,359

keep the the diary

589

00:39:43,510 --> 00:39:41,440

and i will be putting the notches on the

590

00:39:45,510 --> 00:39:43,520

tree in the same way robinson cruiser

591

00:39:48,150 --> 00:39:45,520

did

592

00:39:49,990 --> 00:39:48,160

and robinson crusoe was of course a

593

00:39:51,670 --> 00:39:50,000

survivor what do you think

594

00:39:53,349 --> 00:39:51,680

is going to be

595

00:40:07,510 --> 00:39:53,359

the most difficult thing for you

596

00:40:45,030 --> 00:40:41,510

um

597

00:40:47,030 --> 00:40:45,040

i can't give you a single reason you

598

00:40:49,349 --> 00:40:47,040

should make this mission hard it's a

599

00:40:51,829 --> 00:40:49,359

complex of things again so there are

600

00:40:53,910 --> 00:40:51,839

some psychological things such as

601

00:40:57,270 --> 00:40:53,920

missing the earth missing

602

00:40:59,750 --> 00:40:57,280

uh lakes rivers uh missing forests

603

00:41:01,829 --> 00:40:59,760

missing your family which left on the

604

00:41:04,309 --> 00:41:01,839

earth so that's the psychological

605

00:41:06,470 --> 00:41:04,319

aspects besides of that

606

00:41:09,670 --> 00:41:06,480

there is a lot of responsibility

607

00:41:11,990 --> 00:41:09,680

uh which is laid on you on in on your

608

00:41:13,109 --> 00:41:12,000

mission and you're trying to accomplish

609

00:41:15,430 --> 00:41:13,119

everything

610

00:41:20,390 --> 00:41:15,440

uh you are entrusted with not to be

611

00:41:22,470 --> 00:41:20,400

ashamed when you come back to the earth

612

00:41:24,710 --> 00:41:22,480

it's always very busy here in baikonur

613

00:41:27,510 --> 00:41:24,720

in the final days leading up to launch a

614

00:41:29,670 --> 00:41:27,520

lot of ceremonial activities uh a lot of

615

00:41:31,109 --> 00:41:29,680

media will be here obviously for this

616

00:41:32,870 --> 00:41:31,119

launch

617

00:41:35,030 --> 00:41:32,880

but when you uh

618

00:41:36,870 --> 00:41:35,040

are in your social suit

619

00:41:37,990 --> 00:41:36,880

getting ready to walk out to head to the

620

00:41:40,630 --> 00:41:38,000

launch pad

621

00:41:43,190 --> 00:41:40,640

and even when you get inside the soyuz

622

00:41:44,390 --> 00:41:43,200

and it's quiet in the hours that lead up

623

00:41:45,510 --> 00:41:44,400

to launch

624

00:42:53,910 --> 00:41:45,520

what do you think is going to be going

625

00:42:57,190 --> 00:42:55,190

yeah when we

626
00:42:59,910 --> 00:42:57,200
board the spacecraft we spend there

627
00:43:01,990 --> 00:42:59,920
about two hours and the first hour is

628
00:43:04,870 --> 00:43:02,000
fairly busy with all the checks and

629
00:43:07,910 --> 00:43:04,880
operations we've got to perform on board

630
00:43:10,390 --> 00:43:07,920
then it gets kind of

631
00:43:12,550 --> 00:43:10,400
easier and they put up some music for us

632
00:43:15,030 --> 00:43:12,560
to listen well about three favorite

633
00:43:17,750 --> 00:43:15,040
songs per crew member and this is how we

634
00:43:23,510 --> 00:43:17,760
spend our time till uh the moment of the

635
00:43:27,750 --> 00:43:25,670
initially you don't have really much

636
00:43:30,790 --> 00:43:27,760
time of thinking

637
00:43:33,510 --> 00:43:30,800
to think about something special

638
00:43:35,589 --> 00:43:33,520

i'm anticipated i'm anticipating this

639

00:43:38,150 --> 00:43:35,599

flight and

640

00:43:45,829 --> 00:43:38,160

i'm not afraid to to go

641

00:43:49,750 --> 00:43:47,270

so

642

00:43:52,870 --> 00:43:49,760

when i launched on my previous mission

643

00:43:55,190 --> 00:43:52,880

my heart rate bit was 65 at the moment

644

00:43:56,150 --> 00:43:55,200

of the liftoff

645

00:43:58,470 --> 00:43:56,160

which is

646

00:43:59,430 --> 00:43:58,480

extraordinary for anyone on any mission

647

00:44:01,190 --> 00:43:59,440

let alone

648

00:44:03,190 --> 00:44:01,200

somebody about to go into space for a

649

00:44:04,870 --> 00:44:03,200

full year misha when

650

00:44:06,829 --> 00:44:04,880

at the other end of the mission when you

651
00:44:08,550 --> 00:44:06,839
and scott return home you're going to

652
00:44:11,510 --> 00:44:08,560
land

653
00:44:13,750 --> 00:44:11,520
in south central kazakhstan cold weather

654
00:44:16,309 --> 00:44:13,760
you're back on earth the air will hit

655
00:44:18,470 --> 00:44:16,319
you in the face when they open the hatch

656
00:44:20,230 --> 00:44:18,480
what do you hope you and scott will have

657
00:44:22,950 --> 00:44:20,240
accomplished

658
00:44:24,470 --> 00:44:22,960
for a year in space what what will be

659
00:44:26,309 --> 00:44:24,480
the history books

660
00:44:29,750 --> 00:44:26,319
punctuation mark on this mission what

661
00:44:29,760 --> 00:44:34,630
because

662
00:44:34,640 --> 00:45:25,910
my last

663
00:45:30,230 --> 00:45:28,069

so we will complete all the experiments

664

00:45:31,270 --> 00:45:30,240

we've got to perform there can't be the

665

00:45:33,030 --> 00:45:31,280

other way

666

00:45:35,109 --> 00:45:33,040

so i've got them all planned i've got

667

00:45:37,910 --> 00:45:35,119

them on my personal schedule

668

00:45:40,309 --> 00:45:37,920

and we will bring some results uh which

669

00:45:41,910 --> 00:45:40,319

will contribute to the space science and

670

00:45:44,230 --> 00:45:41,920

technology and

671

00:45:47,030 --> 00:45:44,240

which will help to achieve the progress

672

00:45:49,910 --> 00:45:47,040

in the space flight and fusion

673

00:45:51,670 --> 00:45:49,920

and a final question uh you and your and

674

00:45:53,349 --> 00:45:51,680

scott and gennady will have the

675

00:45:55,589 --> 00:45:53,359

privilege of being aboard the space

676

00:45:57,829 --> 00:45:55,599

station in july

677

00:46:00,790 --> 00:45:57,839

at the time of the 40th anniversary of

678

00:46:02,390 --> 00:46:00,800

apollo soyuz very important milestone

679

00:46:03,750 --> 00:46:02,400

mission

680

00:46:05,430 --> 00:46:03,760

some people say it really was the

681

00:46:07,750 --> 00:46:05,440

mission that gave birth

682

00:46:09,990 --> 00:46:07,760

to the international partnership that

683

00:46:13,109 --> 00:46:10,000

formed the international space station

684

00:46:16,309 --> 00:46:13,119

that you will be living on for a year

685

00:46:18,870 --> 00:46:16,319

how how significant is that for you

686

00:46:21,349 --> 00:46:18,880

to be part of that anniversary and

687

00:46:24,470 --> 00:46:21,359

how significant is it that apollo soyuz

688

00:46:26,550 --> 00:46:24,480

really was the the pathfinder to the

689

00:47:22,710 --> 00:46:26,560

home that will be your home for a year

690

00:47:22,720 --> 00:47:47,589

no

691

00:47:49,950 --> 00:47:48,549

so

692

00:47:53,190 --> 00:47:49,960

i remember

693

00:47:55,910 --> 00:47:53,200

1975 then this mission was launched and

694

00:47:58,150 --> 00:47:55,920

that was a great mission can actually

695

00:48:00,230 --> 00:47:58,160

judge it as the textbook example of the

696

00:48:03,030 --> 00:48:00,240

way how the international capitation

697

00:48:06,069 --> 00:48:03,040

should be executed so and i was

698

00:48:07,829 --> 00:48:06,079

really marveling that mission uh i was

699

00:48:10,790 --> 00:48:07,839

proud that it was happened so i bought

700

00:48:13,190 --> 00:48:10,800

myself a huge pin with apollo soyuz

701
00:48:15,670 --> 00:48:13,200
insignia put it on my jacket and i was

702
00:48:17,589 --> 00:48:15,680
proud to wear that page

703
00:48:19,829 --> 00:48:17,599
and

704
00:48:22,470 --> 00:48:19,839
we are aware of that event i've got it

705
00:48:24,309 --> 00:48:22,480
scheduled in my crew notebook and

706
00:48:25,349 --> 00:48:24,319
when we are on board

707
00:48:27,670 --> 00:48:25,359
we will

708
00:48:28,710 --> 00:48:27,680
celebrate it with making the phone calls

709
00:48:31,430 --> 00:48:28,720
to

710
00:48:34,390 --> 00:48:31,440
all the participants of that mission and

711
00:48:35,910 --> 00:48:34,400
congratulating them on that wonderful

712
00:48:38,470 --> 00:48:35,920
anniversary

713
00:48:40,230 --> 00:48:38,480

dr steve gilmore scott kelly's flight

714

00:48:43,030 --> 00:48:40,240

surgeon steve

715

00:48:44,710 --> 00:48:43,040

it is going to be an a very interesting

716

00:48:46,710 --> 00:48:44,720

year

717

00:48:49,190 --> 00:48:46,720

a mission like none other that we've

718

00:48:51,109 --> 00:48:49,200

flown on the international space station

719

00:48:52,309 --> 00:48:51,119

first of all what is scott's state of

720

00:48:54,710 --> 00:48:52,319

mind

721

00:48:56,470 --> 00:48:54,720

and how is he preparing as he heads into

722

00:48:58,309 --> 00:48:56,480

the home stretch for a full year away

723

00:48:59,270 --> 00:48:58,319

from the planet

724

00:49:01,589 --> 00:48:59,280

well

725

00:49:02,870 --> 00:49:01,599

scott's been doing great

726

00:49:05,589 --> 00:49:02,880

one of the things that's interesting

727

00:49:07,190 --> 00:49:05,599

about baikonur like at the kennedy space

728

00:49:09,349 --> 00:49:07,200

station space center is the

729

00:49:11,589 --> 00:49:09,359

juxtaposition of nature and all the

730

00:49:13,990 --> 00:49:11,599

technical equipment that they interact

731

00:49:15,829 --> 00:49:14,000

with so he has the opportunity to go out

732

00:49:18,230 --> 00:49:15,839

and take walks

733

00:49:20,069 --> 00:49:18,240

kind of experience nature

734

00:49:21,910 --> 00:49:20,079

he's also been doing some things like

735

00:49:23,670 --> 00:49:21,920

you know catching up with friends and so

736

00:49:26,150 --> 00:49:23,680

he has a lot of time in his schedule

737

00:49:28,309 --> 00:49:26,160

that's unscheduled to you know just

738

00:49:30,230 --> 00:49:28,319

relax and do those kind of things but

739

00:49:31,589 --> 00:49:30,240

before he prepares and takes off for the

740

00:49:34,069 --> 00:49:31,599

mission

741

00:49:37,109 --> 00:49:34,079

in the months leading up to launch uh

742

00:49:41,030 --> 00:49:37,119

did you two discuss the psychological

743

00:49:44,069 --> 00:49:41,040

preparations required for this uh

744

00:49:46,790 --> 00:49:44,079

how you get your family squared away uh

745

00:49:49,589 --> 00:49:46,800

you know for you being away from them

746

00:49:51,589 --> 00:49:49,599

for a year what what are the mechanics

747

00:49:53,270 --> 00:49:51,599

of getting ready to leave the planet for

748

00:49:55,589 --> 00:49:53,280

a year

749

00:49:58,630 --> 00:49:55,599

well one one of the unique things about

750

00:50:00,230 --> 00:49:58,640

working with scott is um he's i had the

751
00:50:02,390 --> 00:50:00,240
opportunity to work with him when he did

752
00:50:04,069 --> 00:50:02,400
his six foot six month mission and in

753
00:50:05,829 --> 00:50:04,079
many ways that's kind of a dry run for

754
00:50:07,430 --> 00:50:05,839
what we're doing with the one-year

755
00:50:09,589 --> 00:50:07,440
mission

756
00:50:11,510 --> 00:50:09,599
i work with a lot of colleagues back in

757
00:50:13,990 --> 00:50:11,520
houston and and we have a support

758
00:50:15,990 --> 00:50:14,000
network that we put in place for crews

759
00:50:17,510 --> 00:50:16,000
and their families and i think the most

760
00:50:19,270 --> 00:50:17,520
important thing is making sure that

761
00:50:21,430 --> 00:50:19,280
there's the opportunity for

762
00:50:23,349 --> 00:50:21,440
communication and video conferences and

763
00:50:25,190 --> 00:50:23,359

things like this so that

764

00:50:27,109 --> 00:50:25,200

crew members feel like they can still be

765

00:50:28,549 --> 00:50:27,119

a part of the things that are going on

766

00:50:30,309 --> 00:50:28,559

on a day-to-day basis with their

767

00:50:33,270 --> 00:50:30,319

families and i think that's really the

768

00:50:35,190 --> 00:50:33,280

key element to making sure that

769

00:50:37,190 --> 00:50:35,200

things at home as well as

770

00:50:38,710 --> 00:50:37,200

are going well so that things on the

771

00:50:41,270 --> 00:50:38,720

station also go well he can have his

772

00:50:42,309 --> 00:50:41,280

mind focused on that

773

00:50:44,390 --> 00:50:42,319

was

774

00:50:46,549 --> 00:50:44,400

there is there a particular

775

00:50:48,710 --> 00:50:46,559

characteristic to scott kelly that made

776

00:50:51,270 --> 00:50:48,720

him the right guy

777

00:50:54,630 --> 00:50:51,280

for this mission in both from a physical

778

00:50:56,470 --> 00:50:54,640

as well as a psychological point of view

779

00:50:58,710 --> 00:50:56,480

i think that um

780

00:51:01,190 --> 00:50:58,720

you know in the medical group we we get

781

00:51:02,870 --> 00:51:01,200

a we don't get the the final say on that

782

00:51:04,630 --> 00:51:02,880

type of thing we we did do some

783

00:51:08,069 --> 00:51:04,640

assessments on on people that would be

784

00:51:09,750 --> 00:51:08,079

eligible uh to do a one-year mission and

785

00:51:12,710 --> 00:51:09,760

some of the technical considerations

786

00:51:15,349 --> 00:51:12,720

were the history of radiation exposure

787

00:51:17,589 --> 00:51:15,359

and things like this so

788

00:51:18,950 --> 00:51:17,599

i think one of the unique aspects though

789

00:51:21,990 --> 00:51:18,960

about scott

790

00:51:23,349 --> 00:51:22,000

is that he's a fairly concise and direct

791

00:51:25,030 --> 00:51:23,359

individual and i think that'll be a

792

00:51:26,630 --> 00:51:25,040

valuable trait

793

00:51:28,150 --> 00:51:26,640

for the teams that are working and

794

00:51:29,430 --> 00:51:28,160

supporting him

795

00:51:32,390 --> 00:51:29,440

he'll

796

00:51:33,990 --> 00:51:32,400

he it's easy to know what he needs and i

797

00:51:36,549 --> 00:51:34,000

think that'll be something that will

798

00:51:38,790 --> 00:51:36,559

serve serve the mission well is there

799

00:51:42,390 --> 00:51:38,800

any milestone point over the course of a

800

00:51:44,470 --> 00:51:42,400

year where you'd be looking for

801
00:51:46,630 --> 00:51:44,480
something beyond the be on the lookout

802
00:51:48,390 --> 00:51:46,640
for something that from a flight surgeon

803
00:51:50,870 --> 00:51:48,400
standpoint you need to be aware of is it

804
00:51:53,109 --> 00:51:50,880
the six month point is it the 10-month

805
00:51:55,670 --> 00:51:53,119
point as he heads into the final weeks

806
00:51:59,109 --> 00:51:55,680
how does that all work out

807
00:52:01,270 --> 00:51:59,119
we we design our missions with a lot of

808
00:52:02,950 --> 00:52:01,280
sort of checks in place to just kind of

809
00:52:04,630 --> 00:52:02,960
see how things are going so that we can

810
00:52:05,510 --> 00:52:04,640
identify small things so they don't

811
00:52:07,349 --> 00:52:05,520
become

812
00:52:09,349 --> 00:52:07,359
larger things and i think one of the

813
00:52:11,670 --> 00:52:09,359

more important things that we did before

814

00:52:13,750 --> 00:52:11,680

the mission is going to start is have a

815

00:52:16,390 --> 00:52:13,760

discussion about ways to find scott a

816

00:52:18,230 --> 00:52:16,400

little and misha as well some variety

817

00:52:20,950 --> 00:52:18,240

and a little bit of flexibility in the

818

00:52:23,190 --> 00:52:20,960

normal schedule that's put together for

819

00:52:25,349 --> 00:52:23,200

crew members and that way i think it

820

00:52:27,190 --> 00:52:25,359

it'll make the experience

821

00:52:28,390 --> 00:52:27,200

vary a little bit throughout the course

822

00:52:30,390 --> 00:52:28,400

of the year and i think that'll be an

823

00:52:32,549 --> 00:52:30,400

important element of making sure that

824

00:52:34,710 --> 00:52:32,559

they get through with the kind of energy

825

00:52:37,030 --> 00:52:34,720

and stuff like that that's needed to do

826

00:52:39,430 --> 00:52:37,040

well during that entire time

827

00:52:41,030 --> 00:52:39,440

and finally steve

828

00:52:42,870 --> 00:52:41,040

it's all about

829

00:52:45,750 --> 00:52:42,880

these guys being guinea pigs for

830

00:52:48,069 --> 00:52:45,760

critical science to expand the database

831

00:52:50,309 --> 00:52:48,079

for countermeasures perhaps uh that will

832

00:52:52,470 --> 00:52:50,319

lead to deep space explorations and

833

00:52:54,230 --> 00:52:52,480

hopefully on to mars

834

00:52:56,710 --> 00:52:54,240

what uh what do you consider to be the

835

00:52:58,549 --> 00:52:56,720

most critical from a medical biomedical

836

00:53:00,069 --> 00:52:58,559

standpoint the most critical

837

00:53:02,630 --> 00:53:00,079

things that

838

00:53:05,349 --> 00:53:02,640

the science program folks will be

839

00:53:06,870 --> 00:53:05,359

acquiring uh over the course of a year

840

00:53:09,750 --> 00:53:06,880

in this very unique

841

00:53:12,069 --> 00:53:10,549

well

842

00:53:14,069 --> 00:53:12,079

a little bit unlike our russian

843

00:53:16,309 --> 00:53:14,079

counterparts for us scott will be the

844

00:53:19,109 --> 00:53:16,319

first u.s person that uh spends an

845

00:53:19,990 --> 00:53:19,119

entire continuous year in space

846

00:53:21,430 --> 00:53:20,000

and

847

00:53:23,670 --> 00:53:21,440

you know they're

848

00:53:25,910 --> 00:53:23,680

we're in the process of looking at

849

00:53:28,150 --> 00:53:25,920

future emissions that either they'll

850

00:53:29,589 --> 00:53:28,160

vary by the distance from earth or the

851
00:53:33,589 --> 00:53:29,599
amount of time people

852
00:53:36,069 --> 00:53:33,599
from earth and it's special environments

853
00:53:38,470 --> 00:53:36,079
and so i think for us what the important

854
00:53:40,549 --> 00:53:38,480
part of that will be is as opposed to

855
00:53:43,030 --> 00:53:40,559
one specific measure

856
00:53:44,950 --> 00:53:43,040
you go you design missions and you take

857
00:53:47,829 --> 00:53:44,960
an educated guess based on the data that

858
00:53:49,750 --> 00:53:47,839
you have available and the the second

859
00:53:51,190 --> 00:53:49,760
critical part of that is experience and

860
00:53:53,190 --> 00:53:51,200
so the experience

861
00:53:55,109 --> 00:53:53,200
for all the teams uh not just the

862
00:53:57,030 --> 00:53:55,119
scientists supporting um the crew member

863
00:53:59,510 --> 00:53:57,040

will help us design

864

00:54:01,829 --> 00:53:59,520

the the right mission the right um

865

00:54:03,270 --> 00:54:01,839

medical checks the right length of day

866

00:54:05,349 --> 00:54:03,280

all those kinds of questions will be

867

00:54:06,150 --> 00:54:05,359

looked at as a result of the experience

868

00:54:07,670 --> 00:54:06,160

that