



1  
00:00:07,829 --> 00:00:05,670  
this is the sts-133 interview with

2  
00:00:09,910 --> 00:00:07,839  
mission specialist nicole stott uh

3  
00:00:12,070 --> 00:00:09,920  
nicole tell us about the place where you

4  
00:00:13,990 --> 00:00:12,080  
grew up uh your hometown and what it was

5  
00:00:16,390 --> 00:00:14,000  
like growing up there and how that place

6  
00:00:18,070 --> 00:00:16,400  
influenced who you've become well i grew

7  
00:00:20,390 --> 00:00:18,080  
up in clearwater florida which is on the

8  
00:00:22,390 --> 00:00:20,400  
west coast on the gulf side there

9  
00:00:23,750 --> 00:00:22,400  
beautiful beaches i have you know fond

10  
00:00:25,269 --> 00:00:23,760  
memories of that and of course flying

11  
00:00:26,630 --> 00:00:25,279  
back from houston to

12  
00:00:29,509 --> 00:00:26,640  
clearwater it just gets more and more

13  
00:00:30,870 --> 00:00:29,519

beautiful every time i see it

14

00:00:33,350 --> 00:00:30,880

when i think about clearwater though i

15

00:00:35,190 --> 00:00:33,360

think i think about my family and you

16

00:00:37,110 --> 00:00:35,200

know the time i had there my family is

17

00:00:38,069 --> 00:00:37,120

still in that local area so it's nice to

18

00:00:40,069 --> 00:00:38,079

go back

19

00:00:42,549 --> 00:00:40,079

and visit and

20

00:00:44,869 --> 00:00:42,559

the one thing that sticks out for me is

21

00:00:46,549 --> 00:00:44,879

the time as a family that we spent at

22

00:00:48,869 --> 00:00:46,559

the local airport because i think that

23

00:00:50,790 --> 00:00:48,879

had a huge influence on kind of the

24

00:00:53,110 --> 00:00:50,800

direction i took for school and then a

25

00:00:55,350 --> 00:00:53,120

career so

26

00:00:57,590 --> 00:00:55,360

it had a huge influence i

27

00:00:59,189 --> 00:00:57,600

i enjoy going back and seeing the people

28

00:01:01,510 --> 00:00:59,199

and one of the things about getting to

29

00:01:03,670 --> 00:01:01,520

fly in space before was that it let me

30

00:01:06,390 --> 00:01:03,680

see just how enthusiastic and excited

31

00:01:08,469 --> 00:01:06,400

that local area was about my mission and

32

00:01:10,469 --> 00:01:08,479

following me flying in space so i really

33

00:01:13,350 --> 00:01:10,479

appreciate that what was it about the

34

00:01:15,510 --> 00:01:13,360

the airport that that time theory was

35

00:01:17,109 --> 00:01:15,520

what was it about that that really

36

00:01:18,870 --> 00:01:17,119

influenced well i think you know my dad

37

00:01:21,510 --> 00:01:18,880

had a real passion for flying that he

38

00:01:23,990 --> 00:01:21,520

shared with us as a family and he built

39

00:01:26,149 --> 00:01:24,000

a couple airplanes small um aerobatic

40

00:01:28,230 --> 00:01:26,159

airplanes uh that started in our garage

41

00:01:30,630 --> 00:01:28,240

and then would move to the airport and

42

00:01:33,190 --> 00:01:30,640

it was just a little local hometown

43

00:01:34,950 --> 00:01:33,200

airport and in fact after this last

44

00:01:36,230 --> 00:01:34,960

flight i went back and visited them i

45

00:01:38,230 --> 00:01:36,240

tried to go back there once a year for

46

00:01:40,390 --> 00:01:38,240

their open house but they invited me

47

00:01:41,670 --> 00:01:40,400

back after the flight and i got to see a

48

00:01:43,270 --> 00:01:41,680

lot of the people that are still there

49

00:01:45,910 --> 00:01:43,280

people that were friends of my dad's

50

00:01:47,910 --> 00:01:45,920

from years ago growing up and so it was

51  
00:01:49,510 --> 00:01:47,920  
my first exposure to flying and it kind

52  
00:01:52,149 --> 00:01:49,520  
of really i mean it got in my blood

53  
00:01:53,190 --> 00:01:52,159  
there and that's kind of what you know

54  
00:01:55,910 --> 00:01:53,200  
really

55  
00:01:57,429 --> 00:01:55,920  
helped me choose what i wanted to do

56  
00:01:59,590 --> 00:01:57,439  
i knew i wanted to do something with

57  
00:02:00,870 --> 00:01:59,600  
flying and it just kind of evolved

58  
00:02:03,429 --> 00:02:00,880  
towards the

59  
00:02:06,230 --> 00:02:03,439  
the aerospace side of things for me

60  
00:02:09,190 --> 00:02:06,240  
did you get a chance to to see that that

61  
00:02:11,589 --> 00:02:09,200  
area from space on any of your time i

62  
00:02:12,949 --> 00:02:11,599  
did yeah we have quite a few passes over

63  
00:02:17,430 --> 00:02:12,959

that

64

00:02:18,710 --> 00:02:17,440

would always look for it i'd take i had

65

00:02:20,550 --> 00:02:18,720

actually got some pretty good shots of

66

00:02:21,830 --> 00:02:20,560

that whole skyway bridge across tampa

67

00:02:23,830 --> 00:02:21,840

bay and

68

00:02:25,910 --> 00:02:23,840

the beach area there so it was pretty

69

00:02:27,830 --> 00:02:25,920

neat i sent some back to the the people

70

00:02:29,270 --> 00:02:27,840

there and they're using it as their

71

00:02:32,309 --> 00:02:29,280

desktop

72

00:02:33,830 --> 00:02:32,319

you know screen savers now

73

00:02:36,309 --> 00:02:33,840

okay

74

00:02:38,949 --> 00:02:36,319

every accomplishment begins begins with

75

00:02:41,430 --> 00:02:38,959

some form of motivation you've been an

76  
00:02:43,670 --> 00:02:41,440  
astronaut here for now about 10 years

77  
00:02:46,630 --> 00:02:43,680  
tell us about what it was that motivated

78  
00:02:48,710 --> 00:02:46,640  
you to want to pursue this line of work

79  
00:02:51,110 --> 00:02:48,720  
well a couple things motivated me i

80  
00:02:53,270 --> 00:02:51,120  
think the the first being that that

81  
00:02:55,509 --> 00:02:53,280  
family experience i had sharing you know

82  
00:02:58,149 --> 00:02:55,519  
kind of the joy of flying with my dad

83  
00:02:59,910 --> 00:02:58,159  
and you know getting those first uh

84  
00:03:03,190 --> 00:02:59,920  
flights in a small airplane and just

85  
00:03:05,670 --> 00:03:03,200  
seeing how uh really um cool exciting

86  
00:03:07,270 --> 00:03:05,680  
that is it it definitely influenced my

87  
00:03:09,030 --> 00:03:07,280  
university choice for sure with

88  
00:03:11,670 --> 00:03:09,040

aeronautical engineering

89

00:03:13,990 --> 00:03:11,680

and living in florida you have

90

00:03:16,470 --> 00:03:14,000

you know you have that space coast right

91

00:03:18,390 --> 00:03:16,480

right there and out of high school i was

92

00:03:20,630 --> 00:03:18,400

watching shuttle launches

93

00:03:21,670 --> 00:03:20,640

and throughout college and that's what

94

00:03:23,589 --> 00:03:21,680

kind of

95

00:03:27,030 --> 00:03:23,599

really pushed me finally towards wanting

96

00:03:28,949 --> 00:03:27,040

to apply and work with nasa

97

00:03:30,830 --> 00:03:28,959

recount for us if you would the steps

98

00:03:33,750 --> 00:03:30,840

that you took to

99

00:03:36,550 --> 00:03:33,760

to basically to make it to nasa and kind

100

00:03:38,149 --> 00:03:36,560

of weave in your education uh you know

101  
00:03:40,470 --> 00:03:38,159  
where you went and some of your

102  
00:03:42,789 --> 00:03:40,480  
professional uh experience

103  
00:03:43,910 --> 00:03:42,799  
well i after graduating from high school

104  
00:03:45,750 --> 00:03:43,920  
i actually chose kind of a

105  
00:03:47,589 --> 00:03:45,760  
non-traditional path

106  
00:03:49,270 --> 00:03:47,599  
i stayed in the local area and went to

107  
00:03:51,589 --> 00:03:49,280  
the local community college because they

108  
00:03:54,149 --> 00:03:51,599  
had this really great program called

109  
00:03:55,509 --> 00:03:54,159  
aviation administration it's kind of a

110  
00:03:57,830 --> 00:03:55,519  
business degree that allowed you to get

111  
00:03:58,630 --> 00:03:57,840  
your pilot's license in parallel with it

112  
00:04:01,910 --> 00:03:58,640  
so

113  
00:04:03,910 --> 00:04:01,920

i worked on that and i think that was a

114

00:04:05,670 --> 00:04:03,920

a really big stepping stone towards what

115

00:04:07,670 --> 00:04:05,680

i did further with my education moving

116

00:04:10,149 --> 00:04:07,680

on to embry-riddle aeronautical

117

00:04:12,550 --> 00:04:10,159

university for the engineering degree

118

00:04:14,149 --> 00:04:12,560

and i i earned an uh let's see that was

119

00:04:16,069 --> 00:04:14,159

a bachelor's degree in aeronautical

120

00:04:17,509 --> 00:04:16,079

engineering there and that school is

121

00:04:19,749 --> 00:04:17,519

great because you're hands-on you're

122

00:04:21,430 --> 00:04:19,759

right on an airport you know you go into

123

00:04:23,510 --> 00:04:21,440

a class and you talk about theory and

124

00:04:25,990 --> 00:04:23,520

then you're out with the hardware itself

125

00:04:27,670 --> 00:04:26,000

and i'm really a hands-on person

126

00:04:29,189 --> 00:04:27,680

when it comes to learning

127

00:04:31,749 --> 00:04:29,199

and then from there

128

00:04:33,189 --> 00:04:31,759

i applied to nasa out of out of college

129

00:04:34,469 --> 00:04:33,199

they were on one of the you know

130

00:04:36,390 --> 00:04:34,479

standard hiring freezes that would

131

00:04:39,430 --> 00:04:36,400

happen every few years

132

00:04:40,790 --> 00:04:39,440

and instead i accepted a job with pratt

133

00:04:43,110 --> 00:04:40,800

and whitney down in west palm beach

134

00:04:44,469 --> 00:04:43,120

florida working as a structural design

135

00:04:46,230 --> 00:04:44,479

engineer there

136

00:04:47,749 --> 00:04:46,240

and really enjoying what i was doing

137

00:04:49,909 --> 00:04:47,759

there but i always you know was always

138

00:04:52,150 --> 00:04:49,919

hoping that the the space flight thing

139

00:04:54,950 --> 00:04:52,160

the working on spacecraft would come

140

00:04:56,710 --> 00:04:54,960

through with nasa and after about a year

141

00:04:58,790 --> 00:04:56,720

at pratt whitney it did they came off

142

00:04:59,909 --> 00:04:58,800

their freeze and they tracked me down

143

00:05:01,510 --> 00:04:59,919

there and i

144

00:05:03,670 --> 00:05:01,520

started working for kennedy's best

145

00:05:04,950 --> 00:05:03,680

center in shuttle processing

146

00:05:06,950 --> 00:05:04,960

and had

147

00:05:08,710 --> 00:05:06,960

just a fantastic experience there i mean

148

00:05:10,710 --> 00:05:08,720

you are right there you walk down into

149

00:05:13,270 --> 00:05:10,720

the hangar and there's a an orbiter

150

00:05:15,749 --> 00:05:13,280

above you and the opportunity to get in

151  
00:05:17,749 --> 00:05:15,759  
the crew module or you know work inside

152  
00:05:19,510 --> 00:05:17,759  
the payload bay and with the engineers

153  
00:05:21,029 --> 00:05:19,520  
and the technicians all you know all

154  
00:05:22,469 --> 00:05:21,039  
very hands-on

155  
00:05:24,870 --> 00:05:22,479  
and working

156  
00:05:27,430 --> 00:05:24,880  
every aspect of processing from

157  
00:05:29,510 --> 00:05:27,440  
landing to launch and just just a really

158  
00:05:30,790 --> 00:05:29,520  
great experience

159  
00:05:33,110 --> 00:05:30,800  
and uh

160  
00:05:34,950 --> 00:05:33,120  
once you

161  
00:05:37,110 --> 00:05:34,960  
then take us from from there to how you

162  
00:05:39,430 --> 00:05:37,120  
actually then became an astronaut

163  
00:05:41,749 --> 00:05:39,440

when did you when did you

164

00:05:43,110 --> 00:05:41,759

make the application and how far how

165

00:05:44,790 --> 00:05:43,120

much time

166

00:05:46,950 --> 00:05:44,800

elapsed in between when you finally got

167

00:05:48,550 --> 00:05:46,960

the call yeah i think that's one of the

168

00:05:49,909 --> 00:05:48,560

hardest thing is actually convincing

169

00:05:51,430 --> 00:05:49,919

yourself that

170

00:05:53,830 --> 00:05:51,440

you should fill out the application and

171

00:05:55,830 --> 00:05:53,840

send it in that took a lot for me i was

172

00:05:57,590 --> 00:05:55,840

not one of those people who from the

173

00:05:59,830 --> 00:05:57,600

time i watched the moon landing said you

174

00:06:01,430 --> 00:05:59,840

know this is this is what i've got to do

175

00:06:03,189 --> 00:06:01,440

i always thought it was really cool but

176

00:06:04,830 --> 00:06:03,199

never thought it was

177

00:06:07,189 --> 00:06:04,840

you know a reality kind of thing a

178

00:06:09,430 --> 00:06:07,199

possibility and it really wasn't until i

179

00:06:10,710 --> 00:06:09,440

was working at kennedy space center that

180

00:06:12,550 --> 00:06:10,720

uh several of the people that i

181

00:06:14,469 --> 00:06:12,560

considered to be mentors there

182

00:06:17,749 --> 00:06:14,479

encouraged me to apply

183

00:06:19,830 --> 00:06:17,759

and and i did and again it took a lot to

184

00:06:21,590 --> 00:06:19,840

you know to think that they were right

185

00:06:23,670 --> 00:06:21,600

and fill out the application

186

00:06:25,189 --> 00:06:23,680

but i applied and i

187

00:06:26,629 --> 00:06:25,199

got an interview on that first

188

00:06:28,629 --> 00:06:26,639

application

189

00:06:30,230 --> 00:06:28,639

and went through the whole process of

190

00:06:31,510 --> 00:06:30,240

course looking around me at the 20 other

191

00:06:33,270 --> 00:06:31,520

people who were interviewing with me and

192

00:06:35,350 --> 00:06:33,280

saying okay i don't stand a chance there

193

00:06:37,749 --> 00:06:35,360

is no way these are you know very smart

194

00:06:40,309 --> 00:06:37,759

people doing cutting edge stuff and i i

195

00:06:42,710 --> 00:06:40,319

just don't have it and

196

00:06:44,550 --> 00:06:42,720

they did not select me that time but

197

00:06:46,710 --> 00:06:44,560

they offered me a job out here at

198

00:06:47,990 --> 00:06:46,720

johnson space center as a flight

199

00:06:49,110 --> 00:06:48,000

engineer on the shuttle training

200

00:06:52,150 --> 00:06:49,120

aircraft

201  
00:06:54,150 --> 00:06:52,160  
and that was an amazing experience um

202  
00:06:56,550 --> 00:06:54,160  
learning some crew coordination skills

203  
00:06:58,550 --> 00:06:56,560  
working you know in an operational

204  
00:07:00,550 --> 00:06:58,560  
aviation environment which is very much

205  
00:07:02,790 --> 00:07:00,560  
like what you have on the flight deck of

206  
00:07:04,629 --> 00:07:02,800  
the space shuttle and i did that for two

207  
00:07:06,710 --> 00:07:04,639  
years and i could have done that

208  
00:07:08,469 --> 00:07:06,720  
i loved it that's one thing about nasa

209  
00:07:10,150 --> 00:07:08,479  
the jobs that i had all along the way

210  
00:07:11,589 --> 00:07:10,160  
every one of them was

211  
00:07:13,430 --> 00:07:11,599  
you know interesting in its own way and

212  
00:07:15,589 --> 00:07:13,440  
i could have seen spending years doing

213  
00:07:17,749 --> 00:07:15,599

any one of them

214

00:07:18,550 --> 00:07:17,759

and while i was there i applied again

215

00:07:20,469 --> 00:07:18,560

and

216

00:07:23,430 --> 00:07:20,479

after that application was selected so

217

00:07:24,629 --> 00:07:23,440

it was selected in the class of 2000.

218

00:07:26,710 --> 00:07:24,639

do you recall

219

00:07:29,110 --> 00:07:26,720

where you were when you when you got the

220

00:07:30,629 --> 00:07:29,120

call tell us that story i do i

221

00:07:32,390 --> 00:07:30,639

that was a day that

222

00:07:33,189 --> 00:07:32,400

i had

223

00:07:35,830 --> 00:07:33,199

my

224

00:07:37,830 --> 00:07:35,840

instrument rating flight set up to go to

225

00:07:39,430 --> 00:07:37,840

go do that day my flight check for my

226

00:07:41,430 --> 00:07:39,440

instrument rating and

227

00:07:43,350 --> 00:07:41,440

that morning i got the call

228

00:07:46,950 --> 00:07:43,360

about the astronaut office selection and

229

00:07:48,469 --> 00:07:46,960

then i had to go off and do my um

230

00:07:49,589 --> 00:07:48,479

my check flight which went great but it

231

00:07:50,790 --> 00:07:49,599

was just like the whole time you're

232

00:07:53,029 --> 00:07:50,800

thinking about something else it was

233

00:07:56,070 --> 00:07:53,039

just a really cool day and

234

00:07:58,070 --> 00:07:56,080

it was also um in july and we had an

235

00:08:00,390 --> 00:07:58,080

anniversary of the the moon landing in

236

00:08:03,189 --> 00:08:00,400

that same day so it was uh you know kind

237

00:08:04,230 --> 00:08:03,199

of neat to have that um in parallel with

238

00:08:13,749 --> 00:08:04,240

the

239

00:08:14,790 --> 00:08:13,759

education in your life huge

240

00:08:15,909 --> 00:08:14,800

you know it's one of those things you

241

00:08:17,749 --> 00:08:15,919

look at you said you know there's

242

00:08:19,830 --> 00:08:17,759

absolutely no way i would be sitting

243

00:08:21,749 --> 00:08:19,840

here talking you today if it wasn't for

244

00:08:23,749 --> 00:08:21,759

the education that i received

245

00:08:24,869 --> 00:08:23,759

uh and i think that started you know

246

00:08:26,550 --> 00:08:24,879

straight from

247

00:08:29,110 --> 00:08:26,560

you know elementary school all the way

248

00:08:30,869 --> 00:08:29,120

up and and having teachers that you know

249

00:08:33,589 --> 00:08:30,879

maybe see something you in you that you

250

00:08:35,829 --> 00:08:33,599

don't necessarily see in yourself and um

251

00:08:38,070 --> 00:08:35,839

just uh subtly directing you in certain

252

00:08:40,310 --> 00:08:38,080

ways and and i certainly had that happen

253

00:08:42,230 --> 00:08:40,320

to me and that was more in the kind of

254

00:08:43,990 --> 00:08:42,240

science and math area where

255

00:08:45,990 --> 00:08:44,000

i never really thought i had any skill

256

00:08:47,430 --> 00:08:46,000

there and some teachers thought that i

257

00:08:48,949 --> 00:08:47,440

did and kind of pushed me in that

258

00:08:50,630 --> 00:08:48,959

direction which

259

00:08:52,870 --> 00:08:50,640

you know helped me know even know about

260

00:08:54,310 --> 00:08:52,880

things like aeronautical engineering and

261

00:08:55,509 --> 00:08:54,320

you know that those opportunities were

262

00:08:57,590 --> 00:08:55,519

out there

263

00:08:59,910 --> 00:08:57,600

do you recall speaking of the

264

00:09:02,230 --> 00:08:59,920

the science and math thing you say that

265

00:09:03,350 --> 00:09:02,240

wasn't something that was always

266

00:09:05,110 --> 00:09:03,360

yeah

267

00:09:07,350 --> 00:09:05,120

do you recall what it was like when you

268

00:09:09,750 --> 00:09:07,360

got it when you just really got it well

269

00:09:11,670 --> 00:09:09,760

i i recall um

270

00:09:13,590 --> 00:09:11,680

figuring out that wow this is this is

271

00:09:15,190 --> 00:09:13,600

fun and you know and i think that's a

272

00:09:17,910 --> 00:09:15,200

big part of it is finding something that

273

00:09:19,910 --> 00:09:17,920

you enjoy doing and pursuing that

274

00:09:21,590 --> 00:09:19,920

and i you know i'm thankful to this day

275

00:09:22,870 --> 00:09:21,600

to those teachers for

276

00:09:24,230 --> 00:09:22,880

you know kind of showing me that

277

00:09:25,990 --> 00:09:24,240

direction because otherwise i don't know

278

00:09:28,310 --> 00:09:26,000

that i you know on my own would have

279

00:09:30,310 --> 00:09:28,320

ever you know ever realized it you know

280

00:09:33,670 --> 00:09:30,320

maybe too late but um

281

00:09:36,150 --> 00:09:33,680

it certainly was a huge influence okay

282

00:09:38,310 --> 00:09:36,160

in 2009 you spent some time on board the

283

00:09:39,990 --> 00:09:38,320

international space station as a flight

284

00:09:42,389 --> 00:09:40,000

flight engineer

285

00:09:43,990 --> 00:09:42,399

what was it like living and working on

286

00:09:45,990 --> 00:09:44,000

iss and what are you most looking

287

00:09:47,750 --> 00:09:46,000

forward to on your return trip there it

288

00:09:50,389 --> 00:09:47,760

was amazing you know i know we use that

289

00:09:53,509 --> 00:09:50,399

word a lot but it really was and

290

00:09:54,710 --> 00:09:53,519

um now i'm really excited to go back um

291

00:09:56,310 --> 00:09:54,720

it's going to be kind of strange because

292

00:09:57,829 --> 00:09:56,320

it's going to be for such a short time

293

00:10:00,230 --> 00:09:57,839

you know it's going to be i think like a

294

00:10:03,110 --> 00:10:00,240

blur but i'm looking forward to that

295

00:10:04,949 --> 00:10:03,120

that expanded view out the cupola window

296

00:10:06,150 --> 00:10:04,959

i think that's going to be magnificent

297

00:10:07,590 --> 00:10:06,160

i'm looking forward to seeing the crew

298

00:10:09,190 --> 00:10:07,600

that's up there you know our friends

299

00:10:11,190 --> 00:10:09,200

that you know have been there for a

300

00:10:12,710 --> 00:10:11,200

little while and how they're enjoying uh

301

00:10:14,389 --> 00:10:12,720

the experience

302

00:10:15,990 --> 00:10:14,399

and you know just working on our mission

303

00:10:17,269 --> 00:10:16,000

i think it's going to be a you know a

304

00:10:19,670 --> 00:10:17,279

really fun time we're doing some

305

00:10:21,670 --> 00:10:19,680

valuable stuff for station to keep them

306

00:10:24,069 --> 00:10:21,680

you know going for the next

307

00:10:25,269 --> 00:10:24,079

years and

308

00:10:26,710 --> 00:10:25,279

i don't know just seeing station out

309

00:10:30,870 --> 00:10:26,720

that window again as we approach is

310

00:10:36,230 --> 00:10:33,190

prior to your uh first space flight you

311

00:10:37,990 --> 00:10:36,240

also spent some time uh on underwater on

312

00:10:39,590 --> 00:10:38,000

an underwater mission for the nemo

313

00:10:41,190 --> 00:10:39,600

project uh

314

00:10:43,990 --> 00:10:41,200

what was it like spending time in that

315

00:10:45,269 --> 00:10:44,000

underwater habitat and how much did that

316

00:10:47,190 --> 00:10:45,279

prepare you for

317

00:10:48,710 --> 00:10:47,200

your time on space station

318

00:10:50,630 --> 00:10:48,720

well i think that

319

00:10:52,470 --> 00:10:50,640

you know at the time i thought wow this

320

00:10:54,790 --> 00:10:52,480

is this is great training you know i had

321

00:10:56,230 --> 00:10:54,800

never been to space before doing it uh

322

00:10:57,750 --> 00:10:56,240

but just from the experience it seemed

323

00:10:59,910 --> 00:10:57,760

like how can it get any better than this

324

00:11:00,630 --> 00:10:59,920

you know you're in this confined habitat

325

00:11:03,190 --> 00:11:00,640

it's

326

00:11:04,870 --> 00:11:03,200

in a an environment that's not you know

327

00:11:06,389 --> 00:11:04,880

necessarily friendly to you you can't

328

00:11:08,150 --> 00:11:06,399

just walk out the door without special

329

00:11:10,230 --> 00:11:08,160

equipment you know very much parallels

330

00:11:12,470 --> 00:11:10,240

what space flight is like and without

331

00:11:13,670 --> 00:11:12,480

having been to space i just assumed this

332

00:11:15,509 --> 00:11:13,680

has got to be

333

00:11:17,829 --> 00:11:15,519

you know as close as it gets

334

00:11:20,310 --> 00:11:17,839

and now having come back i

335

00:11:22,470 --> 00:11:20,320

it was the best training i think um i

336

00:11:24,870 --> 00:11:22,480

had in terms of just the

337

00:11:26,710 --> 00:11:24,880

you know the environment itself and

338

00:11:28,790 --> 00:11:26,720

what it's like to live in a space like

339

00:11:30,870 --> 00:11:28,800

that and how you you know maybe need to

340

00:11:33,829 --> 00:11:30,880

change the way you deal with the people

341

00:11:35,509 --> 00:11:33,839

around you in terms of respecting um you

342

00:11:37,350 --> 00:11:35,519

know the space that you have available

343

00:11:38,949 --> 00:11:37,360

to you and you know having a little bit

344

00:11:40,710 --> 00:11:38,959

more respect for the fact that you can't

345

00:11:42,949 --> 00:11:40,720

walk out the door without you know

346

00:11:44,630 --> 00:11:42,959

without special equipment and you know

347

00:11:46,230 --> 00:11:44,640

those kinds of things it was i think the

348

00:11:47,829 --> 00:11:46,240

perfect setup for it

349

00:11:50,069 --> 00:11:47,839

and it was a beautiful

350

00:11:51,990 --> 00:11:50,079

experience i you know i left that with

351  
00:11:52,870 --> 00:11:52,000  
wow how you know again it's one of those

352  
00:11:54,230 --> 00:11:52,880  
things where you wish you could have

353  
00:11:55,509 --> 00:11:54,240  
your family there it was just like on

354  
00:11:56,629 --> 00:11:55,519  
the station you wish you could have your

355  
00:11:57,990 --> 00:11:56,639  
family there that's the one thing

356  
00:11:59,670 --> 00:11:58,000  
missing and

357  
00:12:01,670 --> 00:11:59,680  
it's just such an amazing thing such a

358  
00:12:03,350 --> 00:12:01,680  
beautiful place with such different

359  
00:12:05,030 --> 00:12:03,360  
things going on that

360  
00:12:09,829 --> 00:12:05,040  
i thought wow if i never fly in space i

361  
00:12:14,150 --> 00:12:11,590  
everyone on the crew has has been to

362  
00:12:15,590 --> 00:12:14,160  
space before as a matter of fact uh

363  
00:12:17,030 --> 00:12:15,600

three of the crew members including

364

00:12:19,430 --> 00:12:17,040

yourself have spent time on space

365

00:12:22,310 --> 00:12:19,440

station as as crew members how much of a

366

00:12:24,310 --> 00:12:22,320

benefit will that be uh having

367

00:12:25,910 --> 00:12:24,320

that amount of experience how much of a

368

00:12:27,990 --> 00:12:25,920

benefit will that be to completing the

369

00:12:31,030 --> 00:12:28,000

mission successfully well i think it'll

370

00:12:32,389 --> 00:12:31,040

be uh an efficiency thing yeah i think

371

00:12:34,389 --> 00:12:32,399

there'll be you know less of an

372

00:12:36,470 --> 00:12:34,399

adaptation time there'll be

373

00:12:38,470 --> 00:12:36,480

uh you know a comfort already with how

374

00:12:41,509 --> 00:12:38,480

you know you live and work up there and

375

00:12:42,790 --> 00:12:41,519

so i think it's more about efficiency

376

00:12:43,990 --> 00:12:42,800

and

377

00:12:45,670 --> 00:12:44,000

i think we're going to do great i know

378

00:12:47,910 --> 00:12:45,680

all of us are excited about seeing it

379

00:12:51,750 --> 00:12:47,920

again

380

00:12:53,750 --> 00:12:51,760

the content of the mission has changed

381

00:12:55,590 --> 00:12:53,760

a lot since you since you even first

382

00:12:57,030 --> 00:12:55,600

started training for it

383

00:12:59,509 --> 00:12:57,040

what's it been like

384

00:13:02,389 --> 00:12:59,519

having to adjust how much of a challenge

385

00:13:04,310 --> 00:13:02,399

has it been to adjust to the changing um

386

00:13:05,590 --> 00:13:04,320

content of the mission and and and

387

00:13:07,269 --> 00:13:05,600

what's it been like

388

00:13:09,590 --> 00:13:07,279

it hasn't been too bad we the the

389

00:13:12,230 --> 00:13:09,600

biggest change that we had was um very

390

00:13:15,190 --> 00:13:12,240

thankfully the addition of two uh evas

391

00:13:17,350 --> 00:13:15,200

or spacewalks on our flight and so um

392

00:13:19,829 --> 00:13:17,360

kind of remapping the way we're gonna do

393

00:13:22,069 --> 00:13:19,839

the neutral buoyancy lab training is was

394

00:13:23,430 --> 00:13:22,079

i think the biggest part of of the

395

00:13:24,870 --> 00:13:23,440

change for us

396

00:13:26,389 --> 00:13:24,880

um

397

00:13:27,670 --> 00:13:26,399

and you know that's fun stuff to do

398

00:13:29,350 --> 00:13:27,680

that's that's the kind of training you

399

00:13:31,990 --> 00:13:29,360

want to be doing because it's as close

400

00:13:35,269 --> 00:13:32,000

again as you can get to uh doing it in

401

00:13:36,949 --> 00:13:35,279

space uh so i think um

402

00:13:38,470 --> 00:13:36,959

there there really hasn't been a real

403

00:13:39,750 --> 00:13:38,480

challenge to it other than having to

404

00:13:40,949 --> 00:13:39,760

think okay a couple of our guys are

405

00:13:43,910 --> 00:13:40,959

going out the door now and how are we

406

00:13:45,829 --> 00:13:43,920

going to work with that okay

407

00:13:47,590 --> 00:13:45,839

how would you uh characterize the

408

00:13:49,430 --> 00:13:47,600

contributions of the thousands of people

409

00:13:52,230 --> 00:13:49,440

that work behind the scenes to ensure

410

00:13:54,949 --> 00:13:52,240

the safety and success of every mission

411

00:13:56,389 --> 00:13:54,959

uh it's what it's all about honestly you

412

00:13:58,710 --> 00:13:56,399

know we wouldn't be sitting here if it

413

00:14:01,910 --> 00:13:58,720

wasn't for them i know i get really

414

00:14:04,150 --> 00:14:01,920

excited when i i have a trip back to

415

00:14:05,750 --> 00:14:04,160

kennedy space center or to any of the

416

00:14:07,750 --> 00:14:05,760

other centers where you know you feel

417

00:14:09,670 --> 00:14:07,760

like you have a connection to

418

00:14:11,509 --> 00:14:09,680

the work that's going on and then when

419

00:14:13,350 --> 00:14:11,519

you go to places where you know some

420

00:14:15,509 --> 00:14:13,360

small company that's building some

421

00:14:16,629 --> 00:14:15,519

little part that without it

422

00:14:19,110 --> 00:14:16,639

you know you wouldn't fly the space

423

00:14:21,590 --> 00:14:19,120

station without it and it just it means

424

00:14:23,189 --> 00:14:21,600

so much because i think it's more than

425

00:14:24,949 --> 00:14:23,199

just a job to

426  
00:14:26,389 --> 00:14:24,959  
to people in the space program what i've

427  
00:14:28,710 --> 00:14:26,399  
seen on the shuttle and the station

428  
00:14:30,230 --> 00:14:28,720  
programs is the people working at it's

429  
00:14:32,069 --> 00:14:30,240  
it's it's a heart and soul thing it's

430  
00:14:33,990 --> 00:14:32,079  
not just okay i get up and i'm going to

431  
00:14:36,230 --> 00:14:34,000  
this job every day it really is a

432  
00:14:38,870 --> 00:14:36,240  
commitment and a part of their life so

433  
00:14:41,030 --> 00:14:38,880  
um it means a lot to go back and

434  
00:14:42,710 --> 00:14:41,040  
visit with them and it certainly

435  
00:14:44,629 --> 00:14:42,720  
is very evident to us that we wouldn't

436  
00:14:46,629 --> 00:14:44,639  
be sitting here and doing this without

437  
00:14:49,030 --> 00:14:46,639  
them

438  
00:14:51,750 --> 00:14:49,040

if your launch schedule holds um you'll

439

00:14:53,509 --> 00:14:51,760

be on on orbit right around the time of

440

00:14:55,750 --> 00:14:53,519

the 10th anniversary of the arrival of

441

00:14:57,590 --> 00:14:55,760

expedition one uh the crew that could

442

00:14:58,470 --> 00:14:57,600

started the continuous human presence on

443

00:15:01,430 --> 00:14:58,480

space

444

00:15:05,590 --> 00:15:01,440

on iss discuss the significance

445

00:15:08,310 --> 00:15:05,600

of of their milestone and

446

00:15:09,670 --> 00:15:08,320

what iss means to the future of space

447

00:15:11,670 --> 00:15:09,680

exploration

448

00:15:13,189 --> 00:15:11,680

well i think the expedition one crew you

449

00:15:14,550 --> 00:15:13,199

know we have to say thank you to them

450

00:15:16,710 --> 00:15:14,560

and it was

451

00:15:18,870 --> 00:15:16,720

it was certainly a milestone uh in the

452

00:15:20,069 --> 00:15:18,880

space station program those guys went up

453

00:15:22,389 --> 00:15:20,079

there and they were in a much smaller

454

00:15:24,150 --> 00:15:22,399

space than uh than we are today with

455

00:15:26,389 --> 00:15:24,160

this you know huge volume that we have

456

00:15:27,750 --> 00:15:26,399

up there and they showed that as an

457

00:15:29,749 --> 00:15:27,760

international crew through our

458

00:15:31,509 --> 00:15:29,759

international partnerships we made this

459

00:15:32,949 --> 00:15:31,519

you know this complex spacecraft and

460

00:15:34,550 --> 00:15:32,959

this program work

461

00:15:37,350 --> 00:15:34,560

uh you know you're up there now and

462

00:15:39,030 --> 00:15:37,360

there's still signs of of expedition one

463

00:15:41,829 --> 00:15:39,040

everybody puts their their mission

464

00:15:43,509 --> 00:15:41,839

sticker up on a wall in the node and you

465

00:15:47,110 --> 00:15:43,519

see that and it's a really a really neat

466

00:15:49,110 --> 00:15:47,120

reminder of you know how long we've been

467

00:15:51,430 --> 00:15:49,120

just actively living and working on the

468

00:15:52,790 --> 00:15:51,440

space station and i think if you say to

469

00:15:54,550 --> 00:15:52,800

most people it's been going on for 10

470

00:15:56,550 --> 00:15:54,560

years they mean they might not even you

471

00:15:58,790 --> 00:15:56,560

know realize that you know above them

472

00:16:00,310 --> 00:15:58,800

200 miles above them has been circling

473

00:16:02,230 --> 00:16:00,320

this crew for

474

00:16:03,670 --> 00:16:02,240

for 10 years and

475

00:16:05,990 --> 00:16:03,680

as far as the future of space

476

00:16:07,670 --> 00:16:06,000  
exploration goes i i think it's it's

477

00:16:09,829 --> 00:16:07,680  
huge the

478

00:16:11,590 --> 00:16:09,839  
the thing that really impresses me about

479

00:16:12,790 --> 00:16:11,600  
everything we do up there

480

00:16:15,269 --> 00:16:12,800  
is that

481

00:16:18,389 --> 00:16:15,279  
you can find some goodness in it

482

00:16:19,430 --> 00:16:18,399  
for life here on earth as well as

483

00:16:21,269 --> 00:16:19,440  
how are we going to do future

484

00:16:23,030 --> 00:16:21,279  
exploration of space better

485

00:16:24,629 --> 00:16:23,040  
and you know that's a really impressive

486

00:16:26,389 --> 00:16:24,639  
thing to me that

487

00:16:27,430 --> 00:16:26,399  
any experiment we do

488

00:16:29,189 --> 00:16:27,440

how we

489

00:16:32,069 --> 00:16:29,199

live on station with the systems that we

490

00:16:35,269 --> 00:16:32,079

have recycling water and using solar

491

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

panels for energy it's it certainly is

492

00:16:39,189 --> 00:16:37,360

how we have to live and work in space

493

00:16:40,710 --> 00:16:39,199

but it's at the same time something that

494

00:16:42,710 --> 00:16:40,720

could be helping us improve life here on

495

00:16:46,470 --> 00:16:42,720

earth and so i think i think that's a

496

00:16:52,069 --> 00:16:47,990

tell us if you would what the what the

497

00:16:55,189 --> 00:16:52,079

key objectives are for for sts-133

498

00:16:57,110 --> 00:16:55,199

the key objectives for sts-133 are

499

00:16:59,350 --> 00:16:57,120

primarily

500

00:17:02,150 --> 00:16:59,360

positioning the station for the future

501  
00:17:03,910 --> 00:17:02,160  
years to come both inside and outside we

502  
00:17:06,150 --> 00:17:03,920  
have supplies that we're bringing for

503  
00:17:08,470 --> 00:17:06,160  
the crew to live and work

504  
00:17:11,909 --> 00:17:08,480  
continuously for the next few years

505  
00:17:13,590 --> 00:17:11,919  
inside the station as well as some large

506  
00:17:16,150 --> 00:17:13,600  
spares or replacement units that we'll

507  
00:17:18,870 --> 00:17:16,160  
put on the outside of the station for

508  
00:17:20,870 --> 00:17:18,880  
future chains of uh some you know some

509  
00:17:21,829 --> 00:17:20,880  
bigger units that might um

510  
00:17:23,750 --> 00:17:21,839  
fail

511  
00:17:25,510 --> 00:17:23,760  
and um

512  
00:17:27,270 --> 00:17:25,520  
we're doing this in a couple of ways we

513  
00:17:28,390 --> 00:17:27,280

have you know a big platform that we're

514

00:17:29,669 --> 00:17:28,400

bringing up that we're going to stick on

515

00:17:32,070 --> 00:17:29,679

the outside of the station that has

516

00:17:35,110 --> 00:17:32,080

these uh these spare units and then we

517

00:17:37,270 --> 00:17:35,120

also have this logistics module that has

518

00:17:39,669 --> 00:17:37,280

traveled to space before but it's always

519

00:17:41,350 --> 00:17:39,679

come home with stuff in it and this time

520

00:17:42,870 --> 00:17:41,360

we're leaving it attached to station

521

00:17:44,870 --> 00:17:42,880

it'll essentially be another module up

522

00:17:47,270 --> 00:17:44,880

there for them it'll be filled with all

523

00:17:49,430 --> 00:17:47,280

kinds of stuff for uh living working on

524

00:17:51,830 --> 00:17:49,440

the inside and then it will also act as

525

00:17:53,110 --> 00:17:51,840

a storage area for the crew on board

526  
00:17:54,789 --> 00:17:53,120  
which is

527  
00:17:57,110 --> 00:17:54,799  
as you can imagine stowage is kind of a

528  
00:17:58,070 --> 00:17:57,120  
premium up there okay

529  
00:17:59,590 --> 00:17:58,080  
and

530  
00:18:01,990 --> 00:17:59,600  
one of those pieces of hardware that you

531  
00:18:05,110 --> 00:18:02,000  
mentioned it's called the permanent

532  
00:18:08,310 --> 00:18:05,120  
multi-purpose module it's um it's

533  
00:18:12,470 --> 00:18:10,549  
differently outfitted multi-purpose

534  
00:18:14,710 --> 00:18:12,480  
logistics module

535  
00:18:17,909 --> 00:18:14,720  
tell us about how how the pmm as it's

536  
00:18:20,310 --> 00:18:17,919  
called is different from uh a regular

537  
00:18:21,510 --> 00:18:20,320  
mplm uh what what's how has it been

538  
00:18:22,310 --> 00:18:21,520

configured differently why is it

539

00:18:23,510 --> 00:18:22,320  
different

540

00:18:24,470 --> 00:18:23,520  
well uh

541

00:18:27,029 --> 00:18:24,480  
the fact that it's gonna be there

542

00:18:29,190 --> 00:18:27,039  
permanently uh makes it uh different on

543

00:18:30,470 --> 00:18:29,200  
on its own but the

544

00:18:33,510 --> 00:18:30,480  
some of the things that they've done is

545

00:18:34,549 --> 00:18:33,520  
modified the shielding on the outside of

546

00:18:39,190 --> 00:18:34,559  
the

547

00:18:41,510 --> 00:18:39,200  
that to protect it from micrometeorite

548

00:18:43,669 --> 00:18:41,520  
debris so they had to add some different

549

00:18:46,470 --> 00:18:43,679  
shields some metal plates on the outside

550

00:18:47,830 --> 00:18:46,480  
and some some additional insulation for

551  
00:18:49,510 --> 00:18:47,840  
it to stay up there for an extended

552  
00:18:51,270 --> 00:18:49,520  
period of time rather than just being up

553  
00:18:53,029 --> 00:18:51,280  
there two weeks at a time

554  
00:18:55,669 --> 00:18:53,039  
and then on the inside they've modified

555  
00:18:58,070 --> 00:18:55,679  
some valves and also some

556  
00:18:59,909 --> 00:18:58,080  
of the internal configuration so that

557  
00:19:03,110 --> 00:18:59,919  
it's a little less complicated even than

558  
00:19:05,750 --> 00:19:03,120  
it was before things that we don't need

559  
00:19:07,750 --> 00:19:05,760  
to have on it as a as a temporary module

560  
00:19:09,430 --> 00:19:07,760  
are now removed and

561  
00:19:11,029 --> 00:19:09,440  
and simplified so that we can take

562  
00:19:13,350 --> 00:19:11,039  
advantage of as much space in there as

563  
00:19:16,150 --> 00:19:13,360

possible okay

564

00:19:18,390 --> 00:19:16,160

um the crew is also scheduled to deliver

565

00:19:19,990 --> 00:19:18,400

robonaut or r2

566

00:19:22,070 --> 00:19:20,000

to the station

567

00:19:24,549 --> 00:19:22,080

based on your knowledge

568

00:19:26,470 --> 00:19:24,559

what do you know about robonaut and its

569

00:19:27,510 --> 00:19:26,480

its purpose on space station for the

570

00:19:29,029 --> 00:19:27,520

future

571

00:19:31,190 --> 00:19:29,039

well i think we're bringing robonaut to

572

00:19:33,590 --> 00:19:31,200

the station as a what i i like to think

573

00:19:34,789 --> 00:19:33,600

of as a technology demonstrator

574

00:19:36,310 --> 00:19:34,799

and

575

00:19:38,710 --> 00:19:36,320

i think it certainly has an appeal to

576

00:19:41,029 --> 00:19:38,720

the public there's a very kind of visual

577

00:19:41,909 --> 00:19:41,039

aspect of of it since it kind of looks

578

00:19:42,950 --> 00:19:41,919

like a

579

00:19:45,110 --> 00:19:42,960

person

580

00:19:47,510 --> 00:19:45,120

and

581

00:19:48,870 --> 00:19:47,520

as far as our association with it is

582

00:19:50,710 --> 00:19:48,880

concerned we really don't get to do a

583

00:19:53,190 --> 00:19:50,720

whole lot with it we're delivering it to

584

00:19:55,590 --> 00:19:53,200

station it'll be inside of the pmm

585

00:19:57,990 --> 00:19:55,600

and i think we get to take some of its

586

00:19:59,590 --> 00:19:58,000

uh housing off of it but we aren't even

587

00:20:00,950 --> 00:19:59,600

have the opportunity to move it over to

588

00:20:02,549 --> 00:20:00,960

station so

589

00:20:04,830 --> 00:20:02,559

no real work with it as far as we're

590

00:20:06,789 --> 00:20:04,840

concerned but i think

591

00:20:09,350 --> 00:20:06,799

once the crew that's up there in

592

00:20:11,590 --> 00:20:09,360

december will be uh pulling it out and

593

00:20:13,430 --> 00:20:11,600

doing some check out with the ground

594

00:20:14,549 --> 00:20:13,440

operating it and sending commands as

595

00:20:15,990 --> 00:20:14,559

well as

596

00:20:18,230 --> 00:20:16,000

the crew on board having some

597

00:20:20,710 --> 00:20:18,240

interaction with it but ultimately i

598

00:20:23,510 --> 00:20:20,720

think the idea is that it uh

599

00:20:25,110 --> 00:20:23,520

assists crew members with tasks that

600

00:20:27,990 --> 00:20:25,120

maybe um

601  
00:20:29,190 --> 00:20:28,000  
would put a crew member in a situation a

602  
00:20:30,710 --> 00:20:29,200  
dangerous situation that we wouldn't

603  
00:20:33,190 --> 00:20:30,720  
want to have them in

604  
00:20:34,390 --> 00:20:33,200  
um that that the robot could access

605  
00:20:36,549 --> 00:20:34,400  
places that we

606  
00:20:38,789 --> 00:20:36,559  
wouldn't necessarily be able to get to

607  
00:20:41,430 --> 00:20:38,799  
and uh provide you know an extra set of

608  
00:20:43,350 --> 00:20:41,440  
hands with tools um ultimately i think

609  
00:20:49,029 --> 00:20:43,360  
on the outside of the station

610  
00:20:54,230 --> 00:20:51,750  
on the day after you make it to orbit um

611  
00:20:56,549 --> 00:20:54,240  
there's going to be an external uh

612  
00:20:57,830 --> 00:20:56,559  
survey of the shuttle's tiles i'm not

613  
00:20:59,510 --> 00:20:57,840

sure if you're directly involved with

614

00:21:01,430 --> 00:20:59,520

that but if you're if you're not what

615

00:21:03,909 --> 00:21:01,440

will you be doing during that time on

616

00:21:05,350 --> 00:21:03,919

that day okay i i am not participating

617

00:21:07,270 --> 00:21:05,360

in that i think i'll set up some of the

618

00:21:08,149 --> 00:21:07,280

photo tv stuff for them but

619

00:21:09,830 --> 00:21:08,159

um

620

00:21:12,070 --> 00:21:09,840

the the main thing that the rest of us

621

00:21:13,830 --> 00:21:12,080

will be doing is really positioning

622

00:21:14,950 --> 00:21:13,840

ourselves for the rendezvous and docking

623

00:21:17,270 --> 00:21:14,960

the next day

624

00:21:19,510 --> 00:21:17,280

and that's a lot just check out of some

625

00:21:20,310 --> 00:21:19,520

of the systems the the docking system

626

00:21:28,710 --> 00:21:20,320

and

627

00:21:31,430 --> 00:21:28,720

running through the full you know top to

628

00:21:32,950 --> 00:21:31,440

bottom checks on those as well okay

629

00:21:34,549 --> 00:21:32,960

take us through the activities of the

630

00:21:35,830 --> 00:21:34,559

next day the rendezvous and docking

631

00:21:39,430 --> 00:21:35,840

phases and

632

00:21:40,789 --> 00:21:39,440

um even post docking or close to i

633

00:21:42,549 --> 00:21:40,799

understand you're going to start even

634

00:21:44,950 --> 00:21:42,559

getting the elc

635

00:21:46,710 --> 00:21:44,960

out of the payload bay just

636

00:21:47,990 --> 00:21:46,720

pretty much right after your docks

637

00:21:50,149 --> 00:21:48,000

take us through that yeah that's going

638

00:21:51,990 --> 00:21:50,159

to be a busy day we have the whole you

639

00:21:54,149 --> 00:21:52,000

know the whole process of

640

00:21:56,149 --> 00:21:54,159

burning our engines to get in the right

641

00:21:59,110 --> 00:21:56,159

orbit and playing with the station so

642

00:22:01,909 --> 00:21:59,120

that we can dock and uh one of the moves

643

00:22:03,909 --> 00:22:01,919

that uh has become very popular that you

644

00:22:05,350 --> 00:22:03,919

know with with people watching i know is

645

00:22:07,029 --> 00:22:05,360

this uh

646

00:22:09,430 --> 00:22:07,039

rendezvous pitch maneuver that we'll do

647

00:22:11,990 --> 00:22:09,440

before we dock with the station where

648

00:22:14,470 --> 00:22:12,000

the shuttle basically does a full 360 so

649

00:22:16,630 --> 00:22:14,480

that the crew on station can take some

650

00:22:17,990 --> 00:22:16,640

detailed photos of the belly and

651  
00:22:19,830 --> 00:22:18,000  
different areas of the shuttle to make

652  
00:22:22,390 --> 00:22:19,840  
sure we don't have any damage and then

653  
00:22:24,789 --> 00:22:22,400  
we move in for the actual docking

654  
00:22:25,830 --> 00:22:24,799  
and i i'm really looking forward to that

655  
00:22:27,430 --> 00:22:25,840  
this will be the first time that i've

656  
00:22:29,830 --> 00:22:27,440  
had the chance to like have hands-on

657  
00:22:32,390 --> 00:22:29,840  
with the docking system that actually

658  
00:22:33,430 --> 00:22:32,400  
captures uh the station with the shuttle

659  
00:22:34,789 --> 00:22:33,440  
so

660  
00:22:35,909 --> 00:22:34,799  
i'm sure that's going to be pretty

661  
00:22:37,990 --> 00:22:35,919  
impressive

662  
00:22:39,430 --> 00:22:38,000  
and then we get docked and pretty

663  
00:22:41,270 --> 00:22:39,440

quickly once we do all our pressure

664

00:22:43,270 --> 00:22:41,280

checks and open the hatches we're over

665

00:22:44,950 --> 00:22:43,280

there we have a little welcome ceremony

666

00:22:47,110 --> 00:22:44,960

i think

667

00:22:48,870 --> 00:22:47,120

big hugs i'm sure all around with the

668

00:22:52,789 --> 00:22:48,880

crew members and then

669

00:22:55,029 --> 00:22:52,799

tim and i are moving right into the elc4

670

00:22:57,350 --> 00:22:55,039

removal from the payload bay and

671

00:22:59,830 --> 00:22:57,360

attachment onto the space station so

672

00:23:00,950 --> 00:22:59,840

it's going to be a long busy day but

673

00:23:02,390 --> 00:23:00,960

some really

674

00:23:04,230 --> 00:23:02,400

you know what i look forward to as some

675

00:23:06,149 --> 00:23:04,240

of the most exciting aspects of the

676

00:23:08,230 --> 00:23:06,159

mission the seeing the station again for

677

00:23:09,510 --> 00:23:08,240

the first time docking and saying hi to

678

00:23:12,149 --> 00:23:09,520

everybody and then moving right into a

679

00:23:13,909 --> 00:23:12,159

really cool robotics task okay

680

00:23:16,070 --> 00:23:13,919

walk us through if you would the the

681

00:23:17,350 --> 00:23:16,080

procedure for for getting that that

682

00:23:20,470 --> 00:23:17,360

pallet out of the payload bay is going

683

00:23:21,590 --> 00:23:20,480

to be a highly choreographed event it is

684

00:23:24,470 --> 00:23:21,600

and it's kind of a neat one because

685

00:23:26,710 --> 00:23:24,480

we'll be working with both uh the

686

00:23:29,110 --> 00:23:26,720

station arm and the shuttle arm

687

00:23:31,350 --> 00:23:29,120

and uh tim and i will move over to the

688

00:23:34,630 --> 00:23:31,360

station side and for the first time

689

00:23:36,470 --> 00:23:34,640

we'll be working out of the the cupola

690

00:23:38,630 --> 00:23:36,480

as the robotics workstation so that's

691

00:23:39,510 --> 00:23:38,640

going to be a really neat thing up till

692

00:23:41,190 --> 00:23:39,520

now

693

00:23:42,950 --> 00:23:41,200

my experience has been working in the

694

00:23:45,430 --> 00:23:42,960

laboratory on the robotics workstation

695

00:23:47,430 --> 00:23:45,440

where you're looking at video displays

696

00:23:49,190 --> 00:23:47,440

of of where the arm is and what you're

697

00:23:53,110 --> 00:23:49,200

grappling to and this is going to

698

00:23:55,029 --> 00:23:53,120

provide this like 360 beautiful view of

699

00:23:56,789 --> 00:23:55,039

the real thing you know going on out

700

00:23:59,830 --> 00:23:56,799

there

701  
00:24:02,390 --> 00:23:59,840  
eric and al will be back on the shuttle

702  
00:24:04,230 --> 00:24:02,400  
working the shuttle robotic arm

703  
00:24:05,029 --> 00:24:04,240  
and with the station arm tim and i are

704  
00:24:08,070 --> 00:24:05,039  
going to

705  
00:24:10,549 --> 00:24:08,080  
pull the elc out of the payload bay

706  
00:24:12,950 --> 00:24:10,559  
and then we'll position it so that the

707  
00:24:15,110 --> 00:24:12,960  
shuttle robotic arm can grab it

708  
00:24:17,110 --> 00:24:15,120  
and while they have it holding it out

709  
00:24:19,269 --> 00:24:17,120  
there in space we're going to move the

710  
00:24:21,190 --> 00:24:19,279  
station arm back over to another place

711  
00:24:23,990 --> 00:24:21,200  
on on the space station

712  
00:24:26,070 --> 00:24:24,000  
and do what we call a walk-off which is

713  
00:24:27,510 --> 00:24:26,080

basically plug the other end in on

714

00:24:30,390 --> 00:24:27,520

station and then take the end that was

715

00:24:33,590 --> 00:24:30,400

plugged in off and use it as the

716

00:24:35,590 --> 00:24:33,600

the end effector to grab the elc again

717

00:24:37,430 --> 00:24:35,600

and then we'll hand it back from the

718

00:24:39,510 --> 00:24:37,440

shuttle arm station arm will take it and

719

00:24:40,950 --> 00:24:39,520

then install it over

720

00:24:44,870 --> 00:24:40,960

onto the earth

721

00:24:47,029 --> 00:24:44,880

facing side of the space station truss

722

00:24:48,789 --> 00:24:47,039

after your work on station is complete

723

00:24:52,390 --> 00:24:48,799

you'll undock and

724

00:24:54,310 --> 00:24:52,400

make your way back towards earth

725

00:24:56,149 --> 00:24:54,320

that undocking will be

726

00:24:58,630 --> 00:24:56,159

maybe one of the last opportunities for

727

00:25:00,630 --> 00:24:58,640

for anybody to see station from that

728

00:25:02,149 --> 00:25:00,640

vantage point from inside of a shuttle

729

00:25:04,230 --> 00:25:02,159

uh as you sit here today trying to

730

00:25:05,830 --> 00:25:04,240

imagine you know just what that moment's

731

00:25:07,190 --> 00:25:05,840

going to be like what what what comes to

732

00:25:09,430 --> 00:25:07,200

mind what are you thinking

733

00:25:11,830 --> 00:25:09,440

you know it's it's uh it's one of those

734

00:25:14,549 --> 00:25:11,840

emotional times i think you know for for

735

00:25:15,909 --> 00:25:14,559

me leaving station before

736

00:25:17,669 --> 00:25:15,919

it was it was definitely an emotional

737

00:25:19,110 --> 00:25:17,679

thing you know i'd lived there for for

738

00:25:21,830 --> 00:25:19,120

three months it was like watching your

739

00:25:24,789 --> 00:25:21,840

home you know as you drive away

740

00:25:26,470 --> 00:25:24,799

and it's such a beautiful place it

741

00:25:27,909 --> 00:25:26,480

it looks spectacular when i arrived

742

00:25:29,430 --> 00:25:27,919

there and i it's another one of those

743

00:25:31,590 --> 00:25:29,440

words how did it get that much more

744

00:25:32,950 --> 00:25:31,600

beautiful you know when you leave and

745

00:25:34,310 --> 00:25:32,960

get to see it

746

00:25:37,350 --> 00:25:34,320

and i think there's going to be that

747

00:25:38,950 --> 00:25:37,360

same that same kind of feeling like

748

00:25:41,430 --> 00:25:38,960

you know wow this is this is just a

749

00:25:42,870 --> 00:25:41,440

really spectacular place and you know to

750

00:25:44,390 --> 00:25:42,880

have just to be blessed with the

751  
00:25:46,470 --> 00:25:44,400  
opportunity to see it through the

752  
00:25:47,669 --> 00:25:46,480  
shuttle windows like that is

753  
00:25:49,269 --> 00:25:47,679  
you know something i know will stay with

754  
00:25:50,470 --> 00:25:49,279  
me forever

755  
00:25:52,789 --> 00:25:50,480  
um

756  
00:25:54,149 --> 00:25:52,799  
it's it's it's sad i think that you know

757  
00:25:57,830 --> 00:25:54,159  
that there's not going to be that

758  
00:26:03,110 --> 00:25:59,909  
this mission is also scheduled to be

759  
00:26:05,190 --> 00:26:03,120  
one of the last space shuttle flights um

760  
00:26:08,070 --> 00:26:05,200  
what does it mean to you to have have

761  
00:26:12,070 --> 00:26:08,080  
had an opportunity to have been a part

762  
00:26:15,510 --> 00:26:13,830  
you know these words come out sometimes

763  
00:26:17,430 --> 00:26:15,520

and they might not sound you know all

764

00:26:19,590 --> 00:26:17,440

that sincere but

765

00:26:22,310 --> 00:26:19,600

it really is for me this

766

00:26:23,669 --> 00:26:22,320

literally a dream come true i thought

767

00:26:24,950 --> 00:26:23,679

while i was working at kennedy space

768

00:26:26,230 --> 00:26:24,960

center how can it get any better than

769

00:26:28,149 --> 00:26:26,240

this how can

770

00:26:29,830 --> 00:26:28,159

physically here working on the ground

771

00:26:31,590 --> 00:26:29,840

with these you know these magnificent

772

00:26:33,510 --> 00:26:31,600

vehicles how can it get any better and

773

00:26:36,149 --> 00:26:33,520

then just every step of the way it's

774

00:26:39,510 --> 00:26:36,159

gotten better and to have the chance to

775

00:26:42,070 --> 00:26:39,520

have you know have flown on them and to

776  
00:26:43,510 --> 00:26:42,080  
see what fantastic work is being done

777  
00:26:44,950 --> 00:26:43,520  
both um

778  
00:26:46,549 --> 00:26:44,960  
you know with shuttles that had

779  
00:26:48,630 --> 00:26:46,559  
independent flights not even going to

780  
00:26:51,029 --> 00:26:48,640  
station the work that was done there as

781  
00:26:52,470 --> 00:26:51,039  
well as the the join ops with space

782  
00:26:53,590 --> 00:26:52,480  
station it's just

783  
00:26:55,430 --> 00:26:53,600  
you know it's something that has to go

784  
00:26:57,430 --> 00:26:55,440  
down in the history books as

785  
00:26:59,750 --> 00:26:57,440  
you know significant in our lifetime

786  
00:27:01,510 --> 00:26:59,760  
definitely

787  
00:27:03,669 --> 00:27:01,520  
um

788  
00:27:05,350 --> 00:27:03,679

scheduled to also be the last flight of

789

00:27:06,149 --> 00:27:05,360

discovery

790

00:27:09,350 --> 00:27:06,159

is

791

00:27:12,070 --> 00:27:09,360

shuttle in the fleet

792

00:27:17,110 --> 00:27:12,080

if you had to compile a list of

793

00:27:22,950 --> 00:27:20,070

what what events or missions do you

794

00:27:24,630 --> 00:27:22,960

think should be on that list

795

00:27:27,510 --> 00:27:24,640

well i think you know

796

00:27:29,909 --> 00:27:27,520

discovery definitely had its its um you

797

00:27:31,830 --> 00:27:29,919

know first with satellite deployments

798

00:27:33,990 --> 00:27:31,840

and those kinds of things it had

799

00:27:35,510 --> 00:27:34,000

involvement with the hubble taste

800

00:27:36,710 --> 00:27:35,520

telescope

801  
00:27:37,990 --> 00:27:36,720  
missions

802  
00:27:40,389 --> 00:27:38,000  
but what stands out for me is that

803  
00:27:43,110 --> 00:27:40,399  
discovery was the vehicle that was there

804  
00:27:44,470 --> 00:27:43,120  
for our return to flight activities it's

805  
00:27:47,669 --> 00:27:44,480  
the one that flew

806  
00:27:50,149 --> 00:27:47,679  
uh in in both cases return to flight and

807  
00:27:52,389 --> 00:27:50,159  
uh so it was kind of a you know

808  
00:27:54,630 --> 00:27:52,399  
the name just kind of stands out this

809  
00:27:57,269 --> 00:27:54,640  
discovery the the chance to

810  
00:27:59,269 --> 00:27:57,279  
get back into space flight and and be

811  
00:28:00,310 --> 00:27:59,279  
flying shuttles again and

812  
00:28:02,389 --> 00:28:00,320  
um

813  
00:28:04,710 --> 00:28:02,399

it's a special vehicle i and when i

814

00:28:06,630 --> 00:28:04,720

think about discovery i think about

815

00:28:08,149 --> 00:28:06,640

my time at ksc

816

00:28:12,310 --> 00:28:08,159

and it was the first vehicle i got to

817

00:28:13,830 --> 00:28:12,320

work on there and so it's really um

818

00:28:15,909 --> 00:28:13,840

it's really an interesting thing for me

819

00:28:17,110 --> 00:28:15,919

to be involved with it have had the

820

00:28:18,870 --> 00:28:17,120

chance to be involved with it on the

821

00:28:21,190 --> 00:28:18,880

ground processing getting it ready for

822

00:28:22,710 --> 00:28:21,200

other people to launch and land on and

823

00:28:24,630 --> 00:28:22,720

then you know just be blessed with the

824

00:28:30,710 --> 00:28:24,640

opportunity to fly fly it and

825

00:28:34,549 --> 00:28:32,549

when all is said and done here with with

826

00:28:36,630 --> 00:28:34,559

the shuttle um

827

00:28:38,789 --> 00:28:36,640

how do you think um

828

00:28:40,710 --> 00:28:38,799

its contribution to

829

00:28:42,310 --> 00:28:40,720

space exploration will be characterized

830

00:28:44,310 --> 00:28:42,320

in history

831

00:28:46,389 --> 00:28:44,320

uh well like we said i think it's it's

832

00:28:47,350 --> 00:28:46,399

it's a historic thing this is a vehicle

833

00:28:49,350 --> 00:28:47,360

that

834

00:28:50,310 --> 00:28:49,360

i don't think will be rivaled for a long

835

00:28:52,630 --> 00:28:50,320

time

836

00:28:54,630 --> 00:28:52,640

really and truly uh you know just a

837

00:28:57,269 --> 00:28:54,640

masterpiece kind of vehicle and i hope

838

00:28:59,430 --> 00:28:57,279

that in this time of retiring shuttles

839

00:29:01,029 --> 00:28:59,440

we're really taking the opportunity to

840

00:29:02,789 --> 00:29:01,039

celebrate how

841

00:29:04,789 --> 00:29:02,799

accomplished they have been

842

00:29:06,630 --> 00:29:04,799

and you know from

843

00:29:08,710 --> 00:29:06,640

the time where we were you know working

844

00:29:11,750 --> 00:29:08,720

to deploy satellites and you know

845

00:29:12,950 --> 00:29:11,760

everything from civilian to dod missions

846

00:29:15,669 --> 00:29:12,960

and

847

00:29:18,549 --> 00:29:15,679

showing how we can operate with

848

00:29:19,669 --> 00:29:18,559

evas and spacewalks from the payload bay

849

00:29:21,510 --> 00:29:19,679

and

850

00:29:23,909 --> 00:29:21,520

just how that evolved into the way we're

851

00:29:25,750 --> 00:29:23,919

doing things today on space station

852

00:29:26,870 --> 00:29:25,760

and the joint operations with space

853

00:29:28,470 --> 00:29:26,880

station

854

00:29:30,789 --> 00:29:28,480

it just