



1
00:01:44,150 --> 00:01:42,110
good morning Atlantis good morning

2
00:01:45,770 --> 00:01:44,160
Houston thanks very much for the wakeup

3
00:01:48,140 --> 00:01:45,780
music were all dancing around the

4
00:01:49,990 --> 00:01:48,150
mid-deck now we thought you could use a

5
00:01:51,950 --> 00:01:50,000
little Tchaikovsky as you step into that

6
00:02:02,270 --> 00:01:51,960
orbital dance you'll need to catch up

7
00:02:09,169 --> 00:02:02,280
with mirror that's in the mood the man

8
00:02:18,500 --> 00:02:13,789
bad boy we send one last test message if

9
00:02:20,709 --> 00:02:18,510
you could check that out for us ok I'm

10
00:02:23,959 --> 00:02:20,719
looking at the most recent one it's

11
00:02:26,929 --> 00:02:23,969
great skills but lighter fact the first

12
00:02:31,550 --> 00:02:26,939
all the road earlier messages had almost

13
00:02:33,920 --> 00:02:31,560

no tones of grave and all the features

14

00:02:35,660 --> 00:02:33,930

on the picture the portrait were totally

15

00:02:40,069 --> 00:02:35,670

blocked it was a much better portrait

16

00:02:43,849 --> 00:02:40,079

that I'd say the lettering quality with

17

00:02:47,920 --> 00:02:43,859

a little bit too light and appears to be

18

00:02:50,990 --> 00:02:47,930

of this time as a discontinuity if they

19

00:02:54,020 --> 00:02:51,000

suppose I targeted the up the lab only

20

00:02:55,220 --> 00:02:54,030

its vertical so there's fondant right

21

00:02:57,199 --> 00:02:55,230

through the center of the bullseye

22

00:02:59,149 --> 00:02:57,209

there's a lil bit of vertical

23

00:06:11,730 --> 00:02:59,159

discontinuity have ruts the whole length

24

00:06:17,320 --> 00:06:14,290

good morning commander Cameron and the

25

00:06:23,559 --> 00:06:17,330

crew of Atlantis this is Lydia dotto in

26

00:06:26,800 --> 00:06:23,569

Toronto good morning with Ian I'd like

27

00:06:28,870 --> 00:06:26,810

to have Chris a few questions I could

28

00:06:30,850 --> 00:06:28,880

describe exactly what you'll be doing

29

00:06:33,339 --> 00:06:30,860

during the docking with mirror

30

00:06:35,800 --> 00:06:33,349

especially the few critical minutes

31

00:06:42,249 --> 00:06:35,810

immediately before and after the point

32

00:06:45,520 --> 00:06:42,259

of contact for all five of us have

33

00:06:47,589 --> 00:06:45,530

things that need to be done in those two

34

00:06:50,170 --> 00:06:47,599

critical minutes cannot be flying the

35

00:06:52,110 --> 00:06:50,180

vehicle sitting right over here bill and

36

00:06:54,909 --> 00:06:52,120

I will be at this position right here

37

00:06:57,010 --> 00:06:54,919

giving can all the exact information he

38

00:06:59,129 --> 00:06:57,020

needs to know our rate of how fast we're

39

00:07:01,930 --> 00:06:59,139

closing because we have to close within

40

00:07:03,460 --> 00:07:01,940

three one-hundredths of a foot per

41

00:07:06,279 --> 00:07:03,470

second so we're going to hit it very

42

00:07:08,950 --> 00:07:06,289

exactly and getting the images up on the

43

00:07:11,230 --> 00:07:08,960

screen and using the handheld lasers and

44

00:07:12,939 --> 00:07:11,240

the payload Bay lasers and Jim and Jerry

45

00:07:14,560 --> 00:07:12,949

up front running all the systems on the

46

00:07:17,230 --> 00:07:14,570

vehicle making sure everything's running

47

00:07:18,909 --> 00:07:17,240

properly and and getting things set up

48

00:07:20,200 --> 00:07:18,919

also running the IMAX camera so

49

00:07:21,820 --> 00:07:20,210

everyone's going to be really busy but

50

00:07:24,879 --> 00:07:21,830

this will be the place that I'm working

51
00:07:28,089 --> 00:07:24,889
looking out this window as can fly the

52
00:07:30,120 --> 00:07:28,099
vehicle up in the mirror I stand that

53
00:07:32,170 --> 00:07:30,130
it's more difficult than the previous

54
00:07:34,149 --> 00:07:32,180
docking because you won't really be able

55
00:07:37,409 --> 00:07:34,159
to see the mirror spacecraft because

56
00:07:40,330 --> 00:07:37,419
you're going into a different location

57
00:07:42,670 --> 00:07:40,340
that's true Lydia if they're docking

58
00:07:44,170 --> 00:07:42,680
plane was right out the back window so

59
00:07:45,939 --> 00:07:44,180
when it came close they could just look

60
00:07:48,189 --> 00:07:45,949
straight out the window get a very clear

61
00:07:49,779 --> 00:07:48,199
picture of what they're doing ours

62
00:07:52,480 --> 00:07:49,789
because I'm installing the docking

63
00:07:54,879 --> 00:07:52,490

module is 25 feet above our heads we

64

00:07:56,320 --> 00:07:54,889

can't see where the two vehicles are

65

00:07:57,969 --> 00:07:56,330

going to hit each other and the only

66

00:08:00,219 --> 00:07:57,979

place we can see it is right here on

67

00:08:03,129 --> 00:08:00,229

this monitor so it makes it a more

68

00:08:05,469 --> 00:08:03,139

difficult test also ken is trying to fly

69

00:08:07,450 --> 00:08:05,479

the vehicle around a point that's way up

70

00:08:09,520 --> 00:08:07,460

in the air so you can imagine that it's

71

00:08:10,899 --> 00:08:09,530

more difficult like balancing something

72

00:08:12,730 --> 00:08:10,909

on the end of a stick as opposed to just

73

00:08:14,200 --> 00:08:12,740

slime the vehicle about its center of

74

00:08:17,020 --> 00:08:14,210

gravity so it makes it a more

75

00:08:21,550 --> 00:08:17,030

complicated test with having to speak

76

00:08:27,050 --> 00:08:24,560

some can and I'll be split in Russian

77

00:08:30,170 --> 00:08:27,060

duties in order to tell the crew onboard

78

00:08:33,500 --> 00:08:30,180

man how far away we are and what speed

79

00:08:34,910 --> 00:08:33,510

were coming in and our status once you

80

00:08:36,530 --> 00:08:34,920

get on board near you're going to be

81

00:08:38,390 --> 00:08:36,540

doing some measurements of the noise

82

00:08:40,550 --> 00:08:38,400

levels and the sound levels in the space

83

00:08:42,050 --> 00:08:40,560

station can you explain exactly what

84

00:08:47,080 --> 00:08:42,060

you'll be doing and why you're

85

00:08:52,220 --> 00:08:49,340

whole reason we're going to the Russian

86

00:08:53,930 --> 00:08:52,230

space station is to learn about combined

87

00:08:56,060 --> 00:08:53,940

operations where you take a shuttle to a

88

00:08:59,000 --> 00:08:56,070

space station and how life on a space

89

00:09:00,680 --> 00:08:59,010

station is going to be and this is part

90

00:09:02,770 --> 00:09:00,690

of that part of the mitigation

91

00:09:04,820 --> 00:09:02,780

experiments to find out what's involved

92

00:09:06,590 --> 00:09:04,830

what I'm going to be doing is going

93

00:09:08,900 --> 00:09:06,600

through all of the mirror working

94

00:09:10,910 --> 00:09:08,910

alongside Sergei of devs who's the

95

00:09:12,950 --> 00:09:10,920

flight engineer on board mere and

96

00:09:15,080 --> 00:09:12,960

measuring the sound at various locations

97

00:09:17,090 --> 00:09:15,090

throughout to get a feel for what type

98

00:09:19,100 --> 00:09:17,100

of working environment you end up in

99

00:09:21,110 --> 00:09:19,110

when you get all the pumps and fans and

100

00:09:23,870 --> 00:09:21,120

ventilators and experiments all working

101
00:09:26,240 --> 00:09:23,880
inside a closed in cam and make a space

102
00:09:28,250 --> 00:09:26,250
station and so we're just looking to

103
00:09:30,230 --> 00:09:28,260
gather baseline data at the only space

104
00:09:31,520 --> 00:09:30,240
station in the world or off the world

105
00:09:33,440 --> 00:09:31,530
that's been going for the last nine

106
00:09:35,000 --> 00:09:33,450
years to maybe modify how the

107
00:09:37,640 --> 00:09:35,010
International Space Station is going to

108
00:09:40,750 --> 00:09:37,650
be built thanks very much Chris and I

109
00:09:44,560 --> 00:09:40,760
hope you have a very successful mission

110
00:09:48,140 --> 00:09:44,570
good what actually is back talking to

111
00:09:50,060 --> 00:09:48,150
gamble gentlemen my bill nap I'm with

112
00:09:53,450 --> 00:09:50,070
Canadian electronics magazine and I have

113
00:09:55,490 --> 00:09:53,460

the question for Chris to start this

114

00:09:58,130 --> 00:09:55,500

mission has been described as the most

115

00:10:07,070 --> 00:09:58,140

complex shuttle missions ever flown can

116

00:10:08,480 --> 00:10:07,080

you is that true and if so why I don't

117

00:10:11,270 --> 00:10:08,490

think it's the most complex one ever

118

00:10:14,150 --> 00:10:11,280

flown it's definitely as complex as any

119

00:10:15,830 --> 00:10:14,160

flight we have a very short period of

120

00:10:18,590 --> 00:10:15,840

time we're doing something no one's ever

121

00:10:20,870 --> 00:10:18,600

tried to do before trying to build this

122

00:10:24,590 --> 00:10:20,880

thing and install it and there's a lot

123

00:10:26,150 --> 00:10:24,600

of interest in the flight because it's

124

00:10:28,130 --> 00:10:26,160

very similar to what's going to be done

125

00:10:31,430 --> 00:10:28,140

before the international space station

126

00:10:32,960 --> 00:10:31,440

assembly so it it makes it a very

127

00:10:33,860 --> 00:10:32,970

complex mission it's definitely a

128

00:10:35,630 --> 00:10:33,870

challenge for the

129

00:10:43,190 --> 00:10:35,640

of us we have a lot to do over the next

130

00:10:45,910 --> 00:10:43,200

six or seven days Eddie choose me while

131

00:10:48,769 --> 00:10:45,920

you're doing your assembly with the SVS

132

00:10:51,740 --> 00:10:48,779

kernels Ross McCarthy will be preparing

133

00:10:53,750 --> 00:10:51,750

to a contingency e VA can you describe

134

00:10:56,180 --> 00:10:53,760

what kind of contingencies you have

135

00:11:06,980 --> 00:10:56,190

foreseen that may occur during the

136

00:11:10,790 --> 00:11:06,990

assembly be one of the gentlemen who

137

00:11:13,370 --> 00:11:10,800

would get to do this Evie a potential

138

00:11:18,650 --> 00:11:13,380

sees we plan for and we've studied

139

00:11:21,650 --> 00:11:18,660

include installing the docking module by

140

00:11:24,079 --> 00:11:21,660

hand if it turns out that our analysis

141

00:11:26,690 --> 00:11:24,089

is not accurate at that the other

142

00:11:30,050 --> 00:11:26,700

technique that the other techniques

143

00:11:31,760 --> 00:11:30,060

don't work and in that case cheering I

144

00:11:35,180 --> 00:11:31,770

would describe the payload Bay and

145

00:11:38,690 --> 00:11:35,190

restrain the document with straps and

146

00:11:40,579 --> 00:11:38,700

then Chris would extend the ring of the

147

00:11:43,370 --> 00:11:40,589

docking system everything gauges that

148

00:11:45,829 --> 00:11:43,380

way and then we have contingency ebas if

149

00:11:50,000 --> 00:11:45,839

we needed some manual assistance that

150

00:11:52,970 --> 00:11:50,010

are not premier right now the other

151

00:11:56,510 --> 00:11:52,980

question is for all of the crew having

152

00:11:58,430 --> 00:11:56,520

worked with the SVS how do you feel

153

00:12:00,290 --> 00:11:58,440

about it as a system and would you like

154

00:12:07,180 --> 00:12:00,300

to see it installed on all the shuttle

155

00:12:13,030 --> 00:12:09,790

well one of the reasons we're flying the

156

00:12:15,700 --> 00:12:13,040

vision system is to increase our

157

00:12:18,460 --> 00:12:15,710

understanding of it and to increase the

158

00:12:21,880 --> 00:12:18,470

ways that we can utilize it certainly a

159

00:12:24,910 --> 00:12:21,890

way to use computers and cameras to take

160

00:12:27,070 --> 00:12:24,920

measurements where we we cannot put the

161

00:12:29,500 --> 00:12:27,080

human eye it gives us a great advantage

162

00:12:31,780 --> 00:12:29,510

if we go to build a space station or to

163

00:12:33,790 --> 00:12:31,790

do other robotic tasks and we're taking

164

00:12:35,920 --> 00:12:33,800

advantage of cameras that exist in the

165

00:12:37,870 --> 00:12:35,930

orbit already and computational power

166

00:12:40,930 --> 00:12:37,880

that we can bring on board to make a

167

00:12:43,780 --> 00:12:40,940

display that Chris and Bill can use to

168

00:12:47,020 --> 00:12:43,790

put themselves in virtually the ideal

169

00:12:50,320 --> 00:12:47,030

position to do the task and I think in

170

00:12:53,800 --> 00:12:50,330

show missions that require that it will

171

00:13:00,370 --> 00:12:53,810

certainly help thank you gentlemen good

172

00:13:03,520 --> 00:13:00,380

luck with the rest of the mission hi

173

00:13:04,900 --> 00:13:03,530

guys a warm ah hello from canada Chris

174

00:13:09,390 --> 00:13:04,910

it's good to hear your voice it's Hana

175

00:13:13,750 --> 00:13:09,400

Gartner oh that's great to talk to you

176
00:13:15,670 --> 00:13:13,760
where are you where are you when you

177
00:13:19,960 --> 00:13:15,680
look at the window where are you all

178
00:13:21,370 --> 00:13:19,970
right over New Orleans you forgive me

179
00:13:23,710 --> 00:13:21,380
this is kind of exciting for me I've

180
00:13:29,760 --> 00:13:23,720
never interviewed anybody in space but

181
00:13:33,730 --> 00:13:32,170
where we take advantage of every chance

182
00:13:34,960 --> 00:13:33,740
we can to take a picture here in on us

183
00:13:37,240 --> 00:13:34,970
so Ken's going to get pictures of the

184
00:13:39,100 --> 00:13:37,250
coast because it's a clear day over New

185
00:13:41,500 --> 00:13:39,110
Orleans right now but yeah this is a

186
00:13:42,730 --> 00:13:41,510
tremendous experience for me and I've

187
00:13:45,880 --> 00:13:42,740
seen all the pictures but there's

188
00:13:48,160 --> 00:13:45,890

nothing like being here you are the only

189

00:13:54,150 --> 00:13:48,170

rookie on the flight what are you going

190

00:13:59,770 --> 00:13:57,329

probably not going to remember announce

191

00:14:02,500 --> 00:13:59,780

think you remember the most i think is

192

00:14:04,000 --> 00:14:02,510

is the people that you flew with that's

193

00:14:05,380 --> 00:14:04,010

what everyone says and I sure can see

194

00:14:07,060 --> 00:14:05,390

why that the crew makes all the

195

00:14:10,300 --> 00:14:07,070

difference the people always make all

196

00:14:12,880 --> 00:14:10,310

the difference but some of the images

197

00:14:15,220 --> 00:14:12,890

even so far fleeting images of seeing

198

00:14:17,760 --> 00:14:15,230

the Sahara in a minute and a half or

199

00:14:20,380 --> 00:14:17,770

seeing some Mount Everest today and

200

00:14:24,010 --> 00:14:20,390

seeing the whole planet as

201
00:14:26,560 --> 00:14:24,020
as one globe in 90 minutes is is just an

202
00:14:28,630 --> 00:14:26,570
amazing humbling thing to see and and

203
00:14:30,760 --> 00:14:28,640
that probably strikes home as much as

204
00:14:33,220 --> 00:14:30,770
anything you were planning to take a

205
00:14:34,750 --> 00:14:33,230
shot of Canada with the Canada arm in

206
00:14:39,400 --> 00:14:34,760
the picture that you did you manage to

207
00:14:40,750 --> 00:14:39,410
get that shot we just it's afternoon for

208
00:14:42,670 --> 00:14:40,760
us we just deployed the arm this

209
00:14:43,750 --> 00:14:42,680
afternoon we haven't gone over Canada

210
00:14:45,940 --> 00:14:43,760
during the daylight with the arm

211
00:14:47,380 --> 00:14:45,950
deployed yet since we're going over New

212
00:14:49,450 --> 00:14:47,390
Orleans now we're probably going to just

213
00:14:51,100 --> 00:14:49,460

cut up the coast to Newfoundland so over

214

00:14:53,200 --> 00:14:51,110

the next few hours will be flying over

215

00:14:54,700 --> 00:14:53,210

Canada with the arm extended at some

216

00:14:56,860 --> 00:14:54,710

time in the next six or seven days I'm

217

00:15:02,020 --> 00:14:56,870

going to get that picture how far off

218

00:15:04,870 --> 00:15:02,030

are you 460 miles up and now we're over

219

00:15:13,060 --> 00:15:04,880

Atlanta how much can you see do you get

220

00:15:14,800 --> 00:15:13,070

that shot well you can you consider all

221

00:15:17,050 --> 00:15:14,810

south of the Appalachian Mountains and

222

00:15:20,380 --> 00:15:17,060

Atlanta and large part of the United

223

00:15:23,440 --> 00:15:20,390

States when do you actually meet up with

224

00:15:30,520 --> 00:15:23,450

mere it's not as if you just drive up in

225

00:15:32,200 --> 00:15:30,530

parallel park 65 orbit so that catches

226

00:15:34,840 --> 00:15:32,210

us up Tamira Paszek moshe to get through

227

00:15:36,430 --> 00:15:34,850

it the faster you have to orbit so we're

228

00:15:38,350 --> 00:15:36,440

slowly catching up to mirrors orbit

229

00:15:40,570 --> 00:15:38,360

right now and in about two days will be

230

00:15:41,770 --> 00:15:40,580

docked with them will maneuver close and

231

00:15:43,720 --> 00:15:41,780

then spend about the last four or five

232

00:15:46,210 --> 00:15:43,730

hours doing all the fine maneuvers to

233

00:15:48,460 --> 00:15:46,220

bring ourselves in close and then drive

234

00:15:50,110 --> 00:15:48,470

with you back in his approach this is

235

00:15:51,490 --> 00:15:50,120

something that I can't get in my mind

236

00:15:54,700 --> 00:15:51,500

I've been reading about it I've heard

237

00:15:56,770 --> 00:15:54,710

you describe it the the shuttle and mere

238

00:15:58,330 --> 00:15:56,780

way a quarter of a million pounds I

239

00:16:02,800 --> 00:15:58,340

can't imagine how you're going to do

240

00:16:05,950 --> 00:16:02,810

this pretty amazing it'll be the the

241

00:16:07,990 --> 00:16:05,960

heaviest assembly of vehicles ever put

242

00:16:11,200 --> 00:16:08,000

together in in space before it'll be

243

00:16:13,120 --> 00:16:11,210

over half a million pounds and Meers

244

00:16:15,640 --> 00:16:13,130

been up there for nine years of this

245

00:16:17,980 --> 00:16:15,650

shuttle on 15 times and would it happy

246

00:16:20,740 --> 00:16:17,990

to be on board for this place can you

247

00:16:25,870 --> 00:16:20,750

give me an idea the procedure what it

248

00:16:28,330 --> 00:16:25,880

what it is you're going to do certainly

249

00:16:30,670 --> 00:16:28,340

the first thing I'm going to do is take

250

00:16:32,680 --> 00:16:30,680

out of the back of the payload Bay and

251
00:16:33,910 --> 00:16:32,690
build a long tunnel that will stick out

252
00:16:38,379 --> 00:16:33,920
the top of the shuttle

253
00:16:41,860 --> 00:16:38,389
like this folio bigger around and then

254
00:16:45,280 --> 00:16:41,870
can with help all of us will drive the

255
00:16:47,560 --> 00:16:45,290
whole vehicle up and attach it to a worm

256
00:16:50,800 --> 00:16:47,570
limb that sticks out of mere and then

257
00:16:52,300 --> 00:16:50,810
when we leave we'll leave the whole

258
00:16:54,639 --> 00:16:52,310
tunnel attached that that will provide a

259
00:16:56,860 --> 00:16:54,649
permanent docking station for all

260
00:16:58,900 --> 00:16:56,870
subsequent shuttles on board near that's

261
00:17:00,819 --> 00:16:58,910
the purpose of our flight just to build

262
00:17:03,970 --> 00:17:00,829
something on to the space station first

263
00:17:05,199 --> 00:17:03,980

time the shuttles ever done that what if

264

00:17:09,730 --> 00:17:05,209

it doesn't work do you get a second

265

00:17:13,809 --> 00:17:09,740

chance of this yes we do a flying over

266

00:17:16,179 --> 00:17:13,819

Washington now Hana we do have a second

267

00:17:18,309 --> 00:17:16,189

chance but we always can stop for a

268

00:17:22,870 --> 00:17:18,319

little while back on hold our position

269

00:17:25,600 --> 00:17:22,880

and try and fix whatever obstacles come

270

00:17:27,429 --> 00:17:25,610

up and once we're close to mere we

271

00:17:30,100 --> 00:17:27,439

basically are in the same orbit so as

272

00:17:32,830 --> 00:17:30,110

long as we have the various consumable

273

00:17:34,450 --> 00:17:32,840

propellants and cryogenics and things on

274

00:17:36,700 --> 00:17:34,460

board to keep everything running we can

275

00:17:39,580 --> 00:17:36,710

stay and give it another try you know

276

00:17:41,350 --> 00:17:39,590

Chris I have a this romantic vivid image

277

00:17:43,360 --> 00:17:41,360

of what it takes to fly a shuttle that

278

00:17:49,000 --> 00:17:43,370

you guys are just hanging around don't

279

00:17:50,860 --> 00:17:49,010

you have to do anything well you should

280

00:17:54,010 --> 00:17:50,870

have seen us a couple hours ago we were

281

00:17:55,960 --> 00:17:54,020

we were busy man but right now would

282

00:17:57,400 --> 00:17:55,970

taking advantage of the of the little

283

00:17:59,260 --> 00:17:57,410

break and the flight schedule to take

284

00:18:02,680 --> 00:17:59,270

these pictures anytime you get a clear

285

00:18:04,840 --> 00:18:02,690

shot of Earth we do a lot of training of

286

00:18:06,130 --> 00:18:04,850

Earth observation and taking pictures of

287

00:18:07,690 --> 00:18:06,140

all the cameras we have on board and

288

00:18:11,890 --> 00:18:07,700

that's what all these bodies are out

289

00:18:14,380 --> 00:18:11,900

there doing when you hook up with mere

290

00:18:16,140 --> 00:18:14,390

you are going to meet three guys who've

291

00:18:23,520 --> 00:18:16,150

been up there for two months already

292

00:18:27,400 --> 00:18:25,750

we better chance to claim with those

293

00:18:29,470 --> 00:18:27,410

guys for a month on the ground twice

294

00:18:32,470 --> 00:18:29,480

over in Russia and once they came to

295

00:18:33,789 --> 00:18:32,480

houston and trained so we are really are

296

00:18:35,350 --> 00:18:33,799

just visiting them they're good friends

297

00:18:39,000 --> 00:18:35,360

and we're looking forward to the reunion

298

00:18:43,419 --> 00:18:39,010

we have brought some gifts along because

299

00:18:45,100 --> 00:18:43,429

life can be fairly repetitive in orbit

300

00:18:46,690 --> 00:18:45,110

for six months at a time and that's the

301

00:18:47,650 --> 00:18:46,700

life that they're leading and so we're

302

00:18:49,660 --> 00:18:47,660

bringing them

303

00:18:53,710 --> 00:18:49,670

things from their family we're bringing

304

00:18:56,830 --> 00:18:53,720

them gets suppressed food some chocolate

305

00:18:58,870 --> 00:18:56,840

and we're also bringing them a guitar

306

00:19:01,420 --> 00:18:58,880

for something to do because they get

307

00:19:03,940 --> 00:19:01,430

evening that weekends off Chris I'm

308

00:19:06,310 --> 00:19:03,950

fascinated about this this guitar I

309

00:19:08,080 --> 00:19:06,320

thought this is very confined space and

310

00:19:14,860 --> 00:19:08,090

you don't have room I know what a guitar

311

00:19:16,690 --> 00:19:14,870

what kind of space it takes up probably

312

00:19:18,820 --> 00:19:16,700

we were lucky enough to find a guitar

313

00:19:22,900 --> 00:19:18,830

that is just perfect for our purposes

314

00:19:24,940 --> 00:19:22,910

it's a collapsible practice classical

315

00:19:26,440 --> 00:19:24,950

guitar and it's really just the size of

316

00:19:27,850 --> 00:19:26,450

the bridge of the guitar and then

317

00:19:30,460 --> 00:19:27,860

there's the shape of the guitar clicks

318

00:19:31,630 --> 00:19:30,470

into place and then it has an electric

319

00:19:33,190 --> 00:19:31,640

pick up but you can just play it with

320

00:19:35,800 --> 00:19:33,200

headphones so in a noisy environment

321

00:19:38,140 --> 00:19:35,810

like this one you can play quietly to

322

00:19:39,880 --> 00:19:38,150

yourself and also it only takes up maybe

323

00:19:41,260 --> 00:19:39,890

about a foot long weighs about three

324

00:19:43,660 --> 00:19:41,270

pounds so it works out very well for

325

00:19:45,400 --> 00:19:43,670

stowage and I'm not showing it on TV yet

326

00:19:47,920 --> 00:19:45,410

because I want it to be a surprise for

327

00:19:49,870 --> 00:19:47,930

the Russians how it looks okay well

328

00:19:51,280 --> 00:19:49,880

let's try this I know this is a very

329

00:19:56,380 --> 00:19:51,290

serious light you have a lot of serious

330

00:19:58,210 --> 00:19:56,390

scientific operations to perform but the

331

00:19:59,920 --> 00:19:58,220

rest of the super team know what a ham

332

00:20:06,850 --> 00:19:59,930

you are that you do play well and you're

333

00:20:08,320 --> 00:20:06,860

a really good singer I'm really looking

334

00:20:10,330 --> 00:20:08,330

forward to have a chance to play a game

335

00:20:12,310 --> 00:20:10,340

with one of the astronauts onboard

336

00:20:14,590 --> 00:20:12,320

marrows thomas writer he's quite a good

337

00:20:16,750 --> 00:20:14,600

classical guitarist I look forward to

338

00:20:17,950 --> 00:20:16,760

playing with him inside near and also to

339

00:20:20,080 --> 00:20:17,960

leaving him with his gift because I

340

00:20:21,880 --> 00:20:20,090

think if I were up in space for six

341

00:20:23,530 --> 00:20:21,890

months with a little bit of time on my

342

00:23:34,570 --> 00:20:23,540

hands occasionally it sure would be

343

00:25:52,750 --> 00:25:48,040

you

344

00:25:57,280 --> 00:25:52,760

messed up we're doing sm checkpoint

345

00:26:01,750 --> 00:25:57,290

initiates and error log resets copy all

346

00:26:03,850 --> 00:26:01,760

Jerry and heads up the message 16 the OS

347

00:26:07,300 --> 00:26:03,860

vs troubleshooting should be on board

348

00:26:09,460 --> 00:26:07,310

it's about a 10 minute procedure and you

349

00:26:11,860 --> 00:26:09,470

can perform it or any of you can perform