



1  
00:00:36,069 --> 00:00:03,750  
hi i'm tony antonelli of the sts-132

2  
00:00:36,079 --> 00:00:57,350  
these

3  
00:00:57,360 --> 00:01:22,630  
you'll this

4  
00:01:22,640 --> 00:01:37,910  
thank you

5  
00:01:44,469 --> 00:01:39,830  
good morning atlantis and a special good

6  
00:01:48,389 --> 00:01:46,310  
hey good morning houston

7  
00:01:50,149 --> 00:01:48,399  
it's a great morning up here and thanks

8  
00:01:53,990 --> 00:01:50,159  
to my family janine

9  
00:01:57,190 --> 00:01:55,510  
is mission control houston you're seeing

10  
00:01:59,590 --> 00:01:57,200  
live downlink from the orbiting complex

11  
00:02:02,469 --> 00:01:59,600  
now making its way over mongolia

12  
00:02:04,310 --> 00:02:02,479  
that last call from capcom shannon lucid

13  
00:02:07,190 --> 00:02:04,320

up to the orbit crew regarding a

14

00:02:13,830 --> 00:02:07,200  
configuration to the h2 tanks the

15

00:02:17,990 --> 00:02:16,390  
crew reporting back and they will

16

00:02:19,670 --> 00:02:18,000  
resume that conversation as soon as we

17

00:03:17,990 --> 00:02:19,680  
resume communications link up with the

18

00:03:24,070 --> 00:03:19,509  
okay i think we're ready for questions

19

00:03:24,080 --> 00:03:28,869  
yes it's we're ready for questions

20

00:03:33,830 --> 00:03:30,949  
hi this is robert perlman with

21

00:03:37,190 --> 00:03:33,840  
collectspace.com and space.com a

22

00:03:38,949 --> 00:03:37,200  
question for atlantis commander ken ham

23

00:03:40,869 --> 00:03:38,959  
yesterday while answering students

24

00:03:42,309 --> 00:03:40,879  
questions you said it would be an honor

25

00:03:44,789 --> 00:03:42,319  
if it turns out that you and your

26

00:03:46,949 --> 00:03:44,799

crewmates are flying atlantis final

27

00:03:49,589 --> 00:03:46,959

mission with that in mind how would you

28

00:03:50,470 --> 00:03:49,599

have sts-132 remembered in the history

29

00:03:52,390 --> 00:03:50,480

books

30

00:03:55,149 --> 00:03:52,400

what to you has been the highlights of

31

00:03:57,270 --> 00:03:55,159

the past 10 days that you feel set apart

32

00:04:02,149 --> 00:03:57,280

sts-132 as a mission suiting an

33

00:04:07,190 --> 00:04:04,390

a good question robert

34

00:04:10,229 --> 00:04:07,200

i don't want to or hope that we set

35

00:04:11,509 --> 00:04:10,239

ourselves aside as a different or better

36

00:04:13,270 --> 00:04:11,519

if you will

37

00:04:14,789 --> 00:04:13,280

crew mission than any other mission that

38

00:04:16,069 --> 00:04:14,799

was on atlantis

39

00:04:17,110 --> 00:04:16,079

one of our objectives from the very

40

00:04:19,909 --> 00:04:17,120

beginning like we talked about

41

00:04:21,590 --> 00:04:19,919

pre-flight was to get our job done

42

00:04:23,430 --> 00:04:21,600

professionally get it done correctly get

43

00:04:26,390 --> 00:04:23,440

it done on time and then also have a lot

44

00:04:28,070 --> 00:04:26,400

of fun doing it and hopefully

45

00:04:29,350 --> 00:04:28,080

show that fun to the rest of the team

46

00:04:30,790 --> 00:04:29,360

and everyone else involved because there

47

00:04:32,150 --> 00:04:30,800

certainly are thousands of folks

48

00:04:34,230 --> 00:04:32,160

involved in the mission

49

00:04:35,430 --> 00:04:34,240

and i have a feeling i don't know we

50

00:04:37,189 --> 00:04:35,440

won't know until we get back on the

51  
00:04:39,749 --> 00:04:37,199  
ground and really talk to the team but i

52  
00:04:41,510 --> 00:04:39,759  
think we did share the fun and share the

53  
00:04:42,870 --> 00:04:41,520  
enthusiasm of the whole experience of

54  
00:04:44,710 --> 00:04:42,880  
flying in space

55  
00:04:49,030 --> 00:04:44,720  
and that's the way i would like this

56  
00:04:53,510 --> 00:04:51,670  
thank you and for uh garrett reisman

57  
00:04:55,510 --> 00:04:53,520  
during your spacewalk on friday we

58  
00:04:57,350 --> 00:04:55,520  
watched as you as and mike floated into

59  
00:04:59,510 --> 00:04:57,360  
atlantis's payload bay

60  
00:05:01,350 --> 00:04:59,520  
and on your way to the aftec windows you

61  
00:05:03,670 --> 00:05:01,360  
climbed over the tool stowage assembly

62  
00:05:06,230 --> 00:05:03,680  
in which nasa has packed mementos meant

63  
00:05:08,230 --> 00:05:06,240

for employees and agencies partners to

64

00:05:09,749 --> 00:05:08,240

mark the shuttle program's end

65

00:05:11,990 --> 00:05:09,759

can you share what you are bringing back

66

00:05:14,070 --> 00:05:12,000

or what you choose to bring back from

67

00:05:16,950 --> 00:05:14,080

this mission as your personal memento of

68

00:05:18,150 --> 00:05:16,960

your time on atlantis the sts-132

69

00:05:25,749 --> 00:05:18,160

mission and

70

00:05:29,430 --> 00:05:27,830

well um let's see first of all i want to

71

00:05:31,749 --> 00:05:29,440

emphasize that we didn't take anything

72

00:05:33,029 --> 00:05:31,759

out of those compartments uh on the

73

00:05:35,270 --> 00:05:33,039

payload bay

74

00:05:37,510 --> 00:05:35,280

uh we left everything right there uh but

75

00:05:40,310 --> 00:05:37,520

as far as what i'm bringing back uh you

76

00:05:43,430 --> 00:05:40,320

know it's it's mostly memories is is

77

00:05:45,590 --> 00:05:43,440

really uh when i bring back memories of

78

00:05:47,830 --> 00:05:45,600

not only the spacewalking and the views

79

00:05:48,790 --> 00:05:47,840

and the sunsets and the islands we saw

80

00:05:51,350 --> 00:05:48,800

but

81

00:05:53,909 --> 00:05:51,360

just memories of all the fun we had and

82

00:05:56,150 --> 00:05:53,919

uh and and and that's really the main

83

00:05:57,430 --> 00:05:56,160

thing that and photographs and video is

84

00:05:59,749 --> 00:05:57,440

that we'll be watching for the rest of

85

00:06:01,270 --> 00:05:59,759

our lives

86

00:06:03,110 --> 00:06:01,280

hi this is

87

00:06:05,670 --> 00:06:03,120

the german aerospace center and space

88

00:06:08,070 --> 00:06:05,680

expo association question for a tj

89

00:06:09,990 --> 00:06:08,080

creamer what was your most challenging

90

00:06:12,150 --> 00:06:10,000

task and your most exciting moment

91

00:06:14,230 --> 00:06:12,160

during your long duration mission and

92

00:06:16,150 --> 00:06:14,240

did you experience anything you didn't

93

00:06:24,469 --> 00:06:16,160

expect and what are you looking for most

94

00:06:28,790 --> 00:06:27,430

it's um what can i

95

00:06:30,469 --> 00:06:28,800

what can i share most with you i will

96

00:06:32,309 --> 00:06:30,479

tell you that

97

00:06:34,469 --> 00:06:32,319

um there have been some absolutely

98

00:06:36,710 --> 00:06:34,479

astounding things like the views that

99

00:06:39,270 --> 00:06:36,720

we've

100

00:06:40,710 --> 00:06:39,280

been able to experience out the windows

101  
00:06:42,390 --> 00:06:40,720  
we've been able to do

102  
00:06:44,150 --> 00:06:42,400  
an awful lot of

103  
00:06:46,150 --> 00:06:44,160  
science and hard work together

104  
00:06:49,189 --> 00:06:46,160  
successfully but i think one of the

105  
00:06:50,950 --> 00:06:49,199  
things that i can honestly share

106  
00:06:53,110 --> 00:06:50,960  
back with you is that just the bonding

107  
00:06:55,270 --> 00:06:53,120  
the the the friendship the camaraderie

108  
00:06:56,710 --> 00:06:55,280  
that exists that when you work long

109  
00:06:59,189 --> 00:06:56,720  
missions together

110  
00:07:00,950 --> 00:06:59,199  
and and in that camaraderie is some

111  
00:07:03,589 --> 00:07:00,960  
absolutely

112  
00:07:04,790 --> 00:07:03,599  
gut-wrenching tear-producing laughter

113  
00:07:06,309 --> 00:07:04,800

that we've been able to share with some

114

00:07:08,309 --> 00:07:06,319

of the senses of humor we've had up here

115

00:07:10,629 --> 00:07:08,319

and all that combined together is a very

116

00:07:11,510 --> 00:07:10,639

warm memory

117

00:07:13,990 --> 00:07:11,520

thank you

118

00:07:15,990 --> 00:07:14,000

question for pier sellers this is your

119

00:07:18,870 --> 00:07:16,000

third flight as a veteran was there

120

00:07:21,110 --> 00:07:18,880

anything new for you and also you had to

121

00:07:22,950 --> 00:07:21,120

perform lots of robotics tasks was it

122

00:07:29,350 --> 00:07:22,960

more difficult or easier compared to

123

00:07:32,950 --> 00:07:31,270

well to answer the first question yes it

124

00:07:34,629 --> 00:07:32,960

was very different for me the the other

125

00:07:36,550 --> 00:07:34,639

two flights i came up the inside of

126  
00:07:39,270 --> 00:07:36,560  
station pretty much looked the same as

127  
00:07:42,710 --> 00:07:39,280  
about one-third the size it is now this

128  
00:07:44,790 --> 00:07:42,720  
place is now a palace it's huge and i've

129  
00:07:46,710 --> 00:07:44,800  
had a great fun exploring it

130  
00:07:48,629 --> 00:07:46,720  
um we're seeing station in pretty much

131  
00:07:50,230 --> 00:07:48,639  
his final form and it's really

132  
00:07:52,309 --> 00:07:50,240  
magnificent

133  
00:07:53,029 --> 00:07:52,319  
as for the robotics it was wonderful i

134  
00:07:55,189 --> 00:07:53,039  
was

135  
00:07:57,029 --> 00:07:55,199  
down there in the belly turret of the of

136  
00:07:59,270 --> 00:07:57,039  
the station this glass dome underneath

137  
00:08:00,629 --> 00:07:59,280  
all day getting a suntan

138  
00:08:02,550 --> 00:08:00,639

waving the arm around it was a lot of

139

00:08:07,430 --> 00:08:02,560

fun and me and tc

140

00:08:11,749 --> 00:08:09,189

this is jill tolk representing the

141

00:08:13,670 --> 00:08:11,759

cohasset mariner in massachusetts so of

142

00:08:16,390 --> 00:08:13,680

course this is for steve bowen

143

00:08:18,150 --> 00:08:16,400

from your perspective on orbit right now

144

00:08:20,150 --> 00:08:18,160

what thoughts and feelings about your

145

00:08:22,629 --> 00:08:20,160

final shuttle flight and evas would you

146

00:08:34,149 --> 00:08:22,639

like to share with residents of cohasset

147

00:08:37,909 --> 00:08:36,389

well no actually i i saw cape cod which

148

00:08:40,070 --> 00:08:37,919

was kind of neat i

149

00:08:42,230 --> 00:08:40,080

i'll go back pierce and i were up in the

150

00:08:43,909 --> 00:08:42,240

cupola enjoying the views the other day

151  
00:08:45,829 --> 00:08:43,919  
just for a few moments and we happened

152  
00:08:47,110 --> 00:08:45,839  
to come right up over cape cod and i got

153  
00:08:48,710 --> 00:08:47,120  
to look down and she pointed out the

154  
00:08:50,949 --> 00:08:48,720  
piers where my hometown was where

155  
00:08:54,710 --> 00:08:50,959  
cohasset was and that was very exciting

156  
00:08:56,310 --> 00:08:54,720  
so as in a memory from this flight

157  
00:08:57,190 --> 00:08:56,320  
i'm going to you know the opportunity to

158  
00:08:59,829 --> 00:08:57,200  
share

159  
00:09:01,190 --> 00:08:59,839  
the world with my friends here onboard

160  
00:09:02,790 --> 00:09:01,200  
the space station

161  
00:09:04,310 --> 00:09:02,800  
and really no matter where you are

162  
00:09:07,750 --> 00:09:04,320  
you've got friends you can share with so

163  
00:09:11,750 --> 00:09:09,670

thanks stevo

164

00:09:14,550 --> 00:09:11,760

as a similar follow-up question for

165

00:09:16,470 --> 00:09:14,560

either you or garrett garrett before the

166

00:09:17,829 --> 00:09:16,480

mission you talked about all the hard

167

00:09:19,350 --> 00:09:17,839

work that you all were going to be doing

168

00:09:20,870 --> 00:09:19,360

on this mission so you would have a

169

00:09:22,790 --> 00:09:20,880

great feeling of accomplishment

170

00:09:24,949 --> 00:09:22,800

afterwards not just a small feeling but

171

00:09:26,630 --> 00:09:24,959

a great feeling when everything got

172

00:09:34,230 --> 00:09:26,640

accomplished could you all expand on

173

00:09:37,990 --> 00:09:36,470

yeah we've talked a lot about having fun

174

00:09:39,590 --> 00:09:38,000

up here but i think that the main reason

175

00:09:40,870 --> 00:09:39,600

we're all having so much fun is that

176

00:09:42,389 --> 00:09:40,880

everything uh

177

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

went pretty smoothly on the mission and

178

00:09:45,190 --> 00:09:44,000

we accomplished all of our objectives

179

00:09:48,070 --> 00:09:45,200

and there's nothing like a little

180

00:09:49,430 --> 00:09:48,080

success to make have a really good time

181

00:09:51,829 --> 00:09:49,440

so uh

182

00:09:53,910 --> 00:09:51,839

uh yeah it was i was hoping that after

183

00:09:55,350 --> 00:09:53,920

all this hard work not just obviously by

184

00:09:56,790 --> 00:09:55,360

us but more importantly by all the

185

00:09:59,350 --> 00:09:56,800

people on the ground

186

00:10:02,150 --> 00:09:59,360

uh that made it all possible and worked

187

00:10:05,030 --> 00:10:02,160

out all the engineering details uh we

188

00:10:06,870 --> 00:10:05,040

had a lot of success and and that's

189

00:10:08,470 --> 00:10:06,880

something that was uh that's what i was

190

00:10:09,750 --> 00:10:08,480

talking about before

191

00:10:13,350 --> 00:10:09,760

that i was hoping to have this feeling

192

00:10:17,670 --> 00:10:15,509

this is peter railwood from southern fm

193

00:10:20,069 --> 00:10:17,680

in australia my question is for each of

194

00:10:22,150 --> 00:10:20,079

the crew members of atlantis and any of

195

00:10:24,310 --> 00:10:22,160

the others who would like to contribute

196

00:10:26,230 --> 00:10:24,320

if it were exclusively up to you which

197

00:10:28,470 --> 00:10:26,240

city or town would you select to be the

198

00:10:37,430 --> 00:10:28,480

final location for public display of

199

00:10:42,949 --> 00:10:39,110

that's a great question i'm glad

200

00:10:47,269 --> 00:10:45,110

that's uh that's not for us to decide

201  
00:10:50,389 --> 00:10:47,279  
unless unless i get to pick and then it

202  
00:10:51,990 --> 00:10:50,399  
would be in my in my backyard

203  
00:10:54,230 --> 00:10:52,000  
i get plenty of letters from my

204  
00:10:56,389 --> 00:10:54,240  
homeowners association about leaving my

205  
00:10:57,590 --> 00:10:56,399  
garbage can out and not keeping my grass

206  
00:10:59,350 --> 00:10:57,600  
trimmed but

207  
00:11:00,630 --> 00:10:59,360  
that would if i got atlantis parked in

208  
00:11:06,870 --> 00:11:00,640  
my backyard that'd make all those

209  
00:11:09,829 --> 00:11:09,030  
thank you um this is the question for

210  
00:11:10,949 --> 00:11:09,839  
the

211  
00:11:13,110 --> 00:11:10,959  
anyone

212  
00:11:14,949 --> 00:11:13,120  
for the members of the iss crew we've

213  
00:11:17,509 --> 00:11:14,959

all had the experience of packing for a

214

00:11:19,190 --> 00:11:17,519

long trip and only to get there

215

00:11:21,670 --> 00:11:19,200

and realize that you've forgotten

216

00:11:23,190 --> 00:11:21,680

something large or small that you would

217

00:11:24,790 --> 00:11:23,200

really have loved to bought with you

218

00:11:35,030 --> 00:11:24,800

have any of you had the experience on

219

00:11:37,829 --> 00:11:36,710

i forgot to bring

220

00:11:40,310 --> 00:11:37,839

sweats

221

00:11:42,470 --> 00:11:40,320

something to keep me warm other than the

222

00:11:43,350 --> 00:11:42,480

work pants that i have every day

223

00:11:46,150 --> 00:11:43,360

but

224

00:11:48,310 --> 00:11:46,160

i'd have to say that you're

225

00:11:50,470 --> 00:11:48,320

you're taken care of very well up here

226

00:11:52,069 --> 00:11:50,480

we have so many people that are looking

227

00:11:54,389 --> 00:11:52,079

out for us on the ground to make sure

228

00:11:55,750 --> 00:11:54,399

that not only are we accomplishing our

229

00:11:57,509 --> 00:11:55,760

mission and

230

00:11:59,030 --> 00:11:57,519

being able to take care of this place

231

00:12:01,350 --> 00:11:59,040

but that we're taking care of ourselves

232

00:12:04,069 --> 00:12:01,360

too because this really is our home away

233

00:12:05,910 --> 00:12:04,079

from home so i wouldn't say that we're

234

00:12:09,430 --> 00:12:05,920

missing too many things up here except

235

00:12:14,710 --> 00:12:12,310

uh mark caro for aviation week i have a

236

00:12:16,389 --> 00:12:14,720

question for pierce and garrett

237

00:12:18,550 --> 00:12:16,399

both of you have flown

238

00:12:20,629 --> 00:12:18,560

to the space station in the past in in

239

00:12:22,829 --> 00:12:20,639

different capacities

240

00:12:25,670 --> 00:12:22,839

i wonder if you can draw from that

241

00:12:28,470 --> 00:12:25,680

perspective and what you have seen about

242

00:12:31,030 --> 00:12:28,480

the earth on this mission and tell us if

243

00:12:34,629 --> 00:12:31,040

you have any impressions

244

00:12:40,310 --> 00:12:34,639

that seem remarkable or memorable from

245

00:12:43,590 --> 00:12:41,829

i'll give you the short answer before i

246

00:12:44,550 --> 00:12:43,600

hand over to garrett for the long answer

247

00:12:49,430 --> 00:12:44,560

now

248

00:12:51,829 --> 00:12:49,440

sitting in the cupola for hours

249

00:12:54,310 --> 00:12:51,839

is really how small the world is you go

250

00:12:56,310 --> 00:12:54,320

around it in one and a half hours but

251

00:12:57,430 --> 00:12:56,320

you can recognize fields

252

00:12:59,509 --> 00:12:57,440

roads

253

00:13:01,190 --> 00:12:59,519

city blocks down there so as we live in

254

00:13:03,910 --> 00:13:01,200

quite a small planet that really brought

255

00:13:03,920 --> 00:13:22,710

and i agree with piers

256

00:13:27,030 --> 00:13:25,269

atlantis iss this is houston acr that

257

00:13:29,030 --> 00:13:27,040

concludes questions from the johnson

258

00:13:33,269 --> 00:13:29,040

space center please stand by for a voice

259

00:13:40,470 --> 00:13:36,389

atlantis iss this is kennedy pao how do

260

00:13:40,480 --> 00:13:45,430

and read a lot and clear casey

261

00:13:49,990 --> 00:13:46,949

hello this is marcia dunn of the

262

00:13:51,670 --> 00:13:50,000

associated press for commander kotov

263

00:13:53,670 --> 00:13:51,680

and any of the other station crew you

264

00:13:55,670 --> 00:13:53,680

mentioned the other day how scary the

265

00:13:56,870 --> 00:13:55,680

oil spill looked in the gulf of mexico

266

00:13:58,710 --> 00:13:56,880

and i'm wondering

267

00:14:00,629 --> 00:13:58,720

could you describe it

268

00:14:04,310 --> 00:14:00,639

what what does it look like does it look

269

00:14:10,069 --> 00:14:04,320

like a brown stain against blue water or

270

00:14:14,790 --> 00:14:12,069

okay masha good to talk to you yeah the

271

00:14:17,509 --> 00:14:14,800

oil spill we are watching from above

272

00:14:21,670 --> 00:14:17,519

every day and it's kind of sad to see

273

00:14:25,030 --> 00:14:21,680

the beautiful seas kind of tinted and uh

274

00:14:26,870 --> 00:14:25,040

these days the the stain kind of spread

275

00:14:29,430 --> 00:14:26,880

around to the south and i heard it's

276

00:14:31,910 --> 00:14:29,440

going to migrate to the atlantic side

277

00:14:35,829 --> 00:14:31,920

but we're just hoping the quick recovery

278

00:14:41,750 --> 00:14:39,030

another question for you suici um you're

279

00:14:43,590 --> 00:14:41,760

the king of space twittering um you're

280

00:14:44,470 --> 00:14:43,600

posting so many pictures and so many

281

00:14:47,189 --> 00:14:44,480

words

282

00:14:49,670 --> 00:14:47,199

how is it for you having that kind of

283

00:14:50,870 --> 00:14:49,680

access to social media from the space

284

00:14:56,790 --> 00:14:50,880

station

285

00:15:00,230 --> 00:14:58,389

well thank you first of all the older

286

00:15:02,470 --> 00:15:00,240

kudos to the engineer who made it

287

00:15:04,870 --> 00:15:02,480

possible and also like my personal

288

00:15:07,030 --> 00:15:04,880

thanks to my crewmate tj creamer he

289

00:15:08,790 --> 00:15:07,040

worked very hard to make it happen i'm

290

00:15:11,670 --> 00:15:08,800

just a user he's actually uh the

291

00:15:14,550 --> 00:15:11,680

background engineer to make it possible

292

00:15:16,870 --> 00:15:14,560

and uh the my message to you guys is

293

00:15:19,590 --> 00:15:16,880

look the earth is beautiful and i just

294

00:15:20,949 --> 00:15:19,600

want to share the the pictures and i'm

295

00:15:23,430 --> 00:15:20,959

i'm not the best the photographer

296

00:15:25,990 --> 00:15:23,440

there's other people who took a better

297

00:15:27,590 --> 00:15:26,000

picture but i like to just share the how

298

00:15:30,069 --> 00:15:27,600

the regular person come up to the space

299

00:15:32,629 --> 00:15:30,079

station and see this beautiful view and

300

00:15:35,030 --> 00:15:32,639

just want to share the view so i'm

301

00:15:36,470 --> 00:15:35,040

really happy to have a chance to share

302

00:15:42,470 --> 00:15:36,480

the nice

303

00:15:46,629 --> 00:15:44,470

um and uh one more question for

304

00:15:49,189 --> 00:15:46,639

commander ham you you mentioned that um

305

00:15:52,150 --> 00:15:49,199

how much fun you've been having what

306

00:15:59,030 --> 00:15:52,160

was the most fun that you as all 12

307

00:16:03,509 --> 00:16:01,030

well marsha i probably can't reveal some

308

00:16:04,389 --> 00:16:03,519

of the the best fun that we had up here

309

00:16:07,509 --> 00:16:04,399

uh

310

00:16:09,509 --> 00:16:07,519

might have mentioned it earlier it's

311

00:16:11,910 --> 00:16:09,519

it's spending time with this group of

312

00:16:13,590 --> 00:16:11,920

people and it's all 12 of us uh we've

313

00:16:16,389 --> 00:16:13,600

bonded up here in space which is an

314

00:16:17,829 --> 00:16:16,399

interesting experience and uh i think

315

00:16:20,150 --> 00:16:17,839

part of that comes from working really

316

00:16:22,629 --> 00:16:20,160

hard and then having pride in your own

317

00:16:25,030 --> 00:16:22,639

success sort of sets up the human

318

00:16:27,189 --> 00:16:25,040

emotion for being happy and being happy

319

00:16:28,389 --> 00:16:27,199

together and uh

320

00:16:30,069 --> 00:16:28,399

and i

321

00:16:32,550 --> 00:16:30,079

there are some senses of humor on this

322

00:16:35,990 --> 00:16:32,560

crew that are that are

323

00:16:41,749 --> 00:16:36,000

excellent to say to be kind i guess

324

00:16:46,389 --> 00:16:44,710

hi guys it's bill harwood cbs news one

325

00:16:48,230 --> 00:16:46,399

for tj just to follow up an earlier

326

00:16:49,590 --> 00:16:48,240

question what are you looking forward to

327

00:16:50,790 --> 00:16:49,600

what are you going to miss

328

00:16:55,110 --> 00:16:50,800

and what are you looking forward to when

329

00:16:58,069 --> 00:16:56,470

well what am i gonna miss is probably be

330

00:17:00,310 --> 00:16:58,079

easy it's uh

331

00:17:02,389 --> 00:17:00,320

we've been up here five-ish months and

332

00:17:04,150 --> 00:17:02,399

you know right right now you kind of go

333

00:17:05,350 --> 00:17:04,160

i'm finally getting the hang of this and

334

00:17:07,189 --> 00:17:05,360

it's kind of

335

00:17:09,429 --> 00:17:07,199

sad to be departing that operational

336

00:17:10,949 --> 00:17:09,439

world that i i so enjoy and love as well

337

00:17:12,630 --> 00:17:10,959

as just the camaraderie that we share

338

00:17:14,150 --> 00:17:12,640

with our crewmates

339

00:17:15,829 --> 00:17:14,160

what i'm looking forward to of course is

340

00:17:17,110 --> 00:17:15,839

getting back together with family and

341

00:17:18,710 --> 00:17:17,120

friends

342

00:17:20,230 --> 00:17:18,720

specifically though

343

00:17:22,150 --> 00:17:20,240

i really like to drink something not

344

00:17:26,710 --> 00:17:22,160

through a straw and have the food stay

345

00:17:30,470 --> 00:17:29,029

i can understand that one quick one for

346

00:17:32,310 --> 00:17:30,480

commander kotov

347

00:17:34,870 --> 00:17:32,320

can you give us a

348

00:17:36,070 --> 00:17:34,880

snapshot of how is rossvet doing uh you

349

00:17:38,310 --> 00:17:36,080

mentioned some shavings the other day

350

00:17:40,070 --> 00:17:38,320

i'm assuming that's filtered out by now

351

00:17:45,510 --> 00:17:40,080

maybe give us your impressions as

352

00:17:48,390 --> 00:17:47,350

and uh thank you for this question

353

00:17:50,630 --> 00:17:48,400

that's

354

00:17:51,510 --> 00:17:50,640

the new module russviet looks really

355

00:17:54,710 --> 00:17:51,520

really

356

00:17:57,750 --> 00:17:54,720

good and uh he is still packed with

357

00:18:01,270 --> 00:17:57,760

cargo that's atlantis uh brought up with

358

00:18:03,909 --> 00:18:01,280

this module and we work very hard to

359

00:18:05,350 --> 00:18:03,919

unload that this module but

360

00:18:08,310 --> 00:18:05,360

in any case it's

361

00:18:10,310 --> 00:18:08,320

it's excellent excellent extra volume

362

00:18:13,110 --> 00:18:10,320

and especially this

363

00:18:15,110 --> 00:18:13,120

module is designed specifically to be a

364

00:18:17,830 --> 00:18:15,120

russian science laboratory

365

00:18:19,510 --> 00:18:17,840

and so we're really looking forward to

366

00:18:20,630 --> 00:18:19,520

which which

367

00:18:21,510 --> 00:18:20,640

utilize

368

00:18:23,110 --> 00:18:21,520

this

369

00:18:29,510 --> 00:18:23,120

module in future

370

00:18:34,710 --> 00:18:32,310

atlantis iss this is houston acr that

371

00:18:36,470 --> 00:18:34,720

concludes questions from ksc please

372

00:18:48,310 --> 00:18:36,480

stand by for a voice check and more

373

00:18:56,070 --> 00:18:50,390

and atlantis iss once again how do you

374

00:19:01,909 --> 00:18:59,190

really loud and clear

375

00:19:04,310 --> 00:19:01,919

hi robert perlman with collectspace.com

376

00:19:05,909 --> 00:19:04,320

and space.com once more with a question

377

00:19:07,750 --> 00:19:05,919

from mike good

378

00:19:10,230 --> 00:19:07,760

you entered space on the anniversary of

379

00:19:12,070 --> 00:19:10,240

the last saturn 5 launch which was also

380

00:19:13,669 --> 00:19:12,080

the liftoff of the first u.s space

381

00:19:15,350 --> 00:19:13,679

station skylab

382

00:19:18,230 --> 00:19:15,360

that somewhat parallels your own and

383

00:19:20,070 --> 00:19:18,240

your crewmates flights which is planned

384

00:19:22,070 --> 00:19:20,080

as the last for atlantis but it is one

385

00:19:23,430 --> 00:19:22,080

of the last of the shuttle program

386

00:19:25,110 --> 00:19:23,440

and now you're flying when the

387

00:19:26,310 --> 00:19:25,120

international space station's assembly

388

00:19:28,549 --> 00:19:26,320

is nearly complete and science

389

00:19:30,710 --> 00:19:28,559

operations are about to begin

390

00:19:32,310 --> 00:19:30,720

so as your mission comes to a conclusion

391

00:19:34,390 --> 00:19:32,320

can you share if this feels more like

392

00:19:40,070 --> 00:19:34,400

the beginning of an end or the end of a

393

00:19:44,549 --> 00:19:42,549

oh great question um

394

00:19:47,029 --> 00:19:44,559

it's definitely the uh the beginning of

395

00:19:49,510 --> 00:19:47,039

the end here for the shuttle program

396

00:19:51,750 --> 00:19:49,520

and i think as uh

397

00:19:52,950 --> 00:19:51,760

our commander ken ham put it so

398

00:19:55,110 --> 00:19:52,960

eloquently yesterday when we were

399

00:19:56,390 --> 00:19:55,120

talking with some of the kids

400

00:19:58,310 --> 00:19:56,400

that that

401  
00:20:00,470 --> 00:19:58,320  
unfortunately this is uh necessary for

402  
00:20:02,950 --> 00:20:00,480  
us to move on you know the shuttle's a

403  
00:20:05,350 --> 00:20:02,960  
incredible vehicle uh

404  
00:20:07,270 --> 00:20:05,360  
you know it has a payload bay it has an

405  
00:20:09,990 --> 00:20:07,280  
air lock so we can go out and do

406  
00:20:12,230 --> 00:20:10,000  
space walks it has a robotic arm has an

407  
00:20:15,430 --> 00:20:12,240  
unbelievable capability but it is

408  
00:20:17,590 --> 00:20:15,440  
limited to low earth orbit and so as we

409  
00:20:20,230 --> 00:20:17,600  
continue to dream to explore further out

410  
00:20:21,909 --> 00:20:20,240  
into the solar system and to go further

411  
00:20:24,310 --> 00:20:21,919  
we're going to need to

412  
00:20:25,750 --> 00:20:24,320  
go on to a new vehicle and uh

413  
00:20:27,909 --> 00:20:25,760

unfortunately the space shuttle is not

414

00:20:30,549 --> 00:20:27,919

that vehicle so we'll say good goodbye

415

00:20:35,750 --> 00:20:30,559

to the space shuttle and look forward to

416

00:20:41,270 --> 00:20:38,070

this is jill tulk with the cohasset

417

00:20:43,270 --> 00:20:41,280

marinura follow-up question for stevo

418

00:20:45,590 --> 00:20:43,280

the last time you were on orbit there

419

00:20:48,149 --> 00:20:45,600

wasn't the cupola of course

420

00:20:49,190 --> 00:20:48,159

could you describe for me the view or

421

00:20:59,669 --> 00:20:49,200

your

422

00:21:04,710 --> 00:21:01,909

yeah the cupola is an amazing facility

423

00:21:07,590 --> 00:21:04,720

and really i think piers and

424

00:21:09,909 --> 00:21:07,600

tracy and garrett proved its value with

425

00:21:11,909 --> 00:21:09,919

the robotic operations which is the real

426

00:21:13,190 --> 00:21:11,919

purpose for its existence if they've

427

00:21:15,990 --> 00:21:13,200

been up here a little bit early probably

428

00:21:18,230 --> 00:21:16,000

get a lot more use out of it but uh for

429

00:21:20,149 --> 00:21:18,240

those of us that aren't doing robotics

430

00:21:22,070 --> 00:21:20,159

it's just the most amazing place to sit

431

00:21:23,190 --> 00:21:22,080

and watch the world go by

432

00:21:24,789 --> 00:21:23,200

and uh

433

00:21:25,830 --> 00:21:24,799

you know it's an opportunity to look

434

00:21:27,029 --> 00:21:25,840

down and

435

00:22:03,430 --> 00:21:27,039

see what the world looks like and

436

00:22:07,190 --> 00:22:05,430

the coast

437

00:22:09,909 --> 00:22:07,200

of france

438

00:22:11,270 --> 00:22:09,919

just to the north of bordeaux

439

00:22:13,270 --> 00:22:11,280

as

440

00:22:15,990 --> 00:22:13,280

the space station and space shuttle

441

00:22:18,070 --> 00:22:16,000

track easterly across the central

442

00:22:49,350 --> 00:22:18,080

portions of

443

00:23:00,070 --> 00:22:50,710

and we're ready too we're watching

444

00:23:04,549 --> 00:23:01,510

and uh

445

00:23:07,270 --> 00:23:04,559

this is a time when we we have

446

00:23:10,310 --> 00:23:07,280

a goodbye our friends our colleagues the

447

00:23:11,430 --> 00:23:10,320

actual crew of her struggle atlantis

448

00:23:14,310 --> 00:23:11,440

that

449

00:23:16,149 --> 00:23:14,320

her did an excellent job

450

00:23:17,430 --> 00:23:16,159

performing free evas

451  
00:23:19,350 --> 00:23:17,440  
installing

452  
00:23:23,510 --> 00:23:19,360  
the new russian module

453  
00:23:26,950 --> 00:23:23,520  
and just having the fun enjoying

454  
00:23:28,230 --> 00:23:26,960  
the living station and working in space

455  
00:23:29,510 --> 00:23:28,240  
and they

456  
00:23:30,470 --> 00:23:29,520  
show

457  
00:23:33,029 --> 00:23:30,480  
that

458  
00:23:34,549 --> 00:23:33,039  
good example of friendship

459  
00:23:36,870 --> 00:23:34,559  
professionalism

460  
00:23:39,350 --> 00:23:36,880  
and classic that's just in their

461  
00:23:41,830 --> 00:23:39,360  
behavior

462  
00:23:44,230 --> 00:23:41,840  
so it's really

463  
00:23:45,590 --> 00:23:44,240

good bye bye it's time to

464

00:23:47,830 --> 00:23:45,600

departure

465

00:23:51,029 --> 00:23:47,840

so again thank you thank you ken thank

466

00:23:53,909 --> 00:23:51,039

you all for uh thank you for excellent

467

00:23:56,549 --> 00:23:53,919

job for your

468

00:23:59,029 --> 00:23:56,559

patience for your

469

00:24:00,230 --> 00:23:59,039

work for everything

470

00:24:15,350 --> 00:24:00,240

we enjoy

471

00:24:20,149 --> 00:24:17,750

like we are one happy shuttle crew and

472

00:24:21,269 --> 00:24:20,159

we are happy because of all of your

473

00:24:22,870 --> 00:24:21,279

effort too

474

00:24:25,190 --> 00:24:22,880

i think through our entire dock time

475

00:24:26,789 --> 00:24:25,200

frame here we were a 12-person crew that

476

00:24:28,630 --> 00:24:26,799

operated together

477

00:24:31,029 --> 00:24:28,640

and that was the only way that we got

478

00:24:32,710 --> 00:24:31,039

everything done and got mrm installed

479

00:24:33,510 --> 00:24:32,720

and got the ebas done

480

00:24:36,710 --> 00:24:33,520

so

481

00:24:39,190 --> 00:24:36,720

we are happy but this one is to

482

00:24:40,149 --> 00:24:39,200

friends we're going to leave behind

483

00:24:41,830 --> 00:24:40,159

and

484

00:24:43,669 --> 00:24:41,840

new friends that we've made close

485

00:24:47,190 --> 00:24:43,679

friends my friend

486

00:24:48,789 --> 00:24:47,200

we've had a great time together and tj

487

00:24:49,990 --> 00:24:48,799

will be home soon two weeks you'll be

488

00:24:54,230 --> 00:24:50,000

home soon

489

00:24:58,310 --> 00:24:56,230

all righty we're going to close the hat

490

00:24:59,750 --> 00:24:58,320

shortly and we're going to depart and of

491

00:25:02,070 --> 00:24:59,760

course as always it'll be a little bit

492

00:26:00,310 --> 00:25:02,080

sad but we'll see you all on the surface

493

00:26:03,350 --> 00:26:01,750

once again this is a view from inside

494

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

the orbited docking orbiter docking

495

00:26:07,510 --> 00:26:06,000

system ring inside atlantis

496

00:26:09,029 --> 00:26:07,520

payload bay that is connected to the

497

00:26:11,830 --> 00:26:09,039

station at this point in time you will

498

00:26:13,430 --> 00:26:11,840

see the image change every few seconds

499

00:26:15,510 --> 00:26:13,440

this is because we're getting sequential

500

00:26:17,990 --> 00:26:15,520

still video which is a low data rate

501  
00:26:19,669 --> 00:26:18,000  
video it just changes every

502  
00:26:22,070 --> 00:26:19,679  
couple of seconds

503  
00:26:23,750 --> 00:26:22,080  
but it does indeed give us a view of the

504  
00:26:25,510 --> 00:26:23,760  
undocking coming up in about three

505  
00:26:27,350 --> 00:26:25,520  
minutes

506  
00:26:29,990 --> 00:26:27,360  
atlanta is now bidding farewell to the

507  
00:26:32,230 --> 00:26:30,000  
international space station this shuttle

508  
00:26:33,750 --> 00:26:32,240  
has served as an important

509  
00:26:35,350 --> 00:26:33,760  
tool in the construction and the

510  
00:26:37,750 --> 00:26:35,360  
assembly sequence of the international

511  
00:26:40,070 --> 00:26:37,760  
space station atlantis delivered the u.s

512  
00:26:42,789 --> 00:26:40,080  
destiny laboratory back in 2001 also the

513  
00:26:44,630 --> 00:26:42,799

quest airlock in that same year

514

00:26:46,230 --> 00:26:44,640

it has delivered several of the trust

515

00:26:48,549 --> 00:26:46,240

segments of the station

516

00:26:50,310 --> 00:26:48,559

the columbus laboratory

517

00:26:52,149 --> 00:26:50,320

and of course the ross fed module the

518

00:26:53,830 --> 00:26:52,159

brand new piece that it delivered on

519

00:26:55,190 --> 00:26:53,840

this mission

520

00:26:56,549 --> 00:26:55,200

five feet away from the station you're

521

00:26:58,230 --> 00:26:56,559

getting a good view of pressurized

522

00:26:59,510 --> 00:26:58,240

mating adapter number two there that is

523

00:27:00,950 --> 00:26:59,520

the center

524

00:27:02,789 --> 00:27:00,960

dark section there on the end of the

525

00:27:26,950 --> 00:27:02,799

harmony node

526  
00:27:31,669 --> 00:27:29,269  
the shuttle is now 506 feet away from

527  
00:27:33,470 --> 00:27:31,679  
the international space station

528  
00:27:35,750 --> 00:27:33,480  
this fly around is continuing with

529  
00:27:49,750 --> 00:27:35,760  
sts-132 pilot tony antonelli at the

530  
00:27:53,909 --> 00:27:51,430  
antonelli is uh

531  
00:27:55,750 --> 00:27:53,919  
flying atlantis

532  
00:27:57,830 --> 00:27:55,760  
up over the first quadrant of this

533  
00:28:00,630 --> 00:27:57,840  
entire circle that uh he will steer

534  
00:28:06,789 --> 00:28:02,470  
he's completed about the first 40

535  
00:28:11,190 --> 00:28:08,789  
it's a view from inside atlantis orbiter

536  
00:28:12,630 --> 00:28:11,200  
docking system looking back at

537  
00:28:16,549 --> 00:28:12,640  
the former home of the shuttle

538  
00:28:18,070 --> 00:28:16,559

pressurized mating adapter number two

539

00:28:20,149 --> 00:28:18,080

there on the left you can see the

540

00:28:22,070 --> 00:28:20,159

columbus laboratory there on the right

541

00:28:28,630 --> 00:28:22,080

very obvious is the kibo laboratory with

542

00:28:32,470 --> 00:28:30,710

there's a view of atlantis with its open

543

00:28:34,310 --> 00:28:32,480

payload bay doors down inside is the

544

00:28:35,990 --> 00:28:34,320

integrated cargo carrier

545

00:28:37,909 --> 00:28:36,000

the only piece that atlantis is bringing

546

00:28:39,590 --> 00:28:37,919

back home the old batteries that the

547

00:28:41,269 --> 00:28:39,600

crew swapped out during

548

00:28:44,149 --> 00:28:41,279

two of the spacewalks of this mission

549

00:28:45,909 --> 00:28:44,159

are on the backside of it

550

00:28:47,909 --> 00:28:45,919

the robotic arm there extended out over

551  
00:28:49,590 --> 00:28:47,919  
atlantis's left side with the orbiter

552  
00:28:51,269 --> 00:28:49,600  
boom sensor system

553  
00:29:03,669 --> 00:28:51,279  
still attached to it crossed back over

554  
00:29:07,430 --> 00:29:05,750  
the pacific ocean down underneath both

555  
00:29:12,230 --> 00:29:07,440  
atlantis and the station at this point

556  
00:29:14,070 --> 00:29:12,240  
in time the two vehicles are 212 miles

557  
00:29:15,590 --> 00:29:14,080  
continuing to pass to the northeast

558  
00:29:22,549 --> 00:29:15,600  
they're approaching the western edge of

559  
00:29:26,870 --> 00:29:24,710  
there you can see the progress

560  
00:29:28,310 --> 00:29:26,880  
37

561  
00:29:31,430 --> 00:29:28,320  
that is currently docked with the piers

562  
00:29:35,430 --> 00:29:33,510  
at the very back toward the lower center

563  
00:29:38,549 --> 00:29:35,440

part of your screen you can see the

564

00:29:40,230 --> 00:29:38,559

soyuz tma-17

565

00:29:42,070 --> 00:29:40,240

and then there on the right is the brand

566

00:29:43,430 --> 00:29:42,080

new rossvet module which is now attached

567

00:29:45,029 --> 00:29:43,440

to zarya

568

00:29:46,230 --> 00:29:45,039

that of course came up with atlantis

569

00:29:48,470 --> 00:29:46,240

during this mission and the crew

570

00:29:49,510 --> 00:29:48,480

installed it

571

00:29:56,549 --> 00:29:49,520

as they were docked with the

572

00:29:59,909 --> 00:29:57,909

there you can see the entire

573

00:30:01,750 --> 00:29:59,919

international space station complex

574

00:30:03,669 --> 00:30:01,760

there if you look at the top

575

00:30:34,470 --> 00:30:03,679

atlanta is currently casting a shadow on

576

00:30:39,950 --> 00:30:36,389

the team here confirming that the fly

577

00:30:46,950 --> 00:30:42,630

sts-132 pilot tony antonelli now at the

578

00:30:51,669 --> 00:30:49,269

he will begin to fly atlantis around the

579

00:30:53,909 --> 00:30:51,679

entire circle of the international space

580

00:30:56,389 --> 00:30:53,919

station the two vehicles

581

00:30:58,070 --> 00:30:56,399

are currently out over the pacific ocean

582

00:31:00,389 --> 00:30:58,080

they are bearing down on the western

583

00:31:01,590 --> 00:31:00,399

edge of mexico here in a few minutes

584

00:31:17,029 --> 00:31:01,600

and they'll be crossing over north

585

00:31:21,350 --> 00:31:18,310

space shuttle atlantis and the

586

00:31:23,470 --> 00:31:21,360

international space station they're

587

00:31:28,149 --> 00:31:23,480

staring each other down at a distance of

588

00:31:32,230 --> 00:31:30,389

once again pilot tony antonelli at the

589

00:31:34,310 --> 00:31:32,240

controls of atlantis beginning this fly

590

00:31:37,509 --> 00:31:34,320

around procedure

591

00:31:39,269 --> 00:31:37,519

the first rays of sunshine there

592

00:31:41,190 --> 00:31:39,279

hitting the upper atmosphere of the

593

00:31:59,990 --> 00:31:41,200

earth as the station and the shuttle

594

00:32:02,630 --> 00:32:01,269

if you look very closely you can see

595

00:32:04,549 --> 00:32:02,640

some of the jets

596

00:32:08,950 --> 00:32:04,559

at the back of atlantis

597

00:32:13,669 --> 00:32:12,230

if this sts-132 fly does indeed turn out

598

00:32:15,110 --> 00:32:13,679

to be atlantis's

599

00:32:16,630 --> 00:32:15,120

final mission

600

00:32:19,350 --> 00:32:16,640

this will be the last time that we

601  
00:32:21,430 --> 00:32:19,360  
actually get to see a full shot of the

602  
00:32:30,149 --> 00:32:21,440  
shuttle up in space from the space

603  
00:32:34,230 --> 00:32:32,070  
atlanta is now outside of 600 feet away

604  
00:32:36,470 --> 00:32:34,240  
from the station this

605  
00:32:39,190 --> 00:32:36,480  
360 degree maneuver

606  
00:32:46,950 --> 00:32:39,200  
with sts-132 pilot tony antonelli at the

607  
00:32:50,070 --> 00:32:48,310  
this is mission control houston the

608  
00:32:51,269 --> 00:32:50,080  
western edge of mexico coming into view

609  
00:32:54,149 --> 00:32:51,279  
now

610  
00:32:55,750 --> 00:32:54,159  
the station in the shuttle 213 miles

611  
00:32:57,590 --> 00:32:55,760  
above the earth they're passing directly

612  
00:33:01,830 --> 00:32:57,600  
in between mazatlan

613  
00:33:39,590 --> 00:33:04,950

it's a fairly cloudless day there

614

00:33:46,230 --> 00:33:41,830

and land is now 650 feet away from the

615

00:33:52,310 --> 00:33:48,070

a shuttle passing over the russian

616

00:33:58,630 --> 00:33:54,870

the two spacecraft just crossing the uh

617

00:34:04,830 --> 00:34:01,350

passing over the cities of uvalde

618

00:34:10,470 --> 00:34:07,669

colleen it'll go over corsicana right

619

00:34:11,750 --> 00:34:10,480

there on interstate 45

620

00:35:22,069 --> 00:34:11,760

and then cross right in the middle of

621

00:35:26,390 --> 00:35:24,230

now 684 feet away from the station

622

00:35:28,870 --> 00:35:26,400

atlantis continuing to perform this fly

623

00:35:31,190 --> 00:35:28,880

around maneuver with sts-132 pilot tony

624

00:35:34,790 --> 00:35:31,200

antonelli at the controls from the

625

00:35:39,510 --> 00:35:37,030

the two spacecraft just passing from

626

00:35:41,589 --> 00:35:39,520

texas into arkansas

627

00:35:46,870 --> 00:35:41,599

going over hot springs at this point in

628

00:35:51,030 --> 00:35:49,030

they will cross the very southeastern

629

00:35:53,430 --> 00:35:51,040

tip of missouri

630

00:37:51,270 --> 00:35:53,440

and then head over parts of kentucky and

631

00:37:51,280 --> 00:37:58,150

atlantis houston for peers and cgba

632

00:38:02,150 --> 00:38:00,150

go ahead it appears that time you just

633

00:38:03,829 --> 00:38:02,160

called down to us for cgba was about 12

634

00:38:05,670 --> 00:38:03,839

hours ago we're wondering did you read

635

00:38:07,349 --> 00:38:05,680

that value off of the card from earlier

636

00:38:13,190 --> 00:38:07,359

today or is that a fresh read from

637

00:38:18,470 --> 00:38:14,870

oh hold on when i thought i got off my

638

00:38:20,470 --> 00:38:18,480

watch 8 23 30 right

639

00:38:22,470 --> 00:38:20,480

yeah the time you read was eight eleven

640

00:38:24,150 --> 00:38:22,480

thirty seven

641

00:38:26,790 --> 00:38:24,160

apologize uh