



1
00:00:07,249 --> 00:00:02,990
Atlantis ISS this is Houston are you

2
00:00:10,850 --> 00:00:07,259
ready for the event we're ready for the

3
00:00:13,520 --> 00:00:10,860
event g 0 cpo this is Mission Control

4
00:00:18,800 --> 00:00:13,530
Houston please call it Atlantis ISS for a

5
00:00:20,810 --> 00:00:18,810
voice check Atlantis is s this is

6
00:00:26,210 --> 00:00:20,820
Johnson Space Center PA oh how do you

7
00:00:27,019 --> 00:00:26,220
hear me hello Johnson seabeam are we

8
00:00:35,090 --> 00:00:27,029
have you loud and clear on the

9
00:00:36,650 --> 00:00:35,100
International Space Station good morning

10
00:00:38,270 --> 00:00:36,660
this is Eric Berger with Houston

11
00:00:41,000 --> 00:00:38,280
Chronicle congratulations on such a

12
00:00:43,880 --> 00:00:41,010
great mission so far there's been a lot

13
00:00:45,229 --> 00:00:43,890

of talk about first or excuse me last

14

00:00:48,200 --> 00:00:45,239

during this flooding I want to ask about

15

00:00:50,000 --> 00:00:48,210

it first specifically do any of the crew

16

00:00:52,340 --> 00:00:50,010

members of Atlanta's plan to stick

17

00:00:54,350 --> 00:00:52,350

around with NASA to fly on the MPCV or

18

00:01:05,690 --> 00:00:54,360

is that something that is a bit too far

19

00:01:07,760 --> 00:01:05,700

in the future thank you well I think if

20

00:01:09,289 --> 00:01:07,770

you asked any one of us we would love a

21

00:01:12,350 --> 00:01:09,299

shot up flying another vehicle so

22

00:01:13,910 --> 00:01:12,360

definitely you know and we've got

23

00:01:16,310 --> 00:01:13,920

opportunities prior to that you know

24

00:01:18,710 --> 00:01:16,320

we've got multiple flights to the

25

00:01:20,899 --> 00:01:18,720

International Space Station you know we

26

00:01:23,480 --> 00:01:20,909

were going to crew this beautiful

27

00:01:25,340 --> 00:01:23,490

complex for the next ten years plus so

28

00:01:28,100 --> 00:01:25,350

there's plenty of opportunities to fly

29

00:01:29,990 --> 00:01:28,110

and I don't see any reason why not stay

30

00:01:34,640 --> 00:01:30,000

and see what happens it's a real bright

31

00:01:36,830 --> 00:01:34,650

future good morning Ted Oberg from

32

00:01:40,999 --> 00:01:36,840

channel 13 here in Houston great to talk

33

00:01:43,490 --> 00:01:41,009

with you guys I'm curious what have you

34

00:01:45,620 --> 00:01:43,500

done in your downtime on this mission to

35

00:01:47,840 --> 00:01:45,630

make sure that you capture some of these

36

00:01:49,940 --> 00:01:47,850

last moments but what things have you

37

00:01:52,160 --> 00:01:49,950

made sure you saw out the windows or

38

00:01:53,210 --> 00:01:52,170

done with the shuttle to tell us a

39

00:01:59,260 --> 00:01:53,220

little bit about how you've spent your

40

00:02:05,960 --> 00:02:03,140

now what well for me and I had a chance

41

00:02:07,940 --> 00:02:05,970

to look out the without the cupola which

42

00:02:09,560 --> 00:02:07,950

is a great window and we can see the

43

00:02:10,820 --> 00:02:09,570

Aurora Australis the Southern Lights we

44

00:02:13,040 --> 00:02:10,830

all kind of crowded around and got to

45

00:02:14,930 --> 00:02:13,050

see that and just savoring every minute

46

00:02:17,360 --> 00:02:14,940

of floating in space and then once in a

47

00:02:18,350 --> 00:02:17,370

while when you're on Atlantis when at

48

00:02:19,610 --> 00:02:18,360

the end of the day you kind of look

49

00:02:21,770 --> 00:02:19,620

around the mid-deck and think of all the

50

00:02:24,080 --> 00:02:21,780

guys and women who were there before you

51
00:02:25,460 --> 00:02:24,090
and who had a had a part in space

52
00:02:27,380 --> 00:02:25,470
program and you think wow this is that

53
00:02:30,410 --> 00:02:27,390
this is the last flight so it does cross

54
00:02:32,570 --> 00:02:30,420
your mind once in a while good morning

55
00:02:34,730 --> 00:02:32,580
this is John dialing with Fox 26 here in

56
00:02:36,500 --> 00:02:34,740
Houston also and I'm passing along a

57
00:02:38,630 --> 00:02:36,510
question from one of our viewers she

58
00:02:40,730 --> 00:02:38,640
wants to know what would the astronauts

59
00:02:42,470 --> 00:02:40,740
be able to take from the last trip and

60
00:02:52,310 --> 00:02:42,480
will you have a job when you get back on

61
00:02:53,930 --> 00:02:52,320
earth oh absolutely you know Johnson

62
00:02:55,310 --> 00:02:53,940
Space Center although we're reaching the

63
00:02:57,470 --> 00:02:55,320

end of the space shuttle program is

64

00:02:59,480 --> 00:02:57,480

still a vibrant place to work there'll

65

00:03:01,190 --> 00:02:59,490

be a transitional period here as we hand

66

00:03:02,390 --> 00:03:01,200

over a lot of the responsibilities for

67

00:03:04,699 --> 00:03:02,400

going to low-earth orbit to our

68

00:03:06,710 --> 00:03:04,709

commercial providers but this is an

69

00:03:09,140 --> 00:03:06,720

opportunity for us to look beyond

70

00:03:11,570 --> 00:03:09,150

low-earth orbit and but perhaps back to

71

00:03:12,830 --> 00:03:11,580

the moon or to an asteroid where we'd

72

00:03:18,080 --> 00:03:12,840

like to travel too soon so there'll be

73

00:03:20,660 --> 00:03:18,090

plenty of work in the Houston area good

74

00:03:23,930 --> 00:03:20,670

morning mark carro from aviation week

75

00:03:26,030 --> 00:03:23,940

and my questions for Sandy could you

76

00:03:28,759 --> 00:03:26,040

describe for us the the pace of the

77

00:03:30,770 --> 00:03:28,769

activities the past week and just what

78

00:03:36,410 --> 00:03:30,780

it will take to wrap up the reefs tub

79

00:03:40,280 --> 00:03:36,420

before un doc thanks well mark the pace

80

00:03:42,890 --> 00:03:40,290

has been very very busy busy busy of

81

00:03:44,600 --> 00:03:42,900

just right when we hit orbit doing post

82

00:03:46,040 --> 00:03:44,610

insertion with four people was really

83

00:03:48,290 --> 00:03:46,050

challenging we were working really hard

84

00:03:49,940 --> 00:03:48,300

right up to bed time we got head a

85

00:03:51,710 --> 00:03:49,950

little bit on flight day too but since

86

00:03:54,290 --> 00:03:51,720

we docked a station we've been working

87

00:03:56,360 --> 00:03:54,300

quite a bit I think we're getting ahead

88

00:03:57,830 --> 00:03:56,370

now so hopefully the rest of the pace of

89

00:03:59,270 --> 00:03:57,840

the mission will slow down a bit and we

90

00:04:00,800 --> 00:03:59,280

can actually savor the moment a little

91

00:04:05,030 --> 00:04:00,810

bit more than we've been able to until

92

00:04:07,129 --> 00:04:05,040

now hi morning since Denise Chow its

93

00:04:09,470 --> 00:04:07,139

face calm my questions for commander

94

00:04:11,450 --> 00:04:09,480

Chris Ferguson having the opportunity to

95

00:04:13,100 --> 00:04:11,460

fly in space and spend time on the ISS

96

00:04:15,680 --> 00:04:13,110

you and your crewmates have unique

97

00:04:17,960 --> 00:04:15,690

perspective of our planet and for those

98

00:04:19,640 --> 00:04:17,970

of us on on earth I was wondering what

99

00:04:21,800 --> 00:04:19,650

message you have for why it's important

100

00:04:23,180 --> 00:04:21,810

to continue exploration particularly

101
00:04:28,460 --> 00:04:23,190
manned exploration beyond low Earth

102
00:04:30,530 --> 00:04:28,470
orbit yeah well I'll tell you first of

103
00:04:32,030 --> 00:04:30,540
all you really don't get a firm

104
00:04:33,830 --> 00:04:32,040
appreciation but just what a fantastic

105
00:04:35,360 --> 00:04:33,840
place it is until you've had an

106
00:04:38,090 --> 00:04:35,370
opportunity to look out of the cupola

107
00:04:40,340 --> 00:04:38,100
just over the last couple nights we've

108
00:04:42,370 --> 00:04:40,350
had some incredibly dramatic passes that

109
00:04:47,240 --> 00:04:42,380
have that showed the the southern lights

110
00:04:48,950 --> 00:04:47,250
just a vibrant green color and there was

111
00:04:50,990 --> 00:04:48,960
a tremendous picture taken last night

112
00:04:53,000 --> 00:04:51,000
with a silhouette of the International

113
00:04:55,220 --> 00:04:53,010

Space Station and the space shuttle in

114

00:04:57,560 --> 00:04:55,230

the background and there is a I'll tell

115

00:04:59,300 --> 00:04:57,570

you there's a little part of everybody

116

00:05:01,040 --> 00:04:59,310

who looks at something like that and

117

00:05:03,440 --> 00:05:01,050

says I cannot believe we're here this is

118

00:05:05,810 --> 00:05:03,450

absolutely fantastic we absolutely must

119

00:05:07,730 --> 00:05:05,820

continue this and we must go beyond and

120

00:05:09,860 --> 00:05:07,740

we must go back to lunar orbit and

121

00:05:11,540 --> 00:05:09,870

perhaps to an asteroid we need to

122

00:05:13,790 --> 00:05:11,550

continue pushing on we need to press

123

00:05:15,440 --> 00:05:13,800

technology and you know humans are

124

00:05:19,550 --> 00:05:15,450

destined to explore and this is what we

125

00:05:22,550 --> 00:05:19,560

do and we need to continue genus and

126

00:05:24,140 --> 00:05:22,560

Sarah ABC news from mike fossum mike we

127

00:05:27,350 --> 00:05:24,150

thought we heard you trying to whistle

128

00:05:28,760 --> 00:05:27,360

before your spacewalk on Tuesday tell me

129

00:05:30,440 --> 00:05:28,770

a little bit about that and why you

130

00:05:32,210 --> 00:05:30,450

couldn't whistle and then when you're

131

00:05:39,920 --> 00:05:32,220

done I'd like you to whistle a tune for

132

00:05:44,210 --> 00:05:39,930

me I'll pass the second happier question

133

00:05:45,590 --> 00:05:44,220

to my a spacewalk buddy Ron Garan we run

134

00:05:46,880 --> 00:05:45,600

and I were both doing a little whistling

135

00:05:49,250 --> 00:05:46,890

in the airlock it's just one of the

136

00:05:51,230 --> 00:05:49,260

strange phenomena whereas the pressure

137

00:05:53,330 --> 00:05:51,240

is dropping in the airlock our suit is

138

00:05:55,670 --> 00:05:53,340

just you know a little over four pounds

139

00:05:57,830 --> 00:05:55,680

of pressure and once this air pressure

140

00:06:00,200 --> 00:05:57,840

inside the airlock goes down close or

141

00:06:01,910 --> 00:06:00,210

goes down to zero then your overall

142

00:06:03,530 --> 00:06:01,920

pressures down low and I think it has to

143

00:06:06,770 --> 00:06:03,540

do with the air the density of the air

144

00:06:10,340 --> 00:06:06,780

but I really can't explain a lot about

145

00:06:12,830 --> 00:06:10,350

the probably the the resonant frequency

146

00:06:14,480 --> 00:06:12,840

of the one of the cavity of your mouth

147

00:06:16,490 --> 00:06:14,490

as you are blowing the air through it

148

00:06:20,440 --> 00:06:16,500

like that and so it's kind of

149

00:06:22,940 --> 00:06:20,450

interesting nobody we can all whistle

150

00:06:24,860 --> 00:06:22,950

you know in normal and Ronald through

151

00:06:26,540 --> 00:06:24,870

the tune but

152

00:06:30,200 --> 00:06:26,550

it's one of the things that you can

153

00:06:32,030 --> 00:06:30,210

physically use to just take a look and

154

00:06:33,740 --> 00:06:32,040

appreciate the fact that things are

155

00:06:36,140 --> 00:06:33,750

changing you can feel the air that

156

00:06:37,700 --> 00:06:36,150

you're breathing in is different it's

157

00:06:40,040 --> 00:06:37,710

the lower density and you can tell that

158

00:06:42,230 --> 00:06:40,050

we have a card of kind of a procedure

159

00:06:44,540 --> 00:06:42,240

card in the airlock and you can wave

160

00:06:47,600 --> 00:06:44,550

that back and forth and as you do you

161

00:06:49,190 --> 00:06:47,610

can feel less resistance on it as the

162

00:06:50,600 --> 00:06:49,200

air pressures dropping the whistling is

163

00:06:51,950 --> 00:06:50,610

just something else to have a little fun

164

00:07:05,030 --> 00:06:51,960

with what you try not to think about

165

00:07:07,340 --> 00:07:05,040

what's going on this is Jill talk

166

00:07:09,620 --> 00:07:07,350

representing Bay Area Houston magazine a

167

00:07:11,930 --> 00:07:09,630

two-part question for Fergie and Ron

168

00:07:13,400 --> 00:07:11,940

since each of you has connections to

169

00:07:15,620 --> 00:07:13,410

Pennsylvania wet personal

170

00:07:18,020 --> 00:07:15,630

earth-observing you made during your

171

00:07:19,550 --> 00:07:18,030

respective flights and Fergie have you

172

00:07:28,070 --> 00:07:19,560

seen the east coast of Australia through

173

00:07:30,530 --> 00:07:28,080

the cupola yet oh gosh Jill first of all

174

00:07:32,390 --> 00:07:30,540

how are you doing you know I wish we had

175

00:07:33,770 --> 00:07:32,400

enough time to look out the window we

176

00:07:35,450 --> 00:07:33,780

did catch a little look at the

177

00:07:37,280 --> 00:07:35,460

Philadelphia the Philadelphia New York

178

00:07:39,890 --> 00:07:37,290

I'm sorry yeah the Philadelphia New York

179

00:07:41,330 --> 00:07:39,900

area we passed over there I think it was

180

00:07:43,850 --> 00:07:41,340

the evening of flight day two and we had

181

00:07:45,620 --> 00:07:43,860

a chance to look out and have we passed

182

00:07:47,390 --> 00:07:45,630

off the east coast of Australia yes

183

00:07:48,890 --> 00:07:47,400

absolutely we have and I think that's

184

00:07:50,120 --> 00:07:48,900

one of the opportunities we have to take

185

00:07:51,680 --> 00:07:50,130

a look at the southern lights but I

186

00:07:54,020 --> 00:07:51,690

really didn't have an opportunity to do

187

00:07:55,700 --> 00:07:54,030

a whole lot of coastal searching if you

188

00:08:00,640 --> 00:07:55,710

will to find out exactly where we were

189

00:08:03,470 --> 00:08:00,650

and I'll turn it over to run well um

190

00:08:05,420 --> 00:08:03,480

sasha and andre and i have been here 101

191

00:08:08,390 --> 00:08:05,430

days today but who's counting and so

192

00:08:09,620 --> 00:08:08,400

we've we've had a lot of opportunities

193

00:08:11,150 --> 00:08:09,630

to look at the window a lot of

194

00:08:14,810 --> 00:08:11,160

opportunities to see are unbelievably

195

00:08:16,280 --> 00:08:14,820

beautiful earth and yes I've had the

196

00:08:18,410 --> 00:08:16,290

opportunity to see Pennsylvania have

197

00:08:19,790 --> 00:08:18,420

taken some pictures of one of my

198

00:08:21,860 --> 00:08:19,800

favorite places in the world where I

199

00:08:24,170 --> 00:08:21,870

spent the happiest day of my life over

200

00:08:27,050 --> 00:08:24,180

20 years ago getting married in Scranton

201
00:08:28,760 --> 00:08:27,060
Pennsylvania so I definitely has had

202
00:08:30,800 --> 00:08:28,770
some great pictures of that area of

203
00:08:32,780 --> 00:08:30,810
Pennsylvania really beautiful area of

204
00:08:34,910 --> 00:08:32,790
Pennsylvania

205
00:08:36,800 --> 00:08:34,920
hi this is Robert Pearlman with

206
00:08:38,660 --> 00:08:36,810
collectspace.com with a question for Rex

207
00:08:40,220 --> 00:08:38,670
there's a tradition among shuttle crews

208
00:08:41,950 --> 00:08:40,230
to leave their mark their mission patch

209
00:08:43,730 --> 00:08:41,960
on various walls of the space station

210
00:08:45,560 --> 00:08:43,740
can you share where you and your

211
00:08:46,880 --> 00:08:45,570
crewmates plan to leave your emblem and

212
00:08:49,730 --> 00:08:46,890
will you be adding any other

213
00:08:51,410 --> 00:08:49,740

commemorative mementos or emblems to

214

00:08:57,950 --> 00:08:51,420

signify this as the last space shuttle

215

00:09:00,620 --> 00:08:57,960

to visit the ISS yes they do have a

216

00:09:02,510 --> 00:09:00,630

place where we leave the patches and our

217

00:09:03,890 --> 00:09:02,520

stickers and we're going to leave our

218

00:09:05,450 --> 00:09:03,900

patch probably a node 1 and we should

219

00:09:07,550 --> 00:09:05,460

leave a sticker in the airlock because

220

00:09:09,590 --> 00:09:07,560

we consider ourselves one big team here

221

00:09:11,330 --> 00:09:09,600

with this shuttle in the station and we

222

00:09:12,620 --> 00:09:11,340

all executed the the spacewalk it was

223

00:09:14,720 --> 00:09:12,630

Mike and Ron the great guys who went

224

00:09:16,370 --> 00:09:14,730

outside and did that spacewalk but we

225

00:09:18,950 --> 00:09:16,380

all helped them and so we'd like to put

226

00:09:21,590 --> 00:09:18,960

one of our our mission stickers in in

227

00:09:22,970 --> 00:09:21,600

the in the airlock in regards to and

228

00:09:26,240 --> 00:09:22,980

other things that we're leaving up here

229

00:09:32,390 --> 00:09:26,250

I let further you have any other

230

00:09:34,730 --> 00:09:32,400

editions yes we do have a we have a

231

00:09:38,570 --> 00:09:34,740

special item we're going to leave behind

232

00:09:40,490 --> 00:09:38,580

in what hopefully is a very thought

233

00:09:42,110 --> 00:09:40,500

provoking and emotional farewell

234

00:09:43,610 --> 00:09:42,120

ceremony that we have is the space

235

00:09:44,870 --> 00:09:43,620

shuttle prepares to leave the

236

00:09:46,790 --> 00:09:44,880

International Space Station for the

237

00:09:48,710 --> 00:09:46,800

final time and I would just ask you to

238

00:09:50,150 --> 00:09:48,720

perhaps hold on until that moment you'll

239

00:09:53,510 --> 00:09:50,160

get a you'll get a look at what we have

240

00:09:55,910 --> 00:09:53,520

in store atlantis ISS this is Houston

241

00:09:58,400 --> 00:09:55,920

ACR that concludes questions from the

242

00:10:01,310 --> 00:09:58,410

Johnson Space Center please stand by for

243

00:10:04,340 --> 00:10:01,320

a voice check from Kennedy Space Center

244

00:10:06,610 --> 00:10:04,350

p AO Atlantis I assess this is kennedy

245

00:10:08,510 --> 00:10:06,620

space center PA oh how do you hear me

246

00:10:15,200 --> 00:10:08,520

allocate any space center we have you

247

00:10:16,460 --> 00:10:15,210

loud and clear akas een i was wondering

248

00:10:18,080 --> 00:10:16,470

if you could highlight some of the

249

00:10:20,360 --> 00:10:18,090

scientific experiments that you're

250

00:10:21,800 --> 00:10:20,370

working on on the international space

251

00:10:30,760 --> 00:10:21,810

station that you think will particularly

252

00:10:35,090 --> 00:10:33,350

but that's an excellent question you

253

00:10:36,830 --> 00:10:35,100

know we've had a permanent human

254

00:10:38,930 --> 00:10:36,840

presence on the National Space Station

255

00:10:41,390 --> 00:10:38,940

for over a decade now and over that time

256

00:10:44,030 --> 00:10:41,400

we've conducted over 600 scientific

257

00:10:45,230 --> 00:10:44,040

experiments and you know one of the one

258

00:10:47,160 --> 00:10:45,240

of the things that we're trying to do is

259

00:10:49,050 --> 00:10:47,170

to see how humans can go

260

00:10:51,540 --> 00:10:49,060

further in exploration go beyond Earth

261

00:10:53,460 --> 00:10:51,550

orbit explore our solar system but

262

00:10:55,259 --> 00:10:53,470

nearly all of the experiments that we

263

00:10:57,660 --> 00:10:55,269

conduct have a direct application on

264

00:11:00,060 --> 00:10:57,670

earth from growing crops better to

265

00:11:02,790 --> 00:11:00,070

making new materials new medicines we

266

00:11:03,930 --> 00:11:02,800

had some very significant research in

267

00:11:06,840 --> 00:11:03,940

the development of a vaccine for

268

00:11:10,199 --> 00:11:06,850

Salmonella studying our earth learning

269

00:11:12,660 --> 00:11:10,209

how the learning about the human impact

270

00:11:15,150 --> 00:11:12,670

on the environment how the inner core of

271

00:11:17,269 --> 00:11:15,160

the earth works and possibly lead to

272

00:11:21,139 --> 00:11:17,279

better ways to predict earthquakes

273

00:11:24,180 --> 00:11:21,149

better safe automobile safety better

274

00:11:26,280 --> 00:11:24,190

energy efficiency fuel efficiency so the

275

00:11:28,199 --> 00:11:26,290

list goes on and on on it's just amazing

276

00:11:30,210 --> 00:11:28,209

the research that's being conducted up

277

00:11:31,889 --> 00:11:30,220

here and that's because this is a very

278

00:11:33,480 --> 00:11:31,899

very unique environment the research

279

00:11:35,939 --> 00:11:33,490

that's being conduct up conducted up

280

00:11:37,949 --> 00:11:35,949

here simply cannot be done anywhere else

281

00:11:40,110 --> 00:11:37,959

in the world and so that's why this is

282

00:11:41,670 --> 00:11:40,120

such an important research facility and

283

00:11:46,980 --> 00:11:41,680

this is really a global asset the

284

00:11:48,900 --> 00:11:46,990

International Space Station i Ken Kramer

285

00:11:50,610 --> 00:11:48,910

from Space Flight magazine and

286

00:11:53,400 --> 00:11:50,620

rittenhouse Astronomical Society my

287

00:11:54,750 --> 00:11:53,410

question is for Kristin and your crew I

288

00:11:56,370 --> 00:11:54,760

wonder if you could tell us a little bit

289

00:11:59,030 --> 00:11:56,380

about the science that you've personally

290

00:12:01,470 --> 00:11:59,040

seen going on at the space station

291

00:12:03,900 --> 00:12:01,480

anything about the AMS can you see the

292

00:12:10,790 --> 00:12:03,910

AMS from the cupola at all and any

293

00:12:16,290 --> 00:12:12,689

absolutely we had a great opportunity

294

00:12:19,290 --> 00:12:16,300

can to see it out the window of a matter

295

00:12:22,530 --> 00:12:19,300

of fact on the first TV a the only a VA

296

00:12:24,210 --> 00:12:22,540

Ron and went out there to put another

297

00:12:25,889 --> 00:12:24,220

payload and had an opportunity to take a

298

00:12:27,210 --> 00:12:25,899

loop around it and we had a chance to

299

00:12:28,620 --> 00:12:27,220

watch them out the window so it's out

300

00:12:34,620 --> 00:12:28,630

there and we understand it's just doing

301
00:12:39,490 --> 00:12:37,240
Stephen young with spaceflight now calm

302
00:12:41,410 --> 00:12:39,500
for commander Ferguson there's a public

303
00:12:42,910 --> 00:12:41,420
perception that your flight not only

304
00:12:44,860 --> 00:12:42,920
represents the end of the shuttle

305
00:12:47,440 --> 00:12:44,870
program but the end of the u.s. manned

306
00:12:49,920 --> 00:12:47,450
space program do you have any fears at

307
00:12:52,330 --> 00:12:49,930
all that your crew might be the last

308
00:12:58,330 --> 00:12:52,340
astronauts to blast off from American

309
00:13:00,850 --> 00:12:58,340
soil well Stephen I'll tell you no doubt

310
00:13:02,920 --> 00:13:00,860
that this is a it's a very dynamic time

311
00:13:06,520 --> 00:13:02,930
in human space flight as the the space

312
00:13:09,100 --> 00:13:06,530
shuttle draws to a close without a real

313
00:13:11,260 --> 00:13:09,110

clear picture of how the next US

314

00:13:13,150 --> 00:13:11,270

astronauts will get there but rest

315

00:13:16,390 --> 00:13:13,160

assured that there are plans underway

316

00:13:20,200 --> 00:13:16,400

will be slowly transitioning to

317

00:13:21,910 --> 00:13:20,210

commercial companies and I while it's a

318

00:13:23,770 --> 00:13:21,920

little male personally disheartening to

319

00:13:25,120 --> 00:13:23,780

see the shuttle come we understand that

320

00:13:27,220 --> 00:13:25,130

you know sometimes you need to stop

321

00:13:28,750 --> 00:13:27,230

working on what you're working on so you

322

00:13:31,060 --> 00:13:28,760

can afford to pay for the next

323

00:13:32,500 --> 00:13:31,070

generation of whatever it is and in this

324

00:13:34,480 --> 00:13:32,510

case it's the next generation of

325

00:13:36,700 --> 00:13:34,490

aircraft as a matter of fact I think

326

00:13:39,100 --> 00:13:36,710

it's a unique opportunity you know just

327

00:13:40,570 --> 00:13:39,110

like the airline's did several years ago

328

00:13:43,000 --> 00:13:40,580

it was largely government-funded

329

00:13:46,030 --> 00:13:43,010

research that that made tremendous

330

00:13:47,500 --> 00:13:46,040

breakthroughs in aerospace only to hand

331

00:13:49,690 --> 00:13:47,510

it over to commercial companies in the

332

00:13:51,400 --> 00:13:49,700

form of Airlines you know the government

333

00:13:52,690 --> 00:13:51,410

has made tremendous strides and getting

334

00:13:55,240 --> 00:13:52,700

the low Earth orbit and we're going to

335

00:13:57,280 --> 00:13:55,250

hand that technology over to commercial

336

00:14:03,700 --> 00:13:57,290

providers and perhaps one day we'll have

337

00:14:06,040 --> 00:14:03,710

space line companies this is Leo Enright

338

00:14:08,560 --> 00:14:06,050

for Irish radios today with Pat Kenny

339

00:14:12,970 --> 00:14:08,570

program a lot of Europeans have flown on

340

00:14:15,790 --> 00:14:12,980

the space shuttle but sadly no Irish so

341

00:14:19,660 --> 00:14:15,800

a lot of our younger listeners will be

342

00:14:21,490 --> 00:14:19,670

worried now will they ever now have an

343

00:14:30,230 --> 00:14:21,500

opportunity to fly in space do you have

344

00:14:36,660 --> 00:14:33,750

well actually uh I'm a fair amount Irish

345

00:14:37,950 --> 00:14:36,670

and I'm up here today so you know we'll

346

00:14:40,170 --> 00:14:37,960

call that good enough for now and I

347

00:14:41,940 --> 00:14:40,180

guarantee you there'll be an Irishman

348

00:14:44,310 --> 00:14:41,950

onboard a spacecraft in the

349

00:14:45,570 --> 00:14:44,320

not-too-distant future so I don't think

350

00:14:47,280 --> 00:14:45,580

they have anything to worry about and I

351

00:14:49,710 --> 00:14:47,290

think they should if they're interested

352

00:14:52,800 --> 00:14:49,720

in spaceflight to just continue to study

353

00:14:58,710 --> 00:14:52,810

hard and you never know what would come

354

00:15:00,540 --> 00:14:58,720

next Marcia don't Associated Press with

355

00:15:03,000 --> 00:15:00,550

another question for commander Ferguson

356

00:15:05,040 --> 00:15:03,010

back in Houston you describe for me the

357

00:15:06,690 --> 00:15:05,050

overwhelming sensation that shuttle

358

00:15:08,580 --> 00:15:06,700

crews get when they pause at the base of

359

00:15:10,770 --> 00:15:08,590

the pad on launch day and look up at the

360

00:15:12,690 --> 00:15:10,780

ship I'm wondering can you tell me what

361

00:15:15,180 --> 00:15:12,700

that moment was like for you last Friday

362

00:15:20,940 --> 00:15:15,190

when you looked up at Atlantis knowing

363

00:15:24,300 --> 00:15:20,950

that's the last shuttle launch well I'll

364

00:15:26,550 --> 00:15:24,310

tell you Marcia it is that has one trip

365

00:15:28,650 --> 00:15:26,560

that every shuttle crew has to make and

366

00:15:30,390 --> 00:15:28,660

I think I speak for everyone who has

367

00:15:33,630 --> 00:15:30,400

ever flown on a space shuttle to stand

368

00:15:35,910 --> 00:15:33,640

there poised at the bottom of a living

369

00:15:37,710 --> 00:15:35,920

breathing vehicle and it's literally

370

00:15:39,210 --> 00:15:37,720

raining off the side of the external

371

00:15:41,340 --> 00:15:39,220

tank because of the condensation that

372

00:15:44,070 --> 00:15:41,350

forms from the extremely cold cryogenic

373

00:15:45,720 --> 00:15:44,080

fuels it's it's wheezing its hissing

374

00:15:47,460 --> 00:15:45,730

it's moaning you look up at it and I

375

00:15:48,990 --> 00:15:47,470

remember my first commander looked at me

376

00:15:50,970 --> 00:15:49,000

and he said do you believe they're going

377

00:15:53,940 --> 00:15:50,980

to let us take this thing into space and

378

00:15:57,390 --> 00:15:53,950

with every subsequent crew I've been on

379

00:15:59,790 --> 00:15:57,400

I've tried to share that same that same

380

00:16:02,160 --> 00:15:59,800

reflection with with my crew it's it's

381

00:16:03,630 --> 00:16:02,170

incredibly awe-inspiring and just like

382

00:16:06,000 --> 00:16:03,640

the pictures that you see the next day

383

00:16:07,890 --> 00:16:06,010

in the photograph it's just incredibly

384

00:16:09,510 --> 00:16:07,900

surreal to stand there and look up at it

385

00:16:13,830 --> 00:16:09,520

and know that in a matter of hours it's

386

00:16:16,320 --> 00:16:13,840

going to be orbiting the Earth a good

387

00:16:18,060 --> 00:16:16,330

morning Peter King with CBS News Radio

388

00:16:20,490 --> 00:16:18,070

this is for Ron Garan have enjoyed

389

00:16:21,900 --> 00:16:20,500

following your tweets I'm wondering

390

00:16:23,460 --> 00:16:21,910

since you're staying behind what's the

391

00:16:25,290 --> 00:16:23,470

best place on station to watch the

392

00:16:30,980 --> 00:16:25,300

undocking and fly around and do you

393

00:16:35,190 --> 00:16:33,990

well we're going to do something a

394

00:16:36,240 --> 00:16:35,200

little different this time our fly

395

00:16:39,090 --> 00:16:36,250

around is going to be a little different

396

00:16:41,100 --> 00:16:39,100

so I think we're going to have some some

397

00:16:43,380 --> 00:16:41,110

probably some good views in

398

00:16:46,170 --> 00:16:43,390

the modules in the Russian segment that

399

00:16:48,090 --> 00:16:46,180

have horizon facing windows so I think

400

00:16:49,590 --> 00:16:48,100

that'll be the best bet and there's if

401
00:16:55,980 --> 00:16:49,600
there's a few of those so we'll take

402
00:16:57,630 --> 00:16:55,990
turns if there's a conflict hi it's

403
00:17:00,329 --> 00:16:57,640
James Dean from Florida today another

404
00:17:02,160 --> 00:17:00,339
question for Ron this is the last time I

405
00:17:04,039 --> 00:17:02,170
guess we'll in a very long time we'll

406
00:17:06,929 --> 00:17:04,049
see a crowd this big on the station

407
00:17:08,220 --> 00:17:06,939
although you'll continue to fly there

408
00:17:10,410 --> 00:17:08,230
for many years to come will it seemed a

409
00:17:12,000 --> 00:17:10,420
little bit smaller a little less fun

410
00:17:17,730 --> 00:17:12,010
perhaps when you don't get these

411
00:17:20,429 --> 00:17:17,740
occasional visitors well I think it will

412
00:17:24,150 --> 00:17:20,439
seem a little bit smaller actually

413
00:17:26,610 --> 00:17:24,160

because you know all the all the tons of

414

00:17:28,079 --> 00:17:26,620

cargo that have arrived from Atlantis

415

00:17:30,690 --> 00:17:28,089

have filled this place up so there's a

416

00:17:33,900 --> 00:17:30,700

there's a lot less a room for us humans

417

00:17:35,789 --> 00:17:33,910

so but that that is really really

418

00:17:38,430 --> 00:17:35,799

important because you know we are

419

00:17:41,100 --> 00:17:38,440

outfitting this station to function for

420

00:17:42,690 --> 00:17:41,110

the rest of the decade and Atlanta says

421

00:17:45,180 --> 00:17:42,700

has really set us on the pace we're

422

00:17:46,890 --> 00:17:45,190

doing that so and we aren't we're going

423

00:17:49,080 --> 00:17:46,900

to miss these guys a lot it's it's been

424

00:17:51,090 --> 00:17:49,090

really wonderful having them up here it

425

00:17:53,610 --> 00:17:51,100

is it is nice to have visitors and

426

00:17:56,250 --> 00:17:53,620

especially great visitors like these

427

00:17:59,700 --> 00:17:56,260

guys are and you know it'll be sad when

428

00:18:01,200 --> 00:17:59,710

when that stops but you know we're going

429

00:18:04,260 --> 00:18:01,210

to continue on this this place is

430

00:18:06,150 --> 00:18:04,270

amazing and it's going to continue to

431

00:18:08,039 --> 00:18:06,160

function continue to be utilized in

432

00:18:13,289 --> 00:18:08,049

great part because of the great mission

433

00:18:14,850 --> 00:18:13,299

so far that these guys have conducted hi

434

00:18:16,799 --> 00:18:14,860

it's bill Hartwick CBS News with a

435

00:18:21,510 --> 00:18:16,809

question for I think sergei volkov if i

436

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

could mr. Gaeta you've heard the u.s.

437

00:18:25,470 --> 00:18:23,530

reporters asked US astronauts about the

438

00:18:27,000 --> 00:18:25,480

end of the shuttle and what might come

439

00:18:28,500 --> 00:18:27,010

next what do you what are the Russians

440

00:18:30,419 --> 00:18:28,510

think about that when you guys talk

441

00:18:33,510 --> 00:18:30,429

about it the end of the shuttle and this

442

00:18:35,610 --> 00:18:33,520

gap that's coming up and NASA's reliance

443

00:18:41,360 --> 00:18:35,620

on Russia for transportation what do you

444

00:18:46,740 --> 00:18:45,330

for us it's also versed that no more

445

00:18:49,020 --> 00:18:46,750

shuttles will appear on board the

446

00:18:50,820 --> 00:18:49,030

station because thanks to this brilliant

447

00:18:55,980 --> 00:18:50,830

machine we were able to build this

448

00:19:00,570 --> 00:18:55,990

station so big and ready to have

449

00:19:03,990 --> 00:19:00,580

six-person crew of course we we would

450

00:19:07,800 --> 00:19:04,000

like to continue to fly with our friends

451

00:19:14,880 --> 00:19:07,810

and sales are ready to continue this

452

00:19:17,520 --> 00:19:14,890

exploration of space on low orbits David

453

00:19:19,110 --> 00:19:17,530

waters from space flight now.com at the

454

00:19:21,270 --> 00:19:19,120

beginning of the shuttle program it was

455

00:19:22,710 --> 00:19:21,280

john young and bob crippen that was one

456

00:19:24,570 --> 00:19:22,720

end of the bookend you're the last

457

00:19:26,070 --> 00:19:24,580

shuttle crew to go up kind of book end

458

00:19:27,900 --> 00:19:26,080

this for us and tell us for people

459

00:19:29,580 --> 00:19:27,910

listening to this how you want people to

460

00:19:38,640 --> 00:19:29,590

look back at the shuttle program that

461

00:19:41,130 --> 00:19:38,650

one for Chris Ferguson please well you

462

00:19:55,389 --> 00:19:41,140

know the shuttle is a several milestones

463

00:19:59,859 --> 00:19:58,450

they have to they have to live it

464

00:20:01,389 --> 00:19:59,869

through the pictures and the images and

465

00:20:03,219 --> 00:20:01,399

the story is that the astronauts bring

466

00:20:05,049 --> 00:20:03,229

home they don't get to see it and touch

467

00:20:09,180 --> 00:20:05,059

it and feel it like we do vehicles that

468

00:20:11,469 --> 00:20:09,190

go up and down like the space shuttle so

469

00:20:14,680 --> 00:20:11,479

you know it's it's a it's a sobering

470

00:20:16,509 --> 00:20:14,690

moment it's a but at the same time we're

471

00:20:19,389 --> 00:20:16,519

incredibly overjoyed to just have had

472

00:20:21,039 --> 00:20:19,399

the space shuttle for 30 years and to

473

00:20:23,349 --> 00:20:21,049

know that you know we had this ability

474

00:20:24,820 --> 00:20:23,359

to go to low-earth orbit and we're so

475

00:20:26,919 --> 00:20:24,830

much more comfortable here than we were

476

00:20:29,289 --> 00:20:26,929

just a short time ago and we hope that

477

00:20:33,639 --> 00:20:29,299

that continues on to our commercial

478

00:20:35,139 --> 00:20:33,649

spaceflight partners and Chris I'm so

479

00:20:37,419 --> 00:20:35,149

sorry to do this to you but we lost your

480

00:20:39,159 --> 00:20:37,429

video downlink for the first 30 seconds

481

00:20:40,930 --> 00:20:39,169

of that answer so if you could just

482

00:20:42,909 --> 00:20:40,940

start that part again and just tell us

483

00:20:44,289 --> 00:20:42,919

when we look back at the 30 years of

484

00:20:46,029 --> 00:20:44,299

these I thought I was he didn't like my

485

00:20:48,430 --> 00:20:46,039

question but anyway when we look back

486

00:20:50,469 --> 00:20:48,440

when we look back at the 30 years of the

487

00:20:55,379 --> 00:20:50,479

space shuttle program what do you want

488

00:21:01,079 --> 00:20:58,269

well yet we don't have the fade to black

489

00:21:03,339 --> 00:21:01,089

switch up here I wish we did sometimes

490

00:21:06,009 --> 00:21:03,349

but you know of course we have the

491

00:21:08,349 --> 00:21:06,019

International Space Station to to look

492

00:21:09,609 --> 00:21:08,359

back upon if it weren't for the four for

493

00:21:11,049 --> 00:21:09,619

the Space Shuttle the station wouldn't

494

00:21:12,999 --> 00:21:11,059

be here and certainly wouldn't be as

495

00:21:14,680 --> 00:21:13,009

large as it is it's that that large

496

00:21:17,560 --> 00:21:14,690

payload bay that's in the space shuttle

497

00:21:19,599 --> 00:21:17,570

that allows the the large diameter that

498

00:21:21,489 --> 00:21:19,609

you see around us it allows us to sit

499

00:21:22,899 --> 00:21:21,499

five across in here if it wasn't for the

500

00:21:25,119 --> 00:21:22,909

space shuttle we wouldn't be doing

501
00:21:26,799 --> 00:21:25,129
anything like that of course there's

502
00:21:27,999 --> 00:21:26,809
also the tremendous observatories that

503
00:21:30,549 --> 00:21:28,009
the shuttle is launched throughout its

504
00:21:33,159 --> 00:21:30,559
years Hubble Space Telescope Compton

505
00:21:35,889 --> 00:21:33,169
gamma ray the Chandra x-ray Space

506
00:21:38,680 --> 00:21:35,899
Telescope plus the Space Shuttle has

507
00:21:40,810 --> 00:21:38,690
really it's it's I don't say we have

508
00:21:43,299 --> 00:21:40,820
command of low-earth orbit we're so much

509
00:21:44,829 --> 00:21:43,309
more comfortable here you living and

510
00:21:47,249 --> 00:21:44,839
working day in and day out and we'll

511
00:21:49,539 --> 00:21:47,259
look back at the Space Shuttle as a

512
00:21:52,629 --> 00:21:49,549
vehicle that just give us regular access

513
00:21:54,999 --> 00:21:52,639

and it opened up low-earth orbit so that

514

00:21:57,909 --> 00:21:55,009

we can go beyond and we can learn how to

515

00:22:03,789 --> 00:21:57,919

live in areas perhaps in lunar orbit

516

00:22:06,159 --> 00:22:03,799

lunar surface or on an asteroid Atlantis

517

00:22:08,079 --> 00:22:06,169

ISS this is Houston ACR that concludes

518

00:22:09,520 --> 00:22:08,089

questions from the Kennedy Space Center

519

00:22:16,780 --> 00:22:09,530

please stand by for a voice

520

00:22:18,550 --> 00:22:16,790

check from NASA headquarters PA OU des

521

00:22:24,340 --> 00:22:18,560

mannes diocese this is NASA headquarters

522

00:22:25,330 --> 00:22:24,350

PA oh how do you read me we have a loud

523

00:22:30,250 --> 00:22:25,340

and clear on the International Space

524

00:22:32,230 --> 00:22:30,260

Station line hi Suzanne presto from VOA

525

00:22:34,270 --> 00:22:32,240

Ron can you tell us a bit more about

526

00:22:36,070 --> 00:22:34,280

your science activities on station

527

00:22:37,510 --> 00:22:36,080

particularly any experiments you've been

528

00:22:47,650 --> 00:22:37,520

working on that will be coming back down

529

00:22:49,180 --> 00:22:47,660

on shuttle thank you well um that would

530

00:22:50,440 --> 00:22:49,190

take a long time to answer we've been we

531

00:22:52,930 --> 00:22:50,450

have been doing a lot of science on

532

00:22:55,420 --> 00:22:52,940

board and as far as i know i think the

533

00:22:57,040 --> 00:22:55,430

only well i mean there's a lot of human

534

00:23:00,580 --> 00:22:57,050

research where whether it were kind of

535

00:23:01,870 --> 00:23:00,590

the subjects and there's a lot of that

536

00:23:03,310 --> 00:23:01,880

science that's going to go down on the

537

00:23:05,980 --> 00:23:03,320

shuttle we also have some spiders on

538

00:23:08,020 --> 00:23:05,990

board right now that are being studied

539

00:23:10,180 --> 00:23:08,030

and they are going down on the shuttle

540

00:23:12,700 --> 00:23:10,190

as well but we've been conducting

541

00:23:14,730 --> 00:23:12,710

experiments fluid experiments

542

00:23:18,370 --> 00:23:14,740

approaching crystal growth experiments

543

00:23:20,200 --> 00:23:18,380

plant growth experiments experiments

544

00:23:21,640 --> 00:23:20,210

with the human body and the function of

545

00:23:23,290 --> 00:23:21,650

the human body looking at things like

546

00:23:26,560 --> 00:23:23,300

you know how to conduct combat

547

00:23:28,770 --> 00:23:26,570

osteoporosis so there's a quite a bit of

548

00:23:31,450 --> 00:23:28,780

science going on board combustion

549

00:23:33,880 --> 00:23:31,460

science we've been doing as well so we

550

00:23:35,350 --> 00:23:33,890

are we are at the at the beginning of

551

00:23:42,640 --> 00:23:35,360

full utilization of this amazing

552

00:23:45,280 --> 00:23:42,650

research facility Keith counting nest

553

00:23:47,050 --> 00:23:45,290

watch calm for us Chris Ferguson this is

554

00:23:48,280 --> 00:23:47,060

the last shuttle mission so most of you

555

00:23:50,290 --> 00:23:48,290

probably not going to just apply again

556

00:23:51,670 --> 00:23:50,300

at least not for a few years and that

557

00:23:53,200 --> 00:23:51,680

said I have to say it must be a little

558

00:23:55,000 --> 00:23:53,210

tiring for you to try and plan a career

559

00:23:56,980 --> 00:23:55,010

and stay motivated you must be like a

560

00:23:58,990 --> 00:23:56,990

tennis ball at times especially when the

561

00:24:00,430 --> 00:23:59,000

white house proposes a policy Congress

562

00:24:02,110 --> 00:24:00,440

cuts it and so forth and it goes in a

563

00:24:04,480 --> 00:24:02,120

circle and we pretty much don't go much

564

00:24:05,770 --> 00:24:04,490

of anywhere as we speak your floating

565

00:24:08,110 --> 00:24:05,780

off planet on the edge of tomorrow

566

00:24:10,090 --> 00:24:08,120

literally that certainly offers you in

567

00:24:11,980 --> 00:24:10,100

the unique perspective and the ability

568

00:24:14,380 --> 00:24:11,990

to be heard what is it that we should be

569

00:24:15,970 --> 00:24:14,390

doing really should be going to explore

570

00:24:17,380 --> 00:24:15,980

space which our policymakers in

571

00:24:19,420 --> 00:24:17,390

Washington be doing which is they

572

00:24:21,550 --> 00:24:19,430

stopped doing and I guess should be

573

00:24:22,620 --> 00:24:21,560

boldly going somewhere I just continue

574

00:24:24,510 --> 00:24:22,630

to waste time

575

00:24:25,470 --> 00:24:24,520

doing this in PowerPoint what would you

576

00:24:26,880 --> 00:24:25,480

say you're going to talk to the

577

00:24:29,010 --> 00:24:26,890

president like an hour and a half or so

578

00:24:30,990 --> 00:24:29,020

you really wanted to say one thing to

579

00:24:32,940 --> 00:24:31,000

them what is it that you would say to

580

00:24:39,270 --> 00:24:32,950

move forward the whole notion of

581

00:24:41,190 --> 00:24:39,280

exploring space for real Hey well hello

582

00:24:44,340 --> 00:24:41,200

Keith first of all and thanks for the

583

00:24:45,990 --> 00:24:44,350

question boy I'll tell you I do share a

584

00:24:48,020 --> 00:24:46,000

little bit of your frustration we've

585

00:24:50,280 --> 00:24:48,030

we've had a lot of major programs

586

00:24:54,030 --> 00:24:50,290

vibrant and very interesting programs

587

00:24:57,270 --> 00:24:54,040

come and go at NASA without coming to

588

00:24:59,250 --> 00:24:57,280

you know fruition and a lot of that is

589

00:25:01,020 --> 00:24:59,260

its politics driven a lot of it is

590

00:25:02,880 --> 00:25:01,030

funding driven a lot of it is due to

591

00:25:04,460 --> 00:25:02,890

dynamic events like for example the loss

592

00:25:06,840 --> 00:25:04,470

of Columbia these are certainly things

593

00:25:08,850 --> 00:25:06,850

you know some of them are clearly out of

594

00:25:12,300 --> 00:25:08,860

our control and to answer your question

595

00:25:16,350 --> 00:25:12,310

if there's one thing that we could do to

596

00:25:20,160 --> 00:25:16,360

focus if you will efforts it's to just

597

00:25:22,530 --> 00:25:20,170

appeal to Congress to focus on the

598

00:25:24,240 --> 00:25:22,540

long-term you know look at the horizon

599

00:25:26,850 --> 00:25:24,250

don't look one or two years in the

600

00:25:29,190 --> 00:25:26,860

future but look at ten years and see

601
00:25:30,420 --> 00:25:29,200
where you want this nation to be and I

602
00:25:31,860 --> 00:25:30,430
understand that the president has a

603
00:25:34,250 --> 00:25:31,870
space policy and I think that that's

604
00:25:36,750 --> 00:25:34,260
fantastic but we need to retain a

605
00:25:38,070 --> 00:25:36,760
coherent meaningful space policy that

606
00:25:39,450 --> 00:25:38,080
will take us more than just one or two

607
00:25:43,350 --> 00:25:39,460
years in the future that will take us

608
00:25:45,030 --> 00:25:43,360
out to 10 and 15 years you know a decade

609
00:25:47,160 --> 00:25:45,040
old plan if you will of where we want

610
00:25:49,530 --> 00:25:47,170
this nation to go in space and make it a

611
00:25:52,500 --> 00:25:49,540
law to follow it so that you know

612
00:25:54,900 --> 00:25:52,510
perhaps congressional representative

613
00:25:56,910 --> 00:25:54,910

senators presidential administrations

614

00:25:59,100 --> 00:25:56,920

are obliged to follow the policy that

615

00:26:01,230 --> 00:25:59,110

this nation set forth so we can chart

616

00:26:05,750 --> 00:26:01,240

out something that's 10 or 15 years in a

617

00:26:10,410 --> 00:26:08,970

atlantis ISS this is Houston ACR that

618

00:26:12,720 --> 00:26:10,420

concludes questions from NASA

619

00:26:14,520 --> 00:26:12,730

headquarters please stand by for a voice

620

00:26:18,960 --> 00:26:14,530

check from marshall space flight center

621

00:26:20,550 --> 00:26:18,970

PA OH atlantis ISS this is marshall

622

00:26:28,950 --> 00:26:20,560

space flight center PA oh how do you

623

00:26:32,310 --> 00:26:28,960

hear me we have you loud and clear hi my

624

00:26:33,800 --> 00:26:32,320

name is Rikki Klaus from WHNT news 19

625

00:26:35,420 --> 00:26:33,810

and I wanted to ask

626
00:26:38,870 --> 00:26:35,430
much of the world was watching as you

627
00:26:41,240 --> 00:26:38,880
guys sky rocketed into space excited you

628
00:26:43,010 --> 00:26:41,250
know loving to see you what what was

629
00:26:51,050 --> 00:26:43,020
going through your head when when that

630
00:26:52,670 --> 00:26:51,060
was happening well there's a lot of

631
00:26:54,440 --> 00:26:52,680
emotions going through your mind it's it

632
00:26:56,330 --> 00:26:54,450
the at a space shuttle launch is a very

633
00:26:58,700 --> 00:26:56,340
interesting experience it's it's kind of

634
00:27:00,050 --> 00:26:58,710
like the year in the year prior to the

635
00:27:01,610 --> 00:27:00,060
launch you're preparing for the Super

636
00:27:03,320 --> 00:27:01,620
Bowl but you don't know exactly what day

637
00:27:05,270 --> 00:27:03,330
the super bowl is so you get all

638
00:27:06,500 --> 00:27:05,280

prepared and even on the day of your

639

00:27:07,670 --> 00:27:06,510

scheduled launch you're looking at the

640

00:27:08,870 --> 00:27:07,680

weather think is are we going to go

641

00:27:11,150 --> 00:27:08,880

aren't we going to go and I'm this

642

00:27:13,040 --> 00:27:11,160

launch was no different we had a seventy

643

00:27:15,440 --> 00:27:13,050

percent chance of not going but we gotta

644

00:27:16,460 --> 00:27:15,450

prepares it for going and you walk out

645

00:27:18,470 --> 00:27:16,470

there and you look at this amazing

646

00:27:21,200 --> 00:27:18,480

vehicle on the launch pad and you just

647

00:27:22,790 --> 00:27:21,210

nothing comes in your mind but Wow and

648

00:27:24,680 --> 00:27:22,800

you get up there and strapped in and

649

00:27:26,270 --> 00:27:24,690

you're still waiting and you never know

650

00:27:27,860 --> 00:27:26,280

for sure whether you're going until at

651
00:27:29,840 --> 00:27:27,870
the last second because we had a hold at

652
00:27:32,030 --> 00:27:29,850
31 seconds and we're going to oh no now

653
00:27:33,500 --> 00:27:32,040
what and the funny thing about that is

654
00:27:35,330 --> 00:27:33,510
they picked up the count and Austin was

655
00:27:37,490 --> 00:27:35,340
like ready set go and bam we were off to

656
00:27:38,660 --> 00:27:37,500
the races and we're getting shot off the

657
00:27:41,330 --> 00:27:38,670
planet and it was just absolutely

658
00:27:43,160 --> 00:27:41,340
amazing so the whole ride up you get

659
00:27:45,440 --> 00:27:43,170
your big wide eyed and it's experiencing

660
00:27:47,240 --> 00:27:45,450
all the all the the thrill of the g's

661
00:27:52,310 --> 00:27:47,250
and also the incredible sights and

662
00:27:55,130 --> 00:27:52,320
sounds you hear with way 31 in

663
00:27:57,080 --> 00:27:55,140

Huntsville you guys are part of a very

664

00:27:58,820 --> 00:27:57,090

exclusive club on the last shuttle

665

00:28:06,880 --> 00:27:58,830

mission what are some of the moments

666

00:28:11,930 --> 00:28:09,740

well I think we're all relishing just

667

00:28:13,760 --> 00:28:11,940

the the fact that we're in space again

668

00:28:16,070 --> 00:28:13,770

we're able to float around we're here on

669

00:28:18,380 --> 00:28:16,080

the space station working with the space

670

00:28:20,870 --> 00:28:18,390

station crew just living in this

671

00:28:22,730 --> 00:28:20,880

environment and and working hard to make

672

00:28:25,160 --> 00:28:22,740

this a better place to live and to

673

00:28:27,140 --> 00:28:25,170

sustain it for the next year it really

674

00:28:30,020 --> 00:28:27,150

is special being up here and and

675

00:28:32,360 --> 00:28:30,030

whenever we're up here we just try and

676
00:28:33,500 --> 00:28:32,370
save her that as much as we can whether

677
00:28:35,420 --> 00:28:33,510
you're on your first shuttle mission

678
00:28:39,050 --> 00:28:35,430
your second shuttle mission or this the

679
00:28:41,240 --> 00:28:39,060
last shuttle mission my name is Monica

680
00:28:43,250 --> 00:28:41,250
Rick's I'm with wafs out of the rocket

681
00:28:43,700 --> 00:28:43,260
city and Sandy I've been admiring your

682
00:28:45,740 --> 00:28:43,710
hair

683
00:28:47,690 --> 00:28:45,750
all morning and this question is for you

684
00:28:51,529 --> 00:28:47,700
to you've been this is your second time

685
00:28:53,840 --> 00:28:51,539
up at the ISS tell me the changes that

686
00:28:57,019 --> 00:28:53,850
have gone through the space station and

687
00:28:59,630 --> 00:28:57,029
and how it looks now and also you've got

688
00:29:01,039 --> 00:28:59,640

six days left before you know some crew

689

00:29:06,529 --> 00:29:01,049

members leave is there anything you want

690

00:29:08,659 --> 00:29:06,539

to do before you fly back well certainly

691

00:29:10,880 --> 00:29:08,669

the space station feels a lot like home

692

00:29:12,799 --> 00:29:10,890

the minute we opened the hatch I felt

693

00:29:14,899 --> 00:29:12,809

like I never left but in the in the

694

00:29:16,909 --> 00:29:14,909

meantime that since I've been here two

695

00:29:19,909 --> 00:29:16,919

years ago several new modules have

696

00:29:22,000 --> 00:29:19,919

arrived the most enjoyable one of which

697

00:29:24,980 --> 00:29:22,010

is the cupola which is this very nice

698

00:29:28,039 --> 00:29:24,990

windowed module that we can see these

699

00:29:30,440 --> 00:29:28,049

spectacular views of the earth so almost

700

00:29:31,909 --> 00:29:30,450

after a couple hours after we docked and

701

00:29:34,760 --> 00:29:31,919

we had a break we all ran up to the

702

00:29:36,560 --> 00:29:34,770

cupola to see the view from there so the

703

00:29:38,360 --> 00:29:36,570

station and you know it's the same but

704

00:29:39,889 --> 00:29:38,370

yet it's different in some ways a lot of

705

00:29:42,019 --> 00:29:39,899

the operation is still the same these

706

00:29:44,000 --> 00:29:42,029

guys are taking great care of it as far

707

00:29:45,680 --> 00:29:44,010

as the remaining time of the mission

708

00:29:47,029 --> 00:29:45,690

we're going to finish out our transfer

709

00:29:48,680 --> 00:29:47,039

and hopefully we'll get that done a

710

00:29:51,019 --> 00:29:48,690

little bit early and we'll have some

711

00:29:52,700 --> 00:29:51,029

time to spend in the cupola at some of

712

00:29:55,159 --> 00:29:52,710

the other windows and just with our

713

00:29:57,789 --> 00:29:55,169

station colleagues and and share some

714

00:30:00,620 --> 00:29:57,799

memories before we have to leave

715

00:30:02,180 --> 00:30:00,630

Atlantis ISS this is Houston ACR that

716

00:30:03,919 --> 00:30:02,190

concludes questions from the Marshall

717

00:30:09,320 --> 00:30:03,929

Space Flight Center we will rejoin you

718

00:30:13,580 --> 00:30:09,330

after a brief calm drop out Atlantis ISS

719

00:30:15,799 --> 00:30:13,590

this is Houston ACR back with you please

720

00:30:21,769 --> 00:30:15,809

stand by for a voice check from the Ames

721

00:30:26,769 --> 00:30:21,779

Research Center lantus ISS this is Ames

722

00:30:30,799 --> 00:30:29,090

we have you loud and clear Dame's it's

723

00:30:32,510 --> 00:30:30,809

going to take us about another 30

724

00:30:42,480 --> 00:30:32,520

seconds or so to get all set in the

725

00:30:55,190 --> 00:30:44,340

that was probably the most entertaining

726

00:30:57,780 --> 00:30:55,200

thing you'll see all day so can I go

727

00:31:00,810 --> 00:30:57,790

good morning this is Bob rebell I'm with

728

00:31:03,690 --> 00:31:00,820

NBC Bay Area the home market of Rex

729

00:31:05,220 --> 00:31:03,700

Walheim so my question is for you Rex

730

00:31:07,380 --> 00:31:05,230

what are your thoughts on the shuttle

731

00:31:09,270 --> 00:31:07,390

program coming to an end what do you

732

00:31:11,910 --> 00:31:09,280

think its legacy is going to be and most

733

00:31:16,220 --> 00:31:11,920

importantly were you able to spot san

734

00:31:22,350 --> 00:31:19,590

well that's the the first one I i we did

735

00:31:24,290 --> 00:31:22,360

have a pass over California just in time

736

00:31:26,220 --> 00:31:24,300

actually as having a family conference

737

00:31:28,260 --> 00:31:26,230

family conference the only when we have

738

00:31:30,270 --> 00:31:28,270

during the mission with my wife and two

739

00:31:31,830 --> 00:31:30,280

boys and so I had a chance to to see us

740

00:31:33,060 --> 00:31:31,840

coming over California the Bay Area was

741

00:31:34,410 --> 00:31:33,070

a little bit foggy so I couldn't quite

742

00:31:37,380 --> 00:31:34,420

see San Francisco but it was spectacular

743

00:31:38,340 --> 00:31:37,390

to see the Central Valley and some of

744

00:31:40,620 --> 00:31:38,350

Southern California little bit of

745

00:31:43,350 --> 00:31:40,630

Northern California the shuttles legacy

746

00:31:45,390 --> 00:31:43,360

as far as that goes number one it it

747

00:31:47,190 --> 00:31:45,400

sent probes different planets it launch

748

00:31:49,680 --> 00:31:47,200

probes it launched great observatories

749

00:31:51,419 --> 00:31:49,690

like the Hubble Space Telescope and then

750

00:31:53,490 --> 00:31:51,429

the crown jewel of the space shuttle

751

00:31:55,110 --> 00:31:53,500

program is it helped to build this

752

00:31:56,669 --> 00:31:55,120

magnificent International Space Station

753

00:31:58,080 --> 00:31:56,679

that we're on right now it wouldn't be

754

00:32:00,150 --> 00:31:58,090

the size of the magnitude without the

755

00:32:01,680 --> 00:32:00,160

space shuttle and the spatial has had a

756

00:32:03,270 --> 00:32:01,690

storied 30-year career but what I'd like

757

00:32:04,950 --> 00:32:03,280

to think is the space shuttles legacy

758

00:32:06,780 --> 00:32:04,960

lives on Hubble will still be taking

759

00:32:07,950 --> 00:32:06,790

picture our crewmates here will still be

760

00:32:09,990 --> 00:32:07,960

doing research on the International

761

00:32:11,370 --> 00:32:10,000

Space Station and that that's all legacy

762

00:32:13,650 --> 00:32:11,380

the shuttle which will continue to live

763

00:32:15,930 --> 00:32:13,660

on and for the future I'm hoping that as

764

00:32:17,130 --> 00:32:15,940

this shuttle is retired that money that

765

00:32:19,020 --> 00:32:17,140

we would be spending on the shuttle is

766

00:32:20,760 --> 00:32:19,030

available to not only continue the

767

00:32:22,410 --> 00:32:20,770

International Space Station research but

768

00:32:23,850 --> 00:32:22,420

to go beyond we need to get back in the

769

00:32:30,080 --> 00:32:23,860

exploration business where we're going

770

00:32:34,850 --> 00:32:32,870

good morning this is matt bigler KCBS

771

00:32:36,470 --> 00:32:34,860

radio and this is a question for X or

772

00:32:38,510 --> 00:32:36,480

whoever would like to feel that and

773

00:32:40,220 --> 00:32:38,520

we're speaking to you from Silicon

774

00:32:42,409 --> 00:32:40,230

Valley the home of Google and Facebook

775

00:32:45,409 --> 00:32:42,419

and things like social media and the

776

00:32:47,000 --> 00:32:45,419

iPhone and my question is what effect do

777

00:32:49,460 --> 00:32:47,010

you think that some of these high tech

778

00:32:52,039 --> 00:32:49,470

innovations have had on America's

779

00:32:58,070 --> 00:32:52,049

interest in space travel and our ability

780

00:33:00,680 --> 00:32:58,080

to explore the final frontier well I

781

00:33:02,269 --> 00:33:00,690

think that technology is it has an

782

00:33:03,950 --> 00:33:02,279

inherent interest and people just taken

783

00:33:05,930 --> 00:33:03,960

hair and interest in it and I think

784

00:33:07,519 --> 00:33:05,940

Silicon Valley is the genesis a lot of

785

00:33:09,590 --> 00:33:07,529

the technology we use here on the space

786

00:33:12,769 --> 00:33:09,600

station so I really do think it plays a

787

00:33:14,720 --> 00:33:12,779

very important role from from from

788

00:33:16,399 --> 00:33:14,730

inspiring grade school kids to actually

789

00:33:18,620 --> 00:33:16,409

providing the science that we need to do

790

00:33:19,820 --> 00:33:18,630

our do our research here and I think

791

00:33:21,289 --> 00:33:19,830

that's going to always keep people

792

00:33:23,360 --> 00:33:21,299

curious and curiosity is a very

793

00:33:24,860 --> 00:33:23,370

important thing that you need to to be

794

00:33:26,990 --> 00:33:24,870

able to develop a space program then

795

00:33:28,580 --> 00:33:27,000

develop a good research program that can

796

00:33:34,370 --> 00:33:28,590

really pay incredible dividends here in

797

00:33:36,289 --> 00:33:34,380

space hi this is jamie with the San Jose

798

00:33:39,200 --> 00:33:36,299

Mercury News and this question is for

799

00:33:40,370 --> 00:33:39,210

Rex Walheim I was wondering what you

800

00:33:45,430 --> 00:33:40,380

felt when you found out that you're

801

00:33:49,880 --> 00:33:47,779

well I think like most of us I was very

802

00:33:53,000 --> 00:33:49,890

honored it was so great to get a chance

803

00:33:53,899 --> 00:33:53,010

to fly in space again I wasn't sure none

804

00:33:54,740 --> 00:33:53,909

of us were really sure we were ever

805

00:33:56,330 --> 00:33:54,750

going to get a chance because they had

806

00:33:58,519 --> 00:33:56,340

assigned the last mission and so we

807

00:34:00,320 --> 00:33:58,529

thought well our chance had had gone had

808

00:34:02,750 --> 00:34:00,330

gone by it's kind of like being at at

809

00:34:03,830 --> 00:34:02,760

Disneyland and the ride closed and just

810

00:34:05,870 --> 00:34:03,840

before you get to the front of the line

811

00:34:07,430 --> 00:34:05,880

but then they added a new flight and we

812

00:34:09,109 --> 00:34:07,440

were kind of getting close to the to the

813

00:34:10,550 --> 00:34:09,119

to the front and we were we were very

814

00:34:13,070 --> 00:34:10,560

very fortunate enough to be entrusted to

815

00:34:15,169 --> 00:34:13,080

fly on this mission and it was extremely

816

00:34:16,430 --> 00:34:15,179

overjoyed to get a chance to a chance to

817

00:34:20,590 --> 00:34:16,440

have come here again it's an amazing

818

00:34:26,590 --> 00:34:24,220

good morning Alan fair with k ft LTV 28

819

00:34:28,240 --> 00:34:26,600

and this also is for Rex our hometown

820

00:34:30,040 --> 00:34:28,250

representative Rex I'd like to know how

821

00:34:32,050 --> 00:34:30,050

your many contributions to the shuttle

822

00:34:34,150 --> 00:34:32,060

and the ISS programs as well as the

823

00:34:36,250 --> 00:34:34,160

magnificent views of Earth and the stars

824

00:34:38,350 --> 00:34:36,260

from your vantage point how have all

825

00:34:40,660 --> 00:34:38,360

these helped shape you as a person and

826
00:34:46,360 --> 00:34:40,670
have led you to ponder humankind's place

827
00:34:47,800 --> 00:34:46,370
in the cosmos well it is an absolutely

828
00:34:49,900 --> 00:34:47,810
amazing creation looking on the earth

829
00:34:52,780 --> 00:34:49,910
and there's just a you can't describe it

830
00:34:55,300 --> 00:34:52,790
and we are we're all trying to continue

831
00:34:56,680 --> 00:34:55,310
this exploration space and one of the

832
00:34:58,660 --> 00:34:56,690
things you want to do is make it more

833
00:35:00,670 --> 00:34:58,670
accessible to every day people to get

834
00:35:01,900 --> 00:35:00,680
everybody a chance to come in space one

835
00:35:04,420 --> 00:35:01,910
day because it changes your perspective

836
00:35:06,070 --> 00:35:04,430
look at us here we have 10 people from

837
00:35:08,320 --> 00:35:06,080
three different countries of Americans

838
00:35:09,880 --> 00:35:08,330

Russians and a Japanese astronaut and

839

00:35:11,740 --> 00:35:09,890

we're all working together we live

840

00:35:13,630 --> 00:35:11,750

together work together solve problems

841

00:35:15,550 --> 00:35:13,640

together laugh together and it's just an

842

00:35:17,440 --> 00:35:15,560

amazing camaraderie and we're one big

843

00:35:18,760 --> 00:35:17,450

team and we execute the plan as one big

844

00:35:20,590 --> 00:35:18,770

team and you look down at the earth

845

00:35:21,910 --> 00:35:20,600

that's just one big planet we're all

846

00:35:23,860 --> 00:35:21,920

done together and I think the more

847

00:35:29,710 --> 00:35:23,870

people we get up here to see that

848

00:35:31,900 --> 00:35:29,720

perspective the better off we'll be hi

849

00:35:34,510 --> 00:35:31,910

my name is Jade Hernandez I'm with KTVU

850

00:35:36,550 --> 00:35:34,520

channel 2 news the Fox affiliate my

851

00:35:39,250 --> 00:35:36,560

question is for mission specialists

852

00:35:40,720 --> 00:35:39,260

direction wollheim Rex tell me students

853

00:35:42,790 --> 00:35:40,730

from all over will get a chance to see

854

00:35:45,400 --> 00:35:42,800

you in space what do you have to tell

855

00:35:49,590 --> 00:35:45,410

them how do you inspire them to look to

856

00:35:54,100 --> 00:35:51,970

well for me I would I tell them is

857

00:35:55,600 --> 00:35:54,110

number one work hard especially in math

858

00:35:57,460 --> 00:35:55,610

and science and number two have

859

00:35:58,900 --> 00:35:57,470

persistence because it as hard as you

860

00:36:00,790 --> 00:35:58,910

work it's going to take some persistence

861

00:36:02,590 --> 00:36:00,800

because I can remember as a kid sitting

862

00:36:03,760 --> 00:36:02,600

in my backyard in San Carlos looking up

863

00:36:05,470 --> 00:36:03,770

at the airplanes that were circling

864

00:36:07,720 --> 00:36:05,480

around to go land in San Francisco and

865

00:36:09,910 --> 00:36:07,730

thinking wow I hope I get a chance to

866

00:36:12,190 --> 00:36:09,920

fly someday and to be right here with my

867

00:36:15,130 --> 00:36:12,200

crewmates and we're flying over over the

868

00:36:17,350 --> 00:36:15,140

earth at 200 miles up at 17,500 miles an

869

00:36:19,390 --> 00:36:17,360

hour it's really a dream come true and

870

00:36:21,940 --> 00:36:19,400

it's another I mean just the simple

871

00:36:23,260 --> 00:36:21,950

things like floating and flying in and

872

00:36:25,450 --> 00:36:23,270

zero gravity is just absolutely amazing

873

00:36:26,710 --> 00:36:25,460

it everybody dreams about about the

874

00:36:28,480 --> 00:36:26,720

dreams where you can fly and here you

875

00:36:29,710 --> 00:36:28,490

can actually do it so it's it's

876

00:36:34,110 --> 00:36:29,720

absolutely amazing and your dreams

877

00:36:39,160 --> 00:36:37,270

Atlantis ISS this is Houston ACR that

878

00:36:41,380 --> 00:36:39,170

concludes questions from Ames Research

879

00:36:54,580 --> 00:36:41,390

Center please stand by for a voice check

880

00:37:00,340 --> 00:36:54,590

from Jack's appeal Atlantis is yes this

881

00:37:10,740 --> 00:37:00,350

is Jack OTO how do you hear me we read

882

00:37:17,380 --> 00:37:13,780

comanche from MTV I have a question to

883

00:37:19,750 --> 00:37:17,390

mr. furusawa dr. Luka well the answer to

884

00:37:21,490 --> 00:37:19,760

which everyone is on board gem I believe

885

00:37:23,560 --> 00:37:21,500

and that under spaceship earth made

886

00:37:26,410 --> 00:37:23,570

major contribution to building the ISS

887

00:37:28,720 --> 00:37:26,420

and also and the shuttle has continued

888

00:37:31,030 --> 00:37:28,730

to carry the Japanese astronaut and the

889

00:37:33,490 --> 00:37:31,040

space shuttle will be ending and

890

00:37:34,930 --> 00:37:33,500

retiring this time what is your feeling

891

00:37:41,140 --> 00:37:34,940

about the retirement of the space

892

00:37:45,880 --> 00:37:41,150

shuttle hi a space shuttle you are a

893

00:37:50,830 --> 00:37:45,890

home so state Parvati hon GE yes the

894

00:37:53,590 --> 00:37:50,840

state channels and sudoku parole is what

895

00:37:55,420 --> 00:37:53,600

about hopes dreams and also challenging

896

00:38:01,630 --> 00:37:55,430

spirit to Japan is of the Japanese

897

00:38:05,590 --> 00:38:01,640

people and me and for the Japanese after

898

00:38:07,300 --> 00:38:05,600

two onboard the ISS I believe that the

899

00:38:09,160 --> 00:38:07,310

fact that I person was able to welcome

900

00:38:11,620 --> 00:38:09,170

the crew on board the last space shuttle

901
00:38:14,290 --> 00:38:11,630
with something a great honor for me it

902
00:38:17,440 --> 00:38:14,300
is regretful that especially will be

903
00:38:19,960 --> 00:38:17,450
retiring but I believe that this is a

904
00:38:21,730 --> 00:38:19,970
step towards the future programs there

905
00:38:27,060 --> 00:38:21,740
will be a sub new starting point for

906
00:38:29,230 --> 00:38:27,070
future programs i think that the US and

907
00:38:31,270 --> 00:38:29,240
american colleagues our child have a

908
00:38:33,550 --> 00:38:31,280
challenging spirit and I respect them

909
00:38:35,140 --> 00:38:33,560
very much for that challenging spirit my

910
00:38:37,390 --> 00:38:35,150
name is sido from envious i have a

911
00:38:39,609 --> 00:38:37,400
question astronaut Whitaker well I'm

912
00:38:41,560 --> 00:38:39,619
reading your twitter messages all the

913
00:38:44,140 --> 00:38:41,570

time well you've said that you're going

914

00:38:46,240 --> 00:38:44,150

to a custom to zero gravity and have you

915

00:38:48,070 --> 00:38:46,250

experienced any changes in your physical

916

00:38:51,280 --> 00:38:48,080

condition or your mental condition

917

00:38:52,780 --> 00:38:51,290

something interesting and also could you

918

00:38:55,359 --> 00:38:52,790

talk about it from a doctor's

919

00:38:59,710 --> 00:38:55,369

perspective as well as an individual's

920

00:39:03,190 --> 00:38:59,720

perspective I talk to bed soon ova

921

00:39:05,200 --> 00:39:03,200

mizukage India's kodomo stotra a vamos

922

00:39:07,030 --> 00:39:05,210

un attimo still no ah it's very

923

00:39:09,640 --> 00:39:07,040

difficult to make a distinction there by

924

00:39:11,770 --> 00:39:09,650

some system and what I feel interesting

925

00:39:16,690 --> 00:39:11,780

is that them charging in my for some

926
00:39:20,170 --> 00:39:16,700
senses how I feel well yeah you do some

927
00:39:22,870 --> 00:39:20,180
and the feeling of being vertical or

928
00:39:25,240 --> 00:39:22,880
horizontal now where your legs are

929
00:39:28,980 --> 00:39:25,250
located you feel like it's the floor and

930
00:39:31,599 --> 00:39:28,990
if you change your posture and then

931
00:39:33,339 --> 00:39:31,609
Constantine g0 na mano de place where

932
00:39:36,490 --> 00:39:33,349
your feet are located feel like the

933
00:39:39,310 --> 00:39:36,500
floor so I think that when we say the

934
00:39:41,560 --> 00:39:39,320
upside and downside is just for the sake

935
00:39:43,690 --> 00:39:41,570
of convenience in outer space I think

936
00:39:45,849 --> 00:39:43,700
it's just in relative terms that you

937
00:39:48,790 --> 00:39:45,859
feel that you are upside down or the

938
00:39:51,609 --> 00:39:48,800

other way around how to know from NHK

939

00:39:57,160 --> 00:39:51,619

and after Africa another thing about the

940

00:39:59,260 --> 00:39:57,170

show well well it was in mojo from well

941

00:40:01,660 --> 00:39:59,270

I mean this will use them you flow the

942

00:40:04,839 --> 00:40:01,670

serious but don't you wish to Japan on

943

00:40:10,180 --> 00:40:04,849

board the shuttle I ego sawariya

944

00:40:12,430 --> 00:40:10,190

telepathic and watch young at all thank

945

00:40:14,980 --> 00:40:12,440

you for that very good i mean ok bc co

946

00:40:17,109 --> 00:40:14,990

no get our canister question about space

947

00:40:19,030 --> 00:40:17,119

shuttle discourse occur in order to

948

00:40:21,880 --> 00:40:19,040

become a mission specialist i have a

949

00:40:24,460 --> 00:40:21,890

need to go harsh training and i wish i

950

00:40:26,349 --> 00:40:24,470

had been able to travel on the station

951
00:40:28,839 --> 00:40:26,359
but not everything goes as you wish in

952
00:40:31,120 --> 00:40:28,849
my heart but at present i'm very

953
00:40:34,690 --> 00:40:31,130
satisfied and because someday three

954
00:40:37,599 --> 00:40:34,700
reasons for this system is that the

955
00:40:42,940 --> 00:40:37,609
Soyuz them is a very highly reliable a

956
00:40:46,450 --> 00:40:42,950
Russian and space vehicle and I was able

957
00:40:49,270 --> 00:40:46,460
to board the series and arrive at the

958
00:40:52,540 --> 00:40:49,280
ISS and two big contribution Sufi is

959
00:40:55,120 --> 00:40:52,550
this activity and the second is that I

960
00:40:57,069 --> 00:40:55,130
as a Japanese restaurant or not was able

961
00:40:58,510 --> 00:40:57,079
to welcome they last two on board the

962
00:41:02,430 --> 00:40:58,520
space shuttle mission and also

963
00:41:05,920 --> 00:41:02,440

especially Atlantis you know us to our I

964

00:41:11,230 --> 00:41:05,930

believe and that I was the first step to

965

00:41:13,300 --> 00:41:11,240

encounter at my dish and also crimson

966

00:41:16,630 --> 00:41:13,310

phagosome the commander so Constitution

967

00:41:18,849 --> 00:41:16,640

has made my wish come true and he let me

968

00:41:23,420 --> 00:41:18,859

sit in his commanded seat at dega photo

969

00:41:29,990 --> 00:41:27,020

I'm komiyama of asahi shimbun ooze

970

00:41:34,040 --> 00:41:30,000

question to mr. dr. Ferragamo this is

971

00:41:36,349 --> 00:41:34,050

about the month since you have left the

972

00:41:40,160 --> 00:41:36,359

ground and probably you have opportunity

973

00:41:43,069 --> 00:41:40,170

to look at the disaster-hit area from is

974

00:41:45,589 --> 00:41:43,079

if you have any message to those people

975

00:41:50,510 --> 00:41:45,599

who have been impacted by the disaster

976
00:41:53,930 --> 00:41:50,520
yo creo que hasta más te dijo attack CDC

977
00:42:01,280 --> 00:41:53,940
more eco cozy no toki me Yoko esta listo

978
00:42:03,319 --> 00:42:01,290
demo I'm certainly travel to Roku area

979
00:42:05,599 --> 00:42:03,329
when I was a high school student and I

980
00:42:09,049 --> 00:42:05,609
was very moved by those people who are

981
00:42:11,900 --> 00:42:09,059
very friendly people there so I have

982
00:42:13,970 --> 00:42:11,910
very good memory of visiting there and

983
00:42:15,770 --> 00:42:13,980
four months had passed but I believe

984
00:42:19,069 --> 00:42:15,780
that things are still very difficult for

985
00:42:22,160 --> 00:42:19,079
them but what I can say is that if we

986
00:42:24,430 --> 00:42:22,170
continue to do what you can do on the

987
00:42:29,900 --> 00:42:24,440
day tomorrow would be better than today

988
00:42:33,049 --> 00:42:29,910

and also other colleagues from here from

989

00:42:35,720 --> 00:42:33,059

us and washer everyone very much

990

00:42:37,819 --> 00:42:35,730

concerned and they give good wishes and

991

00:42:41,510 --> 00:42:37,829

not only US and Russia but all the

992

00:42:43,700 --> 00:42:41,520

people in the world cheering up and

993

00:42:46,609 --> 00:42:43,710

trying to be support so i hope that

994

00:42:48,650 --> 00:42:46,619

stuff keep on trying japan there's no

995

00:42:51,680 --> 00:42:48,660

question to mr. who do come again from

996

00:42:55,660 --> 00:42:51,690

um you the newspaper you had worked very

997

00:42:58,309 --> 00:42:55,670

hard for the last 12 years and you

998

00:43:00,109 --> 00:42:58,319

finally came to the space and did you

999

00:43:05,270 --> 00:43:00,119

encounter anything that you didn't

1000

00:43:13,039 --> 00:43:05,280

expect in space yo ho tum dono katoa a

1001
00:43:15,559 --> 00:43:13,049
cool n Doradus day well things went as

1002
00:43:18,859 --> 00:43:15,569
you rode i had been trained local Kyle

1003
00:43:20,960 --> 00:43:18,869
this is however one thing that I was

1004
00:43:24,079 --> 00:43:20,970
disorder caused you any bubble tea was a

1005
00:43:27,829 --> 00:43:24,089
good surprise was that the things do not

1006
00:43:30,530 --> 00:43:27,839
stay on surface because if it is on the

1007
00:43:32,180 --> 00:43:30,540
ground if we put something of objects on

1008
00:43:36,069 --> 00:43:32,190
table it will stay there but they will

1009
00:43:39,729 --> 00:43:36,079
flow out in space so here we use them

1010
00:43:44,160 --> 00:43:39,739
crow to try to fix them on surface and

1011
00:43:48,969 --> 00:43:44,170
even if it is fixed sometimes they float

1012
00:43:52,150 --> 00:43:48,979
so that was rather things that I was not

1013
00:43:56,469 --> 00:43:52,160

trained enough in on the earth so I'm

1014

00:43:59,620 --> 00:43:56,479

learning it in seizure here I'm away

1015

00:44:04,769 --> 00:43:59,630

from you to news space news from TV

1016

00:44:06,999 --> 00:44:04,779

tokyo you ready mentioned that but I

1017

00:44:09,640 --> 00:44:07,009

understand that you visited space

1018

00:44:11,709 --> 00:44:09,650

shuttle to hear wake-up call so you are

1019

00:44:15,630 --> 00:44:11,719

you are now in space and you visited

1020

00:44:18,339 --> 00:44:15,640

space shuttle and how did you feel

1021

00:44:20,259 --> 00:44:18,349

listening to wake up call by elton john

1022

00:44:24,279 --> 00:44:20,269

i understand how did you fear that feel

1023

00:44:27,579 --> 00:44:24,289

about it yes if I space shuttle na na

1024

00:44:30,489 --> 00:44:27,589

karna hai ji musto a no.10 a nationalist

1025

00:44:34,150 --> 00:44:30,499

government houstonia other well then I

1026
00:44:37,269 --> 00:44:34,160
went interstate 70 CUDA still serene so

1027
00:44:39,039 --> 00:44:37,279
free donut you know candy master I felt

1028
00:44:41,650 --> 00:44:39,049
that it was really looked like the

1029
00:44:44,349 --> 00:44:41,660
training space shuttle in Houston so

1030
00:44:46,479 --> 00:44:44,359
it's made very well and it's not

1031
00:44:49,660 --> 00:44:46,489
actually very much like a training

1032
00:44:52,150 --> 00:44:49,670
facility in Houston so it was exactly

1033
00:44:54,459 --> 00:44:52,160
the same environment as I had been

1034
00:44:57,579 --> 00:44:54,469
trained in Houston died when I was very

1035
00:45:01,539 --> 00:44:57,589
moved to hear the wake up call music by

1036
00:45:03,839 --> 00:45:01,549
Elton John and I was very grateful for

1037
00:45:08,259 --> 00:45:03,849
that opportunity that was given to me

1038
00:45:14,109 --> 00:45:08,269

doctor foo recover I would like to hear

1039

00:45:18,969 --> 00:45:14,119

about world cup of ladies that women so

1040

00:45:21,689 --> 00:45:18,979

one can do you have a lot of American us

1041

00:45:24,279 --> 00:45:21,699

friends around here but what do you

1042

00:45:29,019 --> 00:45:24,289

think it's fine doing the red zone and

1043

00:45:30,910 --> 00:45:29,029

score I was no mukashi katawan this guy

1044

00:45:33,489 --> 00:45:30,920

Anatoly Kharkov a pastor Steve Ascension

1045

00:45:35,439 --> 00:45:33,499

owe me NAS on well it might be difficult

1046

00:45:38,439 --> 00:45:35,449

to answer to your question in this

1047

00:45:41,529 --> 00:45:38,449

environment but what I can say that we

1048

00:45:45,189 --> 00:45:41,539

must owe the athletes supporters are the

1049

00:45:47,469 --> 00:45:45,199

people who are concerned there I hope

1050

00:45:51,300 --> 00:45:47,479

that everyone would do their best that's

1051

00:45:59,080 --> 00:45:55,000

Atlantis ISS this is Houston ACR thank

1052

00:46:01,390 --> 00:45:59,090

you that concludes the event Thank You

1053

00:46:04,240 --> 00:46:01,400

media at Johnson Space Center Kennedy

1054

00:46:06,010 --> 00:46:04,250

Space Center NASA headquarters Marshall

1055

00:46:09,310 --> 00:46:06,020

Space Flight Center Ames Research Center

1056

00:46:10,780 --> 00:46:09,320

and in Japan Lance ifs we are now