



1  
00:00:05,510 --> 00:00:01,829  
station this is houston are you ready

2  
00:00:05,520 --> 00:00:10,150  
houston station is ready for the event

3  
00:00:13,910 --> 00:00:12,150  
watr radio this is mission control

4  
00:00:15,270 --> 00:00:13,920  
houston please call station for a voice

5  
00:00:17,189 --> 00:00:15,280  
check

6  
00:00:20,630 --> 00:00:17,199  
station this is watr radio how do you

7  
00:00:20,640 --> 00:00:25,269  
watr radio we hear you loud and clear

8  
00:00:25,279 --> 00:00:37,430  
excellent

9  
00:00:41,430 --> 00:00:39,110  
and right now we're joined by rick

10  
00:00:42,950 --> 00:00:41,440  
mastracchio and colonel mike hopkins

11  
00:00:45,590 --> 00:00:42,960  
directly from the international space

12  
00:00:47,190 --> 00:00:45,600  
station currently orbiting 230 miles

13  
00:00:48,470 --> 00:00:47,200

above the earth thank you very much for

14

00:00:51,430 --> 00:00:48,480

taking the time to speak with me today

15

00:00:56,790 --> 00:00:55,029

oh we're very happy to be here

16

00:00:59,830 --> 00:00:56,800

and uh let me just say a happy belated

17

00:01:04,549 --> 00:00:59,840

birthday to uh to rick yesterday was uh

18

00:01:09,590 --> 00:01:07,670

uh thank you very much i appreciate it

19

00:01:11,190 --> 00:01:09,600

uh so i gathered from reading your bios

20

00:01:13,830 --> 00:01:11,200

that you uh

21

00:01:15,270 --> 00:01:13,840

you guys didn't start out with the goal

22

00:01:16,710 --> 00:01:15,280

of being astronauts could you tell us a

23

00:01:19,990 --> 00:01:16,720

little bit about how you eventually got

24

00:01:23,990 --> 00:01:22,469

oh sure i'll start um yeah i'd really

25

00:01:25,670 --> 00:01:24,000

when growing up i was always interested

26

00:01:27,190 --> 00:01:25,680

in math and science but i tell you the

27

00:01:28,310 --> 00:01:27,200

truth i never knew i could be an

28

00:01:30,149 --> 00:01:28,320

astronaut

29

00:01:32,630 --> 00:01:30,159

i had graduated from the university of

30

00:01:34,310 --> 00:01:32,640

connecticut and was working at hamilton

31

00:01:36,789 --> 00:01:34,320

standard in farmington

32

00:01:39,030 --> 00:01:36,799

and i saw an ad basically i saw an

33

00:01:40,469 --> 00:01:39,040

advertisement in a magazine saying

34

00:01:42,630 --> 00:01:40,479

astronaut applications were being

35

00:01:43,510 --> 00:01:42,640

accepted and at that point i realized

36

00:01:45,510 --> 00:01:43,520

wow

37

00:01:46,469 --> 00:01:45,520

anybody could be an ax an astronaut with

38

00:01:49,109 --> 00:01:46,479

the right

39

00:01:50,230 --> 00:01:49,119

uh uh credentials so i sent in an

40

00:01:52,069 --> 00:01:50,240

application of course i didn't get

41

00:01:53,670 --> 00:01:52,079

selected as an astronaut but eventually

42

00:01:56,950 --> 00:01:53,680

uh nine years after that point i would

43

00:02:00,230 --> 00:01:58,709

and i i actually took a little bit

44

00:02:01,590 --> 00:02:00,240

different path so i

45

00:02:03,030 --> 00:02:01,600

studied engineering aerospace

46

00:02:04,310 --> 00:02:03,040

engineering in school and then went into

47

00:02:05,910 --> 00:02:04,320

the air force and i'm actually still

48

00:02:08,469 --> 00:02:05,920

active duty air force as you mentioned

49

00:02:10,389 --> 00:02:08,479

earlier and so i had the opportunity

50

00:02:12,550 --> 00:02:10,399

in the air force to test a lot of

51  
00:02:15,030 --> 00:02:12,560  
airplanes and actually worked in the

52  
00:02:16,790 --> 00:02:15,040  
pentagon a little bit and was you know

53  
00:02:19,030 --> 00:02:16,800  
kind of like rick though i i applied

54  
00:02:23,910 --> 00:02:19,040  
several times before i was accepted and

55  
00:02:27,430 --> 00:02:26,550  
okay um

56  
00:02:29,670 --> 00:02:27,440  
what do you think are some of the

57  
00:02:31,030 --> 00:02:29,680  
biggest benefits we derive from uh

58  
00:02:33,589 --> 00:02:31,040  
things like the international space

59  
00:02:38,229 --> 00:02:33,599  
station and all the the research and uh

60  
00:02:43,830 --> 00:02:40,229  
yeah i think uh there's there's a lot of

61  
00:02:45,830 --> 00:02:43,840  
benefits um both uh both real and and

62  
00:02:47,430 --> 00:02:45,840  
kind of in the spiritual sense of the

63  
00:02:49,750 --> 00:02:47,440

exploration and and always having a

64

00:02:52,470 --> 00:02:49,760

human presence for the last uh what 10

65

00:02:54,229 --> 00:02:52,480

11 12 years we've had a a human presence

66

00:02:56,150 --> 00:02:54,239

in space constantly and i think that's

67

00:02:57,670 --> 00:02:56,160

pretty exciting and and that goes along

68

00:03:00,070 --> 00:02:57,680

with the human spirit

69

00:03:02,229 --> 00:03:00,080

from a science standpoint boy all kinds

70

00:03:03,509 --> 00:03:02,239

of science is happening up here and

71

00:03:05,589 --> 00:03:03,519

there's probably going to be over 200

72

00:03:08,149 --> 00:03:05,599

experiments executed while we're on uh

73

00:03:09,430 --> 00:03:08,159

during this this time on orbit uh from

74

00:03:10,949 --> 00:03:09,440

things like the alpha magnetic

75

00:03:13,190 --> 00:03:10,959

spectrometer which is out there looking

76

00:03:15,190 --> 00:03:13,200

for the origins of the universe

77

00:03:17,750 --> 00:03:15,200

to things like

78

00:03:19,910 --> 00:03:17,760

vaccines and and antibiotics and how

79

00:03:21,830 --> 00:03:19,920

they can counter bacteria that are

80

00:03:23,990 --> 00:03:21,840

actually resistant to antibiotics and so

81

00:03:25,670 --> 00:03:24,000

there's benefits uh for space travel as

82

00:03:27,990 --> 00:03:25,680

well as benefits for everybody down on

83

00:03:31,509 --> 00:03:29,270

and you're just you're doing a little

84

00:03:33,750 --> 00:03:31,519

more than just uh experiments and uh

85

00:03:34,789 --> 00:03:33,760

research you also uh are have to do

86

00:03:36,390 --> 00:03:34,799

quite a bit of maintenance while you're

87

00:03:37,830 --> 00:03:36,400

up there too i understand you uh had to

88

00:03:39,430 --> 00:03:37,840

do a couple of spacewalks in order to

89

00:03:40,630 --> 00:03:39,440

repair a cooling unit

90

00:03:42,309 --> 00:03:40,640

uh and these were not your first

91

00:03:43,750 --> 00:03:42,319

spacewalks obviously i guess the closest

92

00:03:45,750 --> 00:03:43,760

i've ever come to that experience is my

93

00:03:47,750 --> 00:03:45,760

one and only skydive from from ten

94

00:03:49,030 --> 00:03:47,760

thousand feet uh could you describe a

95

00:03:50,630 --> 00:03:49,040

little bit for our audience for my

96

00:03:52,869 --> 00:03:50,640

audience what it uh feels like to

97

00:03:58,309 --> 00:03:52,879

actually step out of that uh space

98

00:04:02,309 --> 00:03:59,990

okay i'll give it a try it's difficult

99

00:04:04,390 --> 00:04:02,319

to explain but uh

100

00:04:05,990 --> 00:04:04,400

i guess it depends uh a couple some of

101  
00:04:07,670 --> 00:04:06,000  
my spacewalks i stepped out of the hatch

102  
00:04:09,030 --> 00:04:07,680  
at nighttime and some of the daytime and

103  
00:04:11,030 --> 00:04:09,040  
i tell you nighttime is actually a

104  
00:04:12,550 --> 00:04:11,040  
little better because you don't have the

105  
00:04:14,149 --> 00:04:12,560  
the vision of the earth

106  
00:04:16,229 --> 00:04:14,159  
swinging by you constantly and

107  
00:04:17,749 --> 00:04:16,239  
distracting you but i tell you when you

108  
00:04:19,509 --> 00:04:17,759  
go out there you could really sense the

109  
00:04:21,830 --> 00:04:19,519  
motion of the earth as you go around the

110  
00:04:23,749 --> 00:04:21,840  
earth you can sense that motion

111  
00:04:25,510 --> 00:04:23,759  
and it's basically something that

112  
00:04:27,270 --> 00:04:25,520  
distracts you as you do your job so i

113  
00:04:28,550 --> 00:04:27,280

basically try to ignore it but it's an

114

00:04:31,030 --> 00:04:28,560

incredible feeling to be out there it's

115

00:04:32,629 --> 00:04:31,040

an incredible feeling of freedom uh it's

116

00:04:35,270 --> 00:04:32,639

amazing how black

117

00:04:37,110 --> 00:04:35,280

space is at night time when the sun sets

118

00:04:38,790 --> 00:04:37,120

and we're just out there in the middle

119

00:04:40,629 --> 00:04:38,800

of nowhere doing our job and you look

120

00:04:43,350 --> 00:04:40,639

around a little bit and it's incredible

121

00:04:45,749 --> 00:04:43,360

sense of being so small out in the

122

00:04:47,830 --> 00:04:45,759

vastness of space

123

00:04:49,990 --> 00:04:47,840

it's got to be incredible i've i've been

124

00:04:53,030 --> 00:04:50,000

following your your twitter feeds rick's

125

00:04:56,189 --> 00:04:53,040

twitter ideas at astro rm and colonel

126

00:04:58,710 --> 00:04:56,199

hopkins id is at astro illini

127

00:05:00,230 --> 00:04:58,720

i-l-i-n-i and you both have been

128

00:05:02,070 --> 00:05:00,240

tweeting out some just absolutely

129

00:05:04,310 --> 00:05:02,080

amazing photographs i know rick has sent

130

00:05:06,790 --> 00:05:04,320

a really a really nice shot of downtown

131

00:05:08,150 --> 00:05:06,800

waterbury as they flew over and colonel

132

00:05:09,590 --> 00:05:08,160

hopkins has sent out just some

133

00:05:10,870 --> 00:05:09,600

absolutely beautiful pictures of the

134

00:05:12,710 --> 00:05:10,880

northern lights

135

00:05:13,909 --> 00:05:12,720

what are you using to to get these shots

136

00:05:15,510 --> 00:05:13,919

and more importantly uh what's your

137

00:05:20,310 --> 00:05:15,520

opinion regarding the value of social

138

00:05:24,790 --> 00:05:23,189

well i think social media is is huge for

139

00:05:26,070 --> 00:05:24,800

the the space program because it helps

140

00:05:27,670 --> 00:05:26,080

get the message out and it reaches

141

00:05:29,350 --> 00:05:27,680

people that probably haven't thought

142

00:05:30,390 --> 00:05:29,360

about the space program and don't

143

00:05:32,550 --> 00:05:30,400

realize

144

00:05:35,590 --> 00:05:32,560

um that we have had people up in space

145

00:05:37,110 --> 00:05:35,600

for the last 12 years and and what the

146

00:05:39,270 --> 00:05:37,120

international space station is doing so

147

00:05:40,870 --> 00:05:39,280

if we can pique interest in in what's

148

00:05:43,189 --> 00:05:40,880

happening up here i think that's a good

149

00:05:44,310 --> 00:05:43,199

thing i think it's great that uh that

150

00:05:45,990 --> 00:05:44,320

that people are out there and they're

151  
00:05:47,430 --> 00:05:46,000  
connected and they're sharing things uh

152  
00:05:50,790 --> 00:05:47,440  
some of these amazing experiences that

153  
00:05:50,800 --> 00:05:59,270  
i know

154  
00:06:03,270 --> 00:06:00,950  
we're just using standard off-the-shelf

155  
00:06:06,469 --> 00:06:03,280  
uh photo equipment uh from the space

156  
00:06:08,469 --> 00:06:06,479  
station's cupola windows

157  
00:06:11,270 --> 00:06:08,479  
oh so no no special high-tech equipment

158  
00:06:14,390 --> 00:06:12,309  
nope

159  
00:06:16,230 --> 00:06:14,400  
um now i know when you when you arrived

160  
00:06:17,909 --> 00:06:16,240  
at the space station you brought the the

161  
00:06:19,670 --> 00:06:17,919  
olympic torch with you

162  
00:06:23,510 --> 00:06:19,680  
uh did you are you following the

163  
00:06:28,790 --> 00:06:25,590

oh yeah we have uh a feed from the

164

00:06:31,350 --> 00:06:28,800

ground almost uh continuously

165

00:06:32,790 --> 00:06:31,360

and we're also being uplinked uh videos

166

00:06:34,550 --> 00:06:32,800

of some of the sporting events so yeah

167

00:06:36,230 --> 00:06:34,560

we were watching uh

168

00:06:37,990 --> 00:06:36,240

the ski jumping last night where i was

169

00:06:39,350 --> 00:06:38,000

watching speed skating the day before

170

00:06:40,870 --> 00:06:39,360

that so yeah we're following it along

171

00:06:42,230 --> 00:06:40,880

it's hard because you know constantly

172

00:06:43,909 --> 00:06:42,240

working up here but we catch a few

173

00:06:46,550 --> 00:06:43,919

minutes a few minutes of it here and

174

00:06:51,670 --> 00:06:47,510

what would be one of your favorite

175

00:06:55,110 --> 00:06:53,270

yeah i tell you anything with the speed

176

00:06:57,589 --> 00:06:55,120

the downhill skiing and the speed

177

00:06:59,909 --> 00:06:57,599

skating are pretty exciting to watch i

178

00:07:02,790 --> 00:07:01,510

now you both flew in the russian soyuz

179

00:07:04,390 --> 00:07:02,800

to get to the space station how does

180

00:07:10,550 --> 00:07:04,400

riding in the in the soyuz compared to

181

00:07:13,670 --> 00:07:12,070

yeah i've flown on the shuttle three

182

00:07:15,189 --> 00:07:13,680

times now and on the russian soyuz

183

00:07:16,390 --> 00:07:15,199

vehicle it was my first time a few

184

00:07:18,710 --> 00:07:16,400

months back

185

00:07:20,390 --> 00:07:18,720

and it's quite a different experience

186

00:07:22,710 --> 00:07:20,400

the space shuttle is obviously a much

187

00:07:24,469 --> 00:07:22,720

bigger vehicle it actually leaps off the

188

00:07:27,270 --> 00:07:24,479

launch pad it accelerates much quicker

189

00:07:29,670 --> 00:07:27,280

off the launch pad the soyuz is a very

190

00:07:31,749 --> 00:07:29,680

reliable very efficient vehicle but much

191

00:07:33,510 --> 00:07:31,759

much smaller and of course it reaches

192

00:07:34,950 --> 00:07:33,520

the same velocity eventually but

193

00:07:37,029 --> 00:07:34,960

accelerates uh much slower off the

194

00:07:40,309 --> 00:07:37,039

launch pad both of them were exciting

195

00:07:44,710 --> 00:07:41,830

i understand you're going to be doing a

196

00:07:46,550 --> 00:07:44,720

live show from the the space station on

197

00:07:48,230 --> 00:07:46,560

national geographic channel in march

198

00:07:52,390 --> 00:07:48,240

just before you head home uh would you

199

00:07:56,390 --> 00:07:54,230

yeah that's correct uh mike leaves

200

00:07:58,230 --> 00:07:56,400

around march 11th or 12th or so and

201  
00:07:59,749 --> 00:07:58,240  
we'll be doing a live show from up here

202  
00:08:01,909 --> 00:07:59,759  
around march 14th i believe we'll be

203  
00:08:04,150 --> 00:08:01,919  
doing a couple of shows up here from up

204  
00:08:06,070 --> 00:08:04,160  
here and i believe it's about a two-hour

205  
00:08:08,230 --> 00:08:06,080  
show and we'll be doing three 10-minute

206  
00:08:09,990 --> 00:08:08,240  
live intervals directly from the space

207  
00:08:11,670 --> 00:08:10,000  
station here on the national geographic

208  
00:08:12,869 --> 00:08:11,680  
channel i know a lot of folks on the

209  
00:08:14,230 --> 00:08:12,879  
ground are excited about it we're

210  
00:08:17,189 --> 00:08:14,240  
excited about it and i think it's going

211  
00:08:19,510 --> 00:08:17,199  
to give folks some great insight on how

212  
00:08:23,990 --> 00:08:19,520  
the space station works and how we live

213  
00:08:26,869 --> 00:08:25,589

great um well before we go rick maybe

214

00:08:32,230 --> 00:08:26,879

could uh could you share some of your

215

00:08:36,070 --> 00:08:34,310

oh yeah well i grew up on the east end

216

00:08:37,829 --> 00:08:36,080

of waterbury attended chase school and

217

00:08:39,909 --> 00:08:37,839

crosby high school

218

00:08:41,430 --> 00:08:39,919

i i can remember i used to play spend a

219

00:08:43,430 --> 00:08:41,440

lot of time at hamilton park in

220

00:08:45,190 --> 00:08:43,440

municipal stadium i played football uh

221

00:08:46,550 --> 00:08:45,200

for the the various leagues as well as

222

00:08:49,110 --> 00:08:46,560

high school league

223

00:08:50,949 --> 00:08:49,120

i spent a lot of time driving down up

224

00:08:53,030 --> 00:08:50,959

and down i-84 going back and forth to

225

00:08:54,949 --> 00:08:53,040

school and work and of course i think i

226

00:08:57,190 --> 00:08:54,959

had some great memories in waterbury i

227

00:08:58,070 --> 00:08:57,200

lived there until i was about 27 years

228

00:09:00,550 --> 00:08:58,080

old

229

00:09:02,949 --> 00:09:00,560

and i can't wait to get back and enjoy

230

00:09:05,190 --> 00:09:02,959

uh some hometown food and of course

231

00:09:06,230 --> 00:09:05,200

visit with all the folks

232

00:09:07,509 --> 00:09:06,240

well i'm not sure if you're aware of

233

00:09:09,430 --> 00:09:07,519

this but the crosby high school

234

00:09:11,910 --> 00:09:09,440

basketball team is now rated uh is

235

00:09:13,350 --> 00:09:11,920

ranked number 10 in the state so i'm

236

00:09:14,949 --> 00:09:13,360

sure you'd be excited to hear about that

237

00:09:16,710 --> 00:09:14,959

i want to thank you both very much for

238

00:09:18,470 --> 00:09:16,720

your time today and it's this has

239

00:09:22,310 --> 00:09:18,480

actually been an honor and a pleasure to

240

00:09:26,550 --> 00:09:22,320

speak with you both safe travels

241

00:09:31,590 --> 00:09:28,790

station this is houston acr that

242

00:09:33,990 --> 00:09:31,600

concludes the watr radio portion of the

243

00:09:37,430 --> 00:09:34,000

event please stand by for a voice check

244

00:09:39,030 --> 00:09:37,440

from kspr tv

245

00:09:40,389 --> 00:09:39,040

it amazes me that that's still standing

246

00:09:42,389 --> 00:09:40,399

love it thank you so much larry and

247

00:09:45,190 --> 00:09:42,399

sherry gibson showing us

248

00:09:46,230 --> 00:09:45,200

isb check one two three four i speed

249

00:09:47,750 --> 00:09:46,240

check

250

00:09:49,829 --> 00:09:47,760

at least as we head into the next few

251

00:09:51,269 --> 00:09:49,839

days we're not going to see activity

252

00:09:52,870 --> 00:09:51,279

like that at least that won't harbor

253

00:09:54,949 --> 00:09:52,880

that we can hear you loud and clear

254

00:09:56,230 --> 00:09:54,959

over the next few days now as far as if

255

00:09:57,670 --> 00:09:56,240

you want to send in your pictures all

256

00:10:00,070 --> 00:09:57,680

you need to do is send us an email

257

00:10:02,069 --> 00:10:00,080

that's weather kspr.com or you can

258

00:10:04,389 --> 00:10:02,079

always chime in on our ksp or with our

259

00:10:05,670 --> 00:10:04,399

facebook page make sure you like it and

260

00:10:07,190 --> 00:10:05,680

then you can go ahead and post those

261

00:10:08,630 --> 00:10:07,200

pictures directly in our wall and i

262

00:10:10,389 --> 00:10:08,640

haven't seen a lot in a while so guys

263

00:10:12,470 --> 00:10:10,399

feel free to send those in back to you

264

00:10:14,069 --> 00:10:12,480

thanks lindsay kspr has a very special

265

00:10:15,910 --> 00:10:14,079

treat for you this morning we certainly

266

00:10:18,389 --> 00:10:15,920

do a truly out of this world interview

267

00:10:21,269 --> 00:10:18,399

joining us live from space is astronaut

268

00:10:23,430 --> 00:10:21,279

rick mustard mastery tino and astronaut

269

00:10:24,949 --> 00:10:23,440

michael hopkins gentlemen thank you both

270

00:10:27,829 --> 00:10:24,959

for being with us this morning just

271

00:10:30,870 --> 00:10:29,509

now before we get to it i want to start

272

00:10:33,829 --> 00:10:30,880

yeah thank you very much it's great to

273

00:10:34,870 --> 00:10:33,839

be with you nasa since

274

00:10:37,030 --> 00:10:34,880

that's right we're going to work with a

275

00:10:37,910 --> 00:10:37,040

delay here i'm sorry about that rick

276

00:10:39,430 --> 00:10:37,920

we're going to start with you you've

277

00:10:40,949 --> 00:10:39,440

been with nasa since the early 90s

278

00:10:42,710 --> 00:10:40,959

you've been in three space flights and

279

00:10:44,310 --> 00:10:42,720

you've spent more than a month in space

280

00:10:47,430 --> 00:10:44,320

and currently you're serving as the

281

00:10:49,030 --> 00:10:47,440

flight engineer on iss for expedition 38

282

00:10:50,630 --> 00:10:49,040

and mike you're a colonel with the

283

00:10:52,710 --> 00:10:50,640

united states air force and more

284

00:10:55,110 --> 00:10:52,720

importantly you are a missouri native

285

00:10:57,350 --> 00:10:55,120

grew up in richland missouri and in 2009

286

00:10:59,750 --> 00:10:57,360

you were selected as one of 14 members

287

00:11:01,430 --> 00:10:59,760

to be a part of the 20th nasa astronaut

288

00:11:03,110 --> 00:11:01,440

class mike i'm going to start with you

289

00:11:04,710 --> 00:11:03,120

we spoke with you back in september and

290

00:11:06,550 --> 00:11:04,720

while you were training training in

291

00:11:08,630 --> 00:11:06,560

russia for this mission you told us this

292

00:11:10,870 --> 00:11:08,640

was going to be a very busy mission with

293

00:11:12,150 --> 00:11:10,880

more than 200 experiments to be done

294

00:11:13,750 --> 00:11:12,160

standard maintenance on the space

295

00:11:15,670 --> 00:11:13,760

station and even the olympic torch

296

00:11:19,590 --> 00:11:15,680

making a stop into space how are those

297

00:11:23,750 --> 00:11:21,750

yeah the experiments are going fantastic

298

00:11:25,110 --> 00:11:23,760

they just keep going too every day

299

00:11:27,110 --> 00:11:25,120

there's a lot of experiments that are

300

00:11:28,710 --> 00:11:27,120

happening uh even while we sleep such as

301  
00:11:30,790 --> 00:11:28,720  
the alpha magnetic spectrometer which is

302  
00:11:32,870 --> 00:11:30,800  
out there looking at the origins of the

303  
00:11:35,190 --> 00:11:32,880  
of the universe and then when we have

304  
00:11:37,030 --> 00:11:35,200  
resupply vehicles come up we get we get

305  
00:11:39,269 --> 00:11:37,040  
a lot of new experiments on those as

306  
00:11:41,110 --> 00:11:39,279  
well such as when the orbital supply

307  
00:11:42,470 --> 00:11:41,120  
vehicle came up we had some ants on

308  
00:11:44,710 --> 00:11:42,480  
board and we got to observe their

309  
00:11:45,509 --> 00:11:44,720  
behavior in the microgravity environment

310  
00:11:52,870 --> 00:11:45,519  
so

311  
00:11:55,030 --> 00:11:52,880  
christmas eve both of you conducted a

312  
00:11:56,710 --> 00:11:55,040  
spacewalk to fix a malfunctioning punk

313  
00:11:58,150 --> 00:11:56,720

module on the cooling system for the

314

00:12:00,389 --> 00:11:58,160

international space station i understand

315

00:12:02,470 --> 00:12:00,399

there was some concern about a spacewalk

316

00:12:04,230 --> 00:12:02,480

because a previous one didn't go so well

317

00:12:09,670 --> 00:12:04,240

how did this one go and kind of explain

318

00:12:13,670 --> 00:12:11,910

okay yeah we did a series of space walks

319

00:12:15,829 --> 00:12:13,680

and the concern was that a previous

320

00:12:17,670 --> 00:12:15,839

spacewalk last summer uh one of the

321

00:12:20,629 --> 00:12:17,680

astronauts started getting water in his

322

00:12:23,110 --> 00:12:20,639

helmet but of course uh nasa is famous

323

00:12:24,550 --> 00:12:23,120

for solving problems and the smart folks

324

00:12:25,590 --> 00:12:24,560

on the ground got together and figured

325

00:12:27,910 --> 00:12:25,600

out ways

326

00:12:30,150 --> 00:12:27,920

to uh to fix the suits that we have up

327

00:12:32,550 --> 00:12:30,160

here and to avoid any problems if we did

328

00:12:34,230 --> 00:12:32,560

get uh water in our helmets so we

329

00:12:35,509 --> 00:12:34,240

weren't too concerned about the about

330

00:12:37,269 --> 00:12:35,519

that happening

331

00:12:39,509 --> 00:12:37,279

the space station coolant system

332

00:12:41,750 --> 00:12:39,519

basically had a problem with a valve and

333

00:12:44,550 --> 00:12:41,760

we had to go outside and replace a large

334

00:12:46,310 --> 00:12:44,560

800-pound uh box if you will and the

335

00:12:47,990 --> 00:12:46,320

spacewalks went perfectly we got two

336

00:12:49,509 --> 00:12:48,000

spacewalks one to pull the old one out

337

00:12:52,790 --> 00:12:49,519

and one to install the new one and

338

00:12:54,870 --> 00:12:52,800

everything went very well

339

00:12:57,190 --> 00:12:54,880

describe to us the feeling if you will

340

00:12:59,590 --> 00:12:57,200

from i guess stepping outside and being

341

00:13:01,190 --> 00:12:59,600

able to see more of more of space what's

342

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

it like being outside of the space

343

00:13:07,590 --> 00:13:05,590

yeah it's it's truly an incredible

344

00:13:09,750 --> 00:13:07,600

experience uh for me these were my first

345

00:13:11,829 --> 00:13:09,760

uh spacewalks rick is very experienced

346

00:13:13,829 --> 00:13:11,839

with that but you know when you first uh

347

00:13:16,150 --> 00:13:13,839

are going out that hatch for the for the

348

00:13:17,990 --> 00:13:16,160

very first time it's just this whole mix

349

00:13:19,670 --> 00:13:18,000

of emotions it's uh

350

00:13:21,509 --> 00:13:19,680

you're very excited you're very nervous

351

00:13:23,430 --> 00:13:21,519

you're very focused you've it's uh it's

352

00:13:25,430 --> 00:13:23,440

an extremely intense environment and

353

00:13:27,670 --> 00:13:25,440

when you when you first step out and you

354

00:13:29,990 --> 00:13:27,680

get to see the earth without any

355

00:13:31,750 --> 00:13:30,000

obstructions without any windows around

356

00:13:33,030 --> 00:13:31,760

you or anything just through your your

357

00:13:34,550 --> 00:13:33,040

face mask

358

00:13:36,949 --> 00:13:34,560

it's it's unbelievable

359

00:13:38,389 --> 00:13:36,959

and uh so it's it's a very exciting but

360

00:13:41,430 --> 00:13:38,399

again probably the most intense thing

361

00:13:44,710 --> 00:13:42,629

that is certainly awesome and i'm

362

00:13:46,310 --> 00:13:44,720

noticing how you guys are kind of just

363

00:13:47,910 --> 00:13:46,320

letting the microphone float around

364

00:13:49,750 --> 00:13:47,920

there which brings me to my next point

365

00:13:52,150 --> 00:13:49,760

what's it like experiencing the

366

00:13:59,030 --> 00:13:52,160

weightlessness of space can you explain

367

00:14:04,870 --> 00:14:02,629

it's difficult to explain uh how what it

368

00:14:06,870 --> 00:14:04,880

feels like uh it's probably the best way

369

00:14:07,990 --> 00:14:06,880

to best analogy i can come up with is

370

00:14:09,430 --> 00:14:08,000

floating in your pool when you're

371

00:14:11,509 --> 00:14:09,440

floating in your pool

372

00:14:13,189 --> 00:14:11,519

yeah you know you're very free and

373

00:14:14,230 --> 00:14:13,199

that's the best analogy i can come up

374

00:14:16,230 --> 00:14:14,240

with but

375

00:14:19,030 --> 00:14:16,240

i like to say that you know space is a

376

00:14:20,870 --> 00:14:19,040

place where uh the impossible is easy

377

00:14:22,230 --> 00:14:20,880

but uh some of the easy things become

378

00:14:25,269 --> 00:14:22,240

much more difficult because we don't

379

00:14:28,710 --> 00:14:27,110

oh my gosh i'm so jealous i would give

380

00:14:30,550 --> 00:14:28,720

like a pinky finger probably a whole

381

00:14:32,389 --> 00:14:30,560

right hand to be up there with you guys

382

00:14:34,629 --> 00:14:32,399

tell me what it's like i know it's

383

00:14:36,550 --> 00:14:34,639

amazing honored to be in space but it's

384

00:14:38,870 --> 00:14:36,560

it's kind of cramped i would imagine on

385

00:14:40,790 --> 00:14:38,880

the space station does it get lonely and

386

00:14:45,030 --> 00:14:40,800

was the last time uh either of you guys

387

00:14:48,710 --> 00:14:46,629

yeah you know uh the space station is

388

00:14:49,990 --> 00:14:48,720

actually actually quite large and and so

389

00:14:51,509 --> 00:14:50,000

there's a lot of space and as we're

390

00:14:53,430 --> 00:14:51,519

working throughout the day you'll go

391

00:14:55,750 --> 00:14:53,440

you'll go hours without maybe seeing one

392

00:14:56,870 --> 00:14:55,760

of your crewmates um in terms of the

393

00:14:59,590 --> 00:14:56,880

loneliness from the family and

394

00:15:01,670 --> 00:14:59,600

everything the uh the nasa and the other

395

00:15:03,269 --> 00:15:01,680

organizations do a great job of keeping

396

00:15:04,550 --> 00:15:03,279

us in contact with our families we

397

00:15:09,670 --> 00:15:04,560

actually are able to talk to them just

398

00:15:13,030 --> 00:15:11,509

now what's next for you guys

399

00:15:14,150 --> 00:15:13,040

there's a lot going on so after we're

400

00:15:15,670 --> 00:15:14,160

done with this interview i'm sure you

401  
00:15:17,269 --> 00:15:15,680  
have some more interviews but what's

402  
00:15:23,269 --> 00:15:17,279  
next what are some other uh important

403  
00:15:26,310 --> 00:15:25,030  
oh yeah so today i'm actually we're

404  
00:15:28,949 --> 00:15:26,320  
going to finish out the day with a lot

405  
00:15:30,310 --> 00:15:28,959  
of ocular health so there's we've had

406  
00:15:32,230 --> 00:15:30,320  
issues with

407  
00:15:33,910 --> 00:15:32,240  
our eyesight up on orbit in the

408  
00:15:35,509 --> 00:15:33,920  
microgravity environment and so actually

409  
00:15:38,230 --> 00:15:35,519  
both rick and i today are going to spend

410  
00:15:39,910 --> 00:15:38,240  
some time taking pictures of our eyes

411  
00:15:41,910 --> 00:15:39,920  
using a couple of different machines to

412  
00:15:43,670 --> 00:15:41,920  
to do that and then folks on the ground

413  
00:15:44,870 --> 00:15:43,680

they'll actually help us out as we do it

414

00:15:49,430 --> 00:15:44,880

and then they'll do a lot of the

415

00:15:52,310 --> 00:15:50,470

now we've

416

00:15:54,150 --> 00:15:52,320

managed to find you guys on twitter and

417

00:15:55,910 --> 00:15:54,160

follow some of you on twitter and a lot

418

00:15:58,310 --> 00:15:55,920

of cool pictures we saw one mike you

419

00:16:00,389 --> 00:15:58,320

posted one over a volcano uh there's

420

00:16:02,629 --> 00:16:00,399

some other pictures you've posted so you

421

00:16:04,470 --> 00:16:02,639

get to really stay connected to us back

422

00:16:05,910 --> 00:16:04,480

at home through things like facebook and

423

00:16:10,870 --> 00:16:05,920

twitter tell us about some of the

424

00:16:15,110 --> 00:16:13,030

yeah you know it's amazing uh i've i've

425

00:16:16,550 --> 00:16:15,120

taken hundreds and thousands of pictures

426  
00:16:18,790 --> 00:16:16,560  
because as you start looking down at the

427  
00:16:20,310 --> 00:16:18,800  
earth up here it's just one thing after

428  
00:16:22,069 --> 00:16:20,320  
another that you see and you're so

429  
00:16:23,269 --> 00:16:22,079  
excited so you just start snap snap

430  
00:16:24,790 --> 00:16:23,279  
snapping and then all of a sudden you

431  
00:16:27,350 --> 00:16:24,800  
realize oh i've got to go through 300

432  
00:16:29,509 --> 00:16:27,360  
pictures 400 pictures uh you know right

433  
00:16:30,790 --> 00:16:29,519  
now in the past couple of weeks the the

434  
00:16:32,150 --> 00:16:30,800  
northern lights have been absolutely

435  
00:16:33,430 --> 00:16:32,160  
incredible so that's that's always

436  
00:16:35,509 --> 00:16:33,440  
exciting to see

437  
00:16:37,350 --> 00:16:35,519  
it's always nice to try and capture home

438  
00:16:39,910 --> 00:16:37,360

towns and cities and and then the

439

00:16:41,590 --> 00:16:39,920

mountains and the islands guys it's just

440

00:16:45,590 --> 00:16:41,600

incredible the the number of things that

441

00:16:48,949 --> 00:16:47,590

gentlemen thank you again so much for

442

00:16:51,670 --> 00:16:48,959

taking the time out of your busy

443

00:16:53,189 --> 00:16:51,680

schedule to explain to us us normal

444

00:16:55,110 --> 00:16:53,199

people what it's like up there we wish

445

00:16:57,030 --> 00:16:55,120

you the best on the rest of this mission

446

00:16:59,350 --> 00:16:57,040

and a safe return coming up in march and

447

00:17:00,870 --> 00:16:59,360

astronauts rick mistrachio and michael

448

00:17:03,509 --> 00:17:00,880

hopkins live from the international

449

00:17:05,510 --> 00:17:03,519

space station no call that's awesome

450

00:17:06,549 --> 00:17:05,520

thanks for taking the time

451

00:17:08,150 --> 00:17:06,559

very cool

452

00:17:12,230 --> 00:17:08,160

we should just pass our breaks like that

453

00:17:17,189 --> 00:17:14,949

station this is houston acr thank you

454

00:17:20,309 --> 00:17:17,199

that concludes the event

455

00:17:22,069 --> 00:17:20,319

thank you watr radio and kspr tv station