



1
00:00:06,789 --> 00:00:02,869
station houston on two are you ready for

2
00:00:12,390 --> 00:00:10,190
houston we are ready for the event

3
00:00:14,470 --> 00:00:12,400
jscpao please call the station for a

4
00:00:17,189 --> 00:00:14,480
voice check

5
00:00:20,950 --> 00:00:17,199
station this is jscpao how do you hear

6
00:00:25,910 --> 00:00:23,990
jsc good to hear you we hear you loud

7
00:00:28,070 --> 00:00:25,920
and clear

8
00:00:31,910 --> 00:00:28,080
gina cincer abc news let me start with

9
00:00:34,310 --> 00:00:31,920
uh ron uh the observations you have made

10
00:00:36,870 --> 00:00:34,320
from the space station of the ver the

11
00:00:38,310 --> 00:00:36,880
hurricanes the tropical storms the

12
00:00:40,389 --> 00:00:38,320
typhoons and we're hoping you'll get

13
00:00:43,350 --> 00:00:40,399

some video of the fires over texas later

14

00:00:45,670 --> 00:00:43,360

today have really been truly astonishing

15

00:00:46,950 --> 00:00:45,680

video so tell me from your perspective

16

00:00:48,709 --> 00:00:46,960

up there when you're looking at these

17

00:00:50,310 --> 00:00:48,719

powerful storms

18

00:00:51,670 --> 00:00:50,320

you know how you feel about that and

19

00:00:52,869 --> 00:00:51,680

your response to it we've heard a little

20

00:00:57,590 --> 00:00:52,879

bit i'd like you to go into a little

21

00:01:03,029 --> 00:00:59,910

sure um actually i'm just the junior

22

00:01:04,549 --> 00:01:03,039

weather apprentice my mike is the uh

23

00:01:06,550 --> 00:01:04,559

mike has been doing most of that i've

24

00:01:08,870 --> 00:01:06,560

been uh focusing on taking pictures when

25

00:01:10,630 --> 00:01:08,880

uh mike has been uh primarily focusing

26

00:01:12,710 --> 00:01:10,640
on the video but i could tell you

27

00:01:14,789 --> 00:01:12,720
um you know it's scary from up here as

28

00:01:16,310 --> 00:01:14,799
well you know it's just

29

00:01:18,469 --> 00:01:16,320
you know you when you see these massive

30

00:01:21,270 --> 00:01:18,479
storms and you see how powerful they are

31

00:01:23,670 --> 00:01:21,280
uh and you realize that the the the

32

00:01:25,990 --> 00:01:23,680
destruction that they can wreak as they

33

00:01:27,910 --> 00:01:26,000
pass across land is is just really

34

00:01:29,670 --> 00:01:27,920
awe-inspiring from up here and it's uh

35

00:01:31,270 --> 00:01:29,680
it's terrifying mike did you want to add

36

00:01:33,830 --> 00:01:31,280
that well yeah i want to add to it three

37

00:01:36,390 --> 00:01:33,840
years ago right around now

38

00:01:38,230 --> 00:01:36,400

you and i and our families were ripping

39

00:01:40,469 --> 00:01:38,240

all of the carpet and the furniture and

40

00:01:42,069 --> 00:01:40,479

everything out of ron's house in houston

41

00:01:43,670 --> 00:01:42,079

because he had three and a half feet of

42

00:01:45,270 --> 00:01:43,680

water in it from a hurricane so they're

43

00:01:47,270 --> 00:01:45,280

scary on the ground and they're scary to

44

00:01:48,469 --> 00:01:47,280

see from up here

45

00:01:50,710 --> 00:01:48,479

we've

46

00:01:52,550 --> 00:01:50,720

we're aware of the negotiations and the

47

00:01:54,389 --> 00:01:52,560

research and the investigation going

48

00:01:57,190 --> 00:01:54,399

into the failure of the progress launch

49

00:01:59,429 --> 00:01:57,200

and the impact that could have on you

50

00:02:01,910 --> 00:01:59,439

what additional training are you getting

51
00:02:09,589 --> 00:02:01,920
for possibly having to demand the space

52
00:02:13,750 --> 00:02:11,350
uh words

53
00:02:15,750 --> 00:02:13,760
just as the the investigation is is

54
00:02:17,510 --> 00:02:15,760
kicking off and it's finishing up its

55
00:02:19,910 --> 00:02:17,520
second week now there's a lot of work

56
00:02:21,589 --> 00:02:19,920
yet to do in that arena the the teams

57
00:02:23,910 --> 00:02:21,599
mostly on the ground there's a lot of

58
00:02:25,510 --> 00:02:23,920
efforts going on to to look at all of

59
00:02:27,589 --> 00:02:25,520
the different options that are that

60
00:02:28,869 --> 00:02:27,599
could possibly come into play

61
00:02:31,350 --> 00:02:28,879
first obviously we're going to have a

62
00:02:33,270 --> 00:02:31,360
short handover with the new crew if any

63
00:02:35,350 --> 00:02:33,280

at all it's possible we will have a

64

00:02:37,830 --> 00:02:35,360
station without people on it for a

65

00:02:39,750 --> 00:02:37,840
hopefully short period of time

66

00:02:42,470 --> 00:02:39,760
and those those plans we haven't started

67

00:02:44,470 --> 00:02:42,480
anything specific up here uh pertaining

68

00:02:46,710 --> 00:02:44,480
to that except for maybe documenting

69

00:02:49,990 --> 00:02:46,720
some of the the things that we do on

70

00:02:51,430 --> 00:02:50,000
video so that we can you know use video

71

00:02:53,030 --> 00:02:51,440
products for part of the training for

72

00:02:55,270 --> 00:02:53,040
the next crew we'll be getting into the

73

00:02:58,229 --> 00:02:55,280
details of what it takes to turn out the

74

00:03:01,110 --> 00:02:58,239
lights uh in the weeks ahead

75

00:03:02,710 --> 00:03:01,120
and ron one last question for me for you

76

00:03:05,830 --> 00:03:02,720

you you've been talking a lot about the

77

00:03:08,149 --> 00:03:05,840

fragile oasis how does seeing it from up

78

00:03:13,509 --> 00:03:08,159

there bring home to you how fragile this

79

00:03:16,790 --> 00:03:15,190

well you know i i don't think it's

80

00:03:18,550 --> 00:03:16,800

possible to look at the earth from up

81

00:03:20,790 --> 00:03:18,560

here without being moved in some way and

82

00:03:22,630 --> 00:03:20,800

i you know i it looking down at the

83

00:03:24,149 --> 00:03:22,640

earth um you know we've we've been

84

00:03:26,869 --> 00:03:24,159

saying this for 50 years we've been

85

00:03:29,190 --> 00:03:26,879

coming to space for 50 years and uh you

86

00:03:31,190 --> 00:03:29,200

know everybody that sees this you know

87

00:03:33,589 --> 00:03:31,200

has has a very similar thing to say in

88

00:03:36,149 --> 00:03:33,599

that they're they're just uh struck by

89

00:03:38,070 --> 00:03:36,159

the by the fragility of our of our

90

00:03:39,830 --> 00:03:38,080

planet you know the thin atmosphere and

91

00:03:41,430 --> 00:03:39,840

and everything else and

92

00:03:43,670 --> 00:03:41,440

um you know

93

00:03:45,030 --> 00:03:43,680

we we we always say that you can't see

94

00:03:46,470 --> 00:03:45,040

borders from space as well but

95

00:03:47,670 --> 00:03:46,480

apparently you can i've got some

96

00:03:49,350 --> 00:03:47,680

pictures

97

00:03:51,750 --> 00:03:49,360

that show some border scenes at night

98

00:03:54,550 --> 00:03:51,760

that i'm going to get out very soon

99

00:03:56,470 --> 00:03:54,560

but the point is not you know whether or

100

00:03:57,910 --> 00:03:56,480

not we can see a border from space the

101
00:04:00,309 --> 00:03:57,920
point is whether we can look down at the

102
00:04:01,589 --> 00:04:00,319
earth and empathize with the with the

103
00:04:03,429 --> 00:04:01,599
struggles and the challenges that

104
00:04:05,910 --> 00:04:03,439
everybody faces on the planet and that's

105
00:04:07,910 --> 00:04:05,920
something that's uh i think really uh

106
00:04:10,149 --> 00:04:07,920
apparent up here is when you look down

107
00:04:12,710 --> 00:04:10,159
you're just struck by this beauty uh

108
00:04:14,309 --> 00:04:12,720
which really is indescribable and and hd

109
00:04:16,390 --> 00:04:14,319
cameras and and everything that we have

110
00:04:18,550 --> 00:04:16,400
all the technology we have

111
00:04:20,789 --> 00:04:18,560
really doesn't do it justice you know we

112
00:04:22,469 --> 00:04:20,799
get as close as we possibly can but

113
00:04:23,990 --> 00:04:22,479

you're struck by this beauty on the one

114

00:04:25,670 --> 00:04:24,000

hand but then you also you know are

115

00:04:27,590 --> 00:04:25,680

faced with the uh you know unfortunate

116

00:04:29,430 --> 00:04:27,600

realities for life on

117

00:04:31,510 --> 00:04:29,440

life on our planet for a lot of its

118

00:04:32,950 --> 00:04:31,520

inhabitants and and i think you know

119

00:04:34,310 --> 00:04:32,960

that's the main thing that you know over

120

00:04:35,830 --> 00:04:34,320

the last five and a half months i've

121

00:04:37,270 --> 00:04:35,840

been up here that i've

122

00:04:38,790 --> 00:04:37,280

taken from this is

123

00:04:40,230 --> 00:04:38,800

uh you know that we're all in this

124

00:04:42,390 --> 00:04:40,240

together that we've got big big

125

00:04:44,310 --> 00:04:42,400

challenges to solve on our planet

126

00:04:45,430 --> 00:04:44,320

uh but one of the ways that we can do

127

00:04:47,990 --> 00:04:45,440

that is through the international

128

00:04:49,670 --> 00:04:48,000

cooperation that we've proven uh on the

129

00:04:51,909 --> 00:04:49,680

international space station and this

130

00:04:54,310 --> 00:04:51,919

amazing uh research facility that we

131

00:04:57,189 --> 00:04:54,320

that we have built so um a really good

132

00:04:59,430 --> 00:04:57,199

question and uh um you know i'm looking

133

00:05:01,590 --> 00:04:59,440

forward to to try and you know explain

134

00:05:05,270 --> 00:05:01,600

as best i can when i get back to earth

135

00:05:09,510 --> 00:05:07,749

this is jill tolk representing the times

136

00:05:10,629 --> 00:05:09,520

trade room newspaper in scranton

137

00:05:12,629 --> 00:05:10,639

pennsylvania

138

00:05:14,550 --> 00:05:12,639

a two-part question for ron

139

00:05:16,870 --> 00:05:14,560

how would you describe the importance of

140

00:05:18,950 --> 00:05:16,880

hometown support for station astronauts

141

00:05:20,950 --> 00:05:18,960

especially now that shuttle has retired

142

00:05:22,790 --> 00:05:20,960

and could you give an example of how

143

00:05:24,870 --> 00:05:22,800

your wife's relatives have supported you

144

00:05:29,189 --> 00:05:24,880

and her from scranton over the past six

145

00:05:33,590 --> 00:05:31,110

well hi hi jill and uh hi to everybody

146

00:05:35,749 --> 00:05:33,600

in scranton um it's uh it's good to be

147

00:05:37,830 --> 00:05:35,759

uh talking to the people of scranton

148

00:05:39,590 --> 00:05:37,840

it's a wonderful wonderful place very

149

00:05:41,270 --> 00:05:39,600

near and dear to my heart

150

00:05:43,270 --> 00:05:41,280

uh you know i had the happiest day of my

151
00:05:45,029 --> 00:05:43,280
life there when i got married there a

152
00:05:45,990 --> 00:05:45,039
very long time ago

153
00:05:46,790 --> 00:05:46,000
but

154
00:05:48,710 --> 00:05:46,800
yeah

155
00:05:50,629 --> 00:05:48,720
the hometown support is critical i

156
00:05:52,790 --> 00:05:50,639
really think it is i mean just support

157
00:05:54,950 --> 00:05:52,800
on the ground period is really important

158
00:05:56,870 --> 00:05:54,960
up here uh you know we are isolated we

159
00:05:58,629 --> 00:05:56,880
are off the planet uh we do it we have a

160
00:06:00,309 --> 00:05:58,639
lot of technology to keep us connected

161
00:06:02,230 --> 00:06:00,319
you know we have the internet and we

162
00:06:04,070 --> 00:06:02,240
have the phone and video conferencing

163
00:06:06,629 --> 00:06:04,080

and everything else but you know we're

164

00:06:08,950 --> 00:06:06,639

not uh seeing flocks of birds fly by

165

00:06:10,309 --> 00:06:08,960

we're not smelling the flowers we're not

166

00:06:12,469 --> 00:06:10,319

we are not living on earth we're not

167

00:06:13,830 --> 00:06:12,479

experiencing life on earth and it's uh

168

00:06:15,909 --> 00:06:13,840

it's something that we really really

169

00:06:18,629 --> 00:06:15,919

miss and one of the ways that you know

170

00:06:20,469 --> 00:06:18,639

we can overcome that and still feel

171

00:06:22,150 --> 00:06:20,479

connected is through the support that we

172

00:06:23,990 --> 00:06:22,160

get from our hometown and from our

173

00:06:26,309 --> 00:06:24,000

family and our friends and i have

174

00:06:28,790 --> 00:06:26,319

regular contact uh with family members

175

00:06:30,309 --> 00:06:28,800

in scranton uh every time we fly over

176

00:06:31,909 --> 00:06:30,319

pennsylvania i'm there at the you know

177

00:06:33,749 --> 00:06:31,919

plastered to the window with my cameras

178

00:06:35,430 --> 00:06:33,759

trying to get good shots of

179

00:06:37,670 --> 00:06:35,440

of scranton and the surrounding areas

180

00:06:39,510 --> 00:06:37,680

because it's a very as as i

181

00:06:41,670 --> 00:06:39,520

i know that you know you know a very

182

00:06:44,309 --> 00:06:41,680

very beautiful part of the country so

183

00:06:46,469 --> 00:06:44,319

thanks for that question

184

00:06:47,990 --> 00:06:46,479

thanks for the good words as you know

185

00:06:50,150 --> 00:06:48,000

chris ferguson is a native of

186

00:06:51,909 --> 00:06:50,160

philadelphia what would you like to

187

00:06:54,550 --> 00:06:51,919

especially share with readers in

188

00:06:56,550 --> 00:06:54,560

scranton regarding your experience

189

00:06:58,870 --> 00:06:56,560

you shared experience on 135 when they

190

00:07:00,629 --> 00:06:58,880

visited and also shuttle's retirement

191

00:07:04,870 --> 00:07:00,639

especially from your unique perspective

192

00:07:10,309 --> 00:07:07,909

yeah chris and myself and mike and and

193

00:07:11,830 --> 00:07:10,319

the whole crew of the of sts-135 the

194

00:07:13,749 --> 00:07:11,840

whole crew of the space station we were

195

00:07:16,629 --> 00:07:13,759

here during a very bittersweet time you

196

00:07:18,309 --> 00:07:16,639

know we got just to experience you know

197

00:07:20,150 --> 00:07:18,319

crossing this line in the sand if you

198

00:07:21,749 --> 00:07:20,160

will when we went from uh the

199

00:07:23,510 --> 00:07:21,759

construction of the space station to

200

00:07:25,029 --> 00:07:23,520

full utilization of the space station we

201
00:07:27,350 --> 00:07:25,039
went from one chapter of our nation's

202
00:07:29,909 --> 00:07:27,360
history uh that being the space shuttle

203
00:07:32,790 --> 00:07:29,919
chapter to the next chapter which

204
00:07:34,309 --> 00:07:32,800
hopefully very soon will see humans

205
00:07:36,629 --> 00:07:34,319
leaving low earth orbit and exploring

206
00:07:38,309 --> 00:07:36,639
the rest of the solar system so it was

207
00:07:40,629 --> 00:07:38,319
it was very bittersweet you know to see

208
00:07:42,550 --> 00:07:40,639
the end of the shuttle uh program on one

209
00:07:45,189 --> 00:07:42,560
hand but to see all the opportunities

210
00:07:47,350 --> 00:07:45,199
that lie ahead and to see this amazing

211
00:07:48,950 --> 00:07:47,360
research facility that we've constructed

212
00:07:50,629 --> 00:07:48,960
we be in the 15 nations of our

213
00:07:52,710 --> 00:07:50,639

international partnership have

214

00:07:54,390 --> 00:07:52,720

constructed up here and you know we you

215

00:07:56,230 --> 00:07:54,400

know chris and i and and everybody on

216

00:07:58,790 --> 00:07:56,240

board we we kind of uh you know

217

00:07:59,589 --> 00:07:58,800

reminisced and we kind of discussed uh

218

00:08:03,830 --> 00:07:59,599

you know

219

00:08:05,990 --> 00:08:03,840

going to happen next and what was going

220

00:08:07,670 --> 00:08:06,000

to happen down down the line and uh you

221

00:08:10,309 --> 00:08:07,680

know we are very very optimistic and

222

00:08:11,589 --> 00:08:10,319

we're very excited about the discoveries

223

00:08:14,390 --> 00:08:11,599

that are going to be made right here

224

00:08:15,589 --> 00:08:14,400

right on this orbital for uh facility uh

225

00:08:17,110 --> 00:08:15,599

you know because we are conducting

226

00:08:19,189 --> 00:08:17,120

research here that simply can't be

227

00:08:21,029 --> 00:08:19,199

conducted anywhere on earth

228

00:08:22,710 --> 00:08:21,039

and i think we're going to see

229

00:08:24,070 --> 00:08:22,720

very shortly you know some of these

230

00:08:25,350 --> 00:08:24,080

breakthroughs

231

00:08:26,790 --> 00:08:25,360

that are going to be made possible

232

00:08:28,550 --> 00:08:26,800

through this research and you know

233

00:08:33,670 --> 00:08:28,560

that's one of the big things that we all

234

00:08:38,389 --> 00:08:37,029

hi robert perlman with collectspace.com

235

00:08:40,149 --> 00:08:38,399

one of the points of pride with the

236

00:08:42,389 --> 00:08:40,159

space station has been its continuous

237

00:08:43,909 --> 00:08:42,399

human presence a record of now more than

238

00:08:45,990 --> 00:08:43,919

4 000 days

239

00:08:48,630 --> 00:08:46,000

um considering the small chance that the

240

00:08:50,310 --> 00:08:48,640

presence would need to be interrupted uh

241

00:08:51,910 --> 00:08:50,320

as a result of the loss of the progress

242

00:08:53,829 --> 00:08:51,920

is that continuous human presence

243

00:08:56,790 --> 00:08:53,839

symbolic only or do you see a

244

00:09:03,990 --> 00:08:56,800

substantial value in having a crew

245

00:09:07,829 --> 00:09:06,230

yeah robert good to talk to you

246

00:09:09,910 --> 00:09:07,839

you know i think that it's a it's a

247

00:09:12,150 --> 00:09:09,920

source of pride the fact that we've kept

248

00:09:13,590 --> 00:09:12,160

crews up here continuously for uh you

249

00:09:15,910 --> 00:09:13,600

know over ten and a half years maybe

250

00:09:18,150 --> 00:09:15,920

it's close to 11 years now is it 11

251
00:09:19,910 --> 00:09:18,160
years close i think

252
00:09:21,990 --> 00:09:19,920
we're getting there uh it's a source of

253
00:09:24,150 --> 00:09:22,000
pride uh i think it's important in many

254
00:09:26,230 --> 00:09:24,160
ways too the space station uh does

255
00:09:27,030 --> 00:09:26,240
require some care and feeding and so

256
00:09:31,829 --> 00:09:27,040
it's

257
00:09:34,230 --> 00:09:31,839
to be here if we possibly can if

258
00:09:36,310 --> 00:09:34,240
you know as events unfold if that's not

259
00:09:37,910 --> 00:09:36,320
possible and we have to

260
00:09:39,269 --> 00:09:37,920
shut it down for a little while we're

261
00:09:41,509 --> 00:09:39,279
going to do our best to leave it in the

262
00:09:43,750 --> 00:09:41,519
best possible condition

263
00:09:45,750 --> 00:09:43,760

to to make it through that downtime and

264

00:09:47,590 --> 00:09:45,760

and have it prepared for the next crew

265

00:09:50,949 --> 00:09:47,600

to open the doors turn on the lights and

266

00:09:53,990 --> 00:09:50,959

come on aboard

267

00:09:55,750 --> 00:09:54,000

and sort of work off that question

268

00:09:57,509 --> 00:09:55,760

with the talk of demanding the space

269

00:09:59,350 --> 00:09:57,519

station the end of the shuttle high

270

00:10:00,949 --> 00:09:59,360

profile robotic missions to the moon

271

00:10:02,710 --> 00:10:00,959

mars and jupiter

272

00:10:05,030 --> 00:10:02,720

robotics on the space station including

273

00:10:07,190 --> 00:10:05,040

dexter and robonaut and even a recent

274

00:10:10,470 --> 00:10:07,200

observation by a popular science fiction

275

00:10:12,389 --> 00:10:10,480

blog that the fall 2001 tv season is the

276

00:10:15,430 --> 00:10:12,399

first time there'll be no tv show

277

00:10:17,030 --> 00:10:15,440

featuring people on spaceships

278

00:10:19,670 --> 00:10:17,040

do you feel there's a risk of the public

279

00:10:21,350 --> 00:10:19,680

starting to de-associate humans

280

00:10:23,269 --> 00:10:21,360

with space exploration and what do you

281

00:10:28,790 --> 00:10:23,279

think can or should be done to reverse

282

00:10:35,190 --> 00:10:31,110

boy i'll give that a try

283

00:10:37,350 --> 00:10:35,200

is there is there a risk perhaps um you

284

00:10:40,790 --> 00:10:37,360

know there's there's really nothing that

285

00:10:42,310 --> 00:10:40,800

beats i mean the the power and majesty

286

00:10:44,949 --> 00:10:42,320

of a space shuttle launch to get your

287

00:10:46,870 --> 00:10:44,959

attention uh as i mean off of you know

288

00:10:49,670 --> 00:10:46,880

american soil and that that's really an

289

00:10:53,110 --> 00:10:49,680

attention-getter it's huge it's dramatic

290

00:10:54,550 --> 00:10:53,120

uh and it's over for now uh and so it's

291

00:10:56,389 --> 00:10:54,560

a little different when we're taking off

292

00:10:57,670 --> 00:10:56,399

on a different rocket on you know in a

293

00:10:59,509 --> 00:10:57,680

foreign land

294

00:11:02,470 --> 00:10:59,519

and so i understand that but you know

295

00:11:03,910 --> 00:11:02,480

we're not here for publicity or you know

296

00:11:06,230 --> 00:11:03,920

those kind of things we're here to get a

297

00:11:08,470 --> 00:11:06,240

job done our nation asks us to do this

298

00:11:11,030 --> 00:11:08,480

and we're here to do that job to take

299

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

care of the space station and to produce

300

00:11:14,790 --> 00:11:12,480

the results from the all of the

301
00:11:16,310 --> 00:11:14,800
different experiments and investigations

302
00:11:17,269 --> 00:11:16,320
that are ongoing to the best of our

303
00:11:18,870 --> 00:11:17,279
ability

304
00:11:20,710 --> 00:11:18,880
i think that you know we need to

305
00:11:23,430 --> 00:11:20,720
continue to do a good job of telling the

306
00:11:25,509 --> 00:11:23,440
story explaining why we're here and what

307
00:11:27,350 --> 00:11:25,519
we're doing as well as sharing some of

308
00:11:30,150 --> 00:11:27,360
the adventure of space looking out the

309
00:11:35,350 --> 00:11:30,160
windows to marvel at the planet below us

310
00:11:40,790 --> 00:11:38,550
and uh i was speaking with apollo 15

311
00:11:42,389 --> 00:11:40,800
command module pilot al warden who spoke

312
00:11:44,710 --> 00:11:42,399
about the value of putting humans into

313
00:11:46,710 --> 00:11:44,720

lunar orbit to do observations of the

314

00:11:48,310 --> 00:11:46,720

surface below of course the space

315

00:11:49,990 --> 00:11:48,320

station serves a similar purpose for

316

00:11:51,910 --> 00:11:50,000

observing the earth

317

00:11:53,430 --> 00:11:51,920

but so do satellites so what do you see

318

00:11:55,030 --> 00:11:53,440

as the advantage of having a human

319

00:11:57,590 --> 00:11:55,040

behind the camera

320

00:12:02,949 --> 00:11:57,600

in other words yourself that satellites

321

00:12:07,190 --> 00:12:05,350

robert that's a really good question um

322

00:12:09,430 --> 00:12:07,200

and it kind of goes

323

00:12:11,509 --> 00:12:09,440

you know it's very similar to the

324

00:12:13,110 --> 00:12:11,519

question that mike just answered um you

325

00:12:14,949 --> 00:12:13,120

know we've always had robotic

326

00:12:17,030 --> 00:12:14,959

exploration we've and we've had human

327

00:12:19,829 --> 00:12:17,040

exploration and i think what we're

328

00:12:21,750 --> 00:12:19,839

seeing now and what we're proving now is

329

00:12:24,470 --> 00:12:21,760

that the most effective form of

330

00:12:25,670 --> 00:12:24,480

exploration is a collaborative uh uh

331

00:12:28,069 --> 00:12:25,680

form

332

00:12:29,910 --> 00:12:28,079

with both robotics and humans together

333

00:12:30,949 --> 00:12:29,920

uh and i and i think we're really seeing

334

00:12:33,670 --> 00:12:30,959

that now

335

00:12:36,389 --> 00:12:33,680

earth earth uh observation satellites

336

00:12:39,030 --> 00:12:36,399

are you know serve a wonderful role and

337

00:12:41,509 --> 00:12:39,040

uh they're very important but uh you

338

00:12:42,629 --> 00:12:41,519

know there is something to be said for

339

00:12:44,870 --> 00:12:42,639

you know looking out the window and

340

00:12:46,710 --> 00:12:44,880

spotting a fire and uh you know grabbing

341

00:12:48,069 --> 00:12:46,720

a camera and taking a picture uh just

342

00:12:50,069 --> 00:12:48,079

because we happen to be here and we

343

00:12:53,269 --> 00:12:50,079

happen to be looking out the window uh

344

00:12:55,670 --> 00:12:53,279

there's also you know a feeling that you

345

00:12:57,350 --> 00:12:55,680

can get when you're up here and you we

346

00:12:59,350 --> 00:12:57,360

try as best we can with our video and

347

00:13:02,629 --> 00:12:59,360

our and our cameras to to capture that

348

00:13:05,190 --> 00:13:02,639

feeling to to capture uh not just the

349

00:13:07,590 --> 00:13:05,200

views not just the you know the ones and

350

00:13:09,910 --> 00:13:07,600

zeros on the digital uh media that we

351

00:13:12,389 --> 00:13:09,920

have here but to actually capture this

352

00:13:15,190 --> 00:13:12,399

moment capture this experience uh as

353

00:13:16,949 --> 00:13:15,200

best we can uh to try and show you what

354

00:13:19,430 --> 00:13:16,959

we're seeing and you really can't do

355

00:13:21,110 --> 00:13:19,440

that from a from an earth a satellite

356

00:13:22,629 --> 00:13:21,120

being controlled from the earth because

357

00:13:23,990 --> 00:13:22,639

it's it's just a different view that

358

00:13:25,670 --> 00:13:24,000

that person who's controlling that or

359

00:13:27,750 --> 00:13:25,680

that that algorithm that computer

360

00:13:34,710 --> 00:13:27,760

program that's controlling that is not

361

00:13:40,150 --> 00:13:37,670

hi i'm mark caro for aviation week and

362

00:13:42,790 --> 00:13:40,160

space technology and i'm just wondering

363

00:13:45,189 --> 00:13:42,800

if you if you have already taken or you

364

00:13:47,269 --> 00:13:45,199

will soon take any measures to sort of

365

00:13:49,829 --> 00:13:47,279

enhance

366

00:13:52,230 --> 00:13:49,839

either general operations or science

367

00:13:55,189 --> 00:13:52,240

research on the station for a period of

368

00:13:57,670 --> 00:13:55,199

time if you do have to unstaff the space

369

00:13:58,629 --> 00:13:57,680

station are you doing some things to

370

00:14:00,870 --> 00:13:58,639

sort of

371

00:14:02,550 --> 00:14:00,880

keep it operating as best it can keep

372

00:14:05,110 --> 00:14:02,560

the scientists

373

00:14:07,030 --> 00:14:05,120

active as best they can be if there is

374

00:14:11,910 --> 00:14:07,040

no one on the station for a short period

375

00:14:15,430 --> 00:14:13,750

hey mark it's great to hear your voice

376
00:14:17,590 --> 00:14:15,440
today

377
00:14:19,829 --> 00:14:17,600
so far we have not begun any of those

378
00:14:21,110 --> 00:14:19,839
actions on the space station it's uh the

379
00:14:22,949 --> 00:14:21,120
the teams in houston are in the

380
00:14:25,030 --> 00:14:22,959
preliminary stages of deciding

381
00:14:26,949 --> 00:14:25,040
everything from what ventilation we're

382
00:14:29,110 --> 00:14:26,959
going to be we're going to leave running

383
00:14:30,710 --> 00:14:29,120
what lights we're going to leave on

384
00:14:32,629 --> 00:14:30,720
what condition each particular

385
00:14:35,670 --> 00:14:32,639
experiment will be on every tank every

386
00:14:37,030 --> 00:14:35,680
valve every hatch there's a lot to do

387
00:14:39,670 --> 00:14:37,040
and they're they're just beginning that

388
00:14:41,670 --> 00:14:39,680

work right now uh and i it's it's too

389

00:14:43,829 --> 00:14:41,680

early for us to get too worried about

390

00:14:44,949 --> 00:14:43,839

that frankly it'll take us you know a

391

00:14:47,030 --> 00:14:44,959

few weeks

392

00:14:50,629 --> 00:14:47,040

uh to uh to finish that up but we have

393

00:14:51,670 --> 00:14:50,639

another nine or so weeks here uh my crew

394

00:14:53,829 --> 00:14:51,680

of three

395

00:14:55,990 --> 00:14:53,839

so we've got plenty of time for those

396

00:14:57,990 --> 00:14:56,000

kind of things if we get to it right now

397

00:15:00,230 --> 00:14:58,000

we're you know working to get

398

00:15:01,910 --> 00:15:00,240

uh irani sasha and andre out of the door

399

00:15:04,550 --> 00:15:01,920

next week

400

00:15:06,550 --> 00:15:04,560

and uh continue operations up here

401
00:15:08,550 --> 00:15:06,560
and we're concentrating on the the

402
00:15:11,829 --> 00:15:08,560
closest thing or the first thing which

403
00:15:14,310 --> 00:15:11,839
would be how to complete a full handover

404
00:15:16,389 --> 00:15:14,320
you know in a less than two weeks when

405
00:15:17,829 --> 00:15:16,399
dan burbank and his crew come aboard

406
00:15:19,829 --> 00:15:17,839
because that'll be a shorter handover

407
00:15:22,069 --> 00:15:19,839
than we've had in uh you know in in

408
00:15:24,790 --> 00:15:22,079
recent days and there's a lot the space

409
00:15:27,110 --> 00:15:24,800
station the us os uh part of the station

410
00:15:30,470 --> 00:15:27,120
has grown a lot since we had those quick

411
00:15:32,310 --> 00:15:30,480
handovers so we we want to

412
00:15:34,310 --> 00:15:32,320
you know be as effective as that as

413
00:15:35,990 --> 00:15:34,320

possible the next step is how to hand

414

00:15:39,350 --> 00:15:36,000

over to him when we don't do it face to

415

00:15:43,829 --> 00:15:41,910

hey mark if i could just add um you know

416

00:15:45,030 --> 00:15:43,839

the science operations on board are

417

00:15:47,350 --> 00:15:45,040

going full

418

00:15:50,230 --> 00:15:47,360

speed ahead uh we we are breaking

419

00:15:53,990 --> 00:15:50,240

records every week uh with the number of

420

00:15:56,710 --> 00:15:54,000

hours that we of basically crew uh hours

421

00:15:59,030 --> 00:15:56,720

of uh scientific research uh which is

422

00:16:00,790 --> 00:15:59,040

over and above that research that's

423

00:16:02,389 --> 00:16:00,800

autonomous that doesn't require a crew

424

00:16:03,670 --> 00:16:02,399

so you know in the unlikely event that

425

00:16:05,910 --> 00:16:03,680

we do have to unmanned the station there

426

00:16:07,509 --> 00:16:05,920

will be still be science conducted on

427

00:16:10,150 --> 00:16:07,519

board it just won't be the crew-based

428

00:16:12,230 --> 00:16:10,160

science and so uh we are in the full

429

00:16:15,590 --> 00:16:12,240

utilization mode right now and uh you

430

00:16:19,670 --> 00:16:15,600

know we are running a sprint pace uh

431

00:16:25,269 --> 00:16:22,310

thanks very much and i i might just ask

432

00:16:27,990 --> 00:16:25,279

follow up with mike fossum on the on the

433

00:16:30,790 --> 00:16:28,000

prospect of having uh three crew on the

434

00:16:33,430 --> 00:16:30,800

station for longer maybe than

435

00:16:35,590 --> 00:16:33,440

than you uh anticipated a couple weeks

436

00:16:37,590 --> 00:16:35,600

ago

437

00:16:40,230 --> 00:16:37,600

what kinds of demands with a larger

438

00:16:45,829 --> 00:16:40,240

station are you going to face

439

00:16:50,069 --> 00:16:47,350

mark i don't have any concerns about

440

00:16:51,590 --> 00:16:50,079

that law we've i mean ron and his crew

441

00:16:53,430 --> 00:16:51,600

and the one the the crews that come

442

00:16:54,949 --> 00:16:53,440

before us have left it in good shape so

443

00:16:56,949 --> 00:16:54,959

there's there there are no big things

444

00:16:59,350 --> 00:16:56,959

hanging out there that i consider to be

445

00:17:01,749 --> 00:16:59,360

an issue uh the the three of us that

446

00:17:04,230 --> 00:17:01,759

will remain here uh when these guys head

447

00:17:06,309 --> 00:17:04,240

home i have talked about it all and you

448

00:17:08,630 --> 00:17:06,319

know we're going to be busy we we came

449

00:17:10,789 --> 00:17:08,640

here to be busy and we're used to it uh

450

00:17:13,510 --> 00:17:10,799

we're we're completely

451
00:17:15,510 --> 00:17:13,520
uh you know acclimatized to living here

452
00:17:17,029 --> 00:17:15,520
and working here we've learned almost

453
00:17:18,549 --> 00:17:17,039
everything from ron and i have his cell

454
00:17:20,309 --> 00:17:18,559
phone number so i know how to get a hold

455
00:17:22,470 --> 00:17:20,319
of him you know after he gets home to

456
00:17:23,990 --> 00:17:22,480
say wow i never found out where where is

457
00:17:25,429 --> 00:17:24,000
this

458
00:17:28,069 --> 00:17:25,439
those kind of things so we're ready to

459
00:17:28,870 --> 00:17:28,079
take over and i have no concerns at all

460
00:17:32,310 --> 00:17:28,880
the

461
00:17:33,110 --> 00:17:32,320
going to take a higher percentage of our

462
00:17:35,430 --> 00:17:33,120
time

463
00:17:37,909 --> 00:17:35,440

than it does right now with uh spreading

464

00:17:39,909 --> 00:17:37,919

that work amongst two people satoshi

465

00:17:41,350 --> 00:17:39,919

furukawa and myself

466

00:17:43,029 --> 00:17:41,360

instead of three

467

00:17:45,669 --> 00:17:43,039

for the part of the station for which

468

00:17:51,510 --> 00:17:45,679

we're responsible but we're working at a

469

00:17:55,590 --> 00:17:53,430

station this is houston acr that

470

00:17:57,430 --> 00:17:55,600

concludes questions from jsc

471

00:18:01,590 --> 00:17:57,440

please stand by for a voice check from

472

00:18:07,270 --> 00:18:03,909

station this is kscpao how do you hear

473

00:18:10,710 --> 00:18:09,590

ksc we hear you loud and clear it's good

474

00:18:11,990 --> 00:18:10,720

to talk to everybody at the kennedy

475

00:18:15,990 --> 00:18:12,000

space center today welcome aboard the

476

00:18:20,070 --> 00:18:17,510

hello this is marcia dunham the

477

00:18:22,630 --> 00:18:20,080

associated press um a couple of

478

00:18:23,990 --> 00:18:22,640

questions number one

479

00:18:25,590 --> 00:18:24,000

for mike i guess

480

00:18:28,230 --> 00:18:25,600

are you still going home in november is

481

00:18:29,669 --> 00:18:28,240

that your latest plan when is the most

482

00:18:31,350 --> 00:18:29,679

tentative launch date that you've heard

483

00:18:32,789 --> 00:18:31,360

of the new crew coming up what's the

484

00:18:35,830 --> 00:18:32,799

latest you've got

485

00:18:37,669 --> 00:18:35,840

and what do you both see is the weak

486

00:18:44,070 --> 00:18:37,679

links on the space station if it did

487

00:18:48,310 --> 00:18:46,310

hey marcia a bunch of great questions uh

488

00:18:51,029 --> 00:18:48,320

right now the current plans are for us

489

00:18:53,590 --> 00:18:51,039

to go home on time middle of november it

490

00:18:55,029 --> 00:18:53,600

could be slipped a couple of days easily

491

00:18:56,710 --> 00:18:55,039

later than that starts to get hard

492

00:18:59,190 --> 00:18:56,720

because of lighting

493

00:19:00,950 --> 00:18:59,200

and much later than that gets hard also

494

00:19:03,190 --> 00:19:00,960

because of the landing conditions in

495

00:19:05,350 --> 00:19:03,200

kazakhstan which can be very severe in

496

00:19:07,350 --> 00:19:05,360

the wintertime and the whole crew

497

00:19:09,270 --> 00:19:07,360

rotation schedule is actually set up to

498

00:19:11,669 --> 00:19:09,280

avoid that

499

00:19:14,150 --> 00:19:11,679

and so but again the plans are for us to

500

00:19:16,789 --> 00:19:14,160

head home in in mid-november

501
00:19:18,150 --> 00:19:16,799
and uh if things hold their tentative

502
00:19:19,909 --> 00:19:18,160
plans and they're very tentative at this

503
00:19:22,070 --> 00:19:19,919
point or for the next crew to launch on

504
00:19:25,430 --> 00:19:22,080
about november 2nd or

505
00:19:29,190 --> 00:19:25,440
around november 2nd to come up but they

506
00:19:31,750 --> 00:19:29,200
the investigation is still ongoing for

507
00:19:33,350 --> 00:19:31,760
what happened with the soyuz booster

508
00:19:36,390 --> 00:19:33,360
and the whole

509
00:19:37,350 --> 00:19:36,400
the whole path from here to launching

510
00:19:39,190 --> 00:19:37,360
humans

511
00:19:41,590 --> 00:19:39,200
there's a number of steps along the way

512
00:19:43,590 --> 00:19:41,600
finding the problem fixing the problem

513
00:19:45,909 --> 00:19:43,600

having a one or two

514

00:19:47,830 --> 00:19:45,919

test launches of unmanned progress

515

00:19:50,070 --> 00:19:47,840

vehicle possibly a satellite using the

516

00:19:51,110 --> 00:19:50,080

same booster before we put people on it

517

00:19:58,070 --> 00:19:51,120

there's a lot of things that have to

518

00:20:01,909 --> 00:20:00,310

oh and i'm sorry marsha i miss what what

519

00:20:03,909 --> 00:20:01,919

kind of things do we think we would need

520

00:20:05,190 --> 00:20:03,919

to do to prepare the space station for

521

00:20:07,590 --> 00:20:05,200

uh to be

522

00:20:09,270 --> 00:20:07,600

unmanned for a period of time

523

00:20:10,870 --> 00:20:09,280

again we're not

524

00:20:12,470 --> 00:20:10,880

tied into those meetings and stuff we

525

00:20:14,310 --> 00:20:12,480

have our work to do right here as the

526
00:20:16,870 --> 00:20:14,320
experts on the ground really hash that

527
00:20:19,350 --> 00:20:16,880
out but it will involve things like

528
00:20:21,190 --> 00:20:19,360
every every module has you know a hatch

529
00:20:22,950 --> 00:20:21,200
on each side of that interface between

530
00:20:26,230 --> 00:20:22,960
the different modules on the station

531
00:20:28,950 --> 00:20:26,240
there's also valves to allow

532
00:20:31,110 --> 00:20:28,960
coolant water and and airflow and things

533
00:20:33,190 --> 00:20:31,120
like that i think we'll be doing things

534
00:20:35,430 --> 00:20:33,200
like closing the hatches

535
00:20:36,870 --> 00:20:35,440
and preparing the maybe sealing the

536
00:20:38,549 --> 00:20:36,880
airflow because they just don't need to

537
00:20:40,549 --> 00:20:38,559
be moving air around the station and

538
00:20:42,230 --> 00:20:40,559

that way if we took had a small leak

539

00:20:44,149 --> 00:20:42,240

somewhere it wouldn't uh it wouldn't

540

00:20:49,430 --> 00:20:44,159

depressurize you know the whole stack

541

00:20:53,750 --> 00:20:51,750

uh thank you for that actually my second

542

00:20:56,789 --> 00:20:53,760

part of that question was what you both

543

00:20:58,630 --> 00:20:56,799

see as the wink weak links what you know

544

00:21:00,789 --> 00:20:58,640

um the couple of things that would

545

00:21:02,950 --> 00:21:00,799

really worry you if that might have more

546

00:21:08,870 --> 00:21:02,960

of a tendency to to break down with

547

00:21:13,110 --> 00:21:11,590

that's hard to say i think the the

548

00:21:15,110 --> 00:21:13,120

folks in the program office would be

549

00:21:16,789 --> 00:21:15,120

better uh better suited to answer that

550

00:21:18,789 --> 00:21:16,799

but it's things like the pump module

551
00:21:21,190 --> 00:21:18,799
that failed a year ago

552
00:21:23,190 --> 00:21:21,200
and uh required an extensive for what

553
00:21:25,350 --> 00:21:23,200
three evas to go out and swap out the

554
00:21:27,990 --> 00:21:25,360
new pump module that's important because

555
00:21:29,669 --> 00:21:28,000
that failure of that one component

556
00:21:32,630 --> 00:21:29,679
takes out half of the cooling on the

557
00:21:35,190 --> 00:21:32,640
space station which limits uh you know

558
00:21:37,029 --> 00:21:35,200
puts you in a kind of a precarious

559
00:21:39,029 --> 00:21:37,039
situation where you don't have the kind

560
00:21:41,669 --> 00:21:39,039
of fault tolerance or or remain

561
00:21:44,789 --> 00:21:41,679
redundancy there's a lot of things if

562
00:21:46,789 --> 00:21:44,799
the crew is here to to take the action

563
00:21:48,870 --> 00:21:46,799

to do the recovery it's no big deal to

564

00:21:52,070 --> 00:21:48,880

be down something like a pump module for

565

00:21:54,390 --> 00:21:52,080

a week or so as you get your plans

566

00:21:55,590 --> 00:21:54,400

together and and and take care of the

567

00:21:57,909 --> 00:21:55,600

problem

568

00:22:00,390 --> 00:21:57,919

it it can become a bigger deal over a

569

00:22:02,789 --> 00:22:00,400

period of time as more things have the

570

00:22:05,029 --> 00:22:02,799

opportunity to stack up against you so a

571

00:22:07,029 --> 00:22:05,039

short gap you know not a big deal but

572

00:22:08,549 --> 00:22:07,039

i've seen some of the same same reports

573

00:22:11,750 --> 00:22:08,559

that that you and your comrades have

574

00:22:13,990 --> 00:22:11,760

written as as that that short gap turns

575

00:22:16,310 --> 00:22:14,000

into you know many months then your

576

00:22:18,149 --> 00:22:16,320
probabilities start to stack up uh

577

00:22:20,549 --> 00:22:18,159
against you and it leads toward a

578

00:22:22,070 --> 00:22:20,559
greater possibility that that

579

00:22:23,270 --> 00:22:22,080
that we would have a problem up here

580

00:22:25,350 --> 00:22:23,280
that became

581

00:22:30,470 --> 00:22:25,360
you know very significant with no nobody

582

00:22:35,350 --> 00:22:32,310
good morning it's peter king with cbs

583

00:22:36,950 --> 00:22:35,360
radio news and uh for either or both of

584

00:22:39,350 --> 00:22:36,960
you we're told the station of course is

585

00:22:42,390 --> 00:22:39,360
well supplied especially after the 135

586

00:22:45,190 --> 00:22:42,400
flight but i'm just wondering if you all

587

00:22:47,669 --> 00:22:45,200
have begun cutting back on anything or

588

00:22:49,990 --> 00:22:47,679

making plans to cut back on anything in

589

00:22:51,750 --> 00:22:50,000

anticipation of

590

00:22:56,630 --> 00:22:51,760

stretching out those supplies for any

591

00:23:01,029 --> 00:22:59,510

no no peter from uh from a uh supply

592

00:23:02,870 --> 00:23:01,039

point of view we really are in good

593

00:23:04,390 --> 00:23:02,880

shape we've got uh you know a lot of

594

00:23:05,990 --> 00:23:04,400

water on board we've got a lot of food

595

00:23:08,789 --> 00:23:06,000

on board we've got a lot of what we call

596

00:23:11,430 --> 00:23:08,799

consumables on board um and so we're in

597

00:23:13,510 --> 00:23:11,440

really good shape um so we're the normal

598

00:23:14,789 --> 00:23:13,520

consumption rate that we've uh

599

00:23:16,870 --> 00:23:14,799

been uh

600

00:23:18,789 --> 00:23:16,880

using all along we're still using that

601
00:23:20,870 --> 00:23:18,799
we haven't gotten to the point yet where

602
00:23:23,590 --> 00:23:20,880
we really need to start

603
00:23:25,990 --> 00:23:23,600
conserving and and um you know

604
00:23:27,270 --> 00:23:26,000
trying to trying to you know what if the

605
00:23:28,870 --> 00:23:27,280
possibilities out there because we

606
00:23:30,470 --> 00:23:28,880
really have already done that we've

607
00:23:33,990 --> 00:23:30,480
already that that was one of the whole

608
00:23:36,070 --> 00:23:34,000
reasons we wanted to fly sts-135 so

609
00:23:37,590 --> 00:23:36,080
so much is because you know we wanted to

610
00:23:39,270 --> 00:23:37,600
be in a position if something happened

611
00:23:41,669 --> 00:23:39,280
that we would we'd have everything on

612
00:23:43,190 --> 00:23:41,679
board that we needed and uh

613
00:23:45,909 --> 00:23:43,200

we did fly that mission and we've got

614

00:23:50,390 --> 00:23:45,919

all those supplies on board and we

615

00:23:53,350 --> 00:23:52,549

hey guys it's bill harwood with cbs with

616

00:23:55,029 --> 00:23:53,360

uh

617

00:23:56,950 --> 00:23:55,039

just one quick one from me you know this

618

00:23:58,549 --> 00:23:56,960

all this talk of demanding the station

619

00:24:00,070 --> 00:23:58,559

has kind of taken me back a little bit

620

00:24:02,310 --> 00:24:00,080

just because given the history of the

621

00:24:03,750 --> 00:24:02,320

soyuz one of the most reliable rockets

622

00:24:05,269 --> 00:24:03,760

in the world it seems

623

00:24:06,789 --> 00:24:05,279

almost inconceivable that they wouldn't

624

00:24:09,590 --> 00:24:06,799

get this resolved

625

00:24:10,950 --> 00:24:09,600

by november how realistic do you guys

626

00:24:13,029 --> 00:24:10,960

think and i realize you don't have an

627

00:24:14,549 --> 00:24:13,039

answer to this but how realistic is the

628

00:24:16,149 --> 00:24:14,559

demanding thing or do you think that's

629

00:24:17,430 --> 00:24:16,159

really not

630

00:24:26,630 --> 00:24:17,440

probably not going to happen i'm just

631

00:24:30,230 --> 00:24:28,390

hey bill well you you've been around

632

00:24:32,549 --> 00:24:30,240

this business that shoot longer than i

633

00:24:33,909 --> 00:24:32,559

have it you know and you know that it's

634

00:24:35,430 --> 00:24:33,919

a complicated thing when you've got a

635

00:24:37,750 --> 00:24:35,440

problem with a right where it stops

636

00:24:40,310 --> 00:24:37,760

functioning you know in flight uh it

637

00:24:42,549 --> 00:24:40,320

shuts down you know that's a big deal uh

638

00:24:44,549 --> 00:24:42,559

and so you know we're not part of that

639

00:24:46,149 --> 00:24:44,559

investigation but but you know what's

640

00:24:48,149 --> 00:24:46,159

going on they're going through that that

641

00:24:50,390 --> 00:24:48,159

rockets had hundreds of successful

642

00:24:52,230 --> 00:24:50,400

launches without problem and so you go

643

00:24:53,669 --> 00:24:52,240

in and you look and say what changed you

644

00:24:55,350 --> 00:24:53,679

know there's not a fundamental design

645

00:24:57,590 --> 00:24:55,360

flaw with the with the rocket it's

646

00:24:59,750 --> 00:24:57,600

worked great so what has changed that's

647

00:25:01,430 --> 00:24:59,760

the first thing you look for it was it a

648

00:25:03,909 --> 00:25:01,440

hardware change a component change or

649

00:25:05,590 --> 00:25:03,919

was it a process change you hope to find

650

00:25:07,830 --> 00:25:05,600

something in those arenas that's where

651
00:25:09,350 --> 00:25:07,840
you usually do find it if those things

652
00:25:11,430 --> 00:25:09,360
don't pop out though

653
00:25:13,590 --> 00:25:11,440
then you start looking at harder things

654
00:25:16,789 --> 00:25:13,600
and that gets to be a lot muddier and

655
00:25:18,549 --> 00:25:16,799
harder to solve in the weeks that we

656
00:25:20,149 --> 00:25:18,559
have or months you know just a few

657
00:25:21,909 --> 00:25:20,159
months we have to solve it before it's

658
00:25:23,909 --> 00:25:21,919
it's my time to go home

659
00:25:25,990 --> 00:25:23,919
and so the possibilities there and

660
00:25:27,590 --> 00:25:26,000
there's a lot of a lot of details we

661
00:25:29,430 --> 00:25:27,600
have to work out

662
00:25:31,750 --> 00:25:29,440
before we get there and that's why the

663
00:25:35,110 --> 00:25:31,760

teams on the ground are are pushing hard

664

00:25:36,630 --> 00:25:35,120

to come up with plans again the the the

665

00:25:37,909 --> 00:25:36,640

ones i think we're going to use are the

666

00:25:39,750 --> 00:25:37,919

ones where

667

00:25:41,350 --> 00:25:39,760

short hand over how do you train people

668

00:25:42,870 --> 00:25:41,360

to do all the hands-on stuff that we do

669

00:25:44,549 --> 00:25:42,880

in a short amount of time

670

00:25:46,149 --> 00:25:44,559

and but that you've got to start working

671

00:25:50,549 --> 00:25:46,159

ahead you have to start working right

672

00:25:55,669 --> 00:25:53,990

it's peter king at cbs with one last one

673

00:25:57,269 --> 00:25:55,679

we're in a tough political climate where

674

00:25:59,510 --> 00:25:57,279

everybody is counting every dime and

675

00:26:01,669 --> 00:25:59,520

every dollar uh and i'm just wondering

676

00:26:04,230 --> 00:26:01,679

if either of you are worried that uh

677

00:26:06,470 --> 00:26:04,240

leaving the station uncrewed might have

678

00:26:08,630 --> 00:26:06,480

the politicians thinking about

679

00:26:09,990 --> 00:26:08,640

permanently calling it quits and saying

680

00:26:15,909 --> 00:26:10,000

you know we really don't need to be

681

00:26:18,870 --> 00:26:17,510

yeah peter um

682

00:26:22,789 --> 00:26:18,880

you know

683

00:26:26,230 --> 00:26:22,799

however

684

00:26:27,750 --> 00:26:26,240

you know what i can say is that

685

00:26:29,590 --> 00:26:27,760

you know the money that has been spent

686

00:26:31,430 --> 00:26:29,600

on the international space station is

687

00:26:33,430 --> 00:26:31,440

probably and i think history will prove

688

00:26:36,230 --> 00:26:33,440

this is the best investment in our

689

00:26:38,870 --> 00:26:36,240

future that we have ever made uh so you

690

00:26:41,269 --> 00:26:38,880

know the the the money that has been

691

00:26:43,909 --> 00:26:41,279

invested will be returned or you know

692

00:26:45,029 --> 00:26:43,919

many many times over in new material new

693

00:26:47,830 --> 00:26:45,039

medicines

694

00:26:49,669 --> 00:26:47,840

uh just improved life on earth uh not to

695

00:26:51,430 --> 00:26:49,679

mention you know the stepping stone to

696

00:26:53,830 --> 00:26:51,440

explore the rest of the solar system uh

697

00:26:57,590 --> 00:26:53,840

that this is a very critical link uh to

698

00:26:59,830 --> 00:26:57,600

doing that so um you know i think

699

00:27:01,510 --> 00:26:59,840

that you know if if we get to the point

700

00:27:03,750 --> 00:27:01,520

where we we have to unman the space

701
00:27:05,510 --> 00:27:03,760
station uh i hope you know that we've

702
00:27:07,510 --> 00:27:05,520
already demonstrated at that point you

703
00:27:08,710 --> 00:27:07,520
know how valuable this is this global

704
00:27:10,950 --> 00:27:08,720
asset is

705
00:27:13,190 --> 00:27:10,960
uh and i i would hope there'd be an

706
00:27:15,590 --> 00:27:13,200
uproar about you know keeping it manned

707
00:27:17,029 --> 00:27:15,600
and making sure that we get that return

708
00:27:19,430 --> 00:27:17,039
on investment because if we're not here

709
00:27:20,389 --> 00:27:19,440
to utilize what we've already invested

710
00:27:22,389 --> 00:27:20,399
the money in

711
00:27:23,909 --> 00:27:22,399
then we've wasted that investment so i

712
00:27:25,350 --> 00:27:23,919
think it's you know really important at

713
00:27:26,870 --> 00:27:25,360

this point i think mike had some words

714

00:27:28,389 --> 00:27:26,880

he wanted to add his okay you got it

715

00:27:32,310 --> 00:27:28,399

okay

716

00:27:37,990 --> 00:27:34,149

station this is houston acr that

717

00:27:42,470 --> 00:27:39,909

thank you to johnson and kennedy space

718

00:27:43,909 --> 00:27:42,480

centers iss will now be resuming

719

00:27:48,470 --> 00:27:43,919

operational space to ground