1
00:09:53,880 --> 00:12:36,600
again

2
00:12:36,610 --> 00:12:42,920
bring it

3
00:16:22,879 --> 00:16:16,879
ma

4
00:16:25,079 --> 00:16:22,889
administrator for Space Operations bill

5
00:16:26,970 --> 00:16:25,089
I'm going to go to the human side of

6
00:16:29,730 --> 00:16:26,980
this first Mark Kelly we talked to him

7
00:16:31,860 --> 00:16:29,740
earlier Scott Kelley's brother I can

8
00:16:33,869 --> 00:16:31,870
sense even though he's a hardened

9
00:16:36,179 --> 00:16:33,879
shuttle commander that this is an

10
00:16:38,519 --> 00:16:36,189
emotional time for him how unique is

11
00:16:40,920 --> 00:16:38,529
this for one brother to see another off

12
00:16:43,949 --> 00:16:40,930
that will wind up joining up in orbit

13
00:16:45,840 --> 00:16:43,959

early next year yeah i think it's it's

14
00:16:48,420 --> 00:16:45,850
really special we talk a lot about

15
00:16:50,549 --> 00:16:48,430
ourselves being part of the human

16
00:16:52,860 --> 00:16:50,559
spaceflight family where we think of

17
00:16:55,739 --> 00:16:52,870
each one of us is a member family member

18
00:16:58,139 --> 00:16:55,749
we grow close to our workers we work

19
00:17:01,559 --> 00:16:58,149
with every day but I think there's also

20
00:17:03,989 --> 00:17:01,569
a special tie of someone it's really

21
00:17:07,409 --> 00:17:03,999
growing up as kids together especially

22
00:17:09,600 --> 00:17:07,419
mark and Scott growing up is boys

23
00:17:12,059 --> 00:17:09,610
together an in to get a chance to see

24
00:17:14,130 --> 00:17:12,069
this activity here at the launch pad and

25
00:17:16,500 --> 00:17:14,140
to see his brother get ready to go fly

26
00:17:18,090 --> 00:17:16,510
and think about his own training he's in

27
00:17:21,419 --> 00:17:18,100
the middle of this training for the AMS

28
00:17:23,189 --> 00:17:21,429
flight sts-134 so so marks got that on

29
00:17:24,720 --> 00:17:23,199
his mind he gets to see his brother fly

30
00:17:26,789 --> 00:17:24,730
and then eventually you'll get to see

31
00:17:28,980 --> 00:17:26,799
his brother in space so it's a pretty

32
00:17:31,289 --> 00:17:28,990
special event when you you get to see

33
00:17:32,760 --> 00:17:31,299
your brother go fly and then go get to

34
00:17:34,409 --> 00:17:32,770
be with him on orbit and actually

35
00:17:37,460 --> 00:17:34,419
experienced space station with all its

36
00:17:40,380 --> 00:17:37,470
glory together as a family a real family

37
00:17:41,580 --> 00:17:40,390
monday marked the 53rd anniversary of

38
00:17:46,529 --> 00:17:41,590

the launching of

39
00:17:48,899 --> 00:17:46,539
which started it all in 1957 where six

40
00:17:52,649 --> 00:17:48,909
months shy of Gagarin 50th anniversary

41
00:17:56,250 --> 00:17:52,659
of his launch right here how does that

42
00:17:57,930 --> 00:17:56,260
strike you it's amazing to me I go out

43
00:17:59,899 --> 00:17:57,940
to the launch pad and I look at the

44
00:18:02,340 --> 00:17:59,909
swing arm and on a swing arm it shows

45
00:18:04,289 --> 00:18:02,350
the symbols of each of the launches from

46
00:18:06,690 --> 00:18:04,299
the pad and two of the special ones are

47
00:18:10,019 --> 00:18:06,700
the Sputnik launch and then Gagarin's

48
00:18:11,519 --> 00:18:10,029
launch and that's a just amazing to see

49
00:18:13,710 --> 00:18:11,529
that and to see the engineering that

50
00:18:16,110 --> 00:18:13,720
went into this launch pad to see the

51
00:18:18,000 --> 00:18:16,120
rocket installed to see the team's work

52
00:18:20,370 --> 00:18:18,010
with the umbilicals and hook things up

53
00:18:22,740 --> 00:18:20,380
and to think that the same basic

54
00:18:25,019 --> 00:18:22,750
philosophy was used way back when with

55
00:18:27,810 --> 00:18:25,029
Gagarin flight is just phenomenal to me

56
00:18:29,549 --> 00:18:27,820
and it's amazing to see the history to

57
00:18:31,260 --> 00:18:29,559
see the continuation and how they

58
00:18:33,779 --> 00:18:31,270
continue to improve slowly over time

59
00:18:35,789 --> 00:18:33,789
make incremental steps but continue to

60
00:18:37,470 --> 00:18:35,799
make the systems better and you know we

61
00:18:39,389 --> 00:18:37,480
look at this so you stand on the outside

62
00:18:41,430 --> 00:18:39,399
it looks like the same Soyuz but as as

63
00:18:43,230 --> 00:18:41,440

we've heard and know that this has got

64
00:18:46,380 --> 00:18:43,240
the new control system in at the new

65
00:18:48,930 --> 00:18:46,390
cockpit it's so you 701 a new series so

66
00:18:50,399 --> 00:18:48,940
you so again the progression changes and

67
00:18:52,350 --> 00:18:50,409
things continue to get better as they

68
00:18:55,460 --> 00:18:52,360
improve things and move towards the

69
00:18:58,340 --> 00:18:55,470
future while we're talking anniversaries

70
00:19:00,330 --> 00:18:58,350
again on the same launch pad behind you

71
00:19:02,519 --> 00:19:00,340
we're coming up on the 10th anniversary

72
00:19:03,779 --> 00:19:02,529
of the human occupancy of the

73
00:19:05,519 --> 00:19:03,789
International Space Station expedition

74
00:19:06,890 --> 00:19:05,529
one it's hard to believe it's been a

75
00:19:09,950 --> 00:19:06,900
decade

76
00:19:11,990 --> 00:19:09,960
in your mind how how amazing has this

77
00:19:14,060 --> 00:19:12,000
journey been over the past 10 years to

78
00:19:17,240 --> 00:19:14,070
get the space station to where it is

79
00:19:19,550 --> 00:19:17,250
today continued occupancy unbroken and

80
00:19:21,200 --> 00:19:19,560
the future that was it I think it's

81
00:19:23,840 --> 00:19:21,210
pretty phenomenal when you think about

82
00:19:25,820 --> 00:19:23,850
it we spent 10 years really assemble in

83
00:19:28,940 --> 00:19:25,830
this wonderful research facility in

84
00:19:31,370 --> 00:19:28,950
space and the dedication of the team the

85
00:19:33,380 --> 00:19:31,380
drive you know the hard times when we

86
00:19:34,670 --> 00:19:33,390
had Columbia it was a tough time to

87
00:19:36,770 --> 00:19:34,680
figure out how we're going to keep crews

88
00:19:39,380 --> 00:19:36,780

on orbit and keep them safe we were able

89
00:19:41,540 --> 00:19:39,390
to persevere through all that continued

90
00:19:43,340 --> 00:19:41,550
through this period I then look forward

91
00:19:45,290 --> 00:19:43,350
to the next 10 years the next 10 years

92
00:19:47,990 --> 00:19:45,300
will be very challenging in the research

93
00:19:49,640 --> 00:19:48,000
environment it's our challenge now and

94
00:19:51,500 --> 00:19:49,650
the team's challenge to focus on that

95
00:19:53,990 --> 00:19:51,510
research to get ready to utilize this

96
00:19:56,930 --> 00:19:54,000
truly international wonderful facility

97
00:19:58,550 --> 00:19:56,940
in space to gain research so as amazing

98
00:20:00,590 --> 00:19:58,560
as the engineering accomplishment was

99
00:20:02,240 --> 00:20:00,600
over these past 10 years I look forward

100
00:20:04,880 --> 00:20:02,250
to the research accomplishment in the

101
00:20:07,130 --> 00:20:04,890
future 10 years to even be greater so I

102
00:20:09,080 --> 00:20:07,140
look to be here maybe 10 years later

103
00:20:11,090 --> 00:20:09,090
looking back and we can Marvel it what

104
00:20:12,800 --> 00:20:11,100
the space station is shown us how it's

105
00:20:14,810 --> 00:20:12,810
helped people on the earth it's changed

106
00:20:17,390 --> 00:20:14,820
our perception it has shown that space

107
00:20:19,430 --> 00:20:17,400
can be used for mankind it's a facility

108
00:20:21,860 --> 00:20:19,440
it's a it's a research capability that

109
00:20:24,950 --> 00:20:21,870
will bear huge benefits to mankind on

110
00:20:26,960 --> 00:20:24,960
the earth so I look back to the past 10

111
00:20:29,300 --> 00:20:26,970
years but I look even harder to the

112
00:20:30,920 --> 00:20:29,310
first 10 years in front of us in a

113
00:20:32,900 --> 00:20:30,930

signing time is in front of us the

114
00:20:35,150 --> 00:20:32,910
research period will be every bit is

115
00:20:39,230 --> 00:20:35,160
exciting and yield real results for us

116
00:20:41,180 --> 00:20:39,240
here on the earth and Bill finally scott

117
00:20:42,560 --> 00:20:41,190
kelly and alexander kaleri oleg

118
00:20:44,320 --> 00:20:42,570
skripochka they arrived on the station

119
00:20:46,810 --> 00:20:44,330
this weekend to begin a half year

120
00:20:48,279 --> 00:20:46,820
some of the busiest activity that we

121
00:20:50,019 --> 00:20:48,289
will ever see including visiting

122
00:20:51,700 --> 00:20:50,029
vehicles hither and yon I mean almost

123
00:20:55,210 --> 00:20:51,710
every week there's going to be some

124
00:20:58,539 --> 00:20:55,220
major activity your your thoughts on how

125
00:21:00,610 --> 00:20:58,549
expedition 25 and 26 will unfold in

126
00:21:02,440 --> 00:21:00,620
terms of its complexity yeah I think

127
00:21:03,909 --> 00:21:02,450
it's it's very interesting you know

128
00:21:06,009 --> 00:21:03,919
we're kind of winding down the shuttle

129
00:21:08,230 --> 00:21:06,019
program so will potentially see you know

130
00:21:10,899 --> 00:21:08,240
the two more shuttle flights maybe three

131
00:21:12,430 --> 00:21:10,909
and then those are exciting but then the

132
00:21:13,990 --> 00:21:12,440
other flights you know there's 17

133
00:21:16,240 --> 00:21:14,000
flights to station next year and

134
00:21:18,879 --> 00:21:16,250
extremely busy time in terms of vehicles

135
00:21:21,100 --> 00:21:18,889
arriving I think the AMS coming to space

136
00:21:22,810 --> 00:21:21,110
station is another very unique piece of

137
00:21:25,120 --> 00:21:22,820
research on board space station that

138
00:21:26,680 --> 00:21:25,130

allow us to look at high energy particle

139
00:21:28,779 --> 00:21:26,690
physics allow us to look back towards

140
00:21:30,490 --> 00:21:28,789
the Big Bang with it with a unique

141
00:21:32,889 --> 00:21:30,500
experiment that can only really be done

142
00:21:34,419 --> 00:21:32,899
on Space Station it's also kind of

143
00:21:36,399 --> 00:21:34,429
surreal for me as we sit here at this

144
00:21:38,860 --> 00:21:36,409
launch pad and I watch this vehicle get

145
00:21:41,379 --> 00:21:38,870
erected today I receive a text message

146
00:21:43,600 --> 00:21:41,389
this morning from KSC they're busy

147
00:21:45,970 --> 00:21:43,610
processing discovery of KSC getting it's

148
00:21:47,799 --> 00:21:45,980
ready for its launch their their dis

149
00:21:49,779 --> 00:21:47,809
completed refueling activities they're

150
00:21:51,940 --> 00:21:49,789
they're hooking up in vehicles so here

151
00:21:53,560 --> 00:21:51,950
we are worlds apart at Kennedy were

152
00:21:55,360 --> 00:21:53,570
getting our vehicle ready to go fly a

153
00:21:57,460 --> 00:21:55,370
much more complicated vehicle but here

154
00:21:59,230 --> 00:21:57,470
we are in Baikonur getting another

155
00:22:01,060 --> 00:21:59,240
vehicle to fly so what a great time

156
00:22:03,519 --> 00:22:01,070
that's what the Euro represent many

157
00:22:06,100 --> 00:22:03,529
parallel activities occurring continents

158
00:22:08,350 --> 00:22:06,110
away worlds away but with a team that

159
00:22:10,659 --> 00:22:08,360
has focused both places on the same

160
00:22:12,850 --> 00:22:10,669
perfection the same drive to do exactly

161
00:22:15,009 --> 00:22:12,860
bring out the best of what they can do

162
00:22:17,520 --> 00:22:15,019
to make this space station make our

163
00:22:19,470 --> 00:22:17,530

endeavors and space successful

164
00:22:21,750 --> 00:22:19,480
Mike suffered a knee International Space

165
00:22:25,530 --> 00:22:21,760
Station program manager Mike the Soyuz

166
00:22:27,660 --> 00:22:25,540
TMA oh 1 M modified Soyuz now on the pad

167
00:22:29,850 --> 00:22:27,670
getting ready for launch in the wee

168
00:22:33,750 --> 00:22:29,860
hours of Friday morning your thoughts as

169
00:22:35,730 --> 00:22:33,760
you watch the rollout today and we're

170
00:22:37,410 --> 00:22:35,740
six months shy of Gagarin 50th

171
00:22:40,110 --> 00:22:37,420
anniversary of his launch in the history

172
00:22:41,760 --> 00:22:40,120
that we're standing on it is amazing to

173
00:22:44,310 --> 00:22:41,770
be here in particular because of this

174
00:22:47,940 --> 00:22:44,320
launch pad is the launch pad bit Garen

175
00:22:49,440 --> 00:22:47,950
flew off of it strikes me when I think

176
00:22:52,110 --> 00:22:49,450
about the fact that we're getting closer

177
00:22:53,970 --> 00:22:52,120
to the end of assembly and that that

178
00:22:56,190 --> 00:22:53,980
will begin utilization you know we think

179
00:22:57,540 --> 00:22:56,200
of ourselves kind of slowing down our

180
00:22:59,280 --> 00:22:57,550
pace a little bit as we get ready to

181
00:23:01,050 --> 00:22:59,290
utilization and really this is kind of

182
00:23:03,990 --> 00:23:01,060
an indication of the way it's going to

183
00:23:05,760 --> 00:23:04,000
be a long term in order to utilize ISS

184
00:23:08,400 --> 00:23:05,770
we've got to fly off many launch pads

185
00:23:11,250 --> 00:23:08,410
around the world we've got 17 flights in

186
00:23:14,340 --> 00:23:11,260
11 year this year and that's going to be

187
00:23:16,920 --> 00:23:14,350
almost the norm for us as a program in

188
00:23:18,690 --> 00:23:16,930

order to keep the ISS adequately

189
00:23:21,540 --> 00:23:18,700
supplied and get all the research done

190
00:23:23,700 --> 00:23:21,550
that we need to get done so it's this is

191
00:23:26,100 --> 00:23:23,710
going to become commonplace around the

192
00:23:29,160 --> 00:23:26,110
world for us I believe for Scott Kelly

193
00:23:31,500 --> 00:23:29,170
alexander kaleri oleg skripochka this

194
00:23:33,120 --> 00:23:31,510
increment that they're joining and the

195
00:23:36,480 --> 00:23:33,130
one that they'll be inheriting in late

196
00:23:39,240 --> 00:23:36,490
november expedition 26 busy time

197
00:23:41,070 --> 00:23:39,250
shuttles visiting vehicles give us a

198
00:23:42,990 --> 00:23:41,080
sense of how busy the space station is

199
00:23:44,580 --> 00:23:43,000
going to be in a traffic pattern over

200
00:23:46,410 --> 00:23:44,590
the next six months oh yeah it's going

201
00:23:48,270 --> 00:23:46,420
to be incredibly busy you know we're not

202
00:23:51,270 --> 00:23:48,280
done with the assembly yet we have we

203
00:23:53,880 --> 00:23:51,280
still have to add the permanent storage

204
00:23:56,100 --> 00:23:53,890
module we call the pmm on orbit and then

205
00:23:57,900 --> 00:23:56,110
we have a major payload come in the

206
00:24:00,960 --> 00:23:57,910
Alpha Magnetic Spectrometer that's going

207
00:24:03,750 --> 00:24:00,970
to show up in late februari so those two

208
00:24:06,560 --> 00:24:03,760
shuttle flights are part of the mix also

209
00:24:10,320 --> 00:24:06,570
late October we have a progress we have

210
00:24:13,890 --> 00:24:10,330
the crew the 24 Soyuz crew returning at

211
00:24:16,350 --> 00:24:13,900
the end of november we've got Katie

212
00:24:20,130 --> 00:24:16,360
Collman and Dimitri and Paolo flying up

213
00:24:23,670 --> 00:24:20,140

in December then we have HTV in January

214
00:24:26,040 --> 00:24:23,680
another progress an ATV we got a couple

215
00:24:27,570 --> 00:24:26,050
of a rush Russian segment epa's of the

216
00:24:30,150 --> 00:24:27,580
first a year and possibly one at the end

217
00:24:31,350 --> 00:24:30,160
of this year all of that leading up to

218
00:24:33,870 --> 00:24:31,360
the sts-131

219
00:24:35,700 --> 00:24:33,880
or mission where Scott's brother mark

220
00:24:38,730 --> 00:24:35,710
will come up and they'll be together on

221
00:24:42,030 --> 00:24:38,740
orbit so it's just a remarkably busy

222
00:24:43,980 --> 00:24:42,040
period for us and the 10th anniversary

223
00:24:45,480 --> 00:24:43,990
of the human occupancy of the space

224
00:24:48,180 --> 00:24:45,490
station is right around the corner in

225
00:24:50,460 --> 00:24:48,190
fact the day after discovery launches on

226
00:24:53,360 --> 00:24:50,470
the sts-133 mission november second will

227
00:24:55,380 --> 00:24:53,370
be the anniversary ten years ago

228
00:24:57,720 --> 00:24:55,390
expedition one launched from the same

229
00:24:59,460 --> 00:24:57,730
launch pad it's almost hard to believe

230
00:25:01,950 --> 00:24:59,470
it's been a decade and your thoughts on

231
00:25:04,260 --> 00:25:01,960
yeah and and remember this is expedition

232
00:25:06,360 --> 00:25:04,270
beginning of expedition 25 where we've

233
00:25:09,240 --> 00:25:06,370
already actually begun expedition 25 the

234
00:25:12,270 --> 00:25:09,250
way we count but the 25th expedition

235
00:25:14,100 --> 00:25:12,280
crew this is an amazing number of cruz

236
00:25:16,620 --> 00:25:14,110
de to come to visit space station and

237
00:25:18,270 --> 00:25:16,630
actually live on board there's been

238
00:25:20,400 --> 00:25:18,280

something on the order of a hundred and

239
00:25:24,260 --> 00:25:20,410
fifty five crews visit ISS has been an

240
00:25:27,330 --> 00:25:24,270
incredible incredibly a fruitful

241
00:25:28,950 --> 00:25:27,340
platform from that respect and it's the

242
00:25:30,930 --> 00:25:28,960
human element that that brings us all

243
00:25:33,330 --> 00:25:30,940
back brings us all back home to us and

244
00:25:35,520 --> 00:25:33,340
so i hope we have many many more

245
00:25:38,789 --> 00:25:35,530
visitors to come and mike as the year

246
00:25:41,010 --> 00:25:38,799
winds down your thoughts on on what this

247
00:25:43,320 --> 00:25:41,020
year meant for space station not only in

248
00:25:45,539 --> 00:25:43,330
terms of expansion of science but to

249
00:25:47,190 --> 00:25:45,549
show through the pump module activity

250
00:25:50,490 --> 00:25:47,200
that transpired over the summer that you

251
00:25:51,840 --> 00:25:50,500
could fix critical spare parts when in a

252
00:25:54,180 --> 00:25:51,850
short period of time with all of that

253
00:25:55,620 --> 00:25:54,190
replanting the one oh yeah and that's a

254
00:25:57,360 --> 00:25:55,630
that's a very good point of course we

255
00:25:59,850 --> 00:25:57,370
have we're really in our minds

256
00:26:02,100 --> 00:25:59,860
transition to utilization onboard ISS

257
00:26:06,210 --> 00:26:02,110
we've changed our whole focus in terms

258
00:26:08,039 --> 00:26:06,220
of when we manifest used to be we kept

259
00:26:10,140 --> 00:26:08,049
the systems guys would get a certain

260
00:26:11,310 --> 00:26:10,150
allocation and we protect that and if

261
00:26:13,140 --> 00:26:11,320
they needed more they got it it

262
00:26:15,480 --> 00:26:13,150
expensive utilization now we do exactly

263
00:26:18,169 --> 00:26:15,490

the opposite utilization flies and we

264
00:26:20,700 --> 00:26:18,179
work around their needs in order to to

265
00:26:22,500 --> 00:26:20,710
operate ISS but when something like a

266
00:26:24,539 --> 00:26:22,510
pump module fails you have to stop what

267
00:26:27,299 --> 00:26:24,549
you're doing and replace it and that was

268
00:26:29,610 --> 00:26:27,309
an amazing feat we learned a lot it we

269
00:26:31,760 --> 00:26:29,620
took about ten percent of the crew time

270
00:26:34,890 --> 00:26:31,770
that we had planned for research away

271
00:26:38,340 --> 00:26:34,900
but in the since that time we've made up

272
00:26:40,320 --> 00:26:38,350
over half of that time back and so even

273
00:26:41,860 --> 00:26:40,330
though we did the pump module the team

274
00:26:43,810 --> 00:26:41,870
really turned to and found

275
00:26:45,820 --> 00:26:43,820
more efficient ways to get some that

276
00:26:47,799 --> 00:26:45,830
research done and and that really is our

277
00:26:50,140 --> 00:26:47,809
focus and so while to the outside world

278
00:26:51,400 --> 00:26:50,150
it looks like we were mostly just

279
00:26:53,200 --> 00:26:51,410
fretting about the pump we were

280
00:26:54,880 --> 00:26:53,210
internally working very hard to make

281
00:26:57,520 --> 00:26:54,890
sure we've got that time back that we

282
00:26:59,590 --> 00:26:57,530
that we took from utilization so it does

283
00:27:01,860 --> 00:26:59,600
all work it's an it's an amazing effort

284
00:27:04,030 --> 00:27:01,870
by an incredible team around the world

285
00:27:05,740 --> 00:27:04,040
but it does all work and we will

286
00:27:08,470 --> 00:27:05,750
continue to do more and more research

287
00:27:14,530 --> 00:27:08,480
and learn more discover more as as the

288
00:27:17,290 --> 00:27:14,540

years go on Mark Kelly Devers commander

289
00:27:18,490 --> 00:27:17,300
for sts-134 next couple ring in very big

290
00:27:21,160 --> 00:27:18,500
role here at the Baikonur cosmodrome

291
00:27:22,780 --> 00:27:21,170
mark you're here to see your brother

292
00:27:25,270 --> 00:27:22,790
launch to the international space

293
00:27:29,320 --> 00:27:25,280
station and the soyuz rocket that sits

294
00:27:30,669 --> 00:27:29,330
behind you your thoughts as you as the

295
00:27:32,260 --> 00:27:30,679
hours countdown to your brother's

296
00:27:34,419 --> 00:27:32,270
launched this is it's pretty amazing

297
00:27:36,460 --> 00:27:34,429
place to be a lot of history here and

298
00:27:38,350 --> 00:27:36,470
you know to consider the fact that my

299
00:27:40,810 --> 00:27:38,360
brother's part of this and our families

300
00:27:43,540 --> 00:27:40,820
out here it's pretty exciting you know

301
00:27:45,160 --> 00:27:43,550
um saw Scott yesterday going to see him

302
00:27:48,520 --> 00:27:45,170
again today he's feeling really good and

303
00:27:50,620 --> 00:27:48,530
you know he's got a very busy mission

304
00:27:53,169 --> 00:27:50,630
ahead of them so it's it's nice to get a

305
00:27:56,290 --> 00:27:53,179
chance to see him off much has been made

306
00:27:58,120 --> 00:27:56,300
of the fact that twin brothers have the

307
00:27:59,680 --> 00:27:58,130
real potential of meeting up in orbit as

308
00:28:01,900 --> 00:27:59,690
respective commanders of a space shuttle

309
00:28:03,790 --> 00:28:01,910
in a space station did you have a chance

310
00:28:05,650 --> 00:28:03,800
to talk a little bit to scout about that

311
00:28:07,360 --> 00:28:05,660
uniqueness yeah we've talked a little

312
00:28:09,640 --> 00:28:07,370
bit about it wasn't actually supposed to

313
00:28:11,560 --> 00:28:09,650

happen I should have been up to station

314
00:28:13,840 --> 00:28:11,570
and back already on my flight but he's

315
00:28:15,370 --> 00:28:13,850
going to launch in a couple days on his

316
00:28:18,070 --> 00:28:15,380
expedition and then we'll see what

317
00:28:19,780 --> 00:28:18,080
happens with the launch of sts-134

318
00:28:21,910 --> 00:28:19,790
whether we launched on time or not and

319
00:28:24,520 --> 00:28:21,920
if we do when I open the hatch it'll be

320
00:28:26,799 --> 00:28:24,530
on the other side now you're on the same

321
00:28:30,400 --> 00:28:26,809
launch pad that Yuri Gagarin launched

322
00:28:32,320 --> 00:28:30,410
from almost 50 years ago your sense of

323
00:28:34,270 --> 00:28:32,330
history as you sit here and watch all

324
00:28:35,680 --> 00:28:34,280
this process unfold this is an amazing

325
00:28:37,540 --> 00:28:35,690
place you know the fact that they've

326
00:28:40,090 --> 00:28:37,550
used the same launch pad for 50 years

327
00:28:42,220 --> 00:28:40,100
we're in the American space program you

328
00:28:44,890 --> 00:28:42,230
know we have several that we've you know

329
00:28:46,930 --> 00:28:44,900
demolished and rebuilt and you know so

330
00:28:48,190 --> 00:28:46,940
it's it's it's pretty interesting to

331
00:28:50,290 --> 00:28:48,200
know that you know every one of these

332
00:28:52,540 --> 00:28:50,300
rockets and every cosmonaut that's gone

333
00:28:54,380 --> 00:28:52,550
into space has gone off this pad you

334
00:28:57,110 --> 00:28:54,390
know it's a pretty special place

335
00:28:59,420 --> 00:28:57,120
you've seen shuttle drill out the wrong

336
00:29:01,580 --> 00:28:59,430
shuttle roll up but we've got a

337
00:29:03,410 --> 00:29:01,590
comparative thought about the way the

338
00:29:04,610 --> 00:29:03,420

process works here as opposed to down at

339
00:29:06,350 --> 00:29:04,620
the Kennedy Space Center yeah so I've

340
00:29:09,020 --> 00:29:06,360
actually never seen the Space Shuttle

341
00:29:10,820 --> 00:29:09,030
roll out even though I mean this for me

342
00:29:13,700 --> 00:29:10,830
the timings never worked out I'm going

343
00:29:15,380 --> 00:29:13,710
to try to do that for sts-134 certainly

344
00:29:18,530 --> 00:29:15,390
the orbiter takes a lot longer to get to

345
00:29:21,380 --> 00:29:18,540
the launch pad the Soyuz moves pretty

346
00:29:22,730 --> 00:29:21,390
quickly along the railroad track and you

347
00:29:24,380 --> 00:29:22,740
know to get out to the pad i think

348
00:29:26,240 --> 00:29:24,390
shortly they're going to erect it and

349
00:29:27,920 --> 00:29:26,250
put it in the into the vertical and it's

350
00:29:30,610 --> 00:29:27,930
it's relatively compared to what we do

351
00:29:33,290 --> 00:29:30,620
is a very quick process final question

352
00:29:35,150 --> 00:29:33,300
this must be an emotional time for you

353
00:29:36,740 --> 00:29:35,160
and the family members who have traveled

354
00:29:40,280 --> 00:29:36,750
halfway around the world to watch scott

355
00:29:42,110 --> 00:29:40,290
take off your thoughts as you've talked

356
00:29:44,000 --> 00:29:42,120
to your brother his level of readiness

357
00:29:45,890 --> 00:29:44,010
to spend six months on the space station

358
00:29:48,290 --> 00:29:45,900
and your thoughts as you see him off

359
00:29:49,490 --> 00:29:48,300
he's absolutely ready for this mission

360
00:29:52,160 --> 00:29:49,500
he's been training for this for a long

361
00:29:53,870 --> 00:29:52,170
time he's got a very busy increment a

362
00:29:56,840 --> 00:29:53,880
lot of vehicles arriving and departing

363
00:29:59,720 --> 00:29:56,850

to space shuttles of progress so use a

364
00:30:00,980 --> 00:29:59,730
TV HTV he's going to have a very busy

365
00:30:03,230 --> 00:30:00,990
flight so I think for him that's going

366
00:30:05,150 --> 00:30:03,240
to go very fast and if everything goes

367
00:30:06,620 --> 00:30:05,160
well should be very satisfying you know

368
00:30:07,610 --> 00:30:06,630
my thoughts is you know I kind of know

369
00:30:10,610 --> 00:30:07,620
what he's going through I've flown in

370
00:30:12,950 --> 00:30:10,620
space three times never on the Soyuz but

371
00:30:14,840 --> 00:30:12,960
it's it's exciting for him you try to

372
00:30:15,830 --> 00:30:14,850
make sure you've done everything and

373
00:30:17,090 --> 00:30:15,840
you've thought of everything ahead of

374
00:30:19,280 --> 00:30:17,100
time so he's kind of going through that

375
00:30:20,960 --> 00:30:19,290
process now to make sure you don't want

376
00:30:22,910 --> 00:30:20,970
to leave anything and anything behind

377
00:30:27,320 --> 00:30:22,920
you know you only get this opportunity

378
00:30:30,080 --> 00:30:27,330
once any brotherly advice as he prepares

379
00:30:32,350 --> 00:30:30,090
to go well I can't give them so use

380
00:30:34,910 --> 00:30:32,360
advice never having flown on the Soyuz

381
00:30:36,500 --> 00:30:34,920
just but just you know general you know

382
00:30:37,790 --> 00:30:36,510
spaceflight thing you know you got to

383
00:30:40,790 --> 00:30:37,800
make sure you're prepared this is

384
00:30:43,220 --> 00:30:40,800
serious business it's a you know it's

385
00:30:44,750 --> 00:30:43,230
difficult it's very busy and you really