
hnson Spac
ace Center

1
00:00:06,130 --> 00:00:03,850
good morning and welcome today's

2
00:00:08,350 --> 00:00:06,140
International Space Station status

3
00:00:09,820 --> 00:00:08,360
briefing with us this morning is Mike

4
00:00:11,830 --> 00:00:09,830
suffered a knee the International Space

5
00:00:14,350 --> 00:00:11,840
Station program manager he'll start off

6
00:00:16,330 --> 00:00:14,360
with an update on the situation on the

7
00:00:19,450 --> 00:00:16,340
space station and then we'll move on to

8
00:00:20,890 --> 00:00:19,460
your questions Mike good morning

9
00:00:22,060 --> 00:00:20,900
everyone I want to take a few minutes

10
00:00:25,150 --> 00:00:22,070
this morning just to bring you up to

11
00:00:30,100 --> 00:00:25,160
date on where we are relative to the

12
00:00:32,920 --> 00:00:30,110
recent progress anomaly and its impact

13
00:00:36,040 --> 00:00:32,930

on the ISS operations the crew on orbit

14
00:00:40,110 --> 00:00:36,050
is doing very well we continue to press

15
00:00:44,080 --> 00:00:40,120
down the the normal timeline we did

16
00:00:46,150 --> 00:00:44,090
decide not to do a phasing burn for the

17
00:00:49,650 --> 00:00:46,160
crew return on the eighth of September

18
00:00:53,740 --> 00:00:49,660
as we look forward to a new entry date

19
00:00:55,630 --> 00:00:53,750
for the crew so I'll start a little bit

20
00:00:57,310 --> 00:00:55,640
first talking about where we are on the

21
00:01:00,220 --> 00:00:57,320
anomaly and then we'll talk a little bit

22
00:01:02,830 --> 00:01:00,230
about where we are on orbit to begin

23
00:01:04,689 --> 00:01:02,840
with the focus of the of the entire

24
00:01:07,179 --> 00:01:04,699
program and in particular our Russian

25
00:01:10,510 --> 00:01:07,189
colleagues is to determine the cause of

26
00:01:14,410 --> 00:01:10,520
the anomaly and and to resolve it and

27
00:01:15,940 --> 00:01:14,420
then get back to flying safely and of

28
00:01:18,519 --> 00:01:15,950
course that's our focus that's all of

29
00:01:22,480 --> 00:01:18,529
our focus and so we'll focus on keeping

30
00:01:25,719 --> 00:01:22,490
the crews safe our next focus is to try

31
00:01:27,010 --> 00:01:25,729
to keep the ISS manned until return to

32
00:01:29,649 --> 00:01:27,020
flight and of course as I told you

33
00:01:33,010 --> 00:01:29,659
before if it takes us a while to resolve

34
00:01:35,080 --> 00:01:33,020
the anomaly and we have to demand ISS

35
00:01:37,719 --> 00:01:35,090
that we certainly have a safe way to do

36
00:01:39,459 --> 00:01:37,729
that as well but we will try to prevent

37
00:01:43,289 --> 00:01:39,469
that if we can because we would like to

38
00:01:46,359 --> 00:01:43,299

continue operations as much as possible

39
00:01:48,339 --> 00:01:46,369
in terms of the anomaly resolution our

40
00:01:51,999 --> 00:01:48,349
Russian colleagues have formed their

41
00:01:54,819 --> 00:01:52,009
commission academic core OTA of who's

42
00:01:57,729 --> 00:01:54,829
the head of their scientific research

43
00:02:01,779 --> 00:01:57,739
institute on rocket engines is heading

44
00:02:03,729 --> 00:02:01,789
up this commission he is a man with

45
00:02:06,190 --> 00:02:03,739
quite a bit of experience in this field

46
00:02:09,340 --> 00:02:06,200
for our Russian colleagues and indeed

47
00:02:11,860 --> 00:02:09,350
for for the world and and as you might

48
00:02:13,720 --> 00:02:11,870
recall he was the head of the commission

49
00:02:16,899 --> 00:02:13,730
that recently resolved a separate

50
00:02:19,360 --> 00:02:16,909
anomaly back in 2008 that we experienced

51
00:02:22,000 --> 00:02:19,370
with two or three Soyuz flights so he's

52
00:02:25,690 --> 00:02:22,010
he's very familiar with with the space

53
00:02:28,089 --> 00:02:25,700
business he has a particular experience

54
00:02:31,720 --> 00:02:28,099
in rocket engines whereas you know this

55
00:02:34,030 --> 00:02:31,730
is where the the anomaly is is pointed

56
00:02:36,970 --> 00:02:34,040
to and and so I think he's uniquely

57
00:02:39,490 --> 00:02:36,980
qualified to to lead this team so we

58
00:02:41,229 --> 00:02:39,500
look forward to to the Commission and

59
00:02:44,110 --> 00:02:41,239
the results of the Commission as well as

60
00:02:45,670 --> 00:02:44,120
the how to resolve the anomaly of course

61
00:02:49,030 --> 00:02:45,680
with all that said that's exactly where

62
00:02:50,770 --> 00:02:49,040
we are they formed the Commission I

63
00:02:53,589 --> 00:02:50,780

believed they named him last friday i

64
00:02:57,009 --> 00:02:53,599
believe and and so the team is just

65
00:02:58,750 --> 00:02:57,019
getting going there they're under there

66
00:03:00,190 --> 00:02:58,760
trying to work very quickly resolve the

67
00:03:02,349 --> 00:03:00,200
anomaly but of course they don't want to

68
00:03:04,630 --> 00:03:02,359
leave any stone unturned and so it'll

69
00:03:06,670 --> 00:03:04,640
take us a while to sort through the

70
00:03:09,819 --> 00:03:06,680
actual cause and its implications to

71
00:03:12,880 --> 00:03:09,829
future flights while they do that the

72
00:03:18,009 --> 00:03:12,890
team is working through the plans for on

73
00:03:20,710 --> 00:03:18,019
orbit as I said we have the the sep

74
00:03:22,870 --> 00:03:20,720
tember eighth return of the crew we have

75
00:03:25,479 --> 00:03:22,880
decided that that's that's not going to

76
00:03:28,379 --> 00:03:25,489
happen we are considering a couple of

77
00:03:31,210 --> 00:03:28,389
options one is to keep the crew until

78
00:03:35,379 --> 00:03:31,220
about mid-september perhaps another week

79
00:03:38,229 --> 00:03:35,389
or so and this gets us all the way up to

80
00:03:40,930 --> 00:03:38,239
the point where we lose light at the

81
00:03:42,940 --> 00:03:40,940
landing site and as I told you last week

82
00:03:44,770 --> 00:03:42,950
we want to make sure that when we bring

83
00:03:49,629 --> 00:03:44,780
the cruise home that the

84
00:03:51,940 --> 00:03:49,639
search-and-rescue team has a two spot

85
00:03:54,520 --> 00:03:51,950
the crew as they come down and this

86
00:03:56,140 --> 00:03:54,530
really does enhance safety at the

87
00:04:00,129 --> 00:03:56,150
landing operation for the landing

88
00:04:04,000 --> 00:04:00,139

operation and so we lose light about

89
00:04:06,879 --> 00:04:04,010
September 19th and then we gain the

90
00:04:10,509 --> 00:04:06,889
light back at the very end of october i

91
00:04:12,520 --> 00:04:10,519
think 26th or 27th is when we're allowed

92
00:04:15,550 --> 00:04:12,530
to land again like i told you last week

93
00:04:19,569 --> 00:04:15,560
we have a one hour before sunrise one

94
00:04:21,400 --> 00:04:19,579
hour one hour after sunrise one hour

95
00:04:24,790 --> 00:04:21,410
before sunset requirement to make sure

96
00:04:27,170 --> 00:04:24,800
we have time to a spot the crew and and

97
00:04:32,150 --> 00:04:27,180
arrive at the crew before it gets

98
00:04:33,770 --> 00:04:32,160
start so that would be the plan and so

99
00:04:37,400 --> 00:04:33,780
we can either land before that or after

100
00:04:40,460 --> 00:04:37,410
that if we land after that the Soyuz is

101
00:04:44,540 --> 00:04:40,470
right at the end of its it's a stated

102
00:04:47,060 --> 00:04:44,550
life of 200 days our Russian colleagues

103
00:04:49,310 --> 00:04:47,070
are giving we're given our giving

104
00:04:52,279 --> 00:04:49,320
serious consideration to that but I

105
00:04:54,529 --> 00:04:52,289
would tell you in general I think we're

106
00:04:56,510 --> 00:04:54,539
we'll probably end up is is bringing the

107
00:04:58,820 --> 00:04:56,520
crew home in a little bit later in

108
00:05:02,779 --> 00:04:58,830
September as opposed to pushing the

109
00:05:04,909 --> 00:05:02,789
system for late October landing but

110
00:05:08,749 --> 00:05:04,919
that's not a final decision but the team

111
00:05:10,879 --> 00:05:08,759
is off looking at seeing if if we can

112
00:05:12,830 --> 00:05:10,889
bring the crew not if they're looking at

113
00:05:14,810 --> 00:05:12,840

all the the plans we'd have put in place

114
00:05:17,210 --> 00:05:14,820
to land the crew in the middle of sep

115
00:05:18,650 --> 00:05:17,220
tember as opposed to late October while

116
00:05:21,350 --> 00:05:18,660
our Russian colleagues give us a final

117
00:05:22,820 --> 00:05:21,360
answer on the Soyuz that's on orbit and

118
00:05:27,469 --> 00:05:22,830
whether they want to try to extend it

119
00:05:29,240 --> 00:05:27,479
long enough to land late October and so

120
00:05:30,980 --> 00:05:29,250
that's where we're at today relative to

121
00:05:32,689 --> 00:05:30,990
landing and of course we can support

122
00:05:34,700 --> 00:05:32,699
either so we'll we'll decide what's

123
00:05:36,710 --> 00:05:34,710
safest for the crew and that's that is

124
00:05:39,080 --> 00:05:36,720
that's the plan will implement of course

125
00:05:40,610 --> 00:05:39,090
once we bring those three crew home we

126
00:05:44,450 --> 00:05:40,620
have another three they will remain on

127
00:05:47,450 --> 00:05:44,460
orbit and they'll stay there until their

128
00:05:49,850 --> 00:05:47,460
normal landing time of a november 16th

129
00:05:51,710 --> 00:05:49,860
and we have a little bit of margin on

130
00:05:53,960 --> 00:05:51,720
that but not much before it gets dark I

131
00:05:55,610 --> 00:05:53,970
think it goes dark on november

132
00:05:59,060 --> 00:05:55,620
nineteenth so there's there's not much

133
00:06:00,710 --> 00:05:59,070
leeway with that crews return and in

134
00:06:02,839 --> 00:06:00,720
fact that doesn't get a lighting light

135
00:06:04,909 --> 00:06:02,849
again until at the very end of december

136
00:06:08,029 --> 00:06:04,919
of course the very end of december

137
00:06:12,020 --> 00:06:08,039
steppes of kazakhstan is it can be

138
00:06:15,170 --> 00:06:12,030

pretty rough weather and so i believe

139
00:06:16,909 --> 00:06:15,180
and just in our discussions I think our

140
00:06:18,860 --> 00:06:16,919
preference is going to be to bring that

141
00:06:21,499 --> 00:06:18,870
crew home are pretty much on schedule

142
00:06:23,659 --> 00:06:21,509
and not try to push it to the end of

143
00:06:27,230 --> 00:06:23,669
December even if the Soyuz would support

144
00:06:29,649 --> 00:06:27,240
that so that's the that's the plan is

145
00:06:32,240 --> 00:06:29,659
we're kind of thinking about things

146
00:06:35,390 --> 00:06:32,250
looking forward our our Russian

147
00:06:37,190 --> 00:06:35,400
colleagues or have other Soyuz boosters

148
00:06:40,490 --> 00:06:37,200
that are going to fly there's a

149
00:06:41,150 --> 00:06:40,500
commercial flight that will fly is at

150
00:06:43,160 --> 00:06:41,160
least there look

151
00:06:46,070 --> 00:06:43,170
get flying in the early October time

152
00:06:47,690 --> 00:06:46,080
frame and that from a from a human

153
00:06:49,820 --> 00:06:47,700
spaceflight standpoint is a good thing

154
00:06:51,950 --> 00:06:49,830
it gives us a chance to test out the

155
00:06:54,230 --> 00:06:51,960
same it carries the same upper stage as

156
00:06:56,600 --> 00:06:54,240
the Soyuz that that takes humans to

157
00:06:59,120 --> 00:06:56,610
orbit so that would be a good check out

158
00:07:00,770 --> 00:06:59,130
of any fixes that were implemented and

159
00:07:04,070 --> 00:07:00,780
in addition to that we're considering

160
00:07:05,840 --> 00:07:04,080
flying the progress 45 progress that was

161
00:07:09,110 --> 00:07:05,850
due for the end of October we're

162
00:07:11,300 --> 00:07:09,120
considering flying that perhaps in the

163
00:07:13,400 --> 00:07:11,310

middle ish of October if we can expedite

164
00:07:15,560 --> 00:07:13,410
that but don't get hung up on the dates

165
00:07:17,570 --> 00:07:15,570
the important part there is we'll have a

166
00:07:20,030 --> 00:07:17,580
couple of flights unmanned flights

167
00:07:21,920 --> 00:07:20,040
before we we put humans on border so use

168
00:07:23,960 --> 00:07:21,930
at least that's the kind of plan that

169
00:07:25,640 --> 00:07:23,970
we're looking at today and again our

170
00:07:28,880 --> 00:07:25,650
Russian colleagues have a lot of work in

171
00:07:30,560 --> 00:07:28,890
front of them to sort this all out but

172
00:07:33,500 --> 00:07:30,570
that's kind of the thought process

173
00:07:34,910 --> 00:07:33,510
that's going on today i want to

174
00:07:36,470 --> 00:07:34,920
emphasize before we turn to your

175
00:07:39,410 --> 00:07:36,480
questions i want to emphasize to

176
00:07:44,690 --> 00:07:39,420
everyone that that the crew on board is

177
00:07:47,270 --> 00:07:44,700
safe there there we we have plans to

178
00:07:50,510 --> 00:07:47,280
operate the ISS either three crew or no

179
00:07:52,910 --> 00:07:50,520
crew the impact of course is the amount

180
00:07:55,520 --> 00:07:52,920
of research we get done for the next

181
00:07:57,740 --> 00:07:55,530
several days we will continue nominal

182
00:08:00,230 --> 00:07:57,750
operations in fact will gain a week at

183
00:08:02,630 --> 00:08:00,240
least a week of six crew operations we

184
00:08:05,450 --> 00:08:02,640
wouldn't have otherwise had here from

185
00:08:08,210 --> 00:08:05,460
the 8th to whenever the return of the

186
00:08:10,970 --> 00:08:08,220
crew occurs and so we're focusing on the

187
00:08:14,240 --> 00:08:10,980
near-term extra research that we will

188
00:08:15,620 --> 00:08:14,250

accomplish and meanwhile we'll give our

189
00:08:17,000 --> 00:08:15,630
Russian colleagues a chance to

190
00:08:20,090 --> 00:08:17,010
thoroughly a sort through the anomaly

191
00:08:22,340 --> 00:08:20,100
determine the root cause and then the

192
00:08:25,130 --> 00:08:22,350
recovery plans and once they finalize

193
00:08:27,020 --> 00:08:25,140
those plans we will or finalize the

194
00:08:31,070 --> 00:08:27,030
recovery plan then we will together

195
00:08:33,680 --> 00:08:31,080
finalize a plan for the crew and and as

196
00:08:36,850 --> 00:08:33,690
I said we have plenty of options will

197
00:08:40,550 --> 00:08:36,860
focus on crew safety as we always do and

198
00:08:43,100 --> 00:08:40,560
and as soon as we have the plan or some

199
00:08:45,200 --> 00:08:43,110
some semblance of what the anomaly maybe

200
00:08:47,660 --> 00:08:45,210
and then what are what our plan of

201
00:08:49,850 --> 00:08:47,670
action is forward we'll let you know

202
00:08:52,100 --> 00:08:49,860
what of course the first thing that we

203
00:08:54,730 --> 00:08:52,110
will we'll announce here as soon as we

204
00:08:59,329 --> 00:08:54,740
know it is when we plan to return the

205
00:09:02,210 --> 00:08:59,339
the the crew Iran and Alexander and

206
00:09:03,920 --> 00:09:02,220
Sasha and so that that will let you know

207
00:09:06,200 --> 00:09:03,930
just as soon as we finalize that date

208
00:09:09,699 --> 00:09:06,210
first and then as as things progress

209
00:09:11,860 --> 00:09:09,709
will let you guys know what we're doing

210
00:09:13,730 --> 00:09:11,870
and so with that I'll take any questions

211
00:09:15,470 --> 00:09:13,740
thanks back please wait for the

212
00:09:17,000 --> 00:09:15,480
microphone and state your name and

213
00:09:18,410 --> 00:09:17,010

affiliation we'll start here at Johnson

214
00:09:19,550 --> 00:09:18,420
Space Center then we'll go to Kennedy

215
00:09:22,790 --> 00:09:19,560
Space Center and then to our phone

216
00:09:26,500 --> 00:09:22,800
bridge mark oh thank you good morning

217
00:09:30,410 --> 00:09:26,510
mark Cairo for aviation week as you've

218
00:09:33,560 --> 00:09:30,420
progressed since your briefing on last

219
00:09:36,230 --> 00:09:33,570
week when do you kind of think now you

220
00:09:40,190 --> 00:09:36,240
would have to make a decision on D

221
00:09:43,360 --> 00:09:40,200
staffing this station completely and if

222
00:09:45,680 --> 00:09:43,370
you could summarize kind of what your

223
00:09:47,600 --> 00:09:45,690
confidences you could sustain the

224
00:09:49,340 --> 00:09:47,610
station without a crew how long you

225
00:09:53,990 --> 00:09:49,350
could do it and sort of how you would do

226
00:09:56,810 --> 00:09:54,000
it okay well the first thing is if we're

227
00:10:00,769 --> 00:09:56,820
not if we don't have Soyuz flying by by

228
00:10:04,840 --> 00:10:00,779
the middle of November 16th or so the

229
00:10:10,579 --> 00:10:04,850
normal landing time for for the last

230
00:10:15,130 --> 00:10:10,589
crew then we would have to demand ISS at

231
00:10:18,380 --> 00:10:15,140
that point we we we know how to do this

232
00:10:20,240 --> 00:10:18,390
they're certain configurations as you

233
00:10:23,750 --> 00:10:20,250
recall when we were doing two men

234
00:10:25,810 --> 00:10:23,760
operations if we chose to do for

235
00:10:28,730 --> 00:10:25,820
instance an EBA than we would have to

236
00:10:30,650 --> 00:10:28,740
configure the ISS or we did remember we

237
00:10:32,480 --> 00:10:30,660
did see it so use relocations we'd have

238
00:10:34,640 --> 00:10:32,490

to configure the ISS as if as if we

239
00:10:36,290 --> 00:10:34,650
weren't coming back and so we're

240
00:10:37,760 --> 00:10:36,300
familiar with how to configure there's

241
00:10:40,100 --> 00:10:37,770
jumpers you have to put in place to make

242
00:10:44,660 --> 00:10:40,110
sure that you have a redundant cooling

243
00:10:47,390 --> 00:10:44,670
and this this gives you the extra

244
00:10:49,220 --> 00:10:47,400
redundancy on the cooling systems you

245
00:10:52,069 --> 00:10:49,230
have to configure heaters are certain

246
00:10:56,180 --> 00:10:52,079
things we put in place for unmanned ops

247
00:10:58,100 --> 00:10:56,190
we the modern modules that we close the

248
00:11:00,050 --> 00:10:58,110
hatches so we can isolate the modules by

249
00:11:02,030 --> 00:11:00,060
command by closing inv valves if it

250
00:11:04,610 --> 00:11:02,040
becomes necessary there are a number of

251
00:11:07,190 --> 00:11:04,620
things we do to give us control the

252
00:11:09,950 --> 00:11:07,200
vehicle will undo the locks

253
00:11:13,700 --> 00:11:09,960
the redundant structural hooks that we

254
00:11:15,260 --> 00:11:13,710
use to hold the progresses and in place

255
00:11:16,610 --> 00:11:15,270
of course Soyuz would be gone but

256
00:11:19,940 --> 00:11:16,620
there's progress there we'll move those

257
00:11:22,220 --> 00:11:19,950
locks so that we can in an automated

258
00:11:24,170 --> 00:11:22,230
fashion sin the progress home bring the

259
00:11:26,870 --> 00:11:24,180
next progress is up things of this

260
00:11:30,470 --> 00:11:26,880
nature we do before we depart so that we

261
00:11:35,350 --> 00:11:30,480
can go into full up autonomous ops in

262
00:11:38,270 --> 00:11:35,360
that configuration assuming no no

263
00:11:40,550 --> 00:11:38,280

significant anomalies and by significant

264
00:11:41,870 --> 00:11:40,560
I mean not only do you have to have one

265
00:11:44,090 --> 00:11:41,880
failure but you have to have two

266
00:11:47,840 --> 00:11:44,100
failures in any of the critical systems

267
00:11:49,880 --> 00:11:47,850
we can we can operate indefinitely and

268
00:11:51,710 --> 00:11:49,890
so but that's what we're concerned about

269
00:11:53,390 --> 00:11:51,720
just you recall after the Columbia

270
00:11:55,610 --> 00:11:53,400
accident we had a long discussion about

271
00:11:57,560 --> 00:11:55,620
whether we should remain manned or not

272
00:11:59,690 --> 00:11:57,570
and we decided a better part of valor

273
00:12:02,330 --> 00:11:59,700
was to go to a lower level crew but that

274
00:12:05,360 --> 00:12:02,340
allows you to repair anomalies and keep

275
00:12:08,390 --> 00:12:05,370
the system running and so we prefer not

276
00:12:10,340 --> 00:12:08,400
to operate in that condition without

277
00:12:12,830 --> 00:12:10,350
crew on board for an extended period of

278
00:12:16,700 --> 00:12:12,840
time just to make sure we don't end up

279
00:12:20,450 --> 00:12:16,710
in that in that situation but is

280
00:12:22,190 --> 00:12:20,460
assuming the systems keep operating like

281
00:12:24,110 --> 00:12:22,200
I said that we can command the vehicle

282
00:12:26,900 --> 00:12:24,120
from the ground and operate it fine and

283
00:12:29,450 --> 00:12:26,910
remain on orbit indefinitely and and

284
00:12:34,310 --> 00:12:29,460
just mark kuro for aviation week again

285
00:12:36,350 --> 00:12:34,320
just to follow how will you do debris

286
00:12:39,470 --> 00:12:36,360
avoidance maneuvers or any sort of

287
00:12:43,960 --> 00:12:39,480
attitude control if you have to if you

288
00:12:47,090 --> 00:12:43,970

don't have the gyros for some reason

289
00:12:49,520 --> 00:12:47,100
without a progress on the aft and will

290
00:12:51,500 --> 00:12:49,530
the service module handle that or are

291
00:12:53,960 --> 00:12:51,510
there other plans could I guess what I'm

292
00:12:56,390 --> 00:12:53,970
really asking is can you adjust the

293
00:12:59,500 --> 00:12:56,400
altitude as you want and do an avoidance

294
00:13:02,500 --> 00:12:59,510
maneuver if you needed to yes you can

295
00:13:04,790 --> 00:13:02,510
everything that we need to do we can do

296
00:13:07,880 --> 00:13:04,800
by commanding on the ground we can

297
00:13:10,400 --> 00:13:07,890
resupply prop we can do the the debris

298
00:13:13,040 --> 00:13:10,410
avoidance maneuvers you mentioned gyros

299
00:13:14,990 --> 00:13:13,050
we can we can lose a couple of gyros

300
00:13:16,820 --> 00:13:15,000
before we're worried about keeping

301
00:13:19,580 --> 00:13:16,830
you're talking about the big the big

302
00:13:20,750 --> 00:13:19,590
gyros we can lose couple those before we

303
00:13:21,680 --> 00:13:20,760
start to get too worried

304
00:13:23,570 --> 00:13:21,690
especially we're an unmanned

305
00:13:26,360 --> 00:13:23,580
configuration flying the attitude that's

306
00:13:29,110 --> 00:13:26,370
that's best for stability so we have

307
00:13:31,970 --> 00:13:29,120
some margin in those systems as well

308
00:13:34,370 --> 00:13:31,980
yeah Jim Oberg with NBC News a good

309
00:13:36,230 --> 00:13:34,380
morning Mike thanks for coming like you

310
00:13:38,630 --> 00:13:36,240
comment on the issue of positive

311
00:13:41,300 --> 00:13:38,640
three-person ops on the SpaceX flight

312
00:13:45,620 --> 00:13:41,310
doc don't you require to us trained

313
00:13:47,510 --> 00:13:45,630

crimine to do the to do the mating if in

314
00:13:51,470 --> 00:13:47,520
fact you we do that flight before the

315
00:13:53,480 --> 00:13:51,480
end of the year yes but if we're not

316
00:13:55,070 --> 00:13:53,490
flying soy uses by middle of November

317
00:13:56,990 --> 00:13:55,080
that's sort of a moot point because we

318
00:13:58,610 --> 00:13:57,000
won't have any crew on orbit to do to

319
00:14:00,620 --> 00:13:58,620
the capture but and if there's a

320
00:14:01,850 --> 00:14:00,630
three-person crew on orbit we could we

321
00:14:03,950 --> 00:14:01,860
could do the capture will have to train

322
00:14:06,620 --> 00:14:03,960
the crew accordingly but we could do

323
00:14:08,300 --> 00:14:06,630
that the crew coming up the next screw

324
00:14:10,220 --> 00:14:08,310
to come up has experienced what they've

325
00:14:13,880 --> 00:14:10,230
been training for this we've been

326
00:14:15,380 --> 00:14:13,890
training as if it's all US crew but we

327
00:14:18,940 --> 00:14:15,390
could we could get our Russian

328
00:14:23,180 --> 00:14:18,950
colleagues up to to the level necessary

329
00:14:25,460 --> 00:14:23,190
and we use we use the ground to look

330
00:14:27,830 --> 00:14:25,470
over the crews shoulder in those cases

331
00:14:29,990 --> 00:14:27,840
so we would have to assess that Jim we

332
00:14:32,270 --> 00:14:30,000
haven't we haven't gotten that far but

333
00:14:35,120 --> 00:14:32,280
if we if we needed the logistics and

334
00:14:38,600 --> 00:14:35,130
Amba let believe that having the SpaceX

335
00:14:40,880 --> 00:14:38,610
flight occur before the we get the crew

336
00:14:42,710 --> 00:14:40,890
back up to a six-person crew I have

337
00:14:44,060 --> 00:14:42,720
confidence we could accomplish that what

338
00:14:48,380 --> 00:14:44,070

kind of logistics would you like to have

339
00:14:50,450 --> 00:14:48,390
a board aside from cheese today we're in

340
00:14:53,330 --> 00:14:50,460
really really good shape for logistics I

341
00:14:56,000 --> 00:14:53,340
can go we can go to the end assuming the

342
00:14:57,320 --> 00:14:56,010
crew could stay on orbit that long with

343
00:14:59,600 --> 00:14:57,330
the logistics we've looked at we can

344
00:15:02,450 --> 00:14:59,610
easily get to the summertime next summer

345
00:15:04,910 --> 00:15:02,460
before we need any resupply so so I'm

346
00:15:06,830 --> 00:15:04,920
not going to be worrying about logistics

347
00:15:08,540 --> 00:15:06,840
to fly on the SpaceX vehicle won't be

348
00:15:10,850 --> 00:15:08,550
the logistics that drives this basics

349
00:15:12,200 --> 00:15:10,860
vehicle have to UM nuys this thank you

350
00:15:14,330 --> 00:15:12,210
but there's a there's other factors of

351
00:15:16,400 --> 00:15:14,340
course as you know and so we'd have to

352
00:15:19,100 --> 00:15:16,410
just look at it as if we get extended i

353
00:15:20,360 --> 00:15:19,110
can tell you our Russian colleagues or

354
00:15:23,570 --> 00:15:20,370
you know they're going to do what's

355
00:15:25,370 --> 00:15:23,580
right and solve this anomaly but right

356
00:15:26,840 --> 00:15:25,380
now I think the I think they would tell

357
00:15:30,170 --> 00:15:26,850
you they're cautiously optimistic that

358
00:15:32,330 --> 00:15:30,180
they'll keep the ISS manned at least a

359
00:15:33,430 --> 00:15:32,340
three crew and if you're able to that

360
00:15:35,170 --> 00:15:33,440
means the

361
00:15:36,790 --> 00:15:35,180
getting back at six crew is not far

362
00:15:38,530 --> 00:15:36,800
behind because it's me it means you were

363
00:15:40,810 --> 00:15:38,540

able to fly at least one so use between

364
00:15:45,160 --> 00:15:40,820
now in the middle of November thank you

365
00:15:48,310 --> 00:15:45,170
know if that's all hi Robert Pearlman

366
00:15:51,160 --> 00:15:48,320
with collectspace.com with regards to

367
00:15:53,260 --> 00:15:51,170
autonomous ops how much time does from a

368
00:15:55,930 --> 00:15:53,270
crew perspective do you need to give

369
00:15:58,270 --> 00:15:55,940
them to prepare the ISS so is there a

370
00:16:01,750 --> 00:15:58,280
scenario where you would start preparing

371
00:16:06,490 --> 00:16:01,760
for demanding the ISS before you knew if

372
00:16:07,780 --> 00:16:06,500
the Soyuz was going to to fly again it's

373
00:16:09,220 --> 00:16:07,790
been a long time since we've done and

374
00:16:10,870 --> 00:16:09,230
I've forgotten but it's not doesn't take

375
00:16:12,460 --> 00:16:10,880
that long I would tell you in the week

376
00:16:14,080 --> 00:16:12,470
that it's going to take to pack up for

377
00:16:15,730 --> 00:16:14,090
the Soyuz return you know we've got a

378
00:16:18,070 --> 00:16:15,740
lot of things we pack up to fit

379
00:16:20,380 --> 00:16:18,080
everything than crevices and for the

380
00:16:23,050 --> 00:16:20,390
Soyuz return I would tell you that that

381
00:16:25,000 --> 00:16:23,060
anna nominal processing of getting ready

382
00:16:26,890 --> 00:16:25,010
to return that last crew illness or use

383
00:16:28,780 --> 00:16:26,900
we'd probably get the ISS configured

384
00:16:31,000 --> 00:16:28,790
it's really more work on the ground and

385
00:16:32,380 --> 00:16:31,010
the teams will have started looking at

386
00:16:33,700 --> 00:16:32,390
that today to make sure that we were

387
00:16:36,430 --> 00:16:33,710
everything that we need to ask the crew

388
00:16:38,290 --> 00:16:36,440

to do but when you get to the work that

389
00:16:40,390 --> 00:16:38,300
the crew has do on orbit it's it's not

390
00:16:42,640 --> 00:16:40,400
like they're having to build systems and

391
00:16:44,290 --> 00:16:42,650
stuff there they're going to do the

392
00:16:46,210 --> 00:16:44,300
normal things the vehicles made for

393
00:16:49,510 --> 00:16:46,220
closing hatches hooking up some jumpers

394
00:16:53,500 --> 00:16:49,520
things like that and with regards to

395
00:16:56,590 --> 00:16:53,510
delaying the the tma 21 return by a week

396
00:16:57,880 --> 00:16:56,600
or so what can you quantify what you

397
00:17:00,520 --> 00:16:57,890
gain I know you said that you gained

398
00:17:02,590 --> 00:17:00,530
another week of research but given the

399
00:17:06,280 --> 00:17:02,600
landing prep that's needed by the crew

400
00:17:08,829 --> 00:17:06,290
just how much do you gain by in terms of

401
00:17:10,750 --> 00:17:08,839
research or crew activities by adding

402
00:17:12,730 --> 00:17:10,760
the additional week well you get two

403
00:17:15,010 --> 00:17:12,740
things one is you get more research and

404
00:17:17,650 --> 00:17:15,020
and that's not insignificant we had gone

405
00:17:20,020 --> 00:17:17,660
we were we were pushing 40 hours a week

406
00:17:23,920 --> 00:17:20,030
or research and we had we had committed

407
00:17:25,809 --> 00:17:23,930
to 235 but 35 is an average so we need

408
00:17:27,910 --> 00:17:25,819
to stay ahead of the game in order when

409
00:17:30,150 --> 00:17:27,920
we have those low weeks but that's not

410
00:17:34,770 --> 00:17:30,160
insignificant that's a that's

411
00:17:36,300 --> 00:17:34,780
that that represents a significant

412
00:17:38,100 --> 00:17:36,310
amount of research and our the

413
00:17:39,360 --> 00:17:38,110

community's gotten used to it and

414
00:17:41,640 --> 00:17:39,370
they're starting to really ramp up and

415
00:17:44,160 --> 00:17:41,650
so we don't want to lose that say it so

416
00:17:46,440 --> 00:17:44,170
it gives you a little over a week more

417
00:17:48,540 --> 00:17:46,450
of research on ISS which is significant

418
00:17:50,130 --> 00:17:48,550
and it also gives us just a little bit

419
00:17:51,900 --> 00:17:50,140
more time to make sure that we've looked

420
00:17:53,610 --> 00:17:51,910
at everything and we know that what we

421
00:17:55,380 --> 00:17:53,620
want to do is return on the 8th we have

422
00:17:56,700 --> 00:17:55,390
to we'd have to start moving search and

423
00:18:00,360 --> 00:17:56,710
rescue forces our Russian colleagues

424
00:18:03,330 --> 00:18:00,370
would today in order to support a an 8th

425
00:18:04,710 --> 00:18:03,340
landing and so this just buys us a

426
00:18:06,450 --> 00:18:04,720
little more time to think about a little

427
00:18:08,940 --> 00:18:06,460
more see if we thought that we could get

428
00:18:10,770 --> 00:18:08,950
the Soyuz to the end of October and

429
00:18:12,420 --> 00:18:10,780
think about what our long-term plans are

430
00:18:13,980 --> 00:18:12,430
so it just it really just gives us

431
00:18:15,270 --> 00:18:13,990
breathing room so you see where we're

432
00:18:18,630 --> 00:18:15,280
going up on the anomaly see what we

433
00:18:21,600 --> 00:18:18,640
learn make sure we do that returning on

434
00:18:23,370 --> 00:18:21,610
sep tember is what we need to do and so

435
00:18:25,260 --> 00:18:23,380
that's probably the biggest advantage

436
00:18:28,530 --> 00:18:25,270
although the amount of research is not

437
00:18:30,150 --> 00:18:28,540
insignificant that we gain and last

438
00:18:32,550 --> 00:18:30,160

question just a quick one I know you

439
00:18:34,200 --> 00:18:32,560
said that the logistics are fine through

440
00:18:35,880 --> 00:18:34,210
next summer if you keep the crew on

441
00:18:37,470 --> 00:18:35,890
board if you could keep the qur'an bored

442
00:18:40,470 --> 00:18:37,480
but looking at some of the items that

443
00:18:42,620 --> 00:18:40,480
were lost on board the progress there

444
00:18:44,910 --> 00:18:42,630
seemed to be some crew equipment

445
00:18:47,910 --> 00:18:44,920
clothing and stuff like that is there

446
00:18:50,970 --> 00:18:47,920
any impact to the crew at all in this do

447
00:18:53,250 --> 00:18:50,980
they have to start rewiring clothes that

448
00:18:54,420 --> 00:18:53,260
they weren't planning to rewear as a

449
00:18:56,990 --> 00:18:54,430
result of the loss of the progress

450
00:18:59,760 --> 00:18:57,000
excellent question when I talk about

451
00:19:04,080 --> 00:18:59,770
supplies i talk about across the entire

452
00:19:05,460 --> 00:19:04,090
vehicle and and you may or may not hurt

453
00:19:07,860 --> 00:19:05,470
i don't know if we've done this on open

454
00:19:11,010 --> 00:19:07,870
air to ground 11 but if we extend the

455
00:19:13,950 --> 00:19:11,020
crew the Russian crew much beyond the

456
00:19:17,540 --> 00:19:13,960
eighth and and I don't know with the sep

457
00:19:19,830 --> 00:19:17,550
tember 16th or 18th will drive this need

458
00:19:23,100 --> 00:19:19,840
one of the least one of the crewmen

459
00:19:25,230 --> 00:19:23,110
needed some additional clothing we have

460
00:19:27,240 --> 00:19:25,240
we have passed increment clothing we

461
00:19:29,490 --> 00:19:27,250
have current increment clothing and we

462
00:19:33,810 --> 00:19:29,500
have the next increments clothes on

463
00:19:36,230 --> 00:19:33,820

orbit so finding a size to fit what a

464
00:19:39,630 --> 00:19:36,240
crew member would need to be pretty easy

465
00:19:41,850 --> 00:19:39,640
so so there is one or two things that

466
00:19:43,230 --> 00:19:41,860
aren't exactly like you would want for

467
00:19:44,100 --> 00:19:43,240
the crew I think our Russian colleagues

468
00:19:47,430 --> 00:19:44,110
will

469
00:19:51,150 --> 00:19:47,440
we'll are for the most part in in good

470
00:19:52,710 --> 00:19:51,160
shape on the specifics but like I said

471
00:19:54,780 --> 00:19:52,720
that was one of the things that popped

472
00:19:56,490 --> 00:19:54,790
up that we looked at is could we find

473
00:19:58,380 --> 00:19:56,500
some clothing for one and I forgotten

474
00:19:59,610 --> 00:19:58,390
which Russian crew member it was but one

475
00:20:01,289 --> 00:19:59,620
other Russian crew member might need

476
00:20:03,810 --> 00:20:01,299
some clothing if we stayed there stayed

477
00:20:07,500 --> 00:20:03,820
too long but like I said overall na SS

478
00:20:08,730 --> 00:20:07,510
we got plenty of logistics we don't and

479
00:20:10,830 --> 00:20:08,740
you got to remember that when we think

480
00:20:12,570 --> 00:20:10,840
about logistics there's Russian second

481
00:20:14,010 --> 00:20:12,580
segment logistics some of theirs is

482
00:20:16,200 --> 00:20:14,020
different than our some of its the same

483
00:20:17,789 --> 00:20:16,210
than the same on u.s. segment when we

484
00:20:19,620 --> 00:20:17,799
look at the whole vehicle though we can

485
00:20:21,330 --> 00:20:19,630
get to June and what that means is we

486
00:20:23,370 --> 00:20:21,340
don't have Russian segment and US

487
00:20:25,280 --> 00:20:23,380
segment logistics we have logistics on

488
00:20:30,090 --> 00:20:25,290

orbit and that's exactly what we'll do

489
00:20:32,490 --> 00:20:30,100
but but we do as individual groups when

490
00:20:35,700 --> 00:20:32,500
you extend something like this there's

491
00:20:38,970 --> 00:20:35,710
probably one or two things that you may

492
00:20:42,299 --> 00:20:38,980
have to borrow from the other from the

493
00:20:44,549 --> 00:20:42,309
other segment we from the US perspective

494
00:20:46,260 --> 00:20:44,559
we're fortunate because we've just

495
00:20:53,590 --> 00:20:46,270
phoned the shovel so most of our

496
00:21:01,960 --> 00:20:59,320
a marker Oh for a Aviation Week again it

497
00:21:05,020 --> 00:21:01,970
I think I'm just seeking some clarity

498
00:21:08,230 --> 00:21:05,030
here the the discussions you're having

499
00:21:11,770 --> 00:21:08,240
about the crew change crew changes up

500
00:21:15,850 --> 00:21:11,780
and down that's all driven by Soyuz

501
00:21:17,980 --> 00:21:15,860
lifetime not by other issues I believe I

502
00:21:22,120 --> 00:21:17,990
just want to make sure can you sort of

503
00:21:24,520 --> 00:21:22,130
explain what the again sort of what the

504
00:21:26,140 --> 00:21:24,530
life of a Soyuz is and when you look at

505
00:21:28,120 --> 00:21:26,150
extending either because of the

506
00:21:30,250 --> 00:21:28,130
propellant or their propulsion system or

507
00:21:32,350 --> 00:21:30,260
whatever the driving factor is what kind

508
00:21:35,890 --> 00:21:32,360
of leeway you have as best you

509
00:21:37,750 --> 00:21:35,900
understand well there I don't know

510
00:21:39,669 --> 00:21:37,760
specifically the systems on the Soyuz

511
00:21:43,659 --> 00:21:39,679
very well I do know that the peroxide

512
00:21:45,190 --> 00:21:43,669
system thruster system is what drives it

513
00:21:46,630 --> 00:21:45,200

typically has been what they've talked

514
00:21:48,549 --> 00:21:46,640
to us is about being the leading

515
00:21:50,500 --> 00:21:48,559
candidate on why we can't extend the

516
00:21:52,840 --> 00:21:50,510
life of the Soyuz on orbit very long I

517
00:21:57,399 --> 00:21:52,850
shouldn't say very long 200 days is very

518
00:22:00,279 --> 00:21:57,409
long but longer than 200 days and and I

519
00:22:03,039 --> 00:22:00,289
do know that the one of the plans we

520
00:22:04,570 --> 00:22:03,049
were looking for for a late October

521
00:22:08,169 --> 00:22:04,580
landing on the twenty-ninth put them at

522
00:22:12,399 --> 00:22:08,179
210 days so the conversation I had with

523
00:22:14,470 --> 00:22:12,409
my colleagues this morning is that you

524
00:22:16,899 --> 00:22:14,480
know you're going to have to turn people

525
00:22:19,630 --> 00:22:16,909
on to do a lot of work to try to extend

526
00:22:21,460 --> 00:22:19,640
the Soyuz beyond its certified life and

527
00:22:23,590 --> 00:22:21,470
the question is is that appropriate

528
00:22:27,010 --> 00:22:23,600
given everything else going on should we

529
00:22:29,470 --> 00:22:27,020
be working on that or should we be not

530
00:22:31,779 --> 00:22:29,480
pushing the system maybe we should stay

531
00:22:33,610 --> 00:22:31,789
with nominally what we do and how we

532
00:22:34,840 --> 00:22:33,620
operate the Soyuz and not try to push

533
00:22:36,580 --> 00:22:34,850
that in the middle of everything else

534
00:22:37,930 --> 00:22:36,590
going on and you know have a hard time

535
00:22:40,000 --> 00:22:37,940
debating that with him I think that's

536
00:22:42,039 --> 00:22:40,010
probably the right the right approach so

537
00:22:43,810 --> 00:22:42,049
we haven't talked about specific issues

538
00:22:46,390 --> 00:22:43,820

I just know we're beyond we would be

539
00:22:48,700 --> 00:22:46,400
beyond the today the certified life of a

540
00:22:50,620 --> 00:22:48,710
Soyuz and even though we've talked about

541
00:22:53,049 --> 00:22:50,630
extending a little bit it's not done and

542
00:22:55,690 --> 00:22:53,059
and they would have to do a significant

543
00:22:57,490 --> 00:22:55,700
amount of work to certify it which you'd

544
00:22:58,960 --> 00:22:57,500
want them to do and so that's really

545
00:23:00,730 --> 00:22:58,970
what the discussion has been should we

546
00:23:02,530 --> 00:23:00,740
should we spend time to go try to do

547
00:23:04,510 --> 00:23:02,540
that or should we operate within the

548
00:23:06,490 --> 00:23:04,520
bounds of what we were comfortable with

549
00:23:07,210 --> 00:23:06,500
and or the certified bounds of soy use

550
00:23:10,630 --> 00:23:07,220
not push the

551
00:23:12,789 --> 00:23:10,640
certification and and let us focus on

552
00:23:14,919 --> 00:23:12,799
the anomaly at hand and solve that and

553
00:23:17,500 --> 00:23:14,929
let's not push any other parts of the

554
00:23:19,270 --> 00:23:17,510
system and that's that really probably

555
00:23:20,640 --> 00:23:19,280
in a lot of businesses but it's

556
00:23:22,600 --> 00:23:20,650
particularly true in human space flight

557
00:23:24,250 --> 00:23:22,610
when you've already been handed one

558
00:23:26,080 --> 00:23:24,260
significant challenge maybe you

559
00:23:29,740 --> 00:23:26,090
shouldn't put another one on top of it

560
00:23:33,010 --> 00:23:29,750
until you sort that one out and what can

561
00:23:36,669 --> 00:23:33,020
you tell us that they told you from

562
00:23:38,980 --> 00:23:36,679
Russia about what caused the loss of 44

563
00:23:40,600 --> 00:23:38,990

progress yeah I don't have anything more

564
00:23:42,340 --> 00:23:40,610
than what I told you the other day they

565
00:23:47,529 --> 00:23:42,350
have data that indicates they had to

566
00:23:50,500 --> 00:23:47,539
lost a quick loss of pressure downstream

567
00:23:52,659 --> 00:23:50,510
of the turbo pump so so between the pump

568
00:23:55,210 --> 00:23:52,669
and the engine they lost pressure I

569
00:23:59,230 --> 00:23:55,220
believe its engine Inlet pressure but I

570
00:24:01,060 --> 00:23:59,240
can't I can't be certain i was told that

571
00:24:04,240 --> 00:24:01,070
from the data the turbo pump itself

572
00:24:07,779 --> 00:24:04,250
looked fine and that the computer shut

573
00:24:10,919 --> 00:24:07,789
down the engine due to the loss of

574
00:24:13,450 --> 00:24:10,929
pressure at the engine and that it was a

575
00:24:15,060 --> 00:24:13,460
intact shutdown meaning it was able to

576
00:24:19,299 --> 00:24:15,070
shut the engine down before the engine

577
00:24:22,419 --> 00:24:19,309
has some sort of dramatic failure so

578
00:24:24,970 --> 00:24:22,429
that's what I know okay before we go on

579
00:24:26,560 --> 00:24:24,980
to more questions here let's let's go to

580
00:24:27,850 --> 00:24:26,570
Kennedy Space Center in Florida then

581
00:24:29,710 --> 00:24:27,860
we'll come back here for some more at

582
00:24:34,539 --> 00:24:29,720
the end of the at the end of the

583
00:24:37,899 --> 00:24:34,549
briefing que se go ahead hello this is

584
00:24:39,700 --> 00:24:37,909
Marcia Dunn of the Associated Press Mike

585
00:24:41,440 --> 00:24:39,710
the last time you seriously thought

586
00:24:43,450 --> 00:24:41,450
about demanding the space station was

587
00:24:47,110 --> 00:24:43,460
post Colombian it was a much smaller

588
00:24:48,880 --> 00:24:47,120

space station does the huge size of the

589
00:24:51,250 --> 00:24:48,890
station now pose any particular

590
00:24:53,830 --> 00:24:51,260
challenges of flying it without cruise

591
00:25:00,220 --> 00:24:53,840
or or what are some of the other concern

592
00:25:01,659 --> 00:25:00,230
areas if it came to that you know Marcia

593
00:25:03,399 --> 00:25:01,669
that's interesting question it is a

594
00:25:07,180 --> 00:25:03,409
bigger space station but all the same

595
00:25:09,279 --> 00:25:07,190
systems you have have more of all the

596
00:25:11,230 --> 00:25:09,289
same systems so the things that that we

597
00:25:12,880 --> 00:25:11,240
worry about what really is it's about

598
00:25:14,560 --> 00:25:12,890
can you resupply the prop can you

599
00:25:19,120 --> 00:25:14,570
maintain control of the vehicle do you

600
00:25:21,160 --> 00:25:19,130
have the right navigation data to to

601
00:25:23,500 --> 00:25:21,170
know where you are in space

602
00:25:26,460 --> 00:25:23,510
those are the big things can you control

603
00:25:29,950 --> 00:25:26,470
the cyst this the stack if you have a

604
00:25:31,660 --> 00:25:29,960
dramatic pressure decrease or not so

605
00:25:33,760 --> 00:25:31,670
dramatic pressure decrease due to

606
00:25:36,880 --> 00:25:33,770
something like mm OD can you can you

607
00:25:38,400 --> 00:25:36,890
minimize the impact to the to the rest

608
00:25:41,530 --> 00:25:38,410
of the stack all these are the same

609
00:25:44,200 --> 00:25:41,540
issues that you'd worry about with a

610
00:25:47,140 --> 00:25:44,210
smaller space station so so I would tell

611
00:25:48,820 --> 00:25:47,150
you that they're there they're the same

612
00:25:52,360 --> 00:25:48,830
they're the same concerns and we will

613
00:25:55,000 --> 00:25:52,370

make sure that we have all the the

614
00:25:57,310 --> 00:25:55,010
redundancies that that we need to

615
00:26:00,520 --> 00:25:57,320
maintain the stack actually this big

616
00:26:03,340 --> 00:26:00,530
from up from an attitude hold standpoint

617
00:26:05,110 --> 00:26:03,350
this the bigger station has a little

618
00:26:07,450 --> 00:26:05,120
more inertia kind of kind of wants to

619
00:26:09,010 --> 00:26:07,460
stay in its attitude perhaps a little

620
00:26:12,150 --> 00:26:09,020
better than the station that we had on

621
00:26:15,610 --> 00:26:12,160
orbit back then but overall the

622
00:26:17,140 --> 00:26:15,620
questions are the same and the answers

623
00:26:18,730 --> 00:26:17,150
are a little bit different because of

624
00:26:22,090 --> 00:26:18,740
the new systems or the different systems

625
00:26:24,730 --> 00:26:22,100
we have to worry about as well the the

626
00:26:29,500 --> 00:26:24,740
big the big solar rays being an outboard

627
00:26:32,830 --> 00:26:29,510
like they are of course add add some

628
00:26:34,360 --> 00:26:32,840
I'll say that that's a system that we

629
00:26:37,090 --> 00:26:34,370
didn't worry too much we had a beta

630
00:26:41,140 --> 00:26:37,100
gimbal that was acting like a an alpha

631
00:26:45,610 --> 00:26:41,150
joint when we had the the p6 array up

632
00:26:47,350 --> 00:26:45,620
there on the z1 trust but but from a

633
00:26:48,820 --> 00:26:47,360
power system standpoint when we're in

634
00:26:51,720 --> 00:26:48,830
this configuration we don't need as much

635
00:26:56,590 --> 00:26:51,730
power so if for some reason we felt like

636
00:26:58,480 --> 00:26:56,600
the big output is a concern or something

637
00:27:00,190 --> 00:26:58,490
like that we have a lot more flexibility

638
00:27:03,970 --> 00:27:00,200

when we're not trying to operate a

639
00:27:07,900 --> 00:27:03,980
station to to handle the crew and so

640
00:27:10,210 --> 00:27:07,910
that buys us some flexibility that that

641
00:27:12,340 --> 00:27:10,220
you don't otherwise have man but but

642
00:27:14,350 --> 00:27:12,350
comparing the two stations it's very

643
00:27:16,380 --> 00:27:14,360
similar concerns there are differences

644
00:27:19,060 --> 00:27:16,390
because of the different systems onboard

645
00:27:20,950 --> 00:27:19,070
today that weren't there before but it's

646
00:27:25,630 --> 00:27:20,960
a it's a similar issue it's similar

647
00:27:27,910 --> 00:27:25,640
issues for us to sort out thank you and

648
00:27:30,130 --> 00:27:27,920
you mentioned that come the end of

649
00:27:32,680 --> 00:27:30,140
December weather gets pretty rough over

650
00:27:34,570 --> 00:27:32,690
in Kazakhstan butts January's pretty

651
00:27:37,269 --> 00:27:34,580
rough too in February

652
00:27:40,000 --> 00:27:37,279
what kind of a window of launching are

653
00:27:42,669 --> 00:27:40,010
you looking at for crews in the

654
00:27:45,399 --> 00:27:42,679
january/february March I mean is it

655
00:27:49,680 --> 00:27:45,409
pretty wide open or does the weather in

656
00:27:56,049 --> 00:27:52,060
from a search-and-rescue standpoint the

657
00:27:59,710 --> 00:27:56,059
weather definitely plays a role and so

658
00:28:02,320 --> 00:27:59,720
we haven't had those conversations yet

659
00:28:05,470 --> 00:28:02,330
and in that that relies heavily on the

660
00:28:06,789 --> 00:28:05,480
outcome of the of the investigation but

661
00:28:09,129 --> 00:28:06,799
i would tell you when it's when we're

662
00:28:11,169 --> 00:28:09,139
talking about getting the ISS manned of

663
00:28:13,600 --> 00:28:11,179

course we will move we can move other

664
00:28:15,909 --> 00:28:13,610
flights around two to accommodate it on

665
00:28:18,909 --> 00:28:15,919
orbit so we haven't had those

666
00:28:20,500 --> 00:28:18,919
conversations on i would just tell you

667
00:28:23,620 --> 00:28:20,510
that weather will play a role in any

668
00:28:26,529 --> 00:28:23,630
discussions we have relative to the to

669
00:28:29,320 --> 00:28:26,539
the landing site and and of course so on

670
00:28:32,950 --> 00:28:29,330
orbit making room for a for a soyuz

671
00:28:35,019 --> 00:28:32,960
launch without crew we would move other

672
00:28:40,389 --> 00:28:35,029
flights around in order to make room for

673
00:28:43,149 --> 00:28:40,399
the soyuz to fly up and last question

674
00:28:46,389 --> 00:28:43,159
for me if you did have to demand the

675
00:28:48,750 --> 00:28:46,399
space station have you given much

676
00:28:50,919 --> 00:28:48,760
thought as to what kind of a PR

677
00:28:54,810 --> 00:28:50,929
situation that might pose especially

678
00:28:58,840 --> 00:28:54,820
with budgets so tight on the ground and

679
00:29:02,289 --> 00:28:58,850
such criticism in a way of nasa's lack

680
00:29:04,840 --> 00:29:02,299
of a future with so much attention right

681
00:29:07,299 --> 00:29:04,850
now on the space station being the the

682
00:29:09,279 --> 00:29:07,309
linchpin of the human program what would

683
00:29:10,930 --> 00:29:09,289
I know you don't think you know you're

684
00:29:12,340 --> 00:29:10,940
not talking about that in your meetings

685
00:29:14,440 --> 00:29:12,350
but certainly a must enter your mind

686
00:29:17,019 --> 00:29:14,450
whether might this be a good thing to

687
00:29:18,909 --> 00:29:17,029
promote commercials going quicker do you

688
00:29:26,710 --> 00:29:18,919

think that this would just be a bad

689
00:29:30,250 --> 00:29:26,720
negative situation oh right now we're

690
00:29:31,960 --> 00:29:30,260
focusing on on the flying station safely

691
00:29:35,889 --> 00:29:31,970
and making sure we have a vehicle that

692
00:29:37,779 --> 00:29:35,899
is safe for our cruise to ply on and I i

693
00:29:40,889 --> 00:29:37,789
can tell you honestly I haven't really

694
00:29:43,000 --> 00:29:40,899
worried about the PR associated with it

695
00:29:45,070 --> 00:29:43,010
you know there's there's some things

696
00:29:47,769 --> 00:29:45,080
that you you know that's first thing

697
00:29:48,460 --> 00:29:47,779
comes to your mind but for us given this

698
00:29:53,700 --> 00:29:48,470
so what we're

699
00:29:56,230 --> 00:29:53,710
what we see is an anomaly of a vehicle

700
00:29:58,060 --> 00:29:56,240
that was you know if you think about it

701
00:30:00,970 --> 00:29:58,070
was sort of a gift you know we have the

702
00:30:03,789 --> 00:30:00,980
logistics on board to to recover from it

703
00:30:07,240 --> 00:30:03,799
it was a it's it's going to tell us

704
00:30:10,750 --> 00:30:07,250
about an anomaly before we put humans on

705
00:30:12,820 --> 00:30:10,760
a similar vehicle so really this is a

706
00:30:15,610 --> 00:30:12,830
great opportunity for us to learn about

707
00:30:18,549 --> 00:30:15,620
an anomaly resolve the anomaly without

708
00:30:21,310 --> 00:30:18,559
putting putting the crew at risk and and

709
00:30:23,770 --> 00:30:21,320
flying safely is much much more

710
00:30:25,930 --> 00:30:23,780
important than anything else I can think

711
00:30:28,539 --> 00:30:25,940
about right this instant I'm sure we'll

712
00:30:30,730 --> 00:30:28,549
have an opportunity to discuss any

713
00:30:33,310 --> 00:30:30,740

political implications if we spend a lot

714
00:30:34,360 --> 00:30:33,320
of time on the ground but but you know

715
00:30:35,710 --> 00:30:34,370
we'll just have to deal with them

716
00:30:37,450 --> 00:30:35,720
because we're going to we're going to do

717
00:30:40,630 --> 00:30:37,460
what's safest for the crew and for the

718
00:30:45,159 --> 00:30:40,640
for the space station which is a very

719
00:30:48,220 --> 00:30:45,169
big investment of of our governments and

720
00:30:50,500 --> 00:30:48,230
our job is as stewards of our government

721
00:30:52,630 --> 00:30:50,510
is to protect that investment and that's

722
00:30:54,580 --> 00:30:52,640
exactly what we're going to do my goal

723
00:30:57,130 --> 00:30:54,590
is to get flying safely again and get on

724
00:30:59,590 --> 00:30:57,140
with research and protect the protect

725
00:31:05,860 --> 00:30:59,600
the crew and and that investment along

726
00:31:10,390 --> 00:31:05,870
the way todd halvorson Florida today

727
00:31:12,450 --> 00:31:10,400
with a couple first I'm wondering if

728
00:31:15,909 --> 00:31:12,460
there is any forensic data at all

729
00:31:18,700 --> 00:31:15,919
whether any of the spacecraft has been

730
00:31:23,049 --> 00:31:18,710
recovered or whether the spacecraft was

731
00:31:24,490 --> 00:31:23,059
destroyed during reentry we have to talk

732
00:31:27,549 --> 00:31:24,500
to our Russian colleagues about that

733
00:31:29,169 --> 00:31:27,559
Todd I in speaking with my counterpart

734
00:31:32,649 --> 00:31:29,179
this morning as far as I know they have

735
00:31:35,140 --> 00:31:32,659
not located the vehicle yet he told me

736
00:31:38,740 --> 00:31:35,150
that they believe that it probably broke

737
00:31:42,130 --> 00:31:38,750
up which makes sense because I had to

738
00:31:44,470 --> 00:31:42,140

just to re-enter and so we would agree

739
00:31:46,690 --> 00:31:44,480
that the the odds of it being one big

740
00:31:50,440 --> 00:31:46,700
space craft by the time it landed is

741
00:31:51,970 --> 00:31:50,450
unlikely i dunno if you just go check

742
00:31:55,390 --> 00:31:51,980
google maps you're talking about a

743
00:31:57,470 --> 00:31:55,400
heavily wooded mountainous sparsely

744
00:32:00,950 --> 00:31:57,480
populated area and

745
00:32:03,770 --> 00:32:00,960
and even in the best of days it's very

746
00:32:06,260 --> 00:32:03,780
difficult to find things in in an area

747
00:32:08,510 --> 00:32:06,270
like that so so they believe it's broke

748
00:32:10,370 --> 00:32:08,520
up and they are looking for it they'd

749
00:32:14,480 --> 00:32:10,380
like to find it but as far as I know as

750
00:32:19,400 --> 00:32:14,490
of about a 30 about an hour ago they had

751
00:32:21,110 --> 00:32:19,410
not found it yet thanks and I'm

752
00:32:24,650 --> 00:32:21,120
wondering if you can talk about the

753
00:32:27,490 --> 00:32:24,660
increase in the level of risk that is

754
00:32:31,030 --> 00:32:27,500
inherent when you have no crew onboard

755
00:32:34,159 --> 00:32:31,040
the International Space Station to

756
00:32:37,850 --> 00:32:34,169
handle systems failures I mean this is

757
00:32:41,539 --> 00:32:37,860
not a trivial thing no it's not a

758
00:32:44,990 --> 00:32:41,549
trivial thing if you look at if you look

759
00:32:52,280 --> 00:32:45,000
at the probability risk assessments some

760
00:32:54,470 --> 00:32:52,290
of the numbers are not insignificant but

761
00:32:57,110 --> 00:32:54,480
there is a there is a greater risk of

762
00:33:02,360 --> 00:32:57,120
losing the ISS when its unmanned then if

763
00:33:05,480 --> 00:33:02,370

it were manned and so that's why when we

764
00:33:07,730 --> 00:33:05,490
made our decision back in after the

765
00:33:09,620 --> 00:33:07,740
Columbia accident to keep the station

766
00:33:15,880 --> 00:33:09,630
man that's exactly why because the risk

767
00:33:25,549 --> 00:33:20,950
thanks Mike and I'm wondering if you can

768
00:33:31,010 --> 00:33:25,559
kind of just clarify for me when the SOI

769
00:33:34,789 --> 00:33:31,020
used for the last three guys would reach

770
00:33:38,030 --> 00:33:34,799
its 200-day limit and if you could just

771
00:33:43,250 --> 00:33:38,040
real quickly once again go over the lit

772
00:33:47,120 --> 00:33:43,260
and dark cycles at the landing site so I

773
00:33:50,120 --> 00:33:47,130
have that straight thanks let's see the

774
00:33:53,960 --> 00:33:50,130
crews planned landing date was november

775
00:33:57,860 --> 00:33:53,970
is november 16th and they were going to

776
00:34:01,100 --> 00:33:57,870
bend on orbit 160 days i believe that's

777
00:34:03,380 --> 00:34:01,110
correct about 160 days so you can add 40

778
00:34:07,180 --> 00:34:03,390
days on that and and figure out where we

779
00:34:11,570 --> 00:34:07,190
reach 200 days on orbit with the Soyuz

780
00:34:19,490 --> 00:34:15,840
in the dark period and so to get to a

781
00:34:21,960 --> 00:34:19,500
lit period the dark you're stretching my

782
00:34:25,080 --> 00:34:21,970
memory it's it's the end of december i

783
00:34:27,060 --> 00:34:25,090
want to say it's the 29th that that's in

784
00:34:29,460 --> 00:34:27,070
my head it's at the very end of december

785
00:34:34,169 --> 00:34:29,470
is when you get lit again within the

786
00:34:37,620 --> 00:34:34,179
rules and and that's right at or beyond

787
00:34:39,810 --> 00:34:37,630
the soyuz certified life it also puts

788
00:34:43,110 --> 00:34:39,820

you as I recall that's beyond the Soyuz

789
00:34:45,000 --> 00:34:43,120
certified life of 200 days I think it's

790
00:34:46,380 --> 00:34:45,010
before you get to 210 but I don't

791
00:34:51,450 --> 00:34:46,390
remember it's not good for me to do math

792
00:34:53,190 --> 00:34:51,460
in public but it does as you recall the

793
00:34:54,810 --> 00:34:53,200
last time we recovered a crew in the

794
00:34:59,660 --> 00:34:54,820
November late November early December

795
00:35:05,870 --> 00:34:59,670
timeframe it was it was cold and windy

796
00:35:11,160 --> 00:35:05,880
and lots of snow and it is not conducive

797
00:35:14,190 --> 00:35:11,170
to to recovery operations and and so if

798
00:35:15,750 --> 00:35:14,200
you can avoid it we should so not only

799
00:35:17,490 --> 00:35:15,760
would we have to extend the life of the

800
00:35:20,520 --> 00:35:17,500
Soyuz but we'd have to go recover the

801
00:35:23,940 --> 00:35:20,530
crew and would are pretty difficult

802
00:35:28,070 --> 00:35:23,950
conditions and so we would just choose

803
00:35:32,100 --> 00:35:29,910
okay I believe that was our last

804
00:35:37,580 --> 00:35:32,110
question from Kennedy Space Center will

805
00:35:41,930 --> 00:35:40,980
yeah hi guys um so so yeah you've been

806
00:35:44,340 --> 00:35:41,940
talking about to be arrested

807
00:35:46,890 --> 00:35:44,350
investigation do you guys have any say

808
00:35:48,630 --> 00:35:46,900
in this investigation or or as NASA

809
00:35:51,510 --> 00:35:48,640
participating at all in this or you guys

810
00:35:53,720 --> 00:35:51,520
just just letting actually then do it

811
00:35:59,160 --> 00:35:53,730
and you're going to see what they stay

812
00:36:01,560 --> 00:35:59,170
in the I mentioned the Soyuz separation

813
00:36:04,980 --> 00:36:01,570

anomaly than 2008 that we dealt with we

814
00:36:07,290 --> 00:36:04,990
did participate we we asked for and

815
00:36:12,810 --> 00:36:07,300
receive the opportunity to have one of

816
00:36:16,980 --> 00:36:12,820
our technical experts participate in the

817
00:36:20,040 --> 00:36:16,990
with the Commission and then what we did

818
00:36:22,590 --> 00:36:20,050
was as we received information from the

819
00:36:23,940 --> 00:36:22,600
Commission we went off with our folks

820
00:36:26,250 --> 00:36:23,950
and looked at that data

821
00:36:29,970 --> 00:36:26,260
and and and did our own analysis to see

822
00:36:33,090 --> 00:36:29,980
if if what we were finding out made

823
00:36:35,610 --> 00:36:33,100
sense so we have requested to

824
00:36:38,220 --> 00:36:35,620
participate in a similar fashion on on

825
00:36:46,070 --> 00:36:38,230
this investigation as well and I would

826
00:36:56,720 --> 00:36:46,080
expect to be able to okay thank you okay

827
00:37:07,370 --> 00:36:58,620
David we're not here and y'all give you

828
00:37:11,910 --> 00:37:09,480
hello is this did you cast for Bill

829
00:37:14,460 --> 00:37:11,920
Harwood yes go ahead bill okay thanks

830
00:37:17,250 --> 00:37:14,470
sorry about that Mike one question from

831
00:37:18,720 --> 00:37:17,260
last week just just for the record given

832
00:37:21,030 --> 00:37:18,730
this the shroud in the rocket leave a

833
00:37:22,590 --> 00:37:21,040
man so we use it two minutes and 40

834
00:37:23,880 --> 00:37:22,600
seconds or so after launch something

835
00:37:25,530 --> 00:37:23,890
like this on a manned flight would be

836
00:37:28,890 --> 00:37:25,540
fatal is that am i interpreting that

837
00:37:30,390 --> 00:37:28,900
correctly no the what you're talking

838
00:37:34,050 --> 00:37:30,400

about to launch more tower and it's

839
00:37:38,520 --> 00:37:34,060
required for the for the first stage and

840
00:37:42,870 --> 00:37:38,530
a half or so at this point a third third

841
00:37:45,510 --> 00:37:42,880
stage abort is as possible the Soyuz

842
00:37:47,010 --> 00:37:45,520
would separate using the thrusters the

843
00:37:49,080 --> 00:37:47,020
nominal through calm the nominal

844
00:37:52,470 --> 00:37:49,090
thrusters on the Soyuz has the unfit

845
00:37:56,010 --> 00:37:52,480
needs to separate the capsule from the

846
00:37:58,890 --> 00:37:56,020
rest of the stack and safely turn the

847
00:38:03,180 --> 00:37:58,900
crew and in fact there is a scenario

848
00:38:05,340 --> 00:38:03,190
many years ago not related to the to the

849
00:38:07,350 --> 00:38:05,350
ISS program but many many years ago

850
00:38:08,700 --> 00:38:07,360
there's a there's a Soyuz launch where

851
00:38:12,510 --> 00:38:08,710
they did in fact have a problem in this

852
00:38:13,980 --> 00:38:12,520
room in this region of flight I believe

853
00:38:16,020 --> 00:38:13,990
what happened was the second stage

854
00:38:18,570 --> 00:38:16,030
didn't completely separate from the

855
00:38:21,630 --> 00:38:18,580
third stage if i'm not mistaken and in

856
00:38:25,020 --> 00:38:21,640
that case the the crew did abort and

857
00:38:27,390 --> 00:38:25,030
landed in fact in this same alki region

858
00:38:28,890 --> 00:38:27,400
and was recovered after a very long

859
00:38:31,830 --> 00:38:28,900
night in the cold mountains as i

860
00:38:33,540 --> 00:38:31,840
understand it so no it was clear i

861
00:38:34,830 --> 00:38:33,550
believe the only reason i was answering

862
00:38:36,150 --> 00:38:34,840
his last week we were told that there

863
00:38:37,080 --> 00:38:36,160

was not a separation with the progress

864
00:38:38,490 --> 00:38:37,090
but that's a different

865
00:38:39,990 --> 00:38:38,500
system so i'm assuming with the man

866
00:38:41,040 --> 00:38:40,000
system they could get off the vehicle at

867
00:38:44,160 --> 00:38:41,050
skirt if you had a safe shutdown

868
00:38:48,750 --> 00:38:44,170
absolutely that's correct thanks and one

869
00:38:51,540 --> 00:38:48,760
more for me the the next progress at the

870
00:38:53,100 --> 00:38:51,550
end of October why would you not launch

871
00:38:54,450 --> 00:38:53,110
that early in other words if you're fat

872
00:38:55,920 --> 00:38:54,460
on supplies it would seem like you would

873
00:38:59,120 --> 00:38:55,930
want to get as many launches in as you

874
00:39:01,710 --> 00:38:59,130
could and I'm not sure what that's even

875
00:39:03,660 --> 00:39:01,720
you know hasn't already been decided I

876
00:39:05,970 --> 00:39:03,670
guess is what I'm asking I didn't

877
00:39:08,610 --> 00:39:05,980
understand your question try again why

878
00:39:09,930 --> 00:39:08,620
they know you said earlier that they

879
00:39:12,090 --> 00:39:09,940
were looking at the possibility of

880
00:39:13,590 --> 00:39:12,100
moving up the October so use and perhaps

881
00:39:15,450 --> 00:39:13,600
get that flight in before you launch

882
00:39:17,280 --> 00:39:15,460
demand i don't i don't mean soyuz I'm

883
00:39:19,500 --> 00:39:17,290
sorry beat the progress the next

884
00:39:20,940 --> 00:39:19,510
progress at the end of October right by

885
00:39:22,530 --> 00:39:20,950
moving that up you get another flight in

886
00:39:24,990 --> 00:39:22,540
before you you had to launch a manned

887
00:39:26,340 --> 00:39:25,000
mission i'm just wondering why there's

888
00:39:29,010 --> 00:39:26,350

any debate about that seems like the

889
00:39:35,190 --> 00:39:29,020
obvious thing to do I you know I'm

890
00:39:37,430 --> 00:39:35,200
trying to be less than specific because

891
00:39:39,900 --> 00:39:37,440
there hasn't been decisions made but

892
00:39:41,370 --> 00:39:39,910
consistently over the last few days this

893
00:39:42,750 --> 00:39:41,380
is what our Russian colleagues have

894
00:39:44,520 --> 00:39:42,760
talked about they would like to get a

895
00:39:46,890 --> 00:39:44,530
couple of flights before the Soyuz fly

896
00:39:51,210 --> 00:39:46,900
so yeah I don't think there's any debate

897
00:39:52,620 --> 00:39:51,220
it's we haven't picked dates I haven't

898
00:39:53,790 --> 00:39:52,630
heard anything to the contrary that they

899
00:39:56,130 --> 00:39:53,800
wouldn't want to have a couple of

900
00:40:01,230 --> 00:39:56,140
unmanned flights before they fly the

901
00:40:02,670 --> 00:40:01,240
Soyuz so that you know we just say I'm

902
00:40:05,850 --> 00:40:02,680
sitting here trying to talk to you guys

903
00:40:08,310 --> 00:40:05,860
in general terms to keep you up to speed

904
00:40:11,070 --> 00:40:08,320
but I don't want you to get the illusion

905
00:40:13,230 --> 00:40:11,080
that that somebody has made decisions on

906
00:40:14,790 --> 00:40:13,240
launch dates and specifics when they

907
00:40:18,690 --> 00:40:14,800
haven't even sorted through the anomaly

908
00:40:20,430 --> 00:40:18,700
yet so I'm just trying to be less than

909
00:40:22,290 --> 00:40:20,440
specific but tell you kind of the

910
00:40:24,270 --> 00:40:22,300
general plan so today everything that

911
00:40:27,960 --> 00:40:24,280
I've heard my Russian colleagues which

912
00:40:29,580 --> 00:40:27,970
we strongly endorsed by the way is is to

913
00:40:31,470 --> 00:40:29,590

fly this commercial flight then fly the

914
00:40:34,290 --> 00:40:31,480
progress and that'll give you two

915
00:40:36,570 --> 00:40:34,300
flights of the third stage that had the

916
00:40:39,120 --> 00:40:36,580
problem and hopefully convince you that

917
00:40:40,610 --> 00:40:39,130
you've resolved the anomaly and and

918
00:40:44,300 --> 00:40:40,620
you're ready to put humans on the Soyuz

919
00:40:48,180 --> 00:40:44,310
okay thanks Mike appreciate okay

920
00:40:49,860 --> 00:40:48,190
phillips loss yeah this little sauce

921
00:40:51,290 --> 00:40:49,870
with NASA's Space Flight calm can you

922
00:40:55,860 --> 00:40:51,300
hear me okay yep

923
00:40:58,830 --> 00:40:55,870
on the on the on the third stage anomaly

924
00:41:03,150 --> 00:40:58,840
on the on the 44p do you happen to have

925
00:41:05,330 --> 00:41:03,160
any numbers on what when the shutdown

926
00:41:07,830 --> 00:41:05,340
occurred with respect to when the engine

927
00:41:11,160 --> 00:41:07,840
started how long did the engine run

928
00:41:13,290 --> 00:41:11,170
before the shutdown command occurred you

929
00:41:18,630 --> 00:41:13,300
know i don't i don't have the specifics

930
00:41:20,130 --> 00:41:18,640
I've heard 20 to 25 seconds stated but

931
00:41:22,590 --> 00:41:20,140
you know you have to ask our Russian

932
00:41:25,560 --> 00:41:22,600
colleagues it was shortly after ignition

933
00:41:28,200 --> 00:41:25,570
that they that they had the commanded

934
00:41:31,830 --> 00:41:28,210
shutdown but precisely how many seconds

935
00:41:35,550 --> 00:41:31,840
I don't know for sure okay and then on

936
00:41:38,940 --> 00:41:35,560
the on this is obviously a what if

937
00:41:43,260 --> 00:41:38,950
question but if the station had to be D

938
00:41:45,030 --> 00:41:43,270

crude would what kind of science could

939
00:41:47,370 --> 00:41:45,040
still be done I mean could you would you

940
00:41:51,060 --> 00:41:47,380
still be able to do take data from the

941
00:41:52,710 --> 00:41:51,070
MS for instance well in AMS is a good

942
00:41:54,660 --> 00:41:52,720
example where we would be able to get

943
00:41:59,130 --> 00:41:54,670
data all of our external instruments

944
00:42:01,290 --> 00:41:59,140
largely would would be able to continue

945
00:42:03,360 --> 00:42:01,300
to function we have some internal

946
00:42:05,250 --> 00:42:03,370
instruments as well that we would try to

947
00:42:07,020 --> 00:42:05,260
get set up so that some research could

948
00:42:10,140 --> 00:42:07,030
be done will try to put ourselves in a

949
00:42:12,300 --> 00:42:10,150
posture to get as much research done in

950
00:42:16,320 --> 00:42:12,310
automated fashion as we can of course we

951
00:42:18,780 --> 00:42:16,330
lose I shouldn't say we lose we don't we

952
00:42:21,750 --> 00:42:18,790
don't gain any more human research when

953
00:42:24,630 --> 00:42:21,760
our subjects depart ISS so that's one

954
00:42:27,510 --> 00:42:24,640
that's one facet of research that that

955
00:42:29,300 --> 00:42:27,520
gets a bit of a hit again for the time

956
00:42:31,650 --> 00:42:29,310
period you talking about it's not

957
00:42:33,630 --> 00:42:31,660
significant so if we do have to briefly

958
00:42:36,780 --> 00:42:33,640
demand it's not like we're going to

959
00:42:39,630 --> 00:42:36,790
we're going to lose all of our human

960
00:42:42,330 --> 00:42:39,640
research data we'll just would just pick

961
00:42:46,080 --> 00:42:42,340
up and keep going with the next cruise

962
00:42:48,320 --> 00:42:46,090
to come to ISS so it's really not from

963
00:42:50,490 --> 00:42:48,330

my standpoint it's not so much the loss

964
00:42:52,110 --> 00:42:50,500
loss of research as it is the

965
00:42:54,720 --> 00:42:52,120
postponement of certain types of

966
00:42:56,070 --> 00:42:54,730
research but specifically we haven't

967
00:42:58,440 --> 00:42:56,080
sorted that out the teams are off

968
00:43:01,560 --> 00:42:58,450
looking at what they could do so I can't

969
00:43:02,910 --> 00:43:01,570
give you a specific answer when we get a

970
00:43:04,380 --> 00:43:02,920
little further along we know what we're

971
00:43:06,930 --> 00:43:04,390
going to do we'll be able to talk

972
00:43:10,200 --> 00:43:06,940
a little more specifics of what research

973
00:43:13,230 --> 00:43:10,210
we can keep going on on ISS and and and

974
00:43:14,849 --> 00:43:13,240
which ones will have to stand down while

975
00:43:19,259 --> 00:43:14,859
we wait for the crew to arrive at the if

976
00:43:21,120 --> 00:43:19,269
it comes to that okay and then one last

977
00:43:25,140 --> 00:43:21,130
one was just just sort of looking ahead

978
00:43:27,150 --> 00:43:25,150
and in a very short term when when is

979
00:43:29,339 --> 00:43:27,160
sort of your next decision point in

980
00:43:33,089 --> 00:43:29,349
terms of you know either committing to

981
00:43:35,880 --> 00:43:33,099
the the 26s return date or you know or

982
00:43:37,920 --> 00:43:35,890
are you is the the IM NT going to

983
00:43:41,130 --> 00:43:37,930
discontinue to meet our regular basis or

984
00:43:43,620 --> 00:43:41,140
and just you know wait for the enough

985
00:43:45,839 --> 00:43:43,630
data to make a decision when would be

986
00:43:48,870 --> 00:43:45,849
the next decision point for what's going

987
00:43:52,920 --> 00:43:48,880
on right now well the leading a decision

988
00:43:54,870 --> 00:43:52,930

point for return likely will be when we

989
00:43:57,450 --> 00:43:54,880
have to do the phasing burn and the

990
00:43:59,370 --> 00:43:57,460
teams are talking about that now so so i

991
00:44:01,529 --> 00:43:59,380
don't know the specific answer to your

992
00:44:04,079 --> 00:44:01,539
question certainly about a week before

993
00:44:05,670 --> 00:44:04,089
we want to start prepping the crew and

994
00:44:07,500 --> 00:44:05,680
packing the Soyuz and things of that

995
00:44:11,099 --> 00:44:07,510
nature so certainly within a week but

996
00:44:12,930 --> 00:44:11,109
usually what happens is we we decide how

997
00:44:15,450 --> 00:44:12,940
we need to face the spacecraft and the

998
00:44:17,480 --> 00:44:15,460
earlier we do that the generally

999
00:44:19,710 --> 00:44:17,490
speaking the less properly use and so

1000
00:44:22,410 --> 00:44:19,720
that's what we've asked that's what the

1001
00:44:27,240 --> 00:44:22,420
team is off talking about today and in

1002
00:44:29,190 --> 00:44:27,250
they'll they'll they'll discuss first

1003
00:44:30,809 --> 00:44:29,200
you have to decide what your what your

1004
00:44:33,089 --> 00:44:30,819
opportunity is but what they're looking

1005
00:44:34,950 --> 00:44:33,099
at today is between the 16th and the

1006
00:44:37,259 --> 00:44:34,960
eighteenth of September when would you

1007
00:44:39,390 --> 00:44:37,269
have to do a phasing burden for that in

1008
00:44:42,269 --> 00:44:39,400
fact it's kind of driving the decision I

1009
00:44:43,859 --> 00:44:42,279
think 4 sep tember entry is what's the

1010
00:44:45,269 --> 00:44:43,869
best day so that's part of what we've

1011
00:44:47,880 --> 00:44:45,279
asked his team to go look at so that's

1012
00:44:49,079 --> 00:44:47,890
all kind of future work certainly within

1013
00:44:51,049 --> 00:44:49,089

a week you're going to have to make the

1014
00:44:53,160 --> 00:44:51,059
decision but I would certainly expect

1015
00:44:54,660 --> 00:44:53,170
frankly that we would decide that Bruce

1016
00:44:59,309 --> 00:44:54,670
for this week is out which is plenty of

1017
00:45:09,450 --> 00:44:59,319
time ok thank you very much ok next is

1018
00:45:18,299 --> 00:45:09,460
Dan Leone can you still with us will go

1019
00:45:24,940 --> 00:45:20,800
the one wants for Jeremy

1020
00:45:27,640 --> 00:45:24,950
alright Irene Klotz thanks Kelly I might

1021
00:45:29,860 --> 00:45:27,650
I have three questions the first is just

1022
00:45:31,810 --> 00:45:29,870
for the record with this recovery plan

1023
00:45:37,960 --> 00:45:31,820
play out any differently if shuttle

1024
00:45:42,850 --> 00:45:37,970
we're still flying well I think I said

1025
00:45:46,780 --> 00:45:42,860
this last week you know we're logistical

1026
00:45:50,950 --> 00:45:46,790
II speaking we're not in a in bad

1027
00:45:55,720 --> 00:45:50,960
position we're in a great position from

1028
00:45:58,260 --> 00:45:55,730
a returning cruise home we're in a fine

1029
00:46:01,840 --> 00:45:58,270
position we've got soy uses that are

1030
00:46:03,430 --> 00:46:01,850
that have no liens against them and that

1031
00:46:05,470 --> 00:46:03,440
the only decision is when we're going to

1032
00:46:08,980 --> 00:46:05,480
we're going to bring the crew home I

1033
00:46:12,250 --> 00:46:08,990
need the Soyuz rescue vehicle to have

1034
00:46:13,930 --> 00:46:12,260
crew on orbit so I would think I would

1035
00:46:17,860 --> 00:46:13,940
tell you that given where we are today

1036
00:46:19,660 --> 00:46:17,870
and and what we know about the anomaly

1037
00:46:21,190 --> 00:46:19,670
to date which is kind of limited I think

1038
00:46:22,810 --> 00:46:21,200

we'd be doing exactly what we're doing

1039
00:46:24,550 --> 00:46:22,820
today I'm certainly be asking our

1040
00:46:26,350 --> 00:46:24,560
shuttle friends they didn't have a

1041
00:46:28,900 --> 00:46:26,360
flight coming up pretty soon when when

1042
00:46:30,610 --> 00:46:28,910
they could fly again for us or what's as

1043
00:46:33,790 --> 00:46:30,620
soon as they could fly as part of just

1044
00:46:35,680 --> 00:46:33,800
understanding all the parameters as

1045
00:46:37,510 --> 00:46:35,690
things go forward but right now I would

1046
00:46:39,580 --> 00:46:37,520
tell you this and that we probably

1047
00:46:41,620 --> 00:46:39,590
wouldn't be rushing off to ask our

1048
00:46:46,780 --> 00:46:41,630
shuttle friends to hurry up and get to

1049
00:46:49,420 --> 00:46:46,790
ISS thanks and if things play out the

1050
00:46:51,340 --> 00:46:49,430
way you kind of optimistically hope that

1051
00:46:53,560 --> 00:46:51,350
they will with not having to do staff

1052
00:46:55,510 --> 00:46:53,570
the station although it there may be an

1053
00:46:57,370 --> 00:46:55,520
extended time where there's just three

1054
00:47:00,550 --> 00:46:57,380
person crews aboard how long would it

1055
00:47:04,080 --> 00:47:00,560
take to get back to a full six-person

1056
00:47:09,610 --> 00:47:04,090
crew so in other words if the September

1057
00:47:12,130 --> 00:47:09,620
21st flight was delayed only to the

1058
00:47:15,490 --> 00:47:12,140
point where you know you did you didn't

1059
00:47:17,260 --> 00:47:15,500
you still had a crew that's that's half

1060
00:47:18,820 --> 00:47:17,270
the crew that stayed aboard how long

1061
00:47:21,900 --> 00:47:18,830
would it take then to kind of get back

1062
00:47:25,349 --> 00:47:23,880
not sure I understand can you try me

1063
00:47:26,970 --> 00:47:25,359

again are you saying how long does it

1064
00:47:29,670 --> 00:47:26,980
take me to get to six if I don't go down

1065
00:47:31,230 --> 00:47:29,680
to zero or if I have to go down to know

1066
00:47:33,299 --> 00:47:31,240
crew how long does it take to get to six

1067
00:47:35,400 --> 00:47:33,309
let me ask this and said sorry that was

1068
00:47:37,260 --> 00:47:35,410
kind of Charlie but um first of all what

1069
00:47:39,750 --> 00:47:37,270
are the odds are you think that the

1070
00:47:43,770 --> 00:47:39,760
September 21st launch are going to is

1071
00:47:47,579 --> 00:47:43,780
going to be able to go as planned sep

1072
00:47:49,799 --> 00:47:47,589
tember 21st launch of the Soyuz yes yeah

1073
00:47:53,430 --> 00:47:49,809
I don't think there's I think the odds

1074
00:47:56,279 --> 00:47:53,440
are our I don't think a bookie would

1075
00:47:58,380 --> 00:47:56,289
take any odds unless you're gonna unless

1076
00:48:03,029 --> 00:47:58,390
you're going to give him money to for it

1077
00:48:04,920 --> 00:48:03,039
not to fly so no I don't expect that I

1078
00:48:09,420 --> 00:48:04,930
can't imagine the Soyuz flying 21st

1079
00:48:12,329 --> 00:48:09,430
that's pretty much off the table okay

1080
00:48:17,069 --> 00:48:12,339
and so if you have a if you go down to

1081
00:48:20,069 --> 00:48:17,079
three and and are able to launch a soy

1082
00:48:23,309 --> 00:48:20,079
as before the November 16th return of

1083
00:48:25,980 --> 00:48:23,319
the rest of the expedition 29 crew how

1084
00:48:29,220 --> 00:48:25,990
long would it take to go back up to 60 I

1085
00:48:31,380 --> 00:48:29,230
understand well let's see the the

1086
00:48:33,809 --> 00:48:31,390
optimistic kind of scenario being

1087
00:48:35,849 --> 00:48:33,819
discussed is maybe we'd be ready to fly

1088
00:48:39,150 --> 00:48:35,859

a soy use in the early November time

1089
00:48:41,940 --> 00:48:39,160
frame and a ana and the the next so use

1090
00:48:45,930 --> 00:48:41,950
in the early December timeframe that

1091
00:48:49,230 --> 00:48:45,940
would be an optimistic scenario so it

1092
00:48:52,859 --> 00:48:49,240
really just has to do with the gap

1093
00:48:54,510 --> 00:48:52,869
between the two flights it's a little

1094
00:48:56,370 --> 00:48:54,520
bit complicated by the fact that we have

1095
00:48:57,750 --> 00:48:56,380
to return that crew as well and the

1096
00:49:01,079 --> 00:48:57,760
search and rescue guys have to support

1097
00:49:04,260 --> 00:49:01,089
both of that both of those so it's just

1098
00:49:06,660 --> 00:49:04,270
tight timing wise so I think the soy

1099
00:49:08,549 --> 00:49:06,670
uses are there you'd have to be able to

1100
00:49:13,559 --> 00:49:08,559
get the mods if any are necessary done

1101
00:49:17,309 --> 00:49:13,569
for both of those vehicles so so there's

1102
00:49:20,099 --> 00:49:17,319
a lot of factors in there if all the

1103
00:49:22,799 --> 00:49:20,109
vehicles are in flow and ready to go fly

1104
00:49:24,990 --> 00:49:22,809
as soon as you can fly them it probably

1105
00:49:29,010 --> 00:49:25,000
takes about them i'm going to say about

1106
00:49:30,630 --> 00:49:29,020
a month or so between those flights at

1107
00:49:33,359 --> 00:49:30,640
least that's what I'm kind of hearing I

1108
00:49:35,520 --> 00:49:33,369
haven't asked that specifically and of

1109
00:49:38,380 --> 00:49:35,530
course that

1110
00:49:41,380 --> 00:49:38,390
ditch is determined greatly by the cause

1111
00:49:44,490 --> 00:49:41,390
and the anomaly and what repair is

1112
00:49:46,960 --> 00:49:44,500
required to be able to go fly again

1113
00:49:48,750 --> 00:49:46,970

Thanks and just one quick follow-up to

1114
00:49:52,180 --> 00:49:48,760
Bill's question if you if there was a

1115
00:49:54,670 --> 00:49:52,190
third stage so as a board would that be

1116
00:49:56,079 --> 00:49:54,680
an abort to orbit and then a return to

1117
00:49:58,240 --> 00:49:56,089
Kazakhstan or would there be a

1118
00:50:00,339 --> 00:49:58,250
possibility that the soils would

1119
00:50:03,280 --> 00:50:00,349
actually be able to reach the ISS orbit

1120
00:50:05,290 --> 00:50:03,290
and dog well in this particular case

1121
00:50:07,930 --> 00:50:05,300
because it was early in the third stage

1122
00:50:10,030 --> 00:50:07,940
you'd end up like I said about the same

1123
00:50:17,700 --> 00:50:10,040
place the progress apparently ended up

1124
00:50:23,050 --> 00:50:20,980
so so it would then it would then land I

1125
00:50:25,810 --> 00:50:23,060
mean it would ballistically return

1126
00:50:31,290 --> 00:50:25,820
immediately or would there be an abort

1127
00:50:36,280 --> 00:50:34,780
parabolic arc if you will it goes up

1128
00:50:38,620 --> 00:50:36,290
till it loses energy and it arches

1129
00:50:40,329 --> 00:50:38,630
arches over and comes down and then it

1130
00:50:43,720 --> 00:50:40,339
goes through a scenario where it

1131
00:50:46,809 --> 00:50:43,730
separates from the vehicle and then then

1132
00:50:48,940 --> 00:50:46,819
deploy chutes and and but it does do a

1133
00:50:52,329 --> 00:50:48,950
it's a at that point it's a ballistic

1134
00:50:56,890 --> 00:50:52,339
entry which just means that it kind of

1135
00:50:58,599 --> 00:50:56,900
follows the same path that that a that a

1136
00:51:00,849 --> 00:50:58,609
sphere would follow coming back home

1137
00:51:02,200 --> 00:51:00,859
which is you know higher G kind of entry

1138
00:51:04,540 --> 00:51:02,210

but certainly not anything that cruise

1139
00:51:06,819 --> 00:51:04,550
can't can't stand but they just land

1140
00:51:08,819 --> 00:51:06,829
it's just like what happened today the

1141
00:51:13,300 --> 00:51:08,829
only difference is there shoots and it's

1142
00:51:14,620 --> 00:51:13,310
it's in a you're in a capsule in a safe

1143
00:51:16,359 --> 00:51:14,630
environment of the capsule for the

1144
00:51:19,120 --> 00:51:16,369
re-entry part of it does that answer

1145
00:51:23,079 --> 00:51:19,130
your question yes thanks very much bye

1146
00:51:24,880 --> 00:51:23,089
bye okay real quickly well we've got the

1147
00:51:31,900 --> 00:51:24,890
phone but still active won't check and

1148
00:51:35,349 --> 00:51:31,910
see if David Pittman is back on damn

1149
00:51:40,970 --> 00:51:39,529
Jeremy Kaplan okay I say we have one

1150
00:51:42,289 --> 00:51:40,980
more follow-up question from Kennedy

1151
00:51:46,269 --> 00:51:42,299
Space and we'll go back there briefly

1152
00:51:49,190 --> 00:51:46,279
and then we'll finish up here in Houston

1153
00:51:51,319 --> 00:51:49,200
hi Marcia de and ap with one more

1154
00:51:54,009 --> 00:51:51,329
question Mike you talked about the lid

1155
00:51:57,019 --> 00:51:54,019
and unlit opportunities for landing

1156
00:51:59,680 --> 00:51:57,029
couldn't you just undock the Soyuz at a

1157
00:52:02,839 --> 00:51:59,690
different time to try to gain a lid on

1158
00:52:05,059 --> 00:52:02,849
any given day or is it a ground past

1159
00:52:08,150 --> 00:52:05,069
issue communication pass issue with the

1160
00:52:10,099 --> 00:52:08,160
Soyuz I guess I just do you have any

1161
00:52:13,190 --> 00:52:10,109
maneuverability with those undocking

1162
00:52:15,979 --> 00:52:13,200
xand landings no its you really you

1163
00:52:17,660 --> 00:52:15,989

really don't its orbital mechanics kind

1164
00:52:22,880 --> 00:52:17,670
of defines where you're going to end up

1165
00:52:26,509 --> 00:52:22,890
based on the amount of prop you have to

1166
00:52:29,870 --> 00:52:26,519
burn on the vehicle and so in a Soyuz

1167
00:52:34,400 --> 00:52:29,880
case is pretty small spacecraft and so

1168
00:52:37,880 --> 00:52:34,410
you kind of end up end up landing based

1169
00:52:39,380 --> 00:52:37,890
on the the phasing burns you have to do

1170
00:52:41,539 --> 00:52:39,390
and it's not much in the way of phasing

1171
00:52:43,489 --> 00:52:41,549
it's really separation burn then you do

1172
00:52:46,029 --> 00:52:43,499
a series of small burns to get yourself

1173
00:52:49,190 --> 00:52:46,039
in a position to do the deorbit burn and

1174
00:52:50,839 --> 00:52:49,200
in orbital mechanics are such that you

1175
00:52:54,470 --> 00:52:50,849
know these are your these are your

1176
00:52:55,930 --> 00:52:54,480
opportunities to land and so you don't

1177
00:52:58,999 --> 00:52:55,940
have much wiggle room there's not

1178
00:53:01,880 --> 00:52:59,009
there's not much on so use in terms of

1179
00:53:04,880 --> 00:53:01,890
resources and improv it's really enough

1180
00:53:07,640 --> 00:53:04,890
to stay in orbit just a couple more days

1181
00:53:10,069 --> 00:53:07,650
and then to do your deorbit burn so

1182
00:53:15,380 --> 00:53:10,079
you're kind of you're sort of defined by

1183
00:53:18,759 --> 00:53:15,390
where you are orbital mechanics wise if

1184
00:53:23,749 --> 00:53:21,079
okay we're going to bring it back here

1185
00:53:25,910 --> 00:53:23,759
and start to wrap up we've got a ten

1186
00:53:27,650 --> 00:53:25,920
o'clock cut out time so we can go to our

1187
00:53:30,859 --> 00:53:27,660
normal International Space Station

1188
00:53:32,210 --> 00:53:30,869

update on NASA TV but let's go here for

1189
00:53:36,799 --> 00:53:32,220
a couple of follow-up questions and then

1190
00:53:39,410 --> 00:53:36,809
we'll wrap up early on a phase burn that

1191
00:53:42,109 --> 00:53:39,420
was scheduled I think and you're gonna

1192
00:53:43,370 --> 00:53:42,119
forgo that I believe you said when was

1193
00:53:48,380 --> 00:53:43,380
that scheduled for and then had

1194
00:53:51,170 --> 00:53:48,390
Wednesday Wednesday and a few minutes

1195
00:53:54,039 --> 00:53:51,180
ago Todd sort of asked for a review on

1196
00:53:58,420 --> 00:53:54,049
on the lighting constraints for the next

1197
00:54:01,969 --> 00:53:58,430
recoveries could you offer those again

1198
00:54:04,160 --> 00:54:01,979
okay in general would know you gave the

1199
00:54:07,039 --> 00:54:04,170
time an hour of over hour after but what

1200
00:54:09,680 --> 00:54:07,049
dates for the two scheduled recoveries

1201
00:54:13,609 --> 00:54:09,690
yeah you can get you the specifics i

1202
00:54:16,849 --> 00:54:13,619
believe i want to say September 18th

1203
00:54:19,999 --> 00:54:16,859
might be the last opportunity to meet

1204
00:54:22,789 --> 00:54:20,009
our constraints for lit and then it I

1205
00:54:25,339 --> 00:54:22,799
believe it's october 27th is when we get

1206
00:54:28,579 --> 00:54:25,349
back into a lip case and now you're

1207
00:54:31,099 --> 00:54:28,589
landing before sunset and to me that's

1208
00:54:32,089 --> 00:54:31,109
that's a not insignificant you know if

1209
00:54:34,299 --> 00:54:32,099
you have any problems at all you don't

1210
00:54:37,670 --> 00:54:34,309
want to be rooting around in the dark

1211
00:54:41,749 --> 00:54:37,680
for the november lainnya think november

1212
00:54:44,150 --> 00:54:41,759
nineteenth is when we go dark I think

1213
00:54:46,160 --> 00:54:44,160

that's our last opportunity and I

1214
00:54:48,559 --> 00:54:46,170
thought I remember December 29 so those

1215
00:54:51,529 --> 00:54:48,569
are those are within a couple of days

1216
00:54:56,709 --> 00:54:51,539
and and if you need it we can we can

1217
00:55:01,459 --> 00:55:00,019
now Jim Oberg with NBC you've done a lot

1218
00:55:03,140 --> 00:55:01,469
of good water f---ing in terms of being

1219
00:55:05,059 --> 00:55:03,150
prepared for it so even if you're

1220
00:55:07,819 --> 00:55:05,069
surprised by it appear to have plans in

1221
00:55:10,579 --> 00:55:07,829
place but I guess the question is it's

1222
00:55:12,890 --> 00:55:10,589
astonishing how the Russian media is

1223
00:55:16,569 --> 00:55:12,900
full of stories of Russian space experts

1224
00:55:18,499 --> 00:55:16,579
cosmonauts officials who saw this coming

1225
00:55:20,509 --> 00:55:18,509
they talked about the problems they're

1226
00:55:22,640 --> 00:55:20,519
having with staffing and not paying

1227
00:55:24,769 --> 00:55:22,650
enough to keep people and so forth and I

1228
00:55:27,079 --> 00:55:24,779
guess the question is is there anyone

1229
00:55:28,759 --> 00:55:27,089
whispering in your ear independently of

1230
00:55:31,670 --> 00:55:28,769
what you're being told by your partner's

1231
00:55:35,059 --> 00:55:31,680
about potential issues that are effect

1232
00:55:37,609 --> 00:55:35,069
flight safety and and what you think is

1233
00:55:42,109 --> 00:55:37,619
a good approach toward not being caught

1234
00:55:44,000 --> 00:55:42,119
by surprise by these kind of events you

1235
00:55:46,780 --> 00:55:44,010
know the answer that's no and I here's

1236
00:55:50,450 --> 00:55:46,790
what i can tell you my experience

1237
00:55:54,130 --> 00:55:50,460
particularly ever reason is been that

1238
00:55:56,630 --> 00:55:54,140

the team is is very the the the entire

1239
00:55:58,280 --> 00:55:56,640
human spaceflight organization that I

1240
00:56:00,710 --> 00:55:58,290
interface with and of course they've had

1241
00:56:02,210 --> 00:56:00,720
part of the issue is I we all read the

1242
00:56:04,220 --> 00:56:02,220
press part of the issues they've had a

1243
00:56:06,160 --> 00:56:04,230
number of unmanned failures over the

1244
00:56:09,920 --> 00:56:06,170
last several months that's got them

1245
00:56:12,400 --> 00:56:09,930
putting adding it extra pressure to them

1246
00:56:15,829 --> 00:56:12,410
and they are they have acknowledged

1247
00:56:17,780 --> 00:56:15,839
extra pressure from their governments as

1248
00:56:20,180 --> 00:56:17,790
you read in the paper but I can tell you

1249
00:56:22,790 --> 00:56:20,190
the team that we have dealt with in the

1250
00:56:25,250 --> 00:56:22,800
human spaceflight world this time and

1251
00:56:28,460 --> 00:56:25,260
time again it's it's been about what is

1252
00:56:31,069 --> 00:56:28,470
the safest thing to do and and keeping

1253
00:56:32,750 --> 00:56:31,079
their focus did you recall we wanted to

1254
00:56:34,400 --> 00:56:32,760
do a fly around with the new Soyuz and

1255
00:56:36,319 --> 00:56:34,410
in the end we didn't we didn't do the

1256
00:56:38,000 --> 00:56:36,329
fly around around station because it was

1257
00:56:40,549 --> 00:56:38,010
the first flight of a new Soyuz and

1258
00:56:42,650 --> 00:56:40,559
while there wasn't any data that it

1259
00:56:45,109 --> 00:56:42,660
would implicate a system it was just a

1260
00:56:48,170 --> 00:56:45,119
prudent thing to do so I find the team

1261
00:56:50,450 --> 00:56:48,180
that we deal with to be very cognizant

1262
00:56:52,880 --> 00:56:50,460
of the issues when they had to step up

1263
00:56:54,829 --> 00:56:52,890

to four so uses it was a at that time

1264
00:56:56,720 --> 00:56:54,839
they did you know they were very very

1265
00:56:59,599 --> 00:56:56,730
focused on making sure that they had the

1266
00:57:02,089 --> 00:56:59,609
team trained and ready to go to process

1267
00:57:04,730 --> 00:57:02,099
that many more build and manufacture and

1268
00:57:06,109 --> 00:57:04,740
be ready to fly that many more vehicles

1269
00:57:10,160 --> 00:57:06,119
and of course over the years they've

1270
00:57:15,859 --> 00:57:10,170
done a really outstanding job of flying

1271
00:57:17,839 --> 00:57:15,869
those flights consistently so so I I

1272
00:57:20,299 --> 00:57:17,849
don't know any more than what you would

1273
00:57:23,329 --> 00:57:20,309
you have read and I and I could tell you

1274
00:57:24,950 --> 00:57:23,339
that though that the same amount of

1275
00:57:26,870 --> 00:57:24,960
attention we would put on normally like

1276
00:57:30,589 --> 00:57:26,880
this they have certainly they certainly

1277
00:57:32,900 --> 00:57:30,599
put that attention there so so we'll

1278
00:57:35,059 --> 00:57:32,910
just see how how it plays out but I

1279
00:57:38,690 --> 00:57:35,069
haven't heard anything different than

1280
00:57:40,910 --> 00:57:38,700
what you've read okay that's all the

1281
00:57:43,280 --> 00:57:40,920
time we have for today's briefing will

1282
00:57:44,200 --> 00:57:43,290
send you off to the regularly scheduled

1283
00:57:46,940 --> 00:57:44,210
international

1284
00:57:48,890 --> 00:57:46,950
update from Mission Control in Houston

1285
00:57:52,250 --> 00:57:48,900
and remember you can get all the latest