
PAO
ISS DIL 5 LOS

1
00:00:04,300 --> 00:00:03,040
good morning and welcome to the

2
00:00:05,860 --> 00:00:04,310
International Space Station flight

3
00:00:07,929 --> 00:00:05,870
control room here in the Mission Control

4
00:00:10,089 --> 00:00:07,939
Center we have with us here Kenny Todd

5
00:00:11,799 --> 00:00:10,099
who is the ops integration manager for

6
00:00:14,200 --> 00:00:11,809
the space station program and he's going

7
00:00:16,570 --> 00:00:14,210
to give us an update on the incident

8
00:00:17,769 --> 00:00:16,580
with the cooling loop on board the space

9
00:00:19,749 --> 00:00:17,779
station yesterday tell us a little bit

10
00:00:21,339 --> 00:00:19,759
about what happened and what team here

11
00:00:25,630 --> 00:00:21,349
on the ground has been doing to get it

12
00:00:28,389 --> 00:00:25,640
fixed let's see good morning yesterday

13
00:00:30,850 --> 00:00:28,399

well those most people know we have we

14
00:00:34,420 --> 00:00:30,860
have two external thermal control loops

15
00:00:36,220 --> 00:00:34,430
on a space station they the loads that

16
00:00:40,120 --> 00:00:36,230
are on Space Station the electrical

17
00:00:43,090 --> 00:00:40,130
loads the heat loads all the energy and

18
00:00:46,360 --> 00:00:43,100
the heat that gets developed as those

19
00:00:48,490 --> 00:00:46,370
oru s operate gets dissipated through

20
00:00:51,550 --> 00:00:48,500
through these external thermal control

21
00:00:54,690 --> 00:00:51,560
loops and we had yesterday a situation

22
00:00:58,900 --> 00:00:54,700
where one of those loops powered down

23
00:01:03,240 --> 00:00:58,910
the the reason behind that is all still

24
00:01:05,620 --> 00:01:03,250
in work at this point the the system

25
00:01:07,480 --> 00:01:05,630
it's it's up and running but there's a

26
00:01:10,450 --> 00:01:07,490
key component of the system called the

27
00:01:13,480 --> 00:01:10,460
flow control valve that does not at this

28
00:01:15,670 --> 00:01:13,490
time appear to be working properly that

29
00:01:17,649 --> 00:01:15,680
particular valve the the role of it is

30
00:01:20,649 --> 00:01:17,659
to is to help regulate the temperature

31
00:01:23,530 --> 00:01:20,659
of the ammonia in that loop it's very

32
00:01:25,750 --> 00:01:23,540
critical that that we maintain the

33
00:01:29,080 --> 00:01:25,760
temperature in that loop so that so that

34
00:01:32,649 --> 00:01:29,090
when that ammonia is reintroduced into

35
00:01:35,830 --> 00:01:32,659
the to the heat exchanger that's that's

36
00:01:37,300 --> 00:01:35,840
on the note to that that the the water

37
00:01:39,640 --> 00:01:37,310
that's also flowing through that heat

38
00:01:41,500 --> 00:01:39,650

exchanger does not freeze and so so

39
00:01:45,130 --> 00:01:41,510
anyway that's a very delicate balance

40
00:01:47,109 --> 00:01:45,140
that we have to to operate in and so we

41
00:01:49,090 --> 00:01:47,119
have systems and checks and balances in

42
00:01:52,450 --> 00:01:49,100
place so that if the temperature in that

43
00:01:53,920 --> 00:01:52,460
loop gets too cold that the loop itself

44
00:01:56,500 --> 00:01:53,930
will shut down and that's what happened

45
00:01:59,940 --> 00:01:56,510
yesterday and so once the loop was

46
00:02:02,320 --> 00:01:59,950
repowered this this flow control valve

47
00:02:04,030 --> 00:02:02,330
that helps to regulate that temperature

48
00:02:06,760 --> 00:02:04,040
it became apparent as the team was

49
00:02:08,679 --> 00:02:06,770
recovering the loop that that it wasn't

50
00:02:10,300 --> 00:02:08,689
quite functioning the way we thought and

51
00:02:12,640 --> 00:02:10,310
we weren't getting the same level of

52
00:02:13,380 --> 00:02:12,650
tempt temperature response that that we

53
00:02:18,130 --> 00:02:13,390
were expecting

54
00:02:21,430 --> 00:02:18,140
so for that reason we chose to leave the

55
00:02:24,310 --> 00:02:21,440
lead the system not integrated and and

56
00:02:26,410 --> 00:02:24,320
by doing so that forced us to to have to

57
00:02:29,380 --> 00:02:26,420
take some of the loads off of the node

58
00:02:32,620 --> 00:02:29,390
to some of the heat loads which caused

59
00:02:34,750 --> 00:02:32,630
us to power down some boxes some oru

60
00:02:37,950 --> 00:02:34,760
some systems that that are considered

61
00:02:41,170 --> 00:02:37,960
non critical of our use that sense for

62
00:02:43,540 --> 00:02:41,180
replacement unit correct and so so we

63
00:02:46,540 --> 00:02:43,550

took those boxes now again we haven't

64
00:02:49,390 --> 00:02:46,550
lost any any primary functionality there

65
00:02:52,180 --> 00:02:49,400
is some redundancy that we're down right

66
00:02:54,250 --> 00:02:52,190
now but again that's not something that

67
00:02:56,080 --> 00:02:54,260
that I would call critical to to

68
00:02:57,580 --> 00:02:56,090
day-to-day station station operations

69
00:02:59,950 --> 00:02:57,590
should we have a failure in one of those

70
00:03:02,230 --> 00:02:59,960
areas obviously we would want the we

71
00:03:04,180 --> 00:03:02,240
would want the redundant unit up so so

72
00:03:07,030 --> 00:03:04,190
this is a position we don't want to want

73
00:03:09,550 --> 00:03:07,040
to be in long term and so the team is

74
00:03:10,930 --> 00:03:09,560
continuing to work through the fall tree

75
00:03:14,260 --> 00:03:10,940
of what might be going on with this

76
00:03:18,090 --> 00:03:14,270
particular flow control valve and and

77
00:03:20,890 --> 00:03:18,100
that work is ongoing as we speak and so

78
00:03:22,360 --> 00:03:20,900
you know in the in the meanwhile we've

79
00:03:24,370 --> 00:03:22,370
got a good stable configuration to

80
00:03:26,140 --> 00:03:24,380
cruise in good shape no no issues there

81
00:03:29,920 --> 00:03:26,150
they're continuing to go about their day

82
00:03:32,680 --> 00:03:29,930
to day activities you know where we can

83
00:03:34,030 --> 00:03:32,690
we're giving them good science and all

84
00:03:35,710 --> 00:03:34,040
the science that we've collected up to

85
00:03:39,490 --> 00:03:35,720
this point is not at risk so we're in

86
00:03:43,060 --> 00:03:39,500
good shape there as far as our forward

87
00:03:46,060 --> 00:03:43,070
plan you know they we do have an orbital

88
00:03:48,130 --> 00:03:46,070

launch that's coming up in this morning

89
00:03:49,540 --> 00:03:48,140
at the at the mission management team

90
00:03:51,790 --> 00:03:49,550
meeting we were doing our readiness for

91
00:03:54,090 --> 00:03:51,800
that particular launch which was to

92
00:03:57,699 --> 00:03:54,100
occur next week on the eighteenth and

93
00:04:00,330 --> 00:03:57,709
and at this point i deferred the

94
00:04:02,650 --> 00:04:00,340
go/no-go for that particular launch

95
00:04:05,229 --> 00:04:02,660
until that will get a little more

96
00:04:07,270 --> 00:04:05,239
information on this particular issue as

97
00:04:09,729 --> 00:04:07,280
i said earlier there's some some issues

98
00:04:11,770 --> 00:04:09,739
with redundancy right now that when you

99
00:04:14,080 --> 00:04:11,780
get into a situation where you need to

100
00:04:15,910 --> 00:04:14,090
bring up another visiting vehicle you

101
00:04:17,560 --> 00:04:15,920
want to make sure that that you're in

102
00:04:19,420 --> 00:04:17,570
the best possible position you can be in

103
00:04:22,290 --> 00:04:19,430
and so for that reason we have what we

104
00:04:24,820 --> 00:04:22,300
call launch commit criteria and that

105
00:04:26,230 --> 00:04:24,830
criteria is in place to ensure that that

106
00:04:28,240 --> 00:04:26,240
the systems are derived

107
00:04:31,900 --> 00:04:28,250
level of redundancy and operating

108
00:04:34,900 --> 00:04:31,910
properly and at this point based on that

109
00:04:37,990 --> 00:04:34,910
criteria there are a few of those commit

110
00:04:39,550 --> 00:04:38,000
criteria that we cannot meet and so we

111
00:04:42,610 --> 00:04:39,560
understand which ones those are and

112
00:04:46,450 --> 00:04:42,620
we're looking at options for things we

113
00:04:48,100 --> 00:04:46,460

might do to recover that redundancy but

114
00:04:50,830 --> 00:04:48,110
obviously our primary focus at this

115
00:04:52,330 --> 00:04:50,840
point is trying to recover this loop and

116
00:04:54,760 --> 00:04:52,340
when we recover this loop we can power

117
00:04:57,159 --> 00:04:54,770
those those orbital replacement units on

118
00:04:59,589 --> 00:04:57,169
and and get back into a better better

119
00:05:01,330 --> 00:04:59,599
configuration to support that launch so

120
00:05:03,790 --> 00:05:01,340
I'm sorry you said the go/no-go has been

121
00:05:05,920 --> 00:05:03,800
deferred so at this point the launch has

122
00:05:08,080 --> 00:05:05,930
not been given the go-ahead to to launch

123
00:05:11,350 --> 00:05:08,090
but it also hasn't been postponed yet is

124
00:05:15,760 --> 00:05:11,360
that correct the you know as whenever we

125
00:05:18,969 --> 00:05:15,770
we build a launch time frame we use the

126
00:05:20,710 --> 00:05:18,979
build it in windows and so or this

127
00:05:23,350 --> 00:05:20,720
orbital launch is like all others we

128
00:05:25,360 --> 00:05:23,360
have a series of dates that we can go on

129
00:05:28,809 --> 00:05:25,370
and right now we could go all the way up

130
00:05:30,939 --> 00:05:28,819
until the 21st first possibly the 22nd

131
00:05:33,370 --> 00:05:30,949
but but for sure we can go up to the

132
00:05:36,040 --> 00:05:33,380
21st and so we've got three or four days

133
00:05:39,700 --> 00:05:36,050
in a launch window that we can we can

134
00:05:41,469 --> 00:05:39,710
decide to you know day by day if things

135
00:05:43,209 --> 00:05:41,479
look like we're starting to mature an

136
00:05:46,240 --> 00:05:43,219
option to recover this particular loop

137
00:05:48,610 --> 00:05:46,250
we can we can slide a day here and there

138
00:05:49,899 --> 00:05:48,620

to to try to let those those ideas and

139
00:05:53,350 --> 00:05:49,909
those thoughts and those procedures

140
00:05:57,120 --> 00:05:53,360
mature they get us there so so at this

141
00:06:00,610 --> 00:05:57,130
point there isn't any any harm and

142
00:06:03,070 --> 00:06:00,620
pushing that go no-go this is clearly an

143
00:06:05,350 --> 00:06:03,080
issue that we need to try to deal with

144
00:06:08,230 --> 00:06:05,360
in its entirety before we commit to the

145
00:06:09,339 --> 00:06:08,240
launch orbital one so we're we're

146
00:06:12,159 --> 00:06:09,349
committed to doing that and I think

147
00:06:14,830 --> 00:06:12,169
given the team an extra day or soda to

148
00:06:16,719 --> 00:06:14,840
think through what ways we might might

149
00:06:18,360 --> 00:06:16,729
recover enough of the functionality to

150
00:06:20,709 --> 00:06:18,370
get comfortable with the launches is

151
00:06:22,749 --> 00:06:20,719
it's going to be our best course action

152
00:06:25,059 --> 00:06:22,759
over the next day and so that's what

153
00:06:26,920 --> 00:06:25,069
we'll do I will get the mission

154
00:06:29,620 --> 00:06:26,930
management team back together on monday

155
00:06:31,649 --> 00:06:29,630
and and we'll see where we're at at that

156
00:06:35,829 --> 00:06:31,659
time and whether or not there's enough

157
00:06:39,159 --> 00:06:35,839
data and enough reasoning behind an

158
00:06:42,189 --> 00:06:39,169
attempt to go to go fly the orb one long

159
00:06:45,640 --> 00:06:42,199
and if between now and then it doesn't

160
00:06:48,249 --> 00:06:45,650
look like we're we're going to get to a

161
00:06:50,589 --> 00:06:48,259
good option or nothing's coming apparent

162
00:06:51,999 --> 00:06:50,599
to us then we can start start moving

163
00:06:55,779 --> 00:06:52,009

moving in that launch window to the

164
00:07:00,010 --> 00:06:55,789
right a little bit and and deciding to

165
00:07:01,600 --> 00:07:00,020
give the team yet some more time if in

166
00:07:02,830 --> 00:07:01,610
the in the near-term discussions it

167
00:07:07,269 --> 00:07:02,840
doesn't look like there's anything

168
00:07:09,489 --> 00:07:07,279
that's that's on the horizon then then

169
00:07:11,739 --> 00:07:09,499
we'll look at other options that might

170
00:07:13,540 --> 00:07:11,749
have to be considered including the

171
00:07:16,480 --> 00:07:13,550
removal and replacement of that

172
00:07:21,309 --> 00:07:16,490
particular valve which which is housed

173
00:07:23,860 --> 00:07:21,319
inside pump pump module external to to

174
00:07:26,350 --> 00:07:23,870
the station and so that will lead us to

175
00:07:30,730 --> 00:07:26,360
a series of discussions regarding

176
00:07:33,360 --> 00:07:30,740
spacewalks and and we'll have to go to

177
00:07:36,700 --> 00:07:33,370
go down that path but at this point

178
00:07:38,709 --> 00:07:36,710
we're for lack of a better term we're

179
00:07:40,629 --> 00:07:38,719
going to kick the can a little bit and

180
00:07:42,429 --> 00:07:40,639
going to let the team work a little bit

181
00:07:44,619 --> 00:07:42,439
more okay and I assume there's nothing

182
00:07:47,050 --> 00:07:44,629
that the crew is critically waiting on

183
00:07:49,059 --> 00:07:47,060
from Cygnus obviously we want to get it

184
00:07:52,119 --> 00:07:49,069
launched as soon as we can but nothing

185
00:07:55,269 --> 00:07:52,129
that they need right away no there's

186
00:07:57,550 --> 00:07:55,279
there's nothing there that that you know

187
00:07:59,679 --> 00:07:57,560
is somehow or another critical to two

188
00:08:02,320 --> 00:07:59,689

operations moving forward we've got

189
00:08:05,559 --> 00:08:02,330
we've got you know our standard set of

190
00:08:07,300 --> 00:08:05,569
hardware on there we've got some piece

191
00:08:09,219 --> 00:08:07,310
of equipment for the for the EBA suits

192
00:08:12,659 --> 00:08:09,229
that when it gets up there we will we

193
00:08:14,709 --> 00:08:12,669
will change that out but again that

194
00:08:17,200 --> 00:08:14,719
there's not anything in there that I

195
00:08:19,119 --> 00:08:17,210
would say is hugely critical to to us

196
00:08:21,249 --> 00:08:19,129
doing our normal operations okay so you

197
00:08:22,749 --> 00:08:21,259
have the time you need i guess to work

198
00:08:24,550 --> 00:08:22,759
through all the different options and

199
00:08:26,139 --> 00:08:24,560
decide what you need to do not only with

200
00:08:29,529 --> 00:08:26,149
the launch for next week but also for

201
00:08:31,570 --> 00:08:29,539
the fix of the system itself at this

202
00:08:34,589 --> 00:08:31,580
point again i think we're in the early

203
00:08:37,509 --> 00:08:34,599
stages are trying to understand it i

204
00:08:39,519 --> 00:08:37,519
think everything that we can do is being

205
00:08:41,649 --> 00:08:39,529
done the system is good and stable the

206
00:08:42,850 --> 00:08:41,659
crews in good shape all the right folks

207
00:08:45,329 --> 00:08:42,860
on the ground are looking at the problem

208
00:08:48,280 --> 00:08:45,339
and trying to trying to assess exactly

209
00:08:49,809 --> 00:08:48,290
what the what the root cause is and what

210
00:08:51,699 --> 00:08:49,819
our options are to try to continue

211
00:08:54,460 --> 00:08:51,709
moving forward with the flight program

212
00:08:56,500 --> 00:08:54,470
and while we'd like to fly the orbital

213
00:08:58,540 --> 00:08:56,510

d1 mission in this window you know we're

214
00:09:00,220 --> 00:08:58,550
going to do what's right for for the

215
00:09:02,439 --> 00:09:00,230
program and the crew and we'll do it

216
00:09:04,150 --> 00:09:02,449
safely and if that means that that we

217
00:09:05,800 --> 00:09:04,160
can't do the orb d1 mission while we go

218
00:09:06,880 --> 00:09:05,810
sort this out then that's that's the

219
00:09:09,880 --> 00:09:06,890
right thing to do and we'll go do it

220
00:09:12,370 --> 00:09:09,890
okay well i know this same system i

221
00:09:14,530 --> 00:09:12,380
guess we had a similar issue with back

222
00:09:16,569 --> 00:09:14,540
in 2010 i think can you talk a little

223
00:09:20,139 --> 00:09:16,579
bit about that how this is the same or

224
00:09:21,490 --> 00:09:20,149
different as what we saw then well when

225
00:09:22,750 --> 00:09:21,500
we talk about it in terms of the pump

226
00:09:24,819 --> 00:09:22,760
module it's going to sound the same to

227
00:09:26,920 --> 00:09:24,829
everybody the difference here is that

228
00:09:28,509 --> 00:09:26,930
that that in that particular instance we

229
00:09:30,069 --> 00:09:28,519
had a pump that just shut down if you

230
00:09:31,300 --> 00:09:30,079
look inside the pump module itself there

231
00:09:33,819 --> 00:09:31,310
are several different components in

232
00:09:35,259 --> 00:09:33,829
there in this instance the problem we're

233
00:09:36,910 --> 00:09:35,269
having is with the flow control valve

234
00:09:38,679 --> 00:09:36,920
which is while it's inside the same

235
00:09:40,750 --> 00:09:38,689
housing it's a separate piece of

236
00:09:45,340 --> 00:09:40,760
hardware has a different controller on

237
00:09:49,870 --> 00:09:45,350
it and so I would say this is a that was

238
00:09:51,670 --> 00:09:49,880

a failure to two back in 2010 the pump

239
00:09:53,949 --> 00:09:51,680
failed so that was a failure to be able

240
00:09:55,720 --> 00:09:53,959
to move the ammonia what we're having

241
00:09:57,220 --> 00:09:55,730
here is a failure to be able to control

242
00:10:00,130 --> 00:09:57,230
the temperature of the ammonia this

243
00:10:01,480 --> 00:10:00,140
bound helps us to to regulate by by

244
00:10:03,009 --> 00:10:01,490
saying how much monia we're going to

245
00:10:04,920 --> 00:10:03,019
pull from the radiator versus how much

246
00:10:07,360 --> 00:10:04,930
we're pulling from from the normal

247
00:10:09,429 --> 00:10:07,370
bypass live which is a smaller loop that

248
00:10:12,040 --> 00:10:09,439
runs just through the pump and some cold

249
00:10:14,050 --> 00:10:12,050
plates and and back around again so it's

250
00:10:16,780 --> 00:10:14,060
one that operates at a little higher

251
00:10:19,929 --> 00:10:16,790
temperature and and so this valve is

252
00:10:21,519 --> 00:10:19,939
basically a mixing valve if you will it

253
00:10:22,689 --> 00:10:21,529
helps us regulate the temperature you

254
00:10:24,309 --> 00:10:22,699
can modulate it it modulates

255
00:10:26,319 --> 00:10:24,319
automatically based on what the

256
00:10:27,910 --> 00:10:26,329
temperature happens to be at that

257
00:10:30,670 --> 00:10:27,920
particular time and what we're trying to

258
00:10:32,350 --> 00:10:30,680
control it to and so that it while it's

259
00:10:36,340 --> 00:10:32,360
in the same pump module it's a different

260
00:10:38,050 --> 00:10:36,350
area of module ok and y know in 2010 we

261
00:10:40,329 --> 00:10:38,060
ended up doing a spacewalk to go out and

262
00:10:42,189 --> 00:10:40,339
and fix it is you mentioned that that's

263
00:10:44,139 --> 00:10:42,199

you know a possibility we don't know yet

264
00:10:47,500 --> 00:10:44,149
that we'll get to that possibility that

265
00:10:50,319 --> 00:10:47,510
that point but if we do need to go do a

266
00:10:51,819 --> 00:10:50,329
spacewalk we have the parts on the

267
00:10:54,579 --> 00:10:51,829
station that we could use to replace it

268
00:10:57,819 --> 00:10:54,589
we do we have spare pump modules on

269
00:10:59,300 --> 00:10:57,829
orbit I think there's no no issue with

270
00:11:01,940 --> 00:10:59,310
being able to

271
00:11:04,160 --> 00:11:01,950
to have the hardware to go do it and in

272
00:11:06,680 --> 00:11:04,170
fact again this will look a lot like

273
00:11:09,530 --> 00:11:06,690
what we did in 2010 it's going out into

274
00:11:13,190 --> 00:11:09,540
that same location and so a lot of the

275
00:11:15,590 --> 00:11:13,200
choreography will look the same back

276
00:11:18,650 --> 00:11:15,600
when we did the the the pump module

277
00:11:21,740 --> 00:11:18,660
change out back then we didn't have the

278
00:11:23,690 --> 00:11:21,750
benefit of the knowledge that we've

279
00:11:25,640 --> 00:11:23,700
captured as a result of the last DBA

280
00:11:27,590 --> 00:11:25,650
where we had a problem with the the crew

281
00:11:29,750 --> 00:11:27,600
member and water in this suit so we're

282
00:11:32,210 --> 00:11:29,760
lot smarter now and so there are going

283
00:11:33,769 --> 00:11:32,220
to be some things that will have to do a

284
00:11:36,410 --> 00:11:33,779
little bit differently and preparing for

285
00:11:39,620 --> 00:11:36,420
an EV a going forward just ensuring that

286
00:11:41,510 --> 00:11:39,630
the suits in in a good shape that we put

287
00:11:44,000 --> 00:11:41,520
every mitigation possible in place and

288
00:11:47,780 --> 00:11:44,010

there are a few since since that time

289
00:11:51,470 --> 00:11:47,790
frame to ensure that that we've we've

290
00:11:53,180 --> 00:11:51,480
got the crew member protected and so so

291
00:11:54,890 --> 00:11:53,190
so yes I think we're in good shape

292
00:11:56,840 --> 00:11:54,900
moving forward if we have to go do an e

293
00:11:58,220 --> 00:11:56,850
VA it's just a matter at this time we

294
00:12:01,370 --> 00:11:58,230
have to go crank through the plan and

295
00:12:03,320 --> 00:12:01,380
then let folks go go go put the plan on

296
00:12:05,540 --> 00:12:03,330
paper and go get ready to execute if we

297
00:12:06,650 --> 00:12:05,550
have to go that bad I know you're

298
00:12:08,329 --> 00:12:06,660
basically just going to take whatever

299
00:12:10,970 --> 00:12:08,339
time you need but do you have any any

300
00:12:12,980 --> 00:12:10,980
idea what to expect on terms of in terms

301
00:12:17,390 --> 00:12:12,990
of a time frame when we might know what

302
00:12:19,970 --> 00:12:17,400
exactly the issue is in terms of exactly

303
00:12:22,520 --> 00:12:19,980
what the problem is you know this is

304
00:12:23,900 --> 00:12:22,530
this is a tough one because this is not

305
00:12:25,880 --> 00:12:23,910
hard where you can get to its external

306
00:12:27,410 --> 00:12:25,890
to the station so we can't go open it up

307
00:12:29,329 --> 00:12:27,420
look at the valve and say you know well

308
00:12:31,460 --> 00:12:29,339
it's a seal that's shifted or it's a

309
00:12:33,410 --> 00:12:31,470
sensor that's that's come off or

310
00:12:35,930 --> 00:12:33,420
something that's not going to be obvious

311
00:12:37,850 --> 00:12:35,940
to us and so the team is trying to

312
00:12:39,920 --> 00:12:37,860
manipulate this valve and trying to draw

313
00:12:41,480 --> 00:12:39,930

some conclusions just based on secondary

314
00:12:43,160 --> 00:12:41,490
cues what the temperature is doing what

315
00:12:45,860 --> 00:12:43,170
the flow rates doing as they move this

316
00:12:47,750 --> 00:12:45,870
valve and and so without putting ice on

317
00:12:51,260 --> 00:12:47,760
valve it's it's going to be very tough

318
00:12:53,180 --> 00:12:51,270
to to get specifically right at it but

319
00:12:55,430 --> 00:12:53,190
you know this is this one of those

320
00:12:57,199 --> 00:12:55,440
things whenever we we do if we have to

321
00:12:59,780 --> 00:12:57,209
replace it it'll be on a much grander

322
00:13:01,100 --> 00:12:59,790
scale because we'll replace the pump and

323
00:13:02,810 --> 00:13:01,110
everything else that's in there that

324
00:13:05,360 --> 00:13:02,820
goes along with what the flow control

325
00:13:08,030 --> 00:13:05,370
valve okay and you've got time to think

326
00:13:10,970 --> 00:13:08,040
about that there's no looming deadline

327
00:13:12,590 --> 00:13:10,980
that you need to make a decision by or

328
00:13:16,670 --> 00:13:12,600
you need to get the

329
00:13:19,689 --> 00:13:16,680
loot back up and running for you know in

330
00:13:25,579 --> 00:13:19,699
general we have two two loops on station

331
00:13:27,139 --> 00:13:25,589
are our best position to be in us to

332
00:13:29,870 --> 00:13:27,149
have both those loops up and running and

333
00:13:31,579 --> 00:13:29,880
available to us and then if while we're

334
00:13:35,389 --> 00:13:31,589
sitting at one loop and I think we're

335
00:13:37,430 --> 00:13:35,399
somewhat vulnerable and so clearly from

336
00:13:39,379 --> 00:13:37,440
a program perspective our our intention

337
00:13:41,240 --> 00:13:39,389
would be to try to to move sooner rather

338
00:13:43,639 --> 00:13:41,250

than later to recover that functionality

339
00:13:45,379 --> 00:13:43,649
unless we have a very good plan and a

340
00:13:47,990 --> 00:13:45,389
very good understanding of how to

341
00:13:49,699 --> 00:13:48,000
provide that function you know should we

342
00:13:51,740 --> 00:13:49,709
have an additional failure and at this

343
00:13:54,199 --> 00:13:51,750
point I don't know that we have that

344
00:13:56,569 --> 00:13:54,209
plan so so our intention would be to try

345
00:13:59,240 --> 00:13:56,579
to get get recovered as as quick as

346
00:14:01,370 --> 00:13:59,250
reasonably possible you know taken into

347
00:14:03,259 --> 00:14:01,380
account you know the the time necessary

348
00:14:05,389 --> 00:14:03,269
to get ready to go do an EBA if that's

349
00:14:07,220 --> 00:14:05,399
the path we have to take or if we have

350
00:14:08,960 --> 00:14:07,230
some other options that allow us to stay

351
00:14:11,210 --> 00:14:08,970
with the configuration we have but we

352
00:14:12,710 --> 00:14:11,220
just have to operate a little smarter or

353
00:14:14,329 --> 00:14:12,720
do it a little differently that you know

354
00:14:18,740 --> 00:14:14,339
allow enough time to let those ideas

355
00:14:19,910 --> 00:14:18,750
maturing and get get pot it okay well

356
00:14:21,710 --> 00:14:19,920
thanks so much i think i think that

357
00:14:23,420 --> 00:14:21,720
covers the situation as it is at this

358
00:14:28,249 --> 00:14:23,430
point and we appreciate your time and

359
00:14:30,620 --> 00:14:28,259
well you can stay tuned to ww NSA gov /

360
00:14:32,179 --> 00:14:30,630
station for continuing updates on

361
00:14:33,920 --> 00:14:32,189
exactly what's going on onboard the

362
00:14:36,350 --> 00:14:33,930
space station with the crew of the

363
00:14:37,819 --> 00:14:36,360

expedition 38 we'll stop there for now

364
00:14:39,800 --> 00:14:37,829
thanks again this was Kenny Todd the

365
00:14:41,569 --> 00:14:39,810
integration ops integration manager for