



1  
00:01:23,980 --> 00:01:21,910  
Columbia Houston we're just a little bit

2  
00:01:28,420 --> 00:01:23,990  
more than 15 minutes from your PA o

3  
00:01:30,610 --> 00:01:28,430  
event we wanted to give you a summary of

4  
00:01:34,540 --> 00:01:30,620  
the activities that are going on today

5  
00:01:46,070 --> 00:01:34,550  
to try to come up with a plan to get the

6  
00:01:52,670 --> 00:01:50,330  
yet tom the first thing is is we've got

7  
00:01:55,550 --> 00:01:52,680  
a as you can imagine a large tiger team

8  
00:01:59,480 --> 00:01:55,560  
taking a look at all the engineering

9  
00:02:02,210 --> 00:01:59,490  
we're trying to assess the processing

10  
00:02:04,670 --> 00:02:02,220  
for the hatch at the cape and just

11  
00:02:07,010 --> 00:02:04,680  
trying to see if there anything turns up

12  
00:02:09,620 --> 00:02:07,020  
when we talk to the technicians who did

13  
00:02:11,450 --> 00:02:09,630

the work looking at the paperwork so

14

00:02:14,330 --> 00:02:11,460

we've got quite a few people over in

15

00:02:16,070 --> 00:02:14,340

building nine today over in the cct

16

00:02:20,980 --> 00:02:16,080

actually putting their hands on hardware

17

00:02:23,360 --> 00:02:20,990

and trying as much as anything else to

18

00:02:25,280 --> 00:02:23,370

come up with to duplicate the problem

19

00:02:27,230 --> 00:02:25,290

and look at some workarounds they're

20

00:02:31,130 --> 00:02:27,240

going to get together tomorrow morning

21

00:02:33,920 --> 00:02:31,140

at an m ET of 10 16 to basically

22

00:02:36,650 --> 00:02:33,930

summarize their summarize their plans OB

23

00:02:39,620 --> 00:02:36,660

six o'clock local here to be ready to

24

00:02:44,150 --> 00:02:39,630

meet with the mmt two hours later that

25

00:02:47,170 --> 00:02:44,160

would be at 10 18 m ET based on the m ET

26

00:02:50,930 --> 00:02:47,180

correction the mmt decision tomorrow

27

00:02:54,500 --> 00:02:50,940

we'll have a go no-go for you for a

28

00:02:57,650 --> 00:02:54,510

flight day 12 EV a and that's course

29

00:03:00,140 --> 00:02:57,660

tomorrow some of the options were

30

00:03:03,920 --> 00:03:00,150

looking at including some activities for

31

00:03:07,190 --> 00:03:03,930

today we'd like to do an additional RMS

32

00:03:08,750 --> 00:03:07,200

survey and the difference between this

33

00:03:11,240 --> 00:03:08,760

and I'll give you more details when we

34

00:03:14,750 --> 00:03:11,250

get there is that we want to pause

35

00:03:17,060 --> 00:03:14,760

looking at each at each of the dogs and

36

00:03:18,920 --> 00:03:17,070

the mechanism and have you guys cycle

37

00:03:20,570 --> 00:03:18,930

the handle a couple of times and so

38

00:03:27,560 --> 00:03:20,580

we'll get a better feel for what motion

39

00:03:29,570 --> 00:03:27,570

the linkage displays and we like that

40

00:04:00,720 --> 00:03:29,580

view taco you have a go for the next set

41

00:04:16,430 --> 00:04:02,729

and that's a good camera position

42

00:04:21,080 --> 00:04:19,190

joining us now live from space the crew

43

00:04:24,410 --> 00:04:21,090

of the space shuttle Columbia good to

44

00:04:26,180 --> 00:04:24,420

see you all first question for story

45

00:04:28,030 --> 00:04:26,190

Musgrave dr. Musgrave but you have

46

00:04:30,290 --> 00:04:28,040

warned that NASA needs to start hustling

47

00:04:32,450 --> 00:04:30,300

saying the astronauts lack the necessary

48

00:04:34,550 --> 00:04:32,460

space walking experience and equipment

49

00:04:36,590 --> 00:04:34,560

dr. Musgrave you must find this very

50

00:04:38,720 --> 00:04:36,600

frustrating this jammed hatch and does

51  
00:04:43,550 --> 00:04:38,730  
this throw the whole program behind

52  
00:04:46,420 --> 00:04:43,560  
schedule even more so it does that the

53  
00:04:50,510 --> 00:04:46,430  
hatch program is unrelated to the ways

54  
00:04:57,410 --> 00:04:50,520  
that we develop spacewalks and prepare

55  
00:04:59,540 --> 00:04:57,420  
for them and attack the details early my

56  
00:05:01,280 --> 00:04:59,550  
question is for commander rominger you

57  
00:05:03,080 --> 00:05:01,290  
are the pilot of this shuttle mission

58  
00:05:05,300 --> 00:05:03,090  
that of course all of Colorado is proud

59  
00:05:07,130 --> 00:05:05,310  
of you and we have no doubt that there's

60  
00:05:09,080 --> 00:05:07,140  
probably a big hometown crowd watching

61  
00:05:10,820 --> 00:05:09,090  
you tonight from Dell north when you

62  
00:05:13,220 --> 00:05:10,830  
were growing up in del nord and later

63  
00:05:17,960 --> 00:05:13,230

studying civil engineering at CSU was it

64

00:05:19,790 --> 00:05:17,970

your ambition to be an astronaut it

65

00:05:21,650 --> 00:05:19,800

actually was not fear my ambition

66

00:05:24,380 --> 00:05:21,660

tionesta came after i left Colorado

67

00:05:26,390 --> 00:05:24,390

State and was a Navy fighter pilot but

68

00:05:28,670 --> 00:05:26,400

from the time I was about four years 25

69

00:05:31,460 --> 00:05:28,680

years old gunfire with my father and

70

00:05:35,120 --> 00:05:31,470

develop my love for flying so at that

71

00:05:37,580 --> 00:05:35,130

time I didn't know I wanted to fly now

72

00:05:39,740 --> 00:05:37,590

back to the back to the spacewalk we

73

00:05:42,020 --> 00:05:39,750

just got word that nASA has cleared you

74

00:05:45,440 --> 00:05:42,030

for another attempt tomorrow night if

75

00:05:46,880 --> 00:05:45,450

you can get that that hatch open what

76  
00:05:50,030 --> 00:05:46,890  
are you going to try to do have you been

77  
00:05:56,750 --> 00:05:50,040  
working on this all day I'll let anyone

78  
00:05:58,520 --> 00:05:56,760  
answer yeah the ground is working very

79  
00:06:00,440 --> 00:05:58,530  
hard there are many talented dedicated

80  
00:06:02,540 --> 00:06:00,450  
people working this problem and they've

81  
00:06:04,850 --> 00:06:02,550  
come up with several ideas that have to

82  
00:06:07,640 --> 00:06:04,860  
deal with problems like perhaps a

83  
00:06:08,990 --> 00:06:07,650  
structural misalignment or some an issue

84  
00:06:11,540 --> 00:06:09,000  
with the coefficient of thermal

85  
00:06:13,130 --> 00:06:11,550  
expansion they'd be warming up the hatch

86  
00:06:15,200 --> 00:06:13,140  
would be a good idea in a number of

87  
00:06:18,380 --> 00:06:15,210  
these lines of my father being developed

88  
00:06:20,810 --> 00:06:18,390

in parallel and so we've been read up

89

00:06:23,210 --> 00:06:20,820  
some of their ideas about perhaps moving

90

00:06:25,430 --> 00:06:23,220  
hatch while early as we rotate the

91

00:06:28,190 --> 00:06:25,440  
handle perhaps warming up the hatch

92

00:06:29,660 --> 00:06:28,200  
prior to the EDA so there are many

93

00:06:31,640 --> 00:06:29,670  
things and work in parallel

94

00:06:34,790 --> 00:06:31,650  
and we are we are optimistic that we

95

00:06:36,620 --> 00:06:34,800  
will get this hatch open dr. Jernigan my

96

00:06:38,600 --> 00:06:36,630  
questions for you you are a veteran of

97

00:06:40,400 --> 00:06:38,610  
three spaceflight then this mission was

98

00:06:42,920 --> 00:06:40,410  
supposed to have placed you in the pool

99

00:06:45,680 --> 00:06:42,930  
of those with spacewalk experience

100

00:06:47,690 --> 00:06:45,690  
currently a group of only about 33 if

101  
00:06:49,640 --> 00:06:47,700  
the hatch problem can't be solved what

102  
00:06:51,410 --> 00:06:49,650  
does this do to your chances you go to

103  
00:06:56,960 --> 00:06:51,420  
the rear of the line and rotation so to

104  
00:06:59,210 --> 00:06:56,970  
speak why would I certainly be

105  
00:07:02,060 --> 00:06:59,220  
interested in doing a spacewalk on

106  
00:07:03,320 --> 00:07:02,070  
another flight but again I think that I

107  
00:07:06,350 --> 00:07:03,330  
think they work through this and I think

108  
00:07:07,700 --> 00:07:06,360  
Tom and I will will join those full of

109  
00:07:09,380 --> 00:07:07,710  
folks that have the privilege of walking

110  
00:07:10,820 --> 00:07:09,390  
in space and I know that everyone is

111  
00:07:14,210 --> 00:07:10,830  
doing everything that they can to make

112  
00:07:15,890 --> 00:07:14,220  
that possible we have been discussing

113  
00:07:17,660 --> 00:07:15,900

this hatch problem with our cranky

114

00:07:19,610 --> 00:07:17,670

engineering staff here at News 4 and

115

00:07:21,560 --> 00:07:19,620

they suggested you do what they always

116

00:07:26,900 --> 00:07:21,570

do just give it a good whack what do you

117

00:07:29,840 --> 00:07:26,910

think oh that certainly has caught that

118

00:07:34,340 --> 00:07:29,850

last a few times maybe when we get down

119

00:07:37,610 --> 00:07:34,350

to if we apply all the other techniques

120

00:07:39,830 --> 00:07:37,620

that we think might help it including

121

00:07:41,960 --> 00:07:39,840

the thermal conditioning of the hatch

122

00:07:43,610 --> 00:07:41,970

and maybe some lateral motion of it we

123

00:07:45,320 --> 00:07:43,620

will certainly be pushing on that flavor

124

00:07:48,380 --> 00:07:45,330

with all our strength if the graph gets

125

00:07:51,020 --> 00:07:48,390

to go through this good evening and

126  
00:07:52,910 --> 00:07:51,030  
Happy Thanksgiving there have been some

127  
00:07:55,460 --> 00:07:52,920  
difficulties on this flight that you

128  
00:07:57,980 --> 00:07:55,470  
gradually seem to be overcoming what is

129  
00:08:04,040 --> 00:07:57,990  
the status of orpheus and weight shield

130  
00:08:05,930 --> 00:08:04,050  
as well as the spacewalk obvious that

131  
00:08:07,910 --> 00:08:05,940  
wakes yield or two great success stories

132  
00:08:09,440 --> 00:08:07,920  
wakes you completed all of its science

133  
00:08:11,480 --> 00:08:09,450  
and we now have it safely locked down

134  
00:08:12,980 --> 00:08:11,490  
into the payload Bay I have two minutes

135  
00:08:15,410 --> 00:08:12,990  
into the mission ready to bring it home

136  
00:08:17,150 --> 00:08:15,420  
and the reports we get from Orpheus paws

137  
00:08:19,430 --> 00:08:17,160  
is that the science is coming through

138  
00:08:23,030 --> 00:08:19,440

right on schedule if they're doing what

139

00:08:25,430 --> 00:08:23,040

they want to do what is what's happening

140

00:08:27,620 --> 00:08:25,440

with the spacewalk now it sounds like

141

00:08:33,110 --> 00:08:27,630

there are different scenarios to get the

142

00:08:34,820 --> 00:08:33,120

hatch open that's right we have a huge

143

00:08:36,920 --> 00:08:34,830

team of people on the ground all the

144

00:08:38,600 --> 00:08:36,930

talented folks Houston head it's a

145

00:08:40,250 --> 00:08:38,610

various contractors who helped over

146

00:08:42,140 --> 00:08:40,260

shuttle looking at how the hatch

147

00:08:43,190 --> 00:08:42,150

mechanisms work and possible ways that

148

00:08:44,510 --> 00:08:43,200

they might fail

149

00:08:47,600 --> 00:08:44,520

and they're trying to work on the way

150

00:08:48,950 --> 00:08:47,610

that we can attack the problem several

151

00:08:51,290 --> 00:08:48,960

different ways one might be to heat up

152

00:08:52,880 --> 00:08:51,300

the hatch to make the battle expand

153

00:08:55,280 --> 00:08:52,890

slightly and maybe that will flee a jam

154

00:08:58,130 --> 00:08:55,290

they're also looking at us applying a

155

00:09:00,170 --> 00:08:58,140

simultaneous rotary force on the handle

156

00:09:03,440 --> 00:09:00,180

plus pushing on the hatch in a certain

157

00:09:07,310 --> 00:09:03,450

direction to try to break it free when

158

00:09:09,560 --> 00:09:07,320

we attempt at EBA tomorrow so we still

159

00:09:12,650 --> 00:09:09,570

have in our plan Bishop five or six days

160

00:09:14,630 --> 00:09:12,660

left and we have plenty of time to have

161

00:09:16,970 --> 00:09:14,640

that problem we hope successfully and

162

00:09:18,530 --> 00:09:16,980

then complete our te das so we're pretty

163

00:09:26,290 --> 00:09:18,540

optimistic that we can verify the

164

00:09:32,690 --> 00:09:28,490

their Columbia Jack we hear you loud

165

00:09:34,910 --> 00:09:32,700

clear Oh again well you guys are you

166

00:09:36,470 --> 00:09:34,920

doing we understand we can get messages

167

00:09:38,540 --> 00:09:36,480

from all sorts of amateur radio

168

00:09:42,230 --> 00:09:38,550

operators about how your mission is

169

00:09:47,210 --> 00:09:42,240

going to have been following it talk to

170

00:09:49,460 --> 00:09:47,220

you and it's great to talk to you too at

171

00:09:52,700 --> 00:09:49,470

bay in particular we were thinking about

172

00:09:54,470 --> 00:09:52,710

you yesterday on Thanksgiving the story

173

00:09:56,750 --> 00:09:54,480

is fun with you at Thanksgiving before

174

00:10:05,270 --> 00:09:56,760

he mentioned it let him I'll let him say

175

00:10:11,650 --> 00:10:05,280

a few words to you okay hey John how you

176

00:10:14,570 --> 00:10:11,660

doing I do fine job make the pat-down

177

00:10:16,670 --> 00:10:14,580

was about seven years ago we were up on

178

00:10:19,370 --> 00:10:16,680

Thanksgiving flying together and at that

179

00:10:21,230 --> 00:10:19,380

time we were saying FOIA we hope you and

180

00:10:23,510 --> 00:10:21,240

I get blind together again sometime

181

00:10:25,730 --> 00:10:23,520

especially at Thanksgiving and here we

182

00:10:29,930 --> 00:10:25,740

are both must flying on Thanksgiving

183

00:10:37,730 --> 00:10:29,940

we're just different spaceship yeah it's

184

00:10:40,690 --> 00:10:37,740

kind of me that's kind of neat keep it

185

00:10:45,350 --> 00:10:40,700

up about too much value Sam saved up

186

00:10:50,090 --> 00:10:45,360

yeah it does get better than all the

187

00:10:56,520 --> 00:10:53,040

Stacy to treat you very well John as it

188

00:10:57,840 --> 00:10:56,530

always good yeah I hope everything's

189

00:10:59,880 --> 00:10:57,850

going real good for you guys I

190

00:11:10,740 --> 00:10:59,890

understand you're thinking landing next

191

00:11:14,640 --> 00:11:12,930

hey Joe that's right we're scheduled

192

00:11:16,290 --> 00:11:14,650

thirsty and then extension is in the

193

00:11:17,940 --> 00:11:16,300

works this is controlling her just

194

00:11:20,460 --> 00:11:17,950

saying hi to you wishing you happy

195

00:11:21,870 --> 00:11:20,470

thanksgiving in a happy trip sounds like

196

00:11:28,440 --> 00:11:21,880

the comms getting ready i'll pass some

197

00:11:30,180 --> 00:11:28,450

icons thank you hey john this is tom

198

00:11:33,300 --> 00:11:30,190

jones wishing you are i hope you're

199

00:11:35,490 --> 00:11:33,310

enjoying a little relaxing holiday here

200

00:11:37,110 --> 00:11:35,500

over the long weekend we're pretty busy

201  
00:11:38,700 --> 00:11:37,120  
up here though but I know we're sharing

202  
00:11:40,560 --> 00:11:38,710  
one thing and that's our enjoyment of

203  
00:11:42,660 --> 00:11:40,570  
the view of you as you thought to be a

204  
00:11:45,420 --> 00:11:42,670  
lot about that and it sure is great to

205  
00:11:48,030 --> 00:11:45,430  
see as always sorry I look forward to

206  
00:11:56,670 --> 00:11:48,040  
your receptions on patios what do the

207  
00:11:59,070 --> 00:11:56,680  
changes that you experienced damn hard

208  
00:12:00,690 --> 00:11:59,080  
on its Tammy Jernigan happy thanksgiving

209  
00:12:02,850 --> 00:12:00,700  
and just wanted to wish you well on your

210  
00:12:07,650 --> 00:12:02,860  
incredible journey and hope you have a

211  
00:12:10,200 --> 00:12:07,660  
myriad of fascinating experiences yeah

212  
00:12:17,070 --> 00:12:10,210  
well you can talk tomorrow family is

213  
00:12:24,960 --> 00:12:17,080

your bike my lady in German I was about

214

00:12:28,050 --> 00:12:24,970

that gold members algorithm for you / up

215

00:12:49,050 --> 00:12:28,060

greetings to you are you enjoying your

216

00:12:51,390 --> 00:12:49,060

dirty thank you for the greedy it

217

00:12:53,820 --> 00:12:51,400

appears to Melinda Tammy I don't know

218

00:12:58,110 --> 00:12:53,830

whether you hear me and math but right

219

00:13:00,840 --> 00:12:58,120

now we don't hear you as soon as I think

220

00:13:05,640 --> 00:13:00,850

we are hearing you a stop talking just

221

00:13:09,180 --> 00:13:05,650

in case you're hearing me at the land

222

00:13:12,120 --> 00:13:09,190

Sasha here listening and they wish you

223

00:13:14,100 --> 00:13:12,130

and the home near 22 through here

224

00:13:16,829 --> 00:13:14,110

together we'll sue you guys a great

225

00:13:18,130 --> 00:13:16,839

fight like i said photo we've been

226

00:13:21,640 --> 00:13:18,140

following you on the

227

00:13:23,680 --> 00:13:21,650

radio net so you guys didn't have a ham

228

00:13:26,710 --> 00:13:23,690

radio so we could have passed a little

229

00:13:34,390 --> 00:13:26,720

bit but anyway we're getting the PAL

230

00:13:36,550 --> 00:13:34,400

canal over well done to the mirror 22

231

00:13:38,650 --> 00:13:36,560

crew I fellow space travelers we wish

232

00:13:46,570 --> 00:13:38,660

you all the best on this flight from the

233

00:13:48,610 --> 00:13:46,580

sts-80 cruise over to cool well if we

234

00:13:50,650 --> 00:13:48,620

don't get to handing my family because

235

00:13:52,720 --> 00:13:50,660

our concert is ending in about 10

236

00:13:59,470 --> 00:13:52,730

seconds good luck to you good landing