



1
00:00:37,590 --> 00:00:36,229
this television view from the mid deck

2
00:00:39,030 --> 00:00:37,600
of columbia

3
00:00:40,630 --> 00:00:39,040
coming through another developmental

4
00:00:43,430 --> 00:00:40,640
test objective being carried for the

5
00:00:45,670 --> 00:00:43,440
first time on board sts 73 referred to

6
00:00:47,590 --> 00:00:45,680
as high pack the highly packed digital

7
00:00:49,750 --> 00:00:47,600
television that allows up to six

8
00:00:51,590 --> 00:00:49,760
different channels to be downlinked to

9
00:00:54,389 --> 00:00:51,600
the earth allowing the researchers for

10
00:00:56,830 --> 00:00:54,399
the u.s microgravity laboratory to view

11
00:00:59,029 --> 00:00:56,840
the result of multiple experiments

12
00:01:01,189 --> 00:00:59,039
simultaneously in this television view

13
00:01:17,830 --> 00:01:01,199

again being sent down to the earth

14

00:01:21,429 --> 00:01:19,749

the surface driven con

15

00:01:24,149 --> 00:01:21,439

surface tension driven convection

16

00:01:26,550 --> 00:01:24,159

experiment is a cylindrical container

17

00:01:29,510 --> 00:01:26,560

that is filled with a silicon oil

18

00:01:32,390 --> 00:01:29,520

this container can then be heated on the

19

00:01:34,390 --> 00:01:32,400

surface by either a

20

00:01:39,429 --> 00:01:34,400

carbon dioxide laser

21

00:01:42,469 --> 00:01:41,190

in case you wanted to

22

00:01:44,630 --> 00:01:42,479

reduce that

23

00:01:46,230 --> 00:01:44,640

rotation more rapidly than just letting

24

00:01:48,149 --> 00:01:46,240

it die out you can always of course go

25

00:01:49,590 --> 00:01:48,159

the opposite direction and try to slow

26

00:01:54,550 --> 00:01:49,600

it with a torque and then go back to an

27

00:01:54,560 --> 00:01:57,749

okay

28

00:01:57,759 --> 00:02:03,270

but i promise i'm not being impatient

29

00:02:33,270 --> 00:02:04,630

well i'm always willing to hear

30

00:02:36,869 --> 00:02:35,030

say something for fred a heads up we're

31

00:02:43,350 --> 00:02:36,879

going to change the ir imager range for

32

00:02:48,070 --> 00:02:46,309

okay copy that and the thermistor is

33

00:02:49,589 --> 00:02:48,080

in between a couple marks so let's make

34

00:02:51,990 --> 00:02:49,599

that 0

35

00:05:53,590 --> 00:02:52,000

six three five

36

00:05:53,600 --> 00:05:58,950

space web huntsville for fred

37

00:06:07,189 --> 00:06:01,430

yeah we've got goody tv uh audio and

38

00:06:07,199 --> 00:06:12,390

the voice now on the ga tv channel

39

00:06:15,350 --> 00:06:13,830

that's clear that's a matter of fact

40

00:06:18,390 --> 00:06:15,360

it's probably even a little more clear

41

00:06:20,790 --> 00:06:18,400

than the uh degree

42

00:06:22,550 --> 00:06:20,800

okay excellent we'll let's uh start into

43

00:06:25,029 --> 00:06:22,560

our discussion this morning

44

00:06:27,029 --> 00:06:25,039

we have here the uh falcon team on orbit

45

00:06:28,230 --> 00:06:27,039

3 rob kelso the flight director sitting

46

00:06:30,390 --> 00:06:28,240

right behind me

47

00:06:32,830 --> 00:06:30,400

and we just thought we'd talk a little

48

00:06:34,390 --> 00:06:32,840

bit about the status of the flight this

49

00:06:36,390 --> 00:06:34,400

morning

50

00:06:38,550 --> 00:06:36,400

it's a pretty quiet

51
00:06:39,909 --> 00:06:38,560
day down here in mcc they're not not a

52
00:06:41,830 --> 00:06:39,919
lot of problems

53
00:06:44,070 --> 00:06:41,840
being worked as you know and i thought

54
00:06:46,469 --> 00:06:44,080
i'd just ask you about how

55
00:06:49,589 --> 00:06:46,479
the routine was settling in on here your

56
00:06:52,950 --> 00:06:49,599
third uh full day

57
00:06:54,550 --> 00:06:52,960
in orbit can you tell me how

58
00:07:01,189 --> 00:06:54,560
you've arranged the sleeping quarters up

59
00:07:04,230 --> 00:07:02,629
yeah that's a that's a pretty easy one

60
00:07:05,510 --> 00:07:04,240
there we've got the sleep station set up

61
00:07:07,589 --> 00:07:05,520
so uh

62
00:07:10,469 --> 00:07:07,599
there's four stations and seven people

63
00:07:11,350 --> 00:07:10,479

so three of us hot rack and being a navy

64

00:07:13,350 --> 00:07:11,360

person

65

00:07:14,870 --> 00:07:13,360

that means that

66

00:07:16,390 --> 00:07:14,880

three of the sleep stations are almost

67

00:07:18,469 --> 00:07:16,400

always in use except for the turnover

68

00:07:20,790 --> 00:07:18,479

periods and then the commander has his

69

00:07:24,950 --> 00:07:20,800

own sleep station so he has kind of a

70

00:07:29,430 --> 00:07:26,390

do you find that during the shift

71

00:07:30,629 --> 00:07:29,440

handovers you're getting a lot of time

72

00:07:32,550 --> 00:07:30,639

to uh

73

00:07:33,990 --> 00:07:32,560

pass news back and forth or do you just

74

00:07:37,270 --> 00:07:34,000

sort of pass like ships in the night

75

00:07:40,150 --> 00:07:38,870

we're getting better i guess the first

76

00:07:41,830 --> 00:07:40,160

handover seemed

77

00:07:43,430 --> 00:07:41,840

maybe a little bit rushed but the last

78

00:07:45,270 --> 00:07:43,440

couple days it seems like we've had

79

00:07:46,550 --> 00:07:45,280

plenty of time for the turnover actually

80

00:07:47,749 --> 00:07:46,560

i'll let stocks answer that for you

81

00:07:50,790 --> 00:07:47,759

because he's doing the majority of the

82

00:07:54,790 --> 00:07:52,950

as the awake time split sort of uh at

83

00:07:56,230 --> 00:07:54,800

the beginning and end of each shift so

84

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

that the overlaps are

85

00:08:01,909 --> 00:07:58,800

evenly split or they all front loaded or

86

00:08:06,629 --> 00:08:03,110

well of course the beginning of the

87

00:08:10,390 --> 00:08:09,029

pretty front loaded i guess

88

00:08:11,990 --> 00:08:10,400

the

89

00:08:14,309 --> 00:08:12,000

but we set it up that way on purpose due

90

00:08:16,469 --> 00:08:14,319

to our sleep shifts now uh we have a

91

00:08:18,230 --> 00:08:16,479

real nice setup two hours supreme post

92

00:08:19,670 --> 00:08:18,240

sleep for everybody and this morning we

93

00:08:21,189 --> 00:08:19,680

even got together for a little crew

94

00:08:24,869 --> 00:08:21,199

meeting for about 10 minutes during

95

00:08:27,909 --> 00:08:26,629

copy that and uh

96

00:08:29,430 --> 00:08:27,919

how are the meals working out are you

97

00:08:33,909 --> 00:08:29,440

able to take a break together in the

98

00:08:36,870 --> 00:08:35,190

we managed to do that every once in a

99

00:08:38,870 --> 00:08:36,880

while but but rather than eating uh

100

00:08:41,430 --> 00:08:38,880

according to the plant times we're all

101

00:08:43,589 --> 00:08:41,440

sort of grazing as the day goes on uh

102

00:08:47,750 --> 00:08:43,599

probably four or five meals a day

103

00:08:52,630 --> 00:08:49,430

that's about the way we're eating down

104

00:08:57,829 --> 00:08:55,829

yeah can't eat too much

105

00:08:59,829 --> 00:08:57,839

well food equals sleep

106

00:09:04,710 --> 00:08:59,839

rob's going to give you a status relax

107

00:09:04,720 --> 00:09:13,430

good morning socks i feel like your ties

108

00:09:17,269 --> 00:09:14,870

well we uh

109

00:09:19,430 --> 00:09:17,279

as you can probably tell

110

00:09:21,269 --> 00:09:19,440

this is our first shift with you after

111

00:09:23,350 --> 00:09:21,279

after the great launch you guys had the

112

00:09:25,910 --> 00:09:23,360

other day we worked all those uh four or

113

00:09:27,750 --> 00:09:25,920

five pre-launch shifts and so it's uh

114

00:09:30,389 --> 00:09:27,760

extra special for us to come in this

115

00:09:35,350 --> 00:09:30,399

morning and and have you already flying

116

00:09:38,389 --> 00:09:36,949

yeah those pre-launch ships are tough

117

00:09:39,910 --> 00:09:38,399

i've worked a couple of those and it

118

00:09:40,949 --> 00:09:39,920

feels really good when the orbiter goes

119

00:09:44,470 --> 00:09:40,959

off

120

00:09:48,630 --> 00:09:46,550

the uh

121

00:09:50,310 --> 00:09:48,640

old flying over houston the last couple

122

00:09:52,310 --> 00:09:50,320

days you could probably tell we had some

123

00:09:54,230 --> 00:09:52,320

tremendous weather in houston and of

124

00:09:55,670 --> 00:09:54,240

course this weekend was the wings over

125

00:09:57,910 --> 00:09:55,680

houston and the

126
00:09:59,829 --> 00:09:57,920
navy and the blue angels did just

127
00:10:01,110 --> 00:09:59,839
spectacular

128
00:10:03,269 --> 00:10:01,120
with some

129
00:10:04,470 --> 00:10:03,279
incredible acrobatics

130
00:10:09,670 --> 00:10:04,480
so the navy

131
00:10:12,630 --> 00:10:11,030
all right well great rob we love

132
00:10:13,350 --> 00:10:12,640
watching the blue angels sorry we missed

133
00:10:15,190 --> 00:10:13,360
them

134
00:10:16,550 --> 00:10:15,200
they're always a good show we got some

135
00:10:18,230 --> 00:10:16,560
good pictures of houston i think when we

136
00:10:20,870 --> 00:10:18,240
were flying over and for the first time

137
00:10:22,630 --> 00:10:20,880
i was actually able to spot jsc the air

138
00:10:25,110 --> 00:10:22,640

was so clear i couldn't find my house

139

00:10:28,470 --> 00:10:27,110

well we're uh looking at the plot board

140

00:10:30,949 --> 00:10:28,480

here looks like you're coming up on

141

00:10:32,550 --> 00:10:30,959

another pass in a few minutes over

142

00:10:36,949 --> 00:10:32,560

over the houston area so maybe you'll

143

00:10:41,190 --> 00:10:39,910

okay well we'll give it a shot

144

00:10:43,430 --> 00:10:41,200

the only thing that we're kind of

145

00:10:45,590 --> 00:10:43,440

tracking here socks uh we're still

146

00:10:48,069 --> 00:10:45,600

looking at the main landing gear tire

147

00:10:49,910 --> 00:10:48,079

pressures and temperatures with the poor

148

00:10:52,069 --> 00:10:49,920

door

149

00:10:54,550 --> 00:10:52,079

slightly closed and

150

00:10:56,710 --> 00:10:54,560

the pre-flight predictions and the

151
00:10:58,470 --> 00:10:56,720
real-time data are running pretty close

152
00:11:00,550 --> 00:10:58,480
and it and it looks like at least for

153
00:11:02,310 --> 00:11:00,560
the next few days that we're thermally

154
00:11:03,670 --> 00:11:02,320
in good shape and

155
00:11:05,190 --> 00:11:03,680
we're going to be talking with harry

156
00:11:06,790 --> 00:11:05,200
chang and the thermal people a little

157
00:11:09,590 --> 00:11:06,800
later today but

158
00:11:14,790 --> 00:11:09,600
things look like that's going uh well

159
00:11:14,800 --> 00:11:22,150
all right rob well that's good news

160
00:11:25,509 --> 00:11:23,910
uh socks and rumble if you look behind

161
00:11:27,269 --> 00:11:25,519
rob here on the screen you can see rich

162
00:11:29,110 --> 00:11:27,279
jackson the guy who got you off the

163
00:11:31,269 --> 00:11:29,120

ground the other day after uh many

164

00:11:33,750 --> 00:11:31,279

attempts and he's happier than anybody i

165

00:11:35,350 --> 00:11:33,760

think to see you guys in orbit

166

00:11:39,590 --> 00:11:35,360

and and you'll notice you made that

167

00:11:42,310 --> 00:11:40,790

yeah where is your tie i thought

168

00:11:45,190 --> 00:11:42,320

everybody was supposed to wear a tie in

169

00:11:49,430 --> 00:11:46,630

i think we made an exception to the

170

00:11:51,030 --> 00:11:49,440

dress code today for uh rich

171

00:11:53,190 --> 00:11:51,040

that's why jackson's not part of he

172

00:11:56,790 --> 00:11:53,200

deserves a break after all those launch

173

00:12:00,069 --> 00:11:58,710

he copies that and the room just had a

174

00:12:03,670 --> 00:12:00,079

good laugh when he teased him about his

175

00:12:08,069 --> 00:12:06,069

hey i got one question for you rich when

176

00:12:09,910 --> 00:12:08,079

we took off the other day

177

00:12:12,310 --> 00:12:09,920

i called in the wall and i didn't hear

178

00:12:13,430 --> 00:12:12,320

any response and then i called the whole

179

00:12:14,870 --> 00:12:13,440

program

180

00:12:16,870 --> 00:12:14,880

and didn't hear anything the first call

181

00:12:18,710 --> 00:12:16,880

we heard was go throttle up just

182

00:12:20,629 --> 00:12:18,720

wondered if uh if you guys had heard my

183

00:12:22,150 --> 00:12:20,639

calls or if maybe we were transmitting

184

00:12:42,230 --> 00:12:22,160

through the cloud or the plume or

185

00:12:45,910 --> 00:12:43,910

uh socks uh the word from rich here is

186

00:12:47,269 --> 00:12:45,920

that we may have just had a misconfig uh

187

00:12:49,030 --> 00:12:47,279

on the ground system down here for the

188

00:12:52,389 --> 00:12:49,040

first two calls we heard all of yours

189

00:12:54,389 --> 00:12:52,399

crystal clear and obviously uh we didn't

190

00:12:57,750 --> 00:12:54,399

get up to you until after the throttle

191

00:13:01,990 --> 00:12:59,190

okay that's why we weren't gonna turn

192

00:13:04,230 --> 00:13:03,350

not at that point

193

00:13:06,389 --> 00:13:04,240

um

194

00:13:08,389 --> 00:13:06,399

the camera angle at liftoff showed uh

195

00:13:10,069 --> 00:13:08,399

showed the um

196

00:13:11,509 --> 00:13:10,079

view straight onto the orbiter from the

197

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

end of the flame trench and you guys

198

00:13:14,470 --> 00:13:13,120

were buried in a big white steam cloud

199

00:13:15,829 --> 00:13:14,480

for about the first

200

00:13:17,509 --> 00:13:15,839

five to ten seconds of the launch and

201
00:13:20,470 --> 00:13:17,519
then columbia just came up right out of

202
00:13:23,990 --> 00:13:20,480
the cloud it was really a dramatic uh

203
00:13:28,710 --> 00:13:25,430
yeah we saw that

204
00:13:30,230 --> 00:13:28,720
in the uplink video on the kca it was

205
00:13:31,910 --> 00:13:30,240
really impressive we appreciate it

206
00:13:34,150 --> 00:13:31,920
getting it

207
00:13:36,069 --> 00:13:34,160
well how's the view been from uh orbit

208
00:13:38,069 --> 00:13:36,079
uh i know your attitude points the

209
00:13:39,670 --> 00:13:38,079
payload bay uh windows down at the earth

210
00:13:41,509 --> 00:13:39,680
and i wonder if you've uh

211
00:13:43,030 --> 00:13:41,519
seen any uh

212
00:13:47,350 --> 00:13:43,040
particular favorites of yours on your

213
00:13:51,829 --> 00:13:48,870

well this attitude makes some things a

214

00:13:54,150 --> 00:13:51,839

little bit hard um the

215

00:13:56,069 --> 00:13:54,160

payload bay door sort of obscures the

216

00:13:58,310 --> 00:13:56,079

terrain that's coming in

217

00:13:59,829 --> 00:13:58,320

so it's uh we have to really think ahead

218

00:14:02,230 --> 00:13:59,839

if we want to try and catch any nader

219

00:14:04,470 --> 00:14:02,240

shots what seems to work best is looking

220

00:14:06,870 --> 00:14:04,480

north of track at the overhead windows

221

00:14:08,150 --> 00:14:06,880

and getting getting things at 20 or 30

222

00:14:10,069 --> 00:14:08,160

degrees

223

00:14:11,430 --> 00:14:10,079

i've been amazed how much we see to the

224

00:14:12,710 --> 00:14:11,440

north though

225

00:14:16,389 --> 00:14:12,720

especially

226

00:14:18,550 --> 00:14:16,399

lake michigan chicago

227

00:14:20,870 --> 00:14:18,560

lake erie and cleveland

228

00:14:22,629 --> 00:14:20,880

we've got great views of those

229

00:14:26,069 --> 00:14:22,639

and spain and europe have been pretty

230

00:14:30,629 --> 00:14:28,790

yeah the indians are coming back to play

231

00:14:32,949 --> 00:14:30,639

in cleveland with the braves i guess

232

00:14:34,069 --> 00:14:32,959

they're down 2-zip right now

233

00:14:35,750 --> 00:14:34,079

so you'll be able to watch some of the

234

00:14:37,269 --> 00:14:35,760

night game action probably later this

235

00:14:38,790 --> 00:14:37,279

week

236

00:14:42,150 --> 00:14:38,800

any tropical storms left in the atlantic

237

00:14:46,949 --> 00:14:45,350

well we haven't seen any of them

238

00:14:48,790 --> 00:14:46,959

it's amazing i think it's finally dying

239

00:14:51,990 --> 00:14:48,800

down clouds out there seems like there's

240

00:14:55,269 --> 00:14:52,000

more clouds over africa than i remember

241

00:14:56,550 --> 00:14:55,279

from previous flights lots of big storms

242

00:15:00,790 --> 00:14:56,560

i hope they're getting a little rain

243

00:15:03,509 --> 00:15:02,069

it's been great in houston we've had a

244

00:15:05,750 --> 00:15:03,519

great high pressure system sitting over

245

00:15:06,870 --> 00:15:05,760

us and the weather's been fantastic it's

246

00:15:42,550 --> 00:15:06,880

a

247

00:15:44,389 --> 00:15:42,560

together up there you guys hit the

248

00:15:45,670 --> 00:15:44,399

ground running and uh we've been very

249

00:15:48,470 --> 00:15:45,680

very uh

250

00:15:49,829 --> 00:15:48,480

uh pleased with how well the timeline's

251
00:15:50,949 --> 00:15:49,839
been working out

252
00:15:53,990 --> 00:15:50,959
you guys have been hitting everything

253
00:15:55,910 --> 00:15:54,000
right on the on time and it seems like

254
00:16:00,870 --> 00:15:55,920
the payload ops as well as the orbiter

255
00:16:04,230 --> 00:16:02,949
well good uh i think

256
00:16:05,829 --> 00:16:04,240
that

257
00:16:07,430 --> 00:16:05,839
is due in

258
00:16:09,749 --> 00:16:07,440
a big measure to the folks who did the

259
00:16:12,470 --> 00:16:09,759
planning pre-flight the paces seemed

260
00:16:14,550 --> 00:16:12,480
just about right for all of us on board

261
00:16:15,910 --> 00:16:14,560
i think another thing that

262
00:16:17,110 --> 00:16:15,920
helped us was that we were just a little

263
00:16:18,790 --> 00:16:17,120

bit lucky

264

00:16:20,790 --> 00:16:18,800

having to get five new guys who are just

265

00:16:23,990 --> 00:16:20,800

natural space people they're really

266

00:16:27,910 --> 00:16:25,509

and that's obvious from what we can see

267

00:16:29,269 --> 00:16:27,920

uh the laboratory ops in the back

268

00:16:31,269 --> 00:16:29,279

are just like you would imagine in a

269

00:16:32,949 --> 00:16:31,279

laboratory down here on the ground we're

270

00:16:35,030 --> 00:16:32,959

tweaking making some fine adjustments

271

00:16:37,269 --> 00:16:35,040

but the overall scope of the experiment

272

00:16:38,790 --> 00:16:37,279

seems to be uh working along just fine

273

00:16:40,710 --> 00:16:38,800

and i'm sure we'll be seeing a lot more

274

00:16:42,310 --> 00:16:40,720

of that in the years ahead so you guys

275

00:16:43,749 --> 00:16:42,320

are really uh showing us what it's going

276

00:16:47,430 --> 00:16:43,759

to be like in just a couple years with

277

00:16:50,470 --> 00:16:49,350

well good deal i think this two-way

278

00:16:51,990 --> 00:16:50,480

video capability is going to be

279

00:16:53,910 --> 00:16:52,000

something neat that they'll enjoy too

280

00:16:55,829 --> 00:16:53,920

it's really nice to see your faces and

281

00:16:57,350 --> 00:16:55,839

see your lips move uh while you're

282

00:16:58,790 --> 00:16:57,360

talking to us there's always a little

283

00:17:00,949 --> 00:16:58,800

bit more that can be carried in

284

00:17:03,030 --> 00:17:00,959

expressions and

285

00:17:06,069 --> 00:17:03,040

and hand motions then you can capture

286

00:17:09,590 --> 00:17:08,630

that's true socks and we just got a call

287

00:17:11,029 --> 00:17:09,600

from

288

00:17:12,309 --> 00:17:11,039

moscow and mission control over there

289

00:17:13,590 --> 00:17:12,319

with jim weatherby this morning and

290

00:17:15,350 --> 00:17:13,600

everybody's watching your flight with

291

00:17:17,350 --> 00:17:15,360

great interest on that side

292

00:17:19,350 --> 00:17:17,360

all the folks in our office

293

00:17:21,510 --> 00:17:19,360

over there are watching uh

294

00:17:24,870 --> 00:17:21,520

73 and they're very pleased and proud of

295

00:17:28,710 --> 00:17:26,789

well great glad to hear it uh

296

00:17:30,630 --> 00:17:28,720

pass them our best wishes

297

00:17:33,590 --> 00:17:30,640

and i know they're glad to get us in the

298

00:17:35,190 --> 00:17:33,600

air so that we can get 74 launched here

299

00:17:39,029 --> 00:17:35,200

and get those guys flying up to the

300

00:17:41,270 --> 00:17:40,150

that's right

301
00:17:43,270 --> 00:17:41,280
we're looking forward to that as well

302
00:17:44,710 --> 00:17:43,280
but i think we've got another two weeks

303
00:17:45,830 --> 00:17:44,720
of fun with you folks before that

304
00:17:47,830 --> 00:17:45,840
happens and

305
00:17:51,430 --> 00:17:47,840
we'll be ready for 74 in time on the

306
00:17:54,630 --> 00:17:52,789
yeah we're looking forward to the rest

307
00:17:56,070 --> 00:17:54,640
of the flight

308
00:17:58,390 --> 00:17:56,080
don't think you can spend too much time

309
00:17:59,750 --> 00:17:58,400
in orbit i know i can i can't get enough

310
00:18:01,190 --> 00:17:59,760
of the view

311
00:18:03,590 --> 00:18:01,200
and the floating around

312
00:18:05,669 --> 00:18:03,600
and we just continue to feel better and

313
00:18:08,150 --> 00:18:05,679

better up here so let's hope it keeps

314

00:18:09,830 --> 00:18:08,160

going that way in columbia see the guys

315

00:18:11,430 --> 00:18:09,840

on the ground who prepped this ship sure

316

00:18:13,590 --> 00:18:11,440

did a great job it's just coming right

317

00:18:15,750 --> 00:18:13,600

along

318

00:18:17,350 --> 00:18:15,760

i know people say things about colombia

319

00:18:18,950 --> 00:18:17,360

about better being jinxed and having a

320

00:18:20,870 --> 00:18:18,960

lot of problems but you sure wouldn't

321

00:18:26,870 --> 00:18:20,880

know it here from our point of view up

322

00:18:29,909 --> 00:18:28,390

she may be the oldest ship in the fleet

323

00:18:31,830 --> 00:18:29,919

but it's obvious she's been maintained

324

00:18:33,430 --> 00:18:31,840

very well and uh

325

00:18:34,789 --> 00:18:33,440

it's the cleanest ship

326

00:18:38,789 --> 00:18:34,799

that you could hope for on orbit on this

327

00:18:43,590 --> 00:18:42,070

yeah that's right

328

00:18:45,350 --> 00:18:43,600

shoot tom what's been fun talking to you

329

00:18:46,630 --> 00:18:45,360

guys but i guess we better get back off

330

00:18:49,029 --> 00:18:46,640

to work uh

331

00:18:51,350 --> 00:18:49,039

you got enough uh video and

332

00:18:53,909 --> 00:18:51,360

information uh for the

333

00:18:55,350 --> 00:18:53,919

the atp guys

334

00:18:57,270 --> 00:18:55,360

yeah if you'll stand by one i just want

335

00:18:58,150 --> 00:18:57,280

to do one more uh config test here and

336

00:19:01,510 --> 00:18:58,160

we'll

337

00:19:11,110 --> 00:19:01,520

wrap it up after that standby one

338

00:19:15,029 --> 00:19:13,510

columbia houston just to close off gatv

339

00:19:16,870 --> 00:19:15,039

i'm now transmitting on air to ground

340

00:19:22,230 --> 00:19:16,880

one could you give us a report on the

341

00:19:25,190 --> 00:19:23,669

yeah

342

00:19:27,270 --> 00:19:25,200

it's not unclear

343

00:19:28,390 --> 00:19:27,280

but it's uh not as good as what we had a

344

00:19:30,549 --> 00:19:28,400

minute ago

345

00:19:32,230 --> 00:19:30,559

it's just a little bit

346

00:19:34,549 --> 00:19:32,240

more grainy

347

00:19:36,310 --> 00:19:34,559

if that's a decent description

348

00:19:38,549 --> 00:19:36,320

i understand some of that is probably

349

00:19:40,070 --> 00:19:38,559

due to my throat this morning but we'll

350

00:19:41,909 --> 00:19:40,080

try this config out again later in the

351

00:19:44,150 --> 00:19:41,919

flight i hope and on other flights with

352

00:19:46,150 --> 00:19:44,160

the families this uh capability is going

353

00:19:47,669 --> 00:19:46,160

to be great for us thanks a lot for

354

00:19:49,110 --> 00:19:47,679

talking to us and spending some time on

355

00:19:52,150 --> 00:19:49,120

the air and we'll talk to you on the

356

00:19:53,270 --> 00:19:52,160

regular loops

357

00:19:54,549 --> 00:19:53,280

yeah it was a lot of fun and you're

358

00:19:57,430 --> 00:19:54,559

right this would be really neat with our

359

00:19:57,440 --> 00:20:02,549

bye-bye

360

00:20:07,590 --> 00:20:04,710

space lab huntsville for kathy no need

361

00:20:10,549 --> 00:20:07,600

to respond but we are currently waiting

362

00:20:14,149 --> 00:20:10,559

on approval to tips up the

363

00:20:15,909 --> 00:20:14,159

ifm to shim the x-axis video camera to

364

00:20:18,390 --> 00:20:15,919

correct this problem where it's

365

00:20:21,190 --> 00:20:18,400

currently slightly below center

366

00:20:22,710 --> 00:20:21,200

and as soon as that gets tipped up to

367

00:20:29,830 --> 00:20:22,720

you

368

00:20:35,669 --> 00:20:29,840

rp1

369

00:20:40,310 --> 00:20:37,510

in space lab huntsville for i'll be

370

00:20:48,149 --> 00:20:40,320

advised we have ku band coverage back

371

00:20:48,159 --> 00:20:54,710

copy that

372

00:21:00,549 --> 00:20:58,149

now as we heard with the ku band signal

373

00:21:02,870 --> 00:21:00,559

capability we're again

374

00:21:05,029 --> 00:21:02,880

back into bringing multiple channels of

375

00:21:07,510 --> 00:21:05,039

video to the ground

376

00:21:08,950 --> 00:21:07,520

and we have two types of video coming

377

00:21:11,430 --> 00:21:08,960

from the surface tension driven

378

00:21:13,430 --> 00:21:11,440

convection experiment currently

379

00:21:27,110 --> 00:21:13,440

in the module on tv2 with your

380

00:21:33,190 --> 00:21:30,230

this live video now showing us some

381

00:21:34,149 --> 00:21:33,200

dramatic gyrations by a drop of liquid

382

00:21:36,149 --> 00:21:34,159

which

383

00:21:37,510 --> 00:21:36,159

is currently deployed in the drop

384

00:21:38,630 --> 00:21:37,520

physics module

385

00:21:40,630 --> 00:21:38,640

and

386

00:21:42,549 --> 00:21:40,640

now we're taking a 90 degree different

387

00:21:45,270 --> 00:21:42,559

view of it it's

388

00:21:48,070 --> 00:21:45,280

shaped much like a pancake now uh

389

00:21:54,710 --> 00:21:48,080

oscillating uh in uh

390

00:22:05,590 --> 00:21:57,029

said you can reduce the z drive level to

391

00:22:09,909 --> 00:22:07,909

and so below the spacecraft we have

392

00:22:14,549 --> 00:22:09,919

basically broad ocean areas with a few

393

00:22:14,559 --> 00:22:17,669

colombia

394

00:22:22,990 --> 00:22:20,549

on its 51st orbit now

395

00:22:26,149 --> 00:22:23,000

out of what's planned as a

396

00:22:28,710 --> 00:22:26,159

255 orbit mission

397

00:22:31,270 --> 00:22:29,909

flying uh

398

00:22:33,830 --> 00:22:31,280

continuing to

399

00:22:35,590 --> 00:22:33,840

orbit the earth in a gravity gradient

400

00:22:39,110 --> 00:22:35,600

attitude where the tail of the

401
00:22:41,350 --> 00:22:39,120
spacecraft is towards earth and the nose

402
00:22:43,190 --> 00:22:41,360
uh remains pointed towards deep space

403
00:22:45,110 --> 00:22:43,200
and now with a little camera switching

404
00:22:47,510 --> 00:22:45,120
we can take a look at

405
00:22:50,789 --> 00:22:47,520
its uh payload bay door the one which is

406
00:22:56,149 --> 00:22:50,799
uh partially closed

407
00:22:58,470 --> 00:22:56,159
that payload bay door being uh directed

408
00:23:04,710 --> 00:22:58,480
be the one which is in the

409
00:23:04,720 --> 00:23:08,230
hey

410
00:23:12,630 --> 00:23:10,710
new view new type of view since this is

411
00:23:14,630 --> 00:23:12,640
the first mission where we routinely

412
00:23:15,590 --> 00:23:14,640
have been keeping the payload bay door

413
00:23:16,710 --> 00:23:15,600

partly