



1
00:00:07,030 --> 00:00:04,030
good morning and welcome to today's

2
00:00:09,270 --> 00:00:07,040
sts-134 mission status briefing uh we're

3
00:00:11,749 --> 00:00:09,280
here with derek hassman the lead flight

4
00:00:13,509 --> 00:00:11,759
director for the mission and uh we'll

5
00:00:15,110 --> 00:00:13,519
start off with comments from derek and

6
00:00:17,349 --> 00:00:15,120
then move on to our questions from

7
00:00:18,630 --> 00:00:17,359
reporters derek okay thanks kelly good

8
00:00:20,630 --> 00:00:18,640
morning everyone

9
00:00:22,950 --> 00:00:20,640
good to be here again today

10
00:00:24,630 --> 00:00:22,960
wrapping up another busy on a busy day

11
00:00:26,550 --> 00:00:24,640
on the on the space station the shuttle

12
00:00:28,470 --> 00:00:26,560
endeavour

13
00:00:30,870 --> 00:00:28,480

one of the reasons we added the extra

14

00:00:33,350 --> 00:00:30,880

extension days to the mission was to uh

15

00:00:35,110 --> 00:00:33,360

work on station and and get a head task

16

00:00:37,549 --> 00:00:35,120

that would put us in the best position

17

00:00:41,030 --> 00:00:37,559

uh for both the uh the stage and then

18

00:00:42,470 --> 00:00:41,040

sts-135 coming up in july and one one of

19

00:00:43,990 --> 00:00:42,480

the critical items that we wanted to get

20

00:00:45,910 --> 00:00:44,000

repaired that i've talked to talked

21

00:00:48,709 --> 00:00:45,920

about in previous briefings is the

22

00:00:49,670 --> 00:00:48,719

carbon dioxide removal assembly or sidra

23

00:00:51,270 --> 00:00:49,680

and

24

00:00:53,990 --> 00:00:51,280

it's a piece of hardware that wasn't

25

00:00:56,069 --> 00:00:54,000

necessarily

26
00:00:57,990 --> 00:00:56,079
engineered or designed to be repaired on

27
00:00:59,349 --> 00:00:58,000
orbit but over the last several years

28
00:01:01,430 --> 00:00:59,359
we've had a number of different issues

29
00:01:03,590 --> 00:01:01,440
with the unit and uh we've come a long

30
00:01:05,509 --> 00:01:03,600
way in terms of our ability to to repair

31
00:01:07,510 --> 00:01:05,519
cdr on orbit you probably saw some of

32
00:01:09,910 --> 00:01:07,520
the the great video that the crew

33
00:01:12,710 --> 00:01:09,920
downlinked from the gym module whether

34
00:01:14,469 --> 00:01:12,720
they were doing the actual repairs

35
00:01:16,469 --> 00:01:14,479
and it kind of gives you a feel for the

36
00:01:18,630 --> 00:01:16,479
complexity and just the the access

37
00:01:20,550 --> 00:01:18,640
challenges that that the crew has with

38
00:01:23,270 --> 00:01:20,560

the number of valves and tubing and the

39

00:01:25,910 --> 00:01:23,280

thick insulation etc so

40

00:01:27,109 --> 00:01:25,920

spanky and taz mike fink and and greg

41

00:01:28,469 --> 00:01:27,119

shamotov

42

00:01:30,950 --> 00:01:28,479

were working on the carbon dioxide

43

00:01:32,469 --> 00:01:30,960

removal assembly most of the day um when

44

00:01:34,310 --> 00:01:32,479

i left mission control they were a

45

00:01:35,990 --> 00:01:34,320

little bit behind we were going to see

46

00:01:37,670 --> 00:01:36,000

where they were going to get uh before

47

00:01:39,109 --> 00:01:37,680

they called it a night and then

48

00:01:41,350 --> 00:01:39,119

potentially

49

00:01:43,510 --> 00:01:41,360

rescheduled additional time tomorrow for

50

00:01:45,910 --> 00:01:43,520

them to finish out that work but as we

51
00:01:48,069 --> 00:01:45,920
discussed before the goal is to change

52
00:01:51,350 --> 00:01:48,079
out one of the two

53
00:01:53,429 --> 00:01:51,360
cartridges or beds that remove co2 in

54
00:01:56,069 --> 00:01:53,439
that node three carbon dioxide removal

55
00:01:58,069 --> 00:01:56,079
assembly put it put a new bed in there

56
00:01:59,830 --> 00:01:58,079
and then get the entire unit installed

57
00:02:02,069 --> 00:01:59,840
back into its uh

58
00:02:04,950 --> 00:02:02,079
to its home in the node 3

59
00:02:06,789 --> 00:02:04,960
module so we're probably hours away from

60
00:02:08,710 --> 00:02:06,799
finishing that when i left and my

61
00:02:10,469 --> 00:02:08,720
expectation is that when i come on ship

62
00:02:12,470 --> 00:02:10,479
tomorrow we'll have that seizure work

63
00:02:13,830 --> 00:02:12,480

done so that's another big objective

64

00:02:15,750 --> 00:02:13,840

behind us

65

00:02:18,309 --> 00:02:15,760

in addition to the seizure work both

66

00:02:20,949 --> 00:02:18,319

crews continued on on their transfer

67

00:02:22,949 --> 00:02:20,959

work moving items back and forth from

68

00:02:25,510 --> 00:02:22,959

shuttle to station

69

00:02:27,510 --> 00:02:25,520

when when i checked in before i left uh

70

00:02:29,589 --> 00:02:27,520

the report was that we're about 66

71

00:02:31,910 --> 00:02:29,599

percent done with the total uh

72

00:02:33,350 --> 00:02:31,920

transfer work and that was before we

73

00:02:35,190 --> 00:02:33,360

tagged up with the crew at the end of

74

00:02:36,710 --> 00:02:35,200

the day we have normally planned taga

75

00:02:38,470 --> 00:02:36,720

where the crew

76
00:02:41,110 --> 00:02:38,480
briefs the ground on the progress made

77
00:02:42,550 --> 00:02:41,120
today so i would expect that once they

78
00:02:44,869 --> 00:02:42,560
factor in that brief we'll be right on

79
00:02:46,229 --> 00:02:44,879
the timeline we've got a number of hours

80
00:02:48,070 --> 00:02:46,239
scheduled in the timeline tomorrow

81
00:02:49,430 --> 00:02:48,080
before hatch close

82
00:02:50,550 --> 00:02:49,440
in addition to the seizure work and

83
00:02:52,309 --> 00:02:50,560
transfer

84
00:02:54,470 --> 00:02:52,319
we also did a lot of work in the joint

85
00:02:56,070 --> 00:02:54,480
airlock uh one of the things we have to

86
00:02:58,710 --> 00:02:56,080
do on every shuttle mission is to get

87
00:03:00,710 --> 00:02:58,720
the the shuttle crews emu's or

88
00:03:04,470 --> 00:03:00,720

spacesuits ready for return on the

89

00:03:06,149 --> 00:03:04,480

orbiter uh for this particular mission

90

00:03:08,550 --> 00:03:06,159

drew feustel and mike fink are the

91

00:03:11,030 --> 00:03:08,560

designated astronauts that would perform

92

00:03:12,949 --> 00:03:11,040

a contingency spacewalk if one was

93

00:03:14,550 --> 00:03:12,959

required after undock so one of the

94

00:03:16,630 --> 00:03:14,560

things we have to do toward the end each

95

00:03:18,390 --> 00:03:16,640

of these missions is to prepare

96

00:03:20,630 --> 00:03:18,400

their their spacesuits for a return on

97

00:03:22,630 --> 00:03:20,640

the shuttle and

98

00:03:25,509 --> 00:03:22,640

another technique that we use in order

99

00:03:27,509 --> 00:03:25,519

to change out new hardware new spacesuit

100

00:03:29,430 --> 00:03:27,519

hardware on the station is that we

101
00:03:31,110 --> 00:03:29,440
scavenge

102
00:03:33,030 --> 00:03:31,120
shuttle crew members suits so for

103
00:03:34,710 --> 00:03:33,040
example we had

104
00:03:36,710 --> 00:03:34,720
feustel and fink suits in the airlock

105
00:03:38,789 --> 00:03:36,720
today and we we took parts from their

106
00:03:40,710 --> 00:03:38,799
suits and installed those parts on suits

107
00:03:43,110 --> 00:03:40,720
that would stay on station we in turn

108
00:03:45,110 --> 00:03:43,120
took older parts from the station suits

109
00:03:46,630 --> 00:03:45,120
installed those on on feustel and think

110
00:03:49,589 --> 00:03:46,640
suits so in the end you have two

111
00:03:51,910 --> 00:03:49,599
complete functional emus or spacesuits

112
00:03:54,149 --> 00:03:51,920
that will return on on shuttle available

113
00:03:55,750 --> 00:03:54,159

for use if necessary but they have the

114

00:03:58,149 --> 00:03:55,760

older parts still

115

00:04:00,070 --> 00:03:58,159

with insert still serviceable but older

116

00:04:02,470 --> 00:04:00,080

parts return on the shuttle the newer

117

00:04:04,470 --> 00:04:02,480

parts from the shuttle astronauts uh

118

00:04:06,390 --> 00:04:04,480

space suits stay on station so at the

119

00:04:07,429 --> 00:04:06,400

end of the day we had two good space

120

00:04:09,190 --> 00:04:07,439

suits for

121

00:04:11,509 --> 00:04:09,200

poison fink those will get transferred

122

00:04:14,309 --> 00:04:11,519

over to the shuttle

123

00:04:17,349 --> 00:04:14,319

in addition as another get ahead looking

124

00:04:18,789 --> 00:04:17,359

ahead to sts-135 where we talked before

125

00:04:21,030 --> 00:04:18,799

about the fact that there will be a

126

00:04:22,790 --> 00:04:21,040

space welcome 135 but it will be

127

00:04:25,430 --> 00:04:22,800

performed by the increment crew

128

00:04:27,350 --> 00:04:25,440

specifically mike fossum and ron garan

129

00:04:29,350 --> 00:04:27,360

so one of the other things we did today

130

00:04:31,110 --> 00:04:29,360

since we had the time and and the

131

00:04:34,150 --> 00:04:31,120

expertise available is that we

132

00:04:36,870 --> 00:04:34,160

configured the space suit that mike

133

00:04:39,030 --> 00:04:36,880

fossum will use on the 135

134

00:04:41,510 --> 00:04:39,040

spacewalk uh basically got it ready to

135

00:04:42,710 --> 00:04:41,520

go for that spacewalk so you know really

136

00:04:44,629 --> 00:04:42,720

the um

137

00:04:46,469 --> 00:04:44,639

the theme of the day was maintenance on

138

00:04:49,110 --> 00:04:46,479

station and get a heads on the stage

139

00:04:51,510 --> 00:04:49,120

kind of looking ahead to sts-135 so

140

00:04:53,350 --> 00:04:51,520

another uh another busy productive day

141

00:04:55,030 --> 00:04:53,360

on station

142

00:04:57,749 --> 00:04:55,040

let's see looking looking ahead we just

143

00:05:00,390 --> 00:04:57,759

wrapped up flight day 13. flight day 14

144

00:05:03,749 --> 00:05:00,400

the emphasis is on last minute transfer

145

00:05:05,430 --> 00:05:03,759

and transfer of payloads and and other

146

00:05:08,150 --> 00:05:05,440

cargo that has to be done at the last

147

00:05:10,550 --> 00:05:08,160

minute um for reasons driven by science

148

00:05:13,590 --> 00:05:10,560

or other things and then in the flight

149

00:05:14,469 --> 00:05:13,600

day 14 we do the hatch close and then

150

00:05:16,310 --> 00:05:14,479

finally

151
00:05:17,270 --> 00:05:16,320
flight day 15 early in the day we do

152
00:05:19,830 --> 00:05:17,280
undock

153
00:05:21,749 --> 00:05:19,840
so with that uh kelly that concludes my

154
00:05:24,870 --> 00:05:21,759
part of the overview we'll start here

155
00:05:26,629 --> 00:05:24,880
with questions in houston please state

156
00:05:28,629 --> 00:05:26,639
your name and affiliation before you

157
00:05:32,469 --> 00:05:28,639
question

158
00:05:35,909 --> 00:05:34,310
hi rob perlman with collectspace.com

159
00:05:37,590 --> 00:05:35,919
with a couple of questions

160
00:05:40,310 --> 00:05:37,600
regarding transfer has a decision been

161
00:05:43,270 --> 00:05:40,320
made about bringing down the um

162
00:05:45,670 --> 00:05:43,280
the egf from the boom uh inside endeavor

163
00:05:49,510 --> 00:05:45,680

or will it wait for sts-135 yeah that's

164

00:05:52,870 --> 00:05:49,520

a good question the efgf which uh

165

00:05:55,029 --> 00:05:52,880

for eva4 we decided not to defer the

166

00:05:56,790 --> 00:05:55,039

stowage of the efgf in the tool stowage

167

00:06:01,430 --> 00:05:56,800

assembly we made a decision that that

168

00:06:03,749 --> 00:06:01,440

would come down on sts-135 and the mplm

169

00:06:05,430 --> 00:06:03,759

and with regards to

170

00:06:07,430 --> 00:06:05,440

the seizure repair just before coming

171

00:06:08,629 --> 00:06:07,440

here i heard that they were running

172

00:06:11,430 --> 00:06:08,639

closer to

173

00:06:13,909 --> 00:06:11,440

their uh pre-sleep and sleep schedule

174

00:06:17,350 --> 00:06:13,919

and might had might have to def

175

00:06:19,110 --> 00:06:17,360

delay finishing the task the the repair

176

00:06:20,870 --> 00:06:19,120

if they can't get this done today and

177

00:06:22,629 --> 00:06:20,880

tomorrow is that something that the

178

00:06:24,710 --> 00:06:22,639

state that the expedition crew has to

179

00:06:26,950 --> 00:06:24,720

pick up immediately to complete or can

180

00:06:28,550 --> 00:06:26,960

it wait um and you have other systems to

181

00:06:30,870 --> 00:06:28,560

support that thanks

182

00:06:32,950 --> 00:06:30,880

yeah we have a functional carbon dioxide

183

00:06:34,790 --> 00:06:32,960

removal assembly that's operating today

184

00:06:36,150 --> 00:06:34,800

in the lab module and then we also have

185

00:06:38,550 --> 00:06:36,160

the vas duke

186

00:06:40,309 --> 00:06:38,560

system in the russian segment so we have

187

00:06:43,590 --> 00:06:40,319

those two separate ways to do carbon

188

00:06:46,150 --> 00:06:43,600

dioxide removal and those two devices

189

00:06:48,150 --> 00:06:46,160

are capable of removing all the co2 that

190

00:06:52,070 --> 00:06:48,160

we need to from station so what the note

191

00:06:53,830 --> 00:06:52,080

3 sidra gives us is purely redundancy so

192

00:06:56,150 --> 00:06:53,840

if we don't finish tomorrow certainly

193

00:06:58,070 --> 00:06:56,160

ron guerin has a training to do it

194

00:06:59,909 --> 00:06:58,080

but if he didn't have the time

195

00:07:02,150 --> 00:06:59,919

between now and 135 we could also

196

00:07:03,830 --> 00:07:02,160

postpone it after 1 35 so no no

197

00:07:05,990 --> 00:07:03,840

immediate urgency but it's it'd be nice

198

00:07:07,909 --> 00:07:06,000

to have that redundancy back

199

00:07:10,150 --> 00:07:07,919

okay denise

200

00:07:11,830 --> 00:07:10,160

denise ciao with space.com um i know the

201
00:07:14,070 --> 00:07:11,840
decision was made early not to add an

202
00:07:15,670 --> 00:07:14,080
extra day but with the transfer work and

203
00:07:17,189 --> 00:07:15,680
the sidra

204
00:07:19,189 --> 00:07:17,199
would an extra day have helped a lot

205
00:07:20,629 --> 00:07:19,199
with this mission

206
00:07:22,790 --> 00:07:20,639
um

207
00:07:24,309 --> 00:07:22,800
i mean there's always more to do

208
00:07:26,790 --> 00:07:24,319
but looking at the timeline and the way

209
00:07:28,309 --> 00:07:26,800
it's laying out we've gotten all the

210
00:07:29,589 --> 00:07:28,319
high priority objectives that we wanted

211
00:07:31,510 --> 00:07:29,599
to get

212
00:07:32,629 --> 00:07:31,520
there's additional work that could have

213
00:07:33,510 --> 00:07:32,639

been done

214

00:07:35,350 --> 00:07:33,520

but

215

00:07:36,870 --> 00:07:35,360

we've already got a long mission you

216

00:07:39,430 --> 00:07:36,880

know planned

217

00:07:40,710 --> 00:07:39,440

16 days is is a long mission in general

218

00:07:42,950 --> 00:07:40,720

and then if you look at the potential

219

00:07:45,350 --> 00:07:42,960

for weather wave offs it could get

220

00:07:47,589 --> 00:07:45,360

longer after undock so i'm really happy

221

00:07:49,510 --> 00:07:47,599

with uh with the way the timeline laid

222

00:07:51,189 --> 00:07:49,520

out really pleased with all the all the

223

00:07:53,029 --> 00:07:51,199

work we got done and and all the high

224

00:07:54,869 --> 00:07:53,039

priority objectives that are behind us

225

00:07:56,830 --> 00:07:54,879

so i think i think in retrospect that

226

00:07:59,589 --> 00:07:56,840

was the right decision

227

00:08:01,510 --> 00:07:59,599

okay uh seeing no other questions right

228

00:08:03,510 --> 00:08:01,520

here let's go to our phone bridge uh

229

00:08:05,430 --> 00:08:03,520

bill harwood

230

00:08:07,749 --> 00:08:05,440

uh yeah thanks derek just two quick ones

231

00:08:09,350 --> 00:08:07,759

for me i i've just missed this is it the

232

00:08:11,990 --> 00:08:09,360

desiccant bed of the absorbent bed that

233

00:08:14,869 --> 00:08:12,000

they're replacing it's actually that it

234

00:08:15,830 --> 00:08:14,879

is that bad they do both

235

00:08:17,670 --> 00:08:15,840

so there's

236

00:08:18,710 --> 00:08:17,680

there's two of these desk and absorbent

237

00:08:22,230 --> 00:08:18,720

beds

238

00:08:24,550 --> 00:08:22,240

in the carbon dioxide removal assembly

239

00:08:26,390 --> 00:08:24,560

and they are replacing one of those two

240

00:08:27,909 --> 00:08:26,400

okay i understand thank you and the

241

00:08:29,350 --> 00:08:27,919

second one and i just missed this

242

00:08:32,790 --> 00:08:29,360

earlier too where did the where'd the

243

00:08:34,389 --> 00:08:32,800

ogs uh maintenance end up

244

00:08:36,389 --> 00:08:34,399

uh we actually completed that

245

00:08:38,790 --> 00:08:36,399

maintenance so we installed the the new

246

00:08:39,909 --> 00:08:38,800

hosing in the cartridge filter that's

247

00:08:41,589 --> 00:08:39,919

intended to

248

00:08:44,630 --> 00:08:41,599

scrub the contaminants from the water

249

00:08:47,030 --> 00:08:44,640

line one once the once the crew finished

250

00:08:49,670 --> 00:08:47,040

that we actually we turned on ogs and we

251
00:08:51,110 --> 00:08:49,680
did some pressure delta pressure checks

252
00:08:53,430 --> 00:08:51,120
to make sure that we're getting the flow

253
00:08:55,590 --> 00:08:53,440
rates that we expected and all of that's

254
00:08:58,230 --> 00:08:55,600
gone as expected so that we finished out

255
00:09:00,630 --> 00:08:58,240
the ogs work and uh the activation went

256
00:09:02,389 --> 00:09:00,640
well the ogs is now available for oxygen

257
00:09:04,070 --> 00:09:02,399
production if we need it

258
00:09:05,350 --> 00:09:04,080
thanks and again back to cedar just i'm

259
00:09:06,710 --> 00:09:05,360
just making sure i understand the

260
00:09:08,470 --> 00:09:06,720
innards of this thing you have two beds

261
00:09:10,150 --> 00:09:08,480
but each bed has a desk and an absorbent

262
00:09:11,509 --> 00:09:10,160
is that how that works that's true but

263
00:09:12,949 --> 00:09:11,519

it's all it's

264

00:09:15,430 --> 00:09:12,959

yeah and i need to go verify this but

265

00:09:17,509 --> 00:09:15,440

it's just i believe it's all one unit

266

00:09:19,430 --> 00:09:17,519

which we're taking out

267

00:09:20,550 --> 00:09:19,440

all right thanks i appreciate it

268

00:09:22,310 --> 00:09:20,560

oh okay

269

00:09:28,870 --> 00:09:22,320

and i think we have todd halverson on as

270

00:09:28,880 --> 00:09:32,310

todd are you there

271

00:09:37,829 --> 00:09:35,110

well i sure am can you hear me we can

272

00:09:40,630 --> 00:09:37,839

hear you now okay todd halverson of

273

00:09:43,509 --> 00:09:40,640

florida today um derek i was just

274

00:09:44,949 --> 00:09:43,519

wondering uh what your thoughts are

275

00:09:48,550 --> 00:09:44,959

about

276

00:09:51,590 --> 00:09:48,560

the opportunity during the upcoming fly

277

00:09:55,590 --> 00:09:51,600

around to see the international space

278

00:09:58,710 --> 00:09:55,600

station with uh the us portion at

279

00:10:01,030 --> 00:09:58,720

assembly complete thanks

280

00:10:03,509 --> 00:10:01,040

um you know the the fly around photos

281

00:10:05,590 --> 00:10:03,519

are always spectacular just amazing

282

00:10:07,590 --> 00:10:05,600

views of the space station and you know

283

00:10:09,750 --> 00:10:07,600

every time i see a picture from that

284

00:10:11,269 --> 00:10:09,760

perspective it kind of

285

00:10:12,790 --> 00:10:11,279

you know it reminds you just everything

286

00:10:14,310 --> 00:10:12,800

we've accomplished over the past number

287

00:10:15,590 --> 00:10:14,320

of years

288

00:10:16,630 --> 00:10:15,600

and i don't know if you've seen them yet

289

00:10:18,310 --> 00:10:16,640

but the uh

290

00:10:20,470 --> 00:10:18,320

the pictures that greg shamatoff took

291

00:10:23,190 --> 00:10:20,480

from the from the top of elc3 with the

292

00:10:25,030 --> 00:10:23,200

fisheye lens are out there now too and i

293

00:10:27,430 --> 00:10:25,040

mean those are some of the most amazing

294

00:10:29,670 --> 00:10:27,440

photographs i've ever seen so you know

295

00:10:31,990 --> 00:10:29,680

anytime you see something like that uh

296

00:10:33,990 --> 00:10:32,000

it just kind of makes you pause and and

297

00:10:36,949 --> 00:10:34,000

appreciate uh just everything that we've

298

00:10:42,150 --> 00:10:39,190

and if i could follow that real quickly

299

00:10:43,509 --> 00:10:42,160

um i i'm i'm wondering what your your

300

00:10:47,110 --> 00:10:43,519

thoughts are you've been you've been

301

00:10:49,190 --> 00:10:47,120

with nasa i think since 1990 uh

302

00:10:51,750 --> 00:10:49,200

way back when and you've been through

303

00:10:54,470 --> 00:10:51,760

this entire process of not only the

304

00:10:57,509 --> 00:10:54,480

redesigns of space station but the

305

00:11:00,470 --> 00:10:57,519

actual assembly of the

306

00:11:03,110 --> 00:11:00,480

massive vehicle and i i'm wondering if

307

00:11:05,670 --> 00:11:03,120

um you have any particular thoughts uh

308

00:11:08,150 --> 00:11:05,680

now that you actually are at

309

00:11:09,670 --> 00:11:08,160

assembly complete it's been a long time

310

00:11:13,430 --> 00:11:09,680

coming

311

00:11:15,670 --> 00:11:13,440

you know there's been a lot of ups and

312

00:11:17,350 --> 00:11:15,680

downs um

313

00:11:19,590 --> 00:11:17,360

especially i think i mentioned it before

314

00:11:21,430 --> 00:11:19,600

but especially in the early 90s

315

00:11:24,389 --> 00:11:21,440

you know when it seemed like there was a

316

00:11:26,710 --> 00:11:24,399

cycle every two years of a bottoms-up

317

00:11:28,470 --> 00:11:26,720

redesign

318

00:11:30,389 --> 00:11:28,480

you know i had i had doubts that we'd

319

00:11:32,230 --> 00:11:30,399

ever get any any hardware launched quite

320

00:11:34,790 --> 00:11:32,240

honestly so

321

00:11:36,310 --> 00:11:34,800

you know it was um

322

00:11:38,150 --> 00:11:36,320

it was an amazing thing just to be

323

00:11:40,710 --> 00:11:38,160

involved in the first the first launch

324

00:11:42,630 --> 00:11:40,720

of u.s hardware sts-88

325

00:11:43,750 --> 00:11:42,640

and uh and there was a period there from

326

00:11:48,069 --> 00:11:43,760

about

327

00:11:49,590 --> 00:11:48,079

1998 to 2003 where we went from you know

328

00:11:52,069 --> 00:11:49,600

questions about the program even

329

00:11:54,069 --> 00:11:52,079

happening and congressional votes you

330

00:11:55,829 --> 00:11:54,079

know yearly about whether the cancel

331

00:11:59,829 --> 00:11:55,839

station but then you look at what we

332

00:12:01,590 --> 00:11:59,839

accomplished from 1998 to 2002 2003 you

333

00:12:03,509 --> 00:12:01,600

know once we got the laboratory module

334

00:12:05,030 --> 00:12:03,519

launched i mean that that was a period

335

00:12:06,629 --> 00:12:05,040

that i remember looking back on and just

336

00:12:08,470 --> 00:12:06,639

being amazed

337

00:12:10,389 --> 00:12:08,480

by how much we we'd accomplished over

338

00:12:11,590 --> 00:12:10,399

that period and then you know after that

339

00:12:14,150 --> 00:12:11,600

point

340

00:12:16,629 --> 00:12:14,160

you know unfortunately it or fortunately

341

00:12:18,629 --> 00:12:16,639

i guess it it becomes somewhat like

342

00:12:20,710 --> 00:12:18,639

clockwork and routine you know we've got

343

00:12:22,949 --> 00:12:20,720

so many good people so many qualified

344

00:12:26,150 --> 00:12:22,959

engineers so many smart folks that are

345

00:12:27,990 --> 00:12:26,160

willing to work all the details that um

346

00:12:30,150 --> 00:12:28,000

you know you just uh you pick the team

347

00:12:31,829 --> 00:12:30,160

you plug them in and they go off and do

348

00:12:33,030 --> 00:12:31,839

what it is that they're so good at doing

349

00:12:33,910 --> 00:12:33,040

and that's

350

00:12:35,670 --> 00:12:33,920

you know

351
00:12:37,670 --> 00:12:35,680
one of the downsides of what we do is

352
00:12:39,829 --> 00:12:37,680
that ultimately when you actually

353
00:12:41,509 --> 00:12:39,839
execute the mission it all ends up

354
00:12:43,269 --> 00:12:41,519
looking so easy that people take it for

355
00:12:48,230 --> 00:12:43,279
granted you know and that goes

356
00:12:49,590 --> 00:12:48,240
from from ksc to launching or to um

357
00:12:51,350 --> 00:12:49,600
getting the shuttle ready to go and then

358
00:12:52,470 --> 00:12:51,360
the actual launch to all the on orbit

359
00:12:54,470 --> 00:12:52,480
operations

360
00:12:56,629 --> 00:12:54,480
the rendezvous and docking

361
00:12:58,870 --> 00:12:56,639
all the spacewalks all the robotics you

362
00:13:00,949 --> 00:12:58,880
know these are things that the 10 15

363
00:13:03,110 --> 00:13:00,959

years ago we we hadn't thought about

364

00:13:05,750 --> 00:13:03,120

doing and now you know we have four and

365

00:13:08,310 --> 00:13:05,760

five evas

366

00:13:10,230 --> 00:13:08,320

parallel activities going on inside so

367

00:13:12,790 --> 00:13:10,240

it's just um you know it's a tribute to

368

00:13:14,790 --> 00:13:12,800

really the people both that at nasa

369

00:13:15,910 --> 00:13:14,800

centers all over the country and then to

370

00:13:21,750 --> 00:13:15,920

the to the

371

00:13:26,150 --> 00:13:23,910

thanks derek that's all from me

372

00:13:27,430 --> 00:13:26,160

okay any further follow-ups back here in

373

00:13:29,110 --> 00:13:27,440

houston

374

00:13:31,269 --> 00:13:29,120

seeing none we'll uh wrap up this

375

00:13:32,949 --> 00:13:31,279

briefing and thank everyone from coming

376

00:13:35,030 --> 00:13:32,959

just a couple of programming notes the

377

00:13:37,190 --> 00:13:35,040

uh the crews are starting to shift their

378

00:13:39,269 --> 00:13:37,200

schedules again so the station crews

379

00:13:42,230 --> 00:13:39,279

sleep shifts scheduled to begin at 10 26

380

00:13:43,990 --> 00:13:42,240

a.m today and that's central time uh and

381

00:13:46,949 --> 00:13:44,000

then the endeavor crew sleep will begin

382

00:13:48,470 --> 00:13:46,959

half an hour later at 10 56 a.m

383

00:13:50,069 --> 00:13:48,480

and then we'll have our international

384

00:13:53,509 --> 00:13:50,079

space station flight director update

385

00:13:55,509 --> 00:13:53,519

coming up at 3 45 pm this afternoon

386

00:13:57,110 --> 00:13:55,519

so with that uh we'll send you back to

387

00:13:58,629 --> 00:13:57,120

mission control and a reminder that

388

00:14:00,870 --> 00:13:58,639

those great photos derek we're talking

389

00:14:03,509 --> 00:14:00,880

about are available on the nasa website