



1
00:01:13,140 --> 00:01:10,890
the payload on STS 83 is the

2
00:01:16,260 --> 00:01:13,150
microgravity science laboratory a

3
00:01:18,930 --> 00:01:16,270
pressurized module in Columbia's payload

4
00:01:23,820 --> 00:01:18,940
Bay we're going to take a tour now of

5
00:01:25,890 --> 00:01:23,830
the MSL 1 space lab my name is Sean

6
00:01:28,500 --> 00:01:25,900
heckle and I'm the payload operations

7
00:01:31,290 --> 00:01:28,510
engineer for sts 83 the microgravity

8
00:01:33,720 --> 00:01:31,300
science laboratory we're standing inside

9
00:01:36,540 --> 00:01:33,730
the orbiter processing facility and what

10
00:01:39,180 --> 00:01:36,550
you see over my shoulder is the

11
00:01:42,120 --> 00:01:39,190
microgravity science laboratory inside

12
00:01:44,730 --> 00:01:42,130
the orbiters payload Bay microgravity

13
00:01:48,600 --> 00:01:44,740

science laboratory weighs about ten tons

14

00:01:49,260 --> 00:01:48,610

it's 23 feet long and about 13 feet in

15

00:01:51,270 --> 00:01:49,270

diameter

16

00:01:53,490 --> 00:01:51,280

it only takes up about 1/3 of the

17

00:01:56,460 --> 00:01:53,500

orbiters payload Bay and the way the

18

00:01:58,740 --> 00:01:56,470

astronauts get from the crew module into

19

00:02:02,330 --> 00:01:58,750

the space lab module is they travel

20

00:02:05,160 --> 00:02:02,340

through this long tunnel you see here

21

00:02:08,460 --> 00:02:05,170

space shuttle Columbia on the pad was

22

00:02:12,930 --> 00:02:08,470

the first in the shuttle fleet arrived

23

00:02:16,229 --> 00:02:12,940

at KSC in March of 1979 and the first

24

00:02:21,630 --> 00:02:16,239

launch was from pad a same pad as were

25

00:02:23,729 --> 00:02:21,640

using today on April 12 1981 it deployed

26

00:02:26,160 --> 00:02:23,739

the first satellite in the space shuttle

27

00:02:31,470 --> 00:02:26,170

program on STS 5 and then flew the first

28

00:02:33,690 --> 00:02:31,480

Spacelab mission on sts9 Columbia is

29

00:02:39,030 --> 00:02:33,700

named after a small sailing vessel that

30

00:02:42,780 --> 00:02:39,040

was based in Boston Harbor in 1792 and

31

00:02:44,280 --> 00:02:42,790

another one of Columbia's claims is that

32

00:02:47,699 --> 00:02:44,290

it brought back the long-duration

33

00:02:49,619 --> 00:02:47,709

exposure facility from space after

34

00:02:55,080 --> 00:02:49,629

almost

35

00:03:18,649 --> 00:02:55,090

six years in space we see our commander

36

00:03:31,229 --> 00:03:21,630

and Jim Hall cell was phone previously

37

00:03:36,539 --> 00:03:31,239

on STS 65 and STS 74 there's our pilot

38

00:03:39,949 --> 00:03:36,549

Susan still second female pilot to fly

39

00:03:50,410 --> 00:03:42,949

graduate of Embry-Riddle Aeronautical

40

00:04:02,860 --> 00:03:54,460

Janice Voss our payload commander on

41

00:04:05,350 --> 00:04:02,870

this mission she's logged more than 18

42

00:04:08,260 --> 00:04:05,360

days in space this is her third space

43

00:04:12,699 --> 00:04:08,270

shuttle flight having flown on STS 57

44

00:04:16,960 --> 00:04:12,709

and STS 63 and mission specialist number

45

00:04:20,500 --> 00:04:16,970

three or other payload specialist number

46

00:04:23,440 --> 00:04:20,510

one I'm sorry Roger Crouch will be

47

00:04:25,930 --> 00:04:23,450

responsible for much of the science

48

00:04:31,629 --> 00:04:25,940

operations onboard the microgravity

49

00:04:41,900 --> 00:04:31,639

space lab this is his first space

50

00:04:46,739 --> 00:04:44,549

my gern heart

51
00:04:55,259 --> 00:04:46,749
mission specialist number two and also

52
00:05:06,270 --> 00:04:55,269
our flight engineer for STS 83 here's

53
00:05:10,500 --> 00:05:08,760
you know specialist number two his first

54
00:05:12,320 --> 00:05:10,510
light into space also responsible for

55
00:05:17,970 --> 00:05:12,330
much of the science onboard the

56
00:05:20,760 --> 00:05:17,980
microgravity science laboratory here's

57
00:05:30,000 --> 00:05:20,770
Don Thomas once again mission specialist

58
00:05:33,000 --> 00:05:30,010
number three we're standing by now to

59
00:05:35,850 --> 00:05:33,010
come out of this to our built-in hold in

60
00:05:38,760 --> 00:05:35,860
just a few moments coming out in four

61
00:05:41,310 --> 00:05:38,770
three two one

62
00:05:50,850 --> 00:05:41,320
we're now at t-minus three hours and

63
00:05:55,830 --> 00:05:52,890

this is shuttle launch control at

64

00:05:56,459 --> 00:05:55,840

t-minus two hours 58 minutes 30 seconds

65

00:06:02,640 --> 00:05:56,469

and counting

66

00:06:06,499 --> 00:06:02,650

and we see the STS 83 crew has just left

67

00:06:09,869 --> 00:06:06,509

the suit-up room headed for the elevator

68

00:06:12,290 --> 00:06:09,879

be heading down to the third floor to

69

00:06:22,850 --> 00:06:12,300

the first floor board the astronaut then

70

00:06:27,770 --> 00:06:25,580

meanwhile out at the launch pad the

71

00:06:29,570 --> 00:06:27,780

final inspection team has just reported

72

00:06:34,490 --> 00:06:29,580

that their activities are complete and

73

00:06:39,679 --> 00:06:34,500

they're leaving the pad and in just a

74

00:06:42,529 --> 00:06:39,689

moment we should see the crew many KSC

75

00:06:43,640 --> 00:06:42,539

employees and well-wishers waiting to

76

00:06:46,950 --> 00:06:43,650

greet them as they come out of the

77

00:06:46,960 --> 00:07:22,719

and here they come

78

00:07:43,360 --> 00:07:33,329

a larger than usual contingent Chloe's

79

00:07:45,969 --> 00:07:43,370

wishing them well this is shuttle launch

80

00:07:49,600 --> 00:07:45,979

control at t-minus two hours 37 minutes

81

00:07:53,049 --> 00:07:49,610

30 seconds in counting the astronauts

82

00:07:54,670 --> 00:07:53,059

have arrived at the 195-foot level of

83

00:08:01,679 --> 00:07:54,680

the fixed service structure where the

84

00:08:05,769 --> 00:08:01,689

orbiter access arm is located and the

85

00:08:07,769 --> 00:08:05,779

commander and pilot will walk across the

86

00:08:11,920 --> 00:08:07,779

arm shortly to begin their boarding

87

00:08:14,529 --> 00:08:11,930

while the other crew members await their

88

00:08:17,769 --> 00:08:14,539

turn either out on the alarm or on the

89

00:08:20,589 --> 00:08:17,779

fixed service structure and as we've

90

00:08:23,860 --> 00:08:20,599

been able to tell their early enjoying

91

00:08:26,769 --> 00:08:23,870

the very nice day out the pad to take

92

00:08:28,389 --> 00:08:26,779

advantage of looking at space shuttle

93

00:08:34,600 --> 00:08:28,399

Columbia being prepared in the last

94

00:08:46,100 --> 00:08:34,610

hours here for flight to need a lot of

95

00:08:50,150 --> 00:08:47,930

all activities proceeding on schedule

96

00:08:53,329 --> 00:08:50,160

were not working any issues whether it

97

00:08:57,259 --> 00:08:53,339

continues to be cooperative at least at

98

00:08:59,480 --> 00:08:57,269

this point in time at t minus 59 minutes

99

00:09:19,000 --> 00:08:59,490

and Counting this is shuttle launch

100

00:09:23,800 --> 00:09:21,579

okay this is really watch that

101

00:09:25,120 --> 00:09:23,810

extract all stations verify later Brazil

102

00:09:29,860 --> 00:09:25,130

count and go for launch

103

00:09:35,400 --> 00:09:29,870

OTC so this is the copy TBC this is a go

104

00:09:37,689 --> 00:09:35,410

collage PTC PTC is go LPS you took quite

105

00:09:41,079 --> 00:09:37,699

agent why you go copy

106

00:09:45,840 --> 00:09:41,089

Tyler I let go STM go

107

00:09:45,850 --> 00:09:59,069

copy CDR LRD do you still alive

108

00:10:03,430 --> 00:10:01,329

anybody start the main engine helium

109

00:10:14,230 --> 00:10:03,440

purge sequence preparing for main engine

110

00:10:14,240 --> 00:10:18,840

fill up the soca quick before and

111

00:10:22,990 --> 00:10:20,980

now we'll be checking the flight

112

00:10:31,790 --> 00:10:23,000

controls on the orbiter zero surface

113

00:10:46,519 --> 00:10:34,490

vehicle will go to internal power at

114

00:10:53,220 --> 00:10:50,310

coming up on t minus three minutes 23

115

00:10:55,800 --> 00:10:53,230

seconds were now killing three main

116

00:11:04,819 --> 00:10:55,810

engines checking their steering

117

00:11:10,350 --> 00:11:08,309

next activity will be to pressurize the

118

00:11:17,410 --> 00:11:10,360

liquid oxygen tank on the external tank

119

00:11:29,319 --> 00:11:19,569

and we'll start the retraction of the

120

00:11:31,329 --> 00:11:29,329

jocks beanie cap dlp OTC episode of

121

00:11:40,820 --> 00:11:31,339

credit caution warning memory ability no

122

00:11:52,200 --> 00:11:42,680

topping off of the fuel cells being

123

00:11:59,380 --> 00:11:57,400

Claire not I guess I companies like to

124

00:12:01,810 --> 00:11:59,390

it will go to close and lock your visors

125

00:12:05,460 --> 00:12:01,820

and make sure you don't keep flow and

126

00:12:07,960 --> 00:12:05,470

enjoy your on orbit spring break

127

00:12:09,700 --> 00:12:07,970

Roger that sir we'd like to say thanks

128

00:12:19,660 --> 00:12:09,710

to everybody who has guts laughs yes

129

00:12:23,050 --> 00:12:19,670

Ashley yeah let's go to LA to pursue

130

00:12:32,120 --> 00:12:23,060

station pressurizing the hydrogen tank

131

00:12:42,320 --> 00:12:33,930

replenishing the liquid hydrogen tank

132

00:12:42,330 --> 00:12:51,240

t-minus one minute 30 seconds

133

00:13:12,840 --> 00:12:53,460

standing by now to arm the sound

134

00:13:20,610 --> 00:13:17,940

t-minus one minute solid rocket booster

135

00:13:27,060 --> 00:13:20,620

joint heaters being turned off final

136

00:13:34,220 --> 00:13:27,070

check now the booster commands Locsin LH

137

00:13:45,290 --> 00:13:38,480

payload bay vent doors are positioned

138

00:13:54,860 --> 00:13:47,790

and the handoff Haskin occurred

139

00:13:58,680 --> 00:13:54,870

Columbia's computers now controlling 20

140

00:14:00,210 --> 00:13:58,690

firing chain is our that was the

141

00:14:07,620 --> 00:14:00,220

threshing water system activated

142

00:14:12,390 --> 00:14:07,630

rain safety systems arm ignition

143

00:14:16,380 --> 00:14:12,400

sequence start five four three two one

144

00:14:18,540 --> 00:14:16,390

and liftoff of space shuttle Columbia

145

00:14:20,460 --> 00:14:18,550

with the microgravity science laboratory

146

00:14:29,290 --> 00:14:20,470

our research bridge to the space

147

00:14:31,400 --> 00:14:29,300

benefits of tomorrow Roger roll Columbia

148

00:14:33,829 --> 00:14:31,410

Houston is now controlling Colombia is

149

00:14:35,780 --> 00:14:33,839

rolling on course Twitter 160 nautical

150

00:14:37,579 --> 00:14:35,790

mile high a little bit to kinda clean

151
00:14:39,800 --> 00:14:37,589
half degrees to our seat later

152
00:14:49,129 --> 00:14:39,810
I'm the already traveling 300 miles per

153
00:14:50,660 --> 00:14:49,139
hour these three engines throttle back

154
00:14:52,460 --> 00:14:50,670
to two thirds throttle to prepare the

155
00:14:55,189 --> 00:14:52,470
spacecraft capacity area of maximum air

156
00:14:56,780 --> 00:14:55,199
pressure and go supersonic altitude now

157
00:14:59,240 --> 00:14:56,790
two and a half miles one and a half

158
00:15:27,299 --> 00:14:59,250
miles east of the launch pad Columbia is

159
00:15:32,289 --> 00:15:30,639
one minute 55 seconds since liftoff my

160
00:15:34,689 --> 00:15:32,299
controllers standing by next to a few

161
00:15:42,480 --> 00:15:34,699
seconds for burnout and jettison of the

162
00:15:48,180 --> 00:15:44,700
booster officer confirms good separation

163
00:15:53,250 --> 00:15:48,190

of the solid rocket s-- columbia

164

00:15:54,600 --> 00:15:53,260
performance is nominal that call

165

00:15:56,370 --> 00:15:54,610
indicating that Columbia's performance

166

00:15:59,190 --> 00:15:56,380
as far as just as planned altitude now

167

00:16:01,590 --> 00:15:59,200
34 miles Columbia is traveling 3,000

168

00:16:06,449 --> 00:16:01,600
miles per hour 42 miles east to the

169

00:16:08,400 --> 00:16:06,459
Kennedy Space Center six and a half

170

00:16:15,300 --> 00:16:08,410
minutes since launch two minutes to cut

171

00:16:18,050 --> 00:16:15,310
off of the main engines booster officer

172

00:16:20,340 --> 00:16:18,060
confirms cut off of the main engines

173

00:16:21,840 --> 00:16:20,350
Columbia we showed a nominal Miko almost

174

00:17:10,069 --> 00:16:21,850
one is not required to have a go for the

175

00:17:30,580 --> 00:17:18,360
rolls commanded fill a gap Justin Sacher

176

00:17:30,590 --> 00:17:36,149

three engines throttling 67 30 seconds

177

00:17:50,590 --> 00:17:45,249

tape check at Mach 1 coming up for Mach

178

00:17:58,180 --> 00:17:50,600

1 mark thanks to be about max dynamic

179

00:18:13,969 --> 00:17:58,190

pressure looking for 1.3 30,000 feet

180

00:18:29,750 --> 00:18:18,779

50,000 feet coming up on Monty got a go

181

00:18:37,100 --> 00:18:32,840

seventy-five thousand feet ninety

182

00:18:53,950 --> 00:18:37,110

seconds happy thank you my dad's getting

183

00:19:05,710 --> 00:19:04,450

they're often the SRBs Mike or Destin 50

184

00:19:09,669 --> 00:19:05,720

it's pretty cool

185

00:19:13,720 --> 00:19:09,679

Debbie well Wow that impressive or what

186

00:19:14,680 --> 00:19:13,730

1 over 300 and never second it goes

187

00:19:25,289 --> 00:19:14,690

converged

188

00:19:47,169 --> 00:19:39,850

shut up we have 25 like in the ice yeah

189

00:21:48,910 --> 00:19:47,179

I'll be standing by for my maneuver they

190

00:21:53,050 --> 00:21:50,980

and Columbia Houston yes Susan you ever

191

00:23:08,180 --> 00:21:53,060

go to press that to push that circuit

192

00:23:08,190 --> 00:23:24,020

please to Colombia for tips activation

193

00:23:45,910 --> 00:23:26,510

and good afternoon Roger good to see you

194

00:24:17,390 --> 00:23:48,950

great to be here much hi there's a lot

195

00:24:21,410 --> 00:24:19,040

this is Mission Control Houston we

196

00:24:23,180 --> 00:24:21,420

continue to take live video through the

197

00:24:26,870 --> 00:24:23,190

high PAC television system of the

198

00:24:30,320 --> 00:24:26,880

mid-deck area of Columbia and view

199

00:24:35,260 --> 00:24:30,330

astronauts Don Thomas and Greg Glenn

200

00:24:37,910 --> 00:24:35,270

Terrace who are working some photo

201
00:24:44,080 --> 00:24:37,920
documentation activities with one of the

202
00:25:06,289 --> 00:24:46,850
Columbia's currently approaching the

203
00:25:11,959 --> 00:25:09,049
we are live with you on TV see number

204
00:25:14,509 --> 00:25:11,969
one and I want to ask you a question we

205
00:25:16,609 --> 00:25:14,519
do see an image on the viewfinder above

206
00:25:18,949 --> 00:25:16,619
TVC number two which we thought was in

207
00:25:21,589 --> 00:25:18,959
operational can you confirm that you are

208
00:25:26,209 --> 00:25:21,599
seeing an image or if the quality of the

209
00:25:29,089 --> 00:25:26,219
image well you guys have good eyes to

210
00:25:31,190 --> 00:25:29,099
pick that up we do have a good image up

211
00:25:33,529 --> 00:25:31,200
there good quality image on TVC and

212
00:25:35,570 --> 00:25:33,539
number two the monitor is there and when

213
00:25:36,919 --> 00:25:35,580

I came back from lunch you know it just

214

00:27:10,080 --> 00:25:36,929

an hour an hour and a half ago that

215

00:27:10,090 --> 00:27:15,870

from self space therefore Express

216

00:27:20,770 --> 00:27:18,909

Katrina mo - to the checkout of

217

00:27:22,690 --> 00:27:20,780

experiment power is complete and

218

00:27:24,220 --> 00:27:22,700

everything looks good unexpressed as you

219

00:27:26,230 --> 00:27:24,230

know this is one of our premier

220

00:27:28,510 --> 00:27:26,240

facilities that will be flying on space

221

00:27:30,880 --> 00:27:28,520

station shortly in a few years here and

222

00:27:33,190 --> 00:27:30,890

we'll have up to eight of these up on

223

00:27:34,750 --> 00:27:33,200

board at any given time and this is the

224

00:27:36,070 --> 00:27:34,760

first check out up of them and

225

00:27:37,890 --> 00:27:36,080

everything that's looking great on it so

226

00:27:40,419 --> 00:27:37,900

far we're really excited about flying

227

00:28:53,450 --> 00:27:40,429

actually to the space station on our

228

00:29:05,850 --> 00:28:57,539

so I feel that step travel or that

229

00:29:08,129 --> 00:29:05,860

Beaufort is complete okay we copy that

230

00:29:20,980 --> 00:29:08,139

Greg and when you're ready I'll tell you

231

00:29:25,930 --> 00:29:23,470

igniters swung into position flame is

232

00:29:30,500 --> 00:29:25,940

there we're way past the stood point on

233

00:29:35,360 --> 00:29:32,930

okay we're going down oh it looks like

234

00:29:37,909 --> 00:29:35,370

the cloning is simply no no we still

235

00:29:40,880 --> 00:29:37,919

can't find it it's still sitting and

236

00:29:42,530 --> 00:29:40,890

we're at the minimum flow rate is we

237

00:29:44,270 --> 00:29:42,540

almost made it one or two more clicks

238

00:29:54,230 --> 00:29:44,280

and it would have been below the support

239

00:29:54,240 --> 00:30:30,330

it's very steady

240

00:30:46,390 --> 00:30:33,940

hey pentalpha Greg he's happy with the

241

00:30:48,250 --> 00:30:46,400

pressure he's in printed copy in

242

00:30:51,520 --> 00:30:48,260

Colombia were two minutes to the I OS

243

00:31:01,950 --> 00:30:51,530

we'll be back with you at 2154 and we'll

244

00:31:06,190 --> 00:31:04,540

lets go stay there for DG post Jeff

245

00:31:13,690 --> 00:31:06,200

doesn't want to close the only option

246

00:31:18,300 --> 00:31:13,700

under that old cursing is move okay

247

00:31:18,310 --> 00:31:42,049

and then select it

248

00:31:54,130 --> 00:31:46,270

to get a chance with getaway

249

00:31:59,730 --> 00:31:54,140

all right very good base level for

250

00:32:07,660 --> 00:32:04,200

okay Janice clear that message put the

251
00:32:09,880 --> 00:32:07,670
cursor over the word please and press

252
00:32:12,010 --> 00:32:09,890
shift and the left mouse button that

253
00:32:13,570 --> 00:32:12,020
will clear the message and then we're

254
00:32:19,360 --> 00:32:13,580
working out a small procedure if you

255
00:32:20,800 --> 00:32:19,370
didn't off nominal power down okay there

256
00:32:24,010 --> 00:32:20,810
clear the message thanks and I'll stand

257
00:32:25,120 --> 00:32:24,020
by just the information that

258
00:32:27,310 --> 00:32:25,130
configuration you can see in the

259
00:32:29,710 --> 00:32:27,320
downlink the igniters are out of a

260
00:32:33,940 --> 00:32:29,720
needles at the dispense position for the

261
00:32:36,160 --> 00:32:33,950
poi position and first step two of the

262
00:32:39,270 --> 00:32:36,170
power down switch two and one are now

263
00:33:29,200 --> 00:32:39,280

off so other three circuit breakers are

264

00:33:29,210 --> 00:35:41,950

the Magnificent checkout

265

00:35:48,319 --> 00:35:44,239

one thing you can see if you look out

266

00:35:52,490 --> 00:35:48,329

the right-hand side not passing directly

267

00:35:52,500 --> 00:35:56,370

let's gonna start here language screen

268

00:36:02,770 --> 00:36:00,310

what's around me - my altitude now

269

00:36:04,180 --> 00:36:02,780

now the beach 65 miles and we're doing

270

00:36:58,100 --> 00:36:04,190

18,000 miles an hour

271

00:38:26,960 --> 00:37:02,230

stuff that I heard 27 on the past

272

00:38:26,970 --> 00:38:35,120

right

273

00:38:35,130 --> 00:38:41,440

now

274

00:38:41,450 --> 00:38:54,010

mm Claire

275

00:38:54,020 --> 00:39:10,579

five hundred

276

00:39:18,360 --> 00:39:13,190

forty to forty thirty to thirty five

277

00:39:24,480 --> 00:39:18,370

twenty to thirty fifteen to twenty

278

00:39:28,620 --> 00:39:24,490

five to five touchdown 195 shoot one

279

00:39:37,890 --> 00:39:28,630

eighty five zero take half one one and a

280

00:39:37,900 --> 00:39:47,549

breaking 7,000

281

00:39:47,559 --> 00:40:19,390

that was smooth Jim right on the money

282

00:40:19,400 --> 00:40:31,210

Weil stash

283

00:40:40,760 --> 00:40:33,710

let me houston energy ground track and

284

00:40:42,530 --> 00:40:40,770

never go that call from Mission Control

285

00:40:43,160 --> 00:40:42,540

indicating that Columbia is right on

286

00:40:45,590 --> 00:40:43,170

course

287

00:40:48,070 --> 00:40:45,600

with its current speed and altitude and

288

00:40:54,579 --> 00:40:48,080

ground track all run on target for

289

00:40:58,029 --> 00:40:56,680

this a view from the Kennedy Space

290

00:41:00,640 --> 00:40:58,039

Center now showing Columbia as it

291

00:41:11,339 --> 00:41:00,650

approaches Columbia's range to touchdown

292

00:41:15,269 --> 00:41:14,140

speed seven hundred and ninety miles per

293

00:41:21,640 --> 00:41:15,279

hour

294

00:41:23,620 --> 00:41:21,650

altitude 56,000 feet the vehicles been

295

00:41:25,569 --> 00:41:23,630

at about one G for the past minute or so

296

00:41:27,759 --> 00:41:25,579

as it flew basically a straight line to

297

00:41:30,160 --> 00:41:27,769

hack intercept now as it rolls on to the

298

00:41:32,650 --> 00:41:30,170

hack the G level will increase a little

299

00:41:39,880 --> 00:41:32,660

bit would be about one but one and a

300

00:41:42,160 --> 00:41:39,890

half G's to the D condition bodies of

301

00:41:44,130 --> 00:41:42,170

the astronauts that one and a half G's

302

00:41:48,609 --> 00:41:44,140

feels more like around three or four G's

303

00:41:50,709 --> 00:41:48,619

had they been in condition Columbia is

304

00:41:54,130 --> 00:41:50,719

now performing a right overhead turn to

305

00:42:06,380 --> 00:41:54,140

align with the runway with 150 degrees

306

00:42:06,390 --> 00:42:10,780

Lumbees altitude

307

00:42:10,790 --> 00:42:49,940

19500 feet speed 425 miles per 90

308

00:43:07,370 --> 00:42:55,069

you can access our reports landing gear

309

00:43:07,380 --> 00:43:14,710

a drag chute deployed

310

00:43:14,720 --> 00:44:02,080

that is gear touchdown

311

00:44:08,060 --> 00:44:06,680

well that Colombia welcome home you're

312

00:44:13,100 --> 00:44:08,070

landing in the orbit look great

313

00:44:14,830 --> 00:44:13,110

no post-landing deltas how did that

314

00:44:17,660 --> 00:44:14,840

thank you

315

00:44:18,820 --> 00:44:17,670

convoy vehicles are now moving in toward

316

00:44:21,380 --> 00:44:18,830

Colombia