



1
00:00:16,209 --> 00:00:13,930
we are going to extend the built-in hold

2
00:00:33,120 --> 00:00:16,219
that we are presently in the three hour

3
00:00:39,430 --> 00:00:36,820
the crew has a wide variety of breakfast

4
00:00:42,250 --> 00:00:39,440
items to choose from ranging from cold

5
00:00:50,970 --> 00:00:42,260
cereal to steak and eggs juice milk and

6
00:00:55,540 --> 00:00:50,980
other beverages from from left to right

7
00:00:58,750 --> 00:00:55,550
we have mission specialist George pinky

8
00:01:01,229 --> 00:00:58,760
Nelson Nelson earned a PhD in astronomy

9
00:01:04,570 --> 00:01:01,239
from the University of Washington in

10
00:01:10,660 --> 00:01:04,580
1978 and he's flown twice as a mission

11
00:01:13,240 --> 00:01:10,670
specialist pilot dick Covey 42 he flew

12
00:01:16,080 --> 00:01:13,250
as a pilot on 51 I mission aboard

13
00:01:20,170 --> 00:01:16,090

discovery at the end of August and

14
00:01:21,460 --> 00:01:20,180
beginning of September in 1985 commander

15
00:01:29,870 --> 00:01:21,470
Rick hawk

16
00:01:38,810 --> 00:01:37,640
Dave Hill MERS mission specialist in my

17
00:01:41,149 --> 00:01:38,820
clowns

18
00:01:47,690 --> 00:01:41,159
mission specialist completing the the

19
00:01:49,999 --> 00:01:47,700
crew even though we have been holding we

20
00:01:54,950 --> 00:01:50,009
have continued with some of the tasks

21
00:01:56,570 --> 00:01:54,960
that need to be conducted the there in

22
00:01:59,830 --> 00:01:56,580
the process of putting on the pressure

23
00:02:03,230 --> 00:01:59,840
suits that the the crew will wear on

24
00:02:05,990 --> 00:02:03,240
future missions this particular suit

25
00:02:09,710 --> 00:02:06,000
room there's mission specialist pinky

26
00:02:13,009 --> 00:02:09,720
Nelson who has on his launch and entry

27
00:02:16,820 --> 00:02:13,019
helmet Dave Hill MERS who is in the

28
00:02:20,020 --> 00:02:16,830
process of completing his suiting up

29
00:02:24,229 --> 00:02:20,030
process as well in the foreground

30
00:02:28,699 --> 00:02:24,239
commander Rick house in the the process

31
00:02:33,830 --> 00:02:28,709
of putting on his pressure suit and then

32
00:02:37,490 --> 00:02:33,840
in the background you can see mission

33
00:02:41,300 --> 00:02:37,500
specialist Mike lounge waving at the

34
00:03:01,180 --> 00:02:41,310
camera there and the the other crew

35
00:03:08,440 --> 00:03:04,190
we fight to emerging from the elevator

36
00:03:09,620 --> 00:03:08,450
and on their way out the door now led by

37
00:03:15,670 --> 00:03:09,630
security

38
00:03:18,979 --> 00:03:15,680

they commander this counts pilots cubby

39

00:03:22,470 --> 00:03:18,989

nice lines

40

00:03:27,319 --> 00:03:22,480

mouthng followed by John huddy

41

00:03:33,089 --> 00:03:27,329

who is the head of the high school

42

00:03:36,960 --> 00:03:33,099

office in the Johnson Space Center proud

43

00:03:40,830 --> 00:03:36,970

of news media representatives also there

44

00:03:46,220 --> 00:03:40,840

to the document they are leaving the

45

00:03:58,409 --> 00:03:46,230

crew now in the the Astros and and

46

00:04:02,399 --> 00:03:58,419

preparing to close the door the Astro

47

00:04:05,940 --> 00:04:02,409

van now on the the pad surface and the

48

00:04:09,649 --> 00:04:05,950

crew ready to get out they'll be met by

49

00:04:28,600 --> 00:04:09,659

a couple of the closeout crew

50

00:04:33,950 --> 00:04:31,309

this is shuttle launch control at

51
00:04:37,760 --> 00:04:33,960
t-minus two hours 27 minutes and

52
00:04:40,969 --> 00:04:37,770
Counting commander Rick Hulk in the

53
00:04:45,050 --> 00:04:40,979
white room where he is completing the

54
00:04:50,270 --> 00:04:45,060
suiting up process obviously had either

55
00:04:55,570 --> 00:04:50,280
brought along or was handed a a gag set

56
00:04:58,999 --> 00:04:55,580
of glasses and which he did try on there

57
00:05:02,119 --> 00:04:59,009
the team helping take off the protective

58
00:05:03,920 --> 00:05:02,129
booties which have been on the boots

59
00:05:07,100 --> 00:05:03,930
that he wears as part of the pressure

60
00:05:11,800 --> 00:05:07,110
suit shaking hands with the the closeout

61
00:06:13,840 --> 00:05:11,810
crew and obviously being wished luck

62
00:06:20,230 --> 00:06:17,390
dave was a US Marine pilot prior to

63
00:06:26,440 --> 00:06:20,240

joining NASA and he logged more than

64

00:06:31,940 --> 00:06:26,450

1500 hours long town follows one two

65

00:06:35,720 --> 00:06:31,950

three four five six this is shuttle

66

00:06:37,370 --> 00:06:35,730

launch control at t-minus 20 minutes 48

67

00:06:40,730 --> 00:06:37,380

seconds and counting

68

00:06:44,480 --> 00:06:40,740

we're just a few seconds away now from

69

00:07:19,790 --> 00:06:44,490

the t-minus 20 minute hold and we will

70

00:07:21,860 --> 00:07:19,800

stop the clock at that point this is the

71

00:07:23,930 --> 00:07:21,870

walkway used by the astronauts they

72

00:07:25,940 --> 00:07:23,940

enter the orbiter in case of an

73

00:07:46,370 --> 00:07:25,950

emergency the arm can be placed back

74

00:07:53,910 --> 00:07:49,620

coming up on the four-minute point in

75

00:07:56,580 --> 00:07:53,920

the count the orbiter flight control

76
00:07:58,050 --> 00:07:56,590
surfaces such as Elavon speed brakes and

77
00:08:00,450 --> 00:07:58,060
rudders are now being moved through a

78
00:08:02,430 --> 00:08:00,460
three pre-programmed pattern that's all

79
00:08:05,330 --> 00:08:02,440
three engines now being moved in a

80
00:08:08,370 --> 00:08:05,340
pattern to verify their readiness to

81
00:08:10,140 --> 00:08:08,380
support the ascent flight control after

82
00:08:15,230 --> 00:08:10,150
going through their paces they'll be

83
00:08:26,970 --> 00:08:18,090
coming up on the 2-minute point in our

84
00:08:33,100 --> 00:08:30,210
t-minus two minutes and Counting

85
00:08:37,600 --> 00:08:33,110
the orbiter computers have positioned

86
00:08:39,850 --> 00:08:37,610
the vent doors t-minus 31 seconds we

87
00:08:41,890 --> 00:08:39,860
have a goal for autosequence start

88
00:08:45,520 --> 00:08:41,900

Discovery's for redundant computers have

89
00:08:49,950 --> 00:08:45,530
assumed t-minus 23 seconds and counting

90
00:08:58,840 --> 00:08:49,960
the s are being the nozzles profile

91
00:08:59,860 --> 00:08:58,850
t-minus 15 14 13 12 11 10 or go for main

92
00:09:12,070 --> 00:08:59,870
engine start

93
00:09:17,320 --> 00:09:12,080
seven six Americans return to space as

94
00:09:20,910 --> 00:09:17,330
discovery clears the tower crew confirms

95
00:09:20,920 --> 00:09:26,569
three inches 104 percent

96
00:09:36,580 --> 00:09:30,880
three good ABS three good yourselves

97
00:09:48,040 --> 00:09:36,590
my to begin throttle down to 65% just

98
00:09:58,000 --> 00:09:48,050
funneling down this room execute three

99
00:10:06,610 --> 00:10:00,050
anything my to see engines begin to

100
00:10:11,750 --> 00:10:09,680
mark one minute quantity 2300 feet per

101
00:10:18,880 --> 00:10:11,760
second altitude 5.9 nautical miles

102
00:10:18,890 --> 00:10:25,420
Discovery know what throttle up

103
00:10:30,320 --> 00:10:27,380
discovery giving a go at throttle up

104
00:10:32,480 --> 00:10:30,330
three engines 104 percent velocity 3200

105
00:10:34,460 --> 00:10:32,490
feet per second altitude 10.8 nautical

106
00:10:44,170 --> 00:10:34,470
miles downrange distance 8 nautical

107
00:10:52,610 --> 00:10:46,550
25 seconds from solid rocket booster

108
00:10:59,150 --> 00:10:52,620
separation one minute 45 seconds three

109
00:11:00,950 --> 00:10:59,160
engines 104 percent velocity 4800 feet

110
00:11:04,690 --> 00:11:00,960
per second altitude 20 nautical miles

111
00:11:06,800 --> 00:11:04,700
downrange distance 19 nautical miles

112
00:11:20,939 --> 00:11:06,810
standing by for solid rocket booster

113
00:11:28,979 --> 00:11:27,059

solid rocket boosters have separated two

114

00:11:40,450 --> 00:11:28,989

minutes 20 seconds three engines still

115

00:12:17,010 --> 00:11:42,610

discovery used it here go for the breed

116

00:15:54,910 --> 00:12:25,810

discovery Houston that discovery you are

117

00:15:54,920 --> 00:17:03,570

looks great Michael

118

00:17:31,669 --> 00:17:17,149

you

119

00:17:44,720 --> 00:17:41,540

good morning Discovery good morning

120

00:17:52,470 --> 00:17:50,010

good morning discovery rise and shine

121

00:17:55,200 --> 00:17:52,480

boys time to stop doing that shuttle

122

00:17:56,760 --> 00:17:55,210

shuffle you know what I mean hey here's

123

00:17:59,549 --> 00:17:56,770

a little song coming from the billions

124

00:18:32,820 --> 00:17:59,559

of us to the five of you Rick start them

125

00:19:11,400 --> 00:18:32,830

off baby the hawkster to you just give

126
00:19:11,410 --> 00:20:59,220
and discovery with that

127
00:21:28,440 --> 00:21:08,590
they'll be happy about that

128
00:21:28,450 --> 00:21:33,800
okay thank you appreciate that

129
00:21:40,410 --> 00:21:36,680
okay guess that looks like it's an LS

130
00:21:58,970 --> 00:21:40,420
will continue with your carcass we

131
00:22:07,539 --> 00:22:01,280
this is Mission Control the procedure

132
00:22:11,090 --> 00:22:07,549
worked the antenna dish is locked in and

133
00:23:53,330 --> 00:22:11,100
the antenna arm is being moved in to the

134
00:23:53,340 --> 00:24:32,700
round orbit round

135
00:25:51,400 --> 00:24:42,210
so come on it discovery Houston good

136
00:25:58,460 --> 00:25:55,760
the intention of this experiment is to

137
00:26:01,370 --> 00:25:58,470
heat up a titanium alloy when gravity

138
00:26:03,290 --> 00:26:01,380

environment served what fix will happen

139

00:26:08,000 --> 00:26:03,300

to the strength of the middle and grain

140

00:26:11,050 --> 00:26:08,010

size what do you expect I'm hoping for

141

00:26:33,410 --> 00:26:11,060

our stronger metal and more pyramidal

142

00:26:38,420 --> 00:26:35,090

doesn't look like it has the same amount

143

00:27:09,810 --> 00:26:38,430

of curl does it bud no it's not turning

144

00:27:09,820 --> 00:29:04,820

Oh

145

00:29:08,190 --> 00:29:06,650

every Houston thank you very much for

146

00:29:09,810 --> 00:29:08,200

that letter I think

147

00:29:25,220 --> 00:29:09,820

he's expressing the cares and thoughts

148

00:29:29,639 --> 00:29:28,950

designed by rich dilatory Richard

149

00:29:33,620 --> 00:29:29,649

Cavalli

150

00:29:37,990 --> 00:29:33,630

who went to Union College and connected

151
00:29:43,330 --> 00:29:40,660
these experiments that moved up to

152
00:29:45,890 --> 00:29:43,340
succeed in college and our medical

153
00:29:45,900 --> 00:29:54,270
this experiment can fit

154
00:30:04,110 --> 00:29:56,010
of the tree and I'll be one more here on

155
00:30:04,120 --> 00:30:07,250
if the

156
00:30:14,660 --> 00:30:10,160
dude with a number of chamber

157
00:30:21,320 --> 00:30:14,670
one side is half the state and the other

158
00:30:21,330 --> 00:30:27,090
Laurie

159
00:30:35,020 --> 00:30:30,120
neighbors are separated by what's bad a

160
00:30:35,030 --> 00:30:39,950
service that looks kind of like that

161
00:31:02,610 --> 00:30:41,810
that surface test we're going to react

162
00:31:08,550 --> 00:31:06,210
I need that premium to do this though

163
00:31:12,030 --> 00:31:08,560

the LP heavy will

164

00:31:14,550 --> 00:31:12,040

when one here yeah no I'm doing it it's

165

00:31:26,970 --> 00:31:14,560

retracting about the block don't know

166

00:31:29,270 --> 00:31:26,980

one size 11 solution to make the

167

00:31:35,280 --> 00:31:29,280

Discovery's payload Bay facing the earth

168

00:31:37,740 --> 00:31:35,290

over the Cape I thank my wife the

169

00:31:39,530 --> 00:31:37,750

daughter is out there so please get the

170

00:31:48,240 --> 00:31:39,540

hello for me

171

00:31:52,950 --> 00:31:51,419

discovery passing along at about 17,500

172

00:31:54,869 --> 00:31:52,960

miles per hour

173

00:31:56,909 --> 00:31:54,879

it's for my instrumentation

174

00:32:00,480 --> 00:31:56,919

Communications Officer Harry black now

175

00:33:15,250 --> 00:32:00,490

has got a good view of the peninsula

176

00:33:15,260 --> 00:33:27,390

in our subjective evaluation

177

00:33:27,400 --> 00:33:33,540

okay brother CRC

178

00:33:33,550 --> 00:33:37,950

really

179

00:33:37,960 --> 00:33:48,930

not a realistic

180

00:33:48,940 --> 00:34:05,090

like him

181

00:34:10,960 --> 00:34:08,620

okay I still have a squeal I'm a squeal

182

00:34:34,000 --> 00:34:10,970

crowd noise when you do

183

00:34:34,010 --> 00:34:37,890

am I reading everything

184

00:34:37,900 --> 00:34:41,530

get a good center

185

00:34:41,540 --> 00:34:45,750

thank you really have to be

186

00:34:50,340 --> 00:34:47,370

bitters receivers probably could use

187

00:34:51,960 --> 00:34:50,350

another set down a bit

188

00:34:55,080 --> 00:34:51,970

give you an idea of some of the things

189

00:34:56,970 --> 00:34:55,090

that happen to be stuck in here most

190

00:34:59,400 --> 00:34:56,980

important for those of us who like to

191

00:35:01,350 --> 00:34:59,410

eat it is spoon it turns out the spoon

192

00:35:04,110 --> 00:35:01,360

is the universal utensil in space

193

00:35:05,880 --> 00:35:04,120

because just about everything will stick

194

00:35:09,110 --> 00:35:05,890

to it and now you can use that to get it

195

00:35:14,070 --> 00:35:12,120

flashlight light we use that to find a

196

00:35:21,530 --> 00:35:14,080

bathroom when we got to everything dark

197

00:35:21,540 --> 00:35:28,760

make changes that need to be erased and

198

00:35:38,100 --> 00:35:35,910

changes and Parker and has to make big

199

00:35:46,130 --> 00:35:38,110

big big changes that the commander can

200

00:35:48,960 --> 00:35:46,140

read them and and also I can't be a

201
00:35:50,760 --> 00:35:48,970
little bit of pity swiss pocket knife

202
00:35:52,760 --> 00:35:50,770
and i guess that's in case I get lost

203
00:35:55,470 --> 00:35:52,770
overboard can't find these other things

204
00:35:58,560 --> 00:35:55,480
the really interesting stuff though is

205
00:36:03,810 --> 00:35:58,570
not in the flats but in the pocket

206
00:36:09,380 --> 00:36:03,820
itself and well it's just go on a trip

207
00:36:15,300 --> 00:36:11,430
you still getting this okay Houston

208
00:36:17,610 --> 00:36:15,310
that's affirmative dick okay first thing

209
00:36:19,920 --> 00:36:17,620
that they come across is food and now

210
00:36:22,590 --> 00:36:19,930
you know there's all kinds of nuts and

211
00:36:24,840 --> 00:36:22,600
an M&E I'm just stepping and we packed

212
00:36:38,560 --> 00:36:24,850
those in their case FAO schedule just

213
00:36:38,570 --> 00:36:45,950

and then of course

214

00:36:52,970 --> 00:36:49,510

there's a there's a little tape recorded

215

00:36:56,450 --> 00:36:52,980

earphones takes even a little speaker in

216

00:36:59,630 --> 00:36:56,460

their case music get now we got a little

217

00:37:01,550 --> 00:36:59,640

Willie Nelson and some oldies and but

218

00:37:05,630 --> 00:37:01,560

goodies the commander would like to talk

219

00:37:26,300 --> 00:37:05,640

but he's all tied up he wanted to show

220

00:37:36,510 --> 00:37:33,990

yes up here down for former Capcom like

221

00:37:39,090 --> 00:37:36,520

the shore sample all that's very proud

222

00:37:42,840 --> 00:37:39,100

of my state efficient operation subtract

223

00:37:44,970 --> 00:37:42,850

it so we have our board here that mo

224

00:37:46,560 --> 00:37:44,980

these patch we're real proud to have

225

00:37:50,790 --> 00:37:46,570

brought up and we look forward to

226

00:37:52,890 --> 00:37:50,800

bringing it back to y'all and control DP

227

00:37:56,130 --> 00:37:52,900

when we come back we sure appreciate all

228

00:38:01,140 --> 00:37:56,140

that standing work y'all set at where we

229

00:38:02,310 --> 00:38:01,150

are today Rick that's coming in real

230

00:38:03,540 --> 00:38:02,320

clear and you've got a bunch of people

231

00:38:17,390 --> 00:38:03,550

applauding down here we really

232

00:39:25,110 --> 00:38:19,460

discovery is them with you through the

233

00:39:25,120 --> 00:40:53,410

baby

234

00:40:59,290 --> 00:40:56,380

discovery on behalf of the Challenger

235

00:41:00,100 --> 00:40:59,300

families and all of us down here here

236

00:41:01,650 --> 00:41:00,110

doesn't feel good

237

00:43:21,050 --> 00:41:01,660

see the Challenger vision continue

238

00:43:21,060 --> 00:43:49,339

indeed indeed

239

00:43:59,880 --> 00:43:51,170

I think maybe we need to start running

240

00:44:09,340 --> 00:44:02,549

I wish we had some Beach Boys music to

241

00:44:14,809 --> 00:44:11,960

here is we're going out the door to the

242

00:47:01,410 --> 00:44:16,880

okay one more time I wish we had the

243

00:47:05,800 --> 00:47:03,609

okay I thought I'd tell you a little bit

244

00:47:08,410 --> 00:47:05,810

about the fight station up here we've

245

00:47:12,220 --> 00:47:08,420

seen an awful lot of the experiments

246

00:47:15,760 --> 00:47:12,230

going on down the mid-deck and also out

247

00:47:19,300 --> 00:47:15,770

the window photography course going up

248

00:47:21,130 --> 00:47:19,310

and launch and coming back home the

249

00:47:22,990 --> 00:47:21,140

station's the commander's station that

250

00:47:27,010 --> 00:47:23,000

I'm sitting in and the pilot station to

251
00:47:30,280 --> 00:47:27,020
my right as well as Dave homers seat

252
00:47:32,170 --> 00:47:30,290
which is right in between us it's not up

253
00:47:34,870 --> 00:47:32,180
right now but he'd be sitting right here

254
00:47:36,900 --> 00:47:34,880
where he can monitor both of us are the

255
00:47:39,910 --> 00:47:36,910
ones that we control the shuttle from

256
00:47:43,120 --> 00:47:39,920
let me point out a few of the controls

257
00:47:46,870 --> 00:47:43,130
that we have first of all between my

258
00:47:49,000 --> 00:47:46,880
legs I have a stick like you would find

259
00:47:58,540 --> 00:47:49,010
in an airplane I'm going to move it up

260
00:48:02,050 --> 00:48:00,610
yeah I've got my left hand out and

261
00:48:05,770 --> 00:48:02,060
although I would normally fly with my

262
00:48:09,010 --> 00:48:05,780
right and like a normal airplane stick

263
00:48:11,530 --> 00:48:09,020

it can control the shuttle by rolling it

264

00:48:15,100 --> 00:48:11,540

left or right dipping the wings as it

265

00:48:18,280 --> 00:48:15,110

were pitching up or down moving the nose

266

00:48:20,350 --> 00:48:18,290

up or down also when we're on orbit

267

00:48:23,860 --> 00:48:20,360

using the reaction control system we can

268

00:48:27,420 --> 00:48:23,870

yaw the shuttle left or right by

269

00:48:30,610 --> 00:48:27,430

twisting the stick this way and that

270

00:48:33,730 --> 00:48:30,620

slices the nose left to right what an

271

00:48:39,640 --> 00:48:33,740

aerodynamic flight coming back in beyond

272

00:48:43,210 --> 00:48:39,650

function is not not using now we also

273

00:48:45,700 --> 00:48:43,220

have controls for the orbital

274

00:48:48,610 --> 00:48:45,710

maneuvering system engines the ones that

275

00:48:51,190 --> 00:48:48,620

will do our deorbit burn with dick

276

00:48:54,100 --> 00:48:51,200

coming over in the pilots side has most

277

00:48:55,690 --> 00:48:54,110

of the plumbing valves down here and my

278

00:49:00,880 --> 00:48:55,700

lower right however are the switches

279

00:49:03,490 --> 00:49:00,890

that we use to enable or as they say arm

280

00:49:05,770 --> 00:49:03,500

the old engines and then back working

281

00:49:09,340 --> 00:49:05,780

with the displays here and pushing some

282

00:49:11,590 --> 00:49:09,350

of our keys we can actually allow the

283

00:49:13,570 --> 00:49:11,600

computers to fire the Bureau of

284

00:49:21,850 --> 00:49:13,580

attendance for the prescribed amount of

285

00:49:24,010 --> 00:49:21,860

time this is probably not a one-man

286

00:49:26,050 --> 00:49:24,020

operation as you can see and we intend

287

00:49:34,759 --> 00:49:26,060

to help each other just like pinkies

288

00:49:40,380 --> 00:49:38,819

as you can see they see it it's a

289

00:49:42,749 --> 00:49:40,390

struggle to get into these things it

290

00:49:59,080 --> 00:49:42,759

doesn't take very long and they are warm

291

00:50:10,630 --> 00:50:01,130

discovery has been talking to you sir

292

00:50:14,410 --> 00:50:12,279

okay let them clear I understand you're

293

00:50:30,349 --> 00:50:14,420

through teachers and you're not getting

294

00:50:44,410 --> 00:50:32,910

Ricki have a go for a payload bay door

295

00:51:02,329 --> 00:50:51,760

that's a door operation for now

296

00:51:02,339 --> 00:51:12,030

discovery Houston go for deorbit burn

297

00:51:19,550 --> 00:51:14,190

this is Mission Control Houston we're

298

00:51:31,890 --> 00:51:22,080

propulsion systems officer reports were

299

00:51:50,780 --> 00:51:31,900

burning and looking good discovery

300

00:51:55,200 --> 00:51:53,250

Mission Control on NASA select

301
00:51:58,020 --> 00:51:55,210
television we're now taking a view from

302
00:52:01,280 --> 00:51:58,030
helicopter over the landing area we're

303
00:52:04,880 --> 00:52:01,290
looking at some of the 380,000 people

304
00:52:17,220 --> 00:52:04,890
gathered for the landing of discovery

305
00:52:19,500 --> 00:52:17,230
that kept that call from Capcom we've

306
00:52:21,660 --> 00:52:19,510
now acquired a signal a video signal

307
00:52:25,400 --> 00:52:21,670
from Vandenberg of discovery and she

308
00:52:29,910 --> 00:52:27,990
discovery at a hundred and one thousand

309
00:52:31,530 --> 00:52:29,920
feet velocity thirty seven hundred feet

310
00:52:36,030 --> 00:52:31,540
per second descending at a rate of two

311
00:52:46,290 --> 00:52:39,570
discovery now around 40,000 feet

312
00:52:53,620 --> 00:52:48,850
discovery Houston recommend vector

313
00:52:56,590 --> 00:52:53,630

transfer to the BFS discovery Houston on

314

00:53:04,690 --> 00:52:56,600

centerline on glide slope winds are calm

315

00:53:06,820 --> 00:53:04,700

looks real pretty at 3,000 feet

316

00:53:13,210 --> 00:53:06,830

discovery will execute her pre-flare

317

00:53:16,270 --> 00:53:13,220

maneuver she's now at about 6500 feet

318

00:53:22,030 --> 00:53:16,280

ascending descending at a rate of 180

319

00:53:51,570 --> 00:53:22,040

feet per second speed 550 feet per

320

00:53:51,580 --> 00:54:00,290

you're down

321

00:54:15,250 --> 00:54:03,140

the gear down and locked the report from

322

00:54:59,620 --> 00:54:18,080

man her out now rotating the nose down

323

00:55:08,099 --> 00:55:04,150

trap roger wheelstop discovery welcome

324

00:55:15,969 --> 00:55:08,109

back a great ending to the new beginning

325

00:55:17,829 --> 00:55:15,979

thanks a lot on the runway runway one

326

00:55:21,130 --> 00:55:17,839

seven here at the Dryden Flight Research

327

00:55:24,279 --> 00:55:21,140

Facility Vice President George Bush has

328

00:55:26,079 --> 00:55:24,289

arrived down at the landing site with

329

00:55:28,690 --> 00:55:26,089

the vice president

330

00:55:31,120 --> 00:55:28,700

NASA Administrator James Fletcher and

331

00:55:36,519 --> 00:55:31,130

the head of the shuttle program for

332

00:55:40,079 --> 00:55:36,529

Admiral Richard truly the access stairs

333

00:55:43,950 --> 00:55:40,089

are up against the side of the orbiter

334

00:56:07,690 --> 00:55:43,960

and the crew discovery now coming down