



ASTORIA ASTORIA M...



1  
00:00:28,560 --> 00:00:33,270  
flight we're still gpc on the antennas

2  
00:00:33,280 --> 00:00:42,389  
go for command

3  
00:00:42,399 --> 00:00:46,630  
so you want a manual antenna lower

4  
00:00:52,150 --> 00:00:49,190  
we'll still take the lower left forward

5  
00:00:59,189 --> 00:00:52,160  
manual antenna okay

6  
00:00:59,199 --> 00:01:21,510  
um

7  
00:01:24,870 --> 00:01:23,830  
five minutes till we need the gpc on the

8  
00:01:34,630 --> 00:01:24,880  
antenna

9  
00:01:34,640 --> 00:01:50,469  
max you're ready

10  
00:01:53,590 --> 00:01:51,590  
is up and running looks good and low

11  
00:01:55,749 --> 00:01:53,600  
press very good

12  
00:01:59,190 --> 00:01:55,759  
okay folks

13  
00:02:02,870 --> 00:01:59,200

let's get over to the uh 3-18 18 for the

14

00:02:06,389 --> 00:02:04,550

now four minutes away

15

00:02:13,910 --> 00:02:06,399

see like we said in the sam time to make

16

00:02:21,350 --> 00:02:15,589

we see you got helium config the crew's

17

00:02:28,390 --> 00:02:23,670

atlantis for 45 seconds and then we'll

18

00:02:32,150 --> 00:02:30,150

two engines are impressed with the burn

19

00:02:33,509 --> 00:02:32,160

all right capcom good config for the

20

00:02:49,350 --> 00:02:33,519

dealer burn

21

00:02:49,360 --> 00:03:16,949

good control all righty

22

00:03:20,149 --> 00:03:18,550

flight titans could burn no trim

23

00:03:22,869 --> 00:03:20,159

required all right

24

00:03:25,670 --> 00:03:22,879

atlantis good burn no trim required all

25

00:03:26,710 --> 00:03:25,680

right folks 3-32 not good burn no trim

26

00:03:28,949 --> 00:03:26,720

required

27

00:03:32,949 --> 00:03:28,959

home's engines worked beautifully up

28

00:03:38,470 --> 00:03:35,910

outstanding 3-32 folks

29

00:04:10,309 --> 00:03:38,480

prop any deltas to your uh pulse burn

30

00:04:23,110 --> 00:04:12,390

all right let's see secondary actuator

31

00:04:31,350 --> 00:04:27,110

complete 3-32 all right thanks dean

32

00:04:36,629 --> 00:04:33,830

atlantis your secondary secondary

33

00:04:38,550 --> 00:04:36,639

actuator check is not required on 3-35

34

00:05:09,029 --> 00:04:38,560

and chucky we're just about to get you

35

00:05:15,110 --> 00:05:12,950

32 seconds 32 seconds

36

00:05:17,909 --> 00:05:15,120

can't be four jet

37

00:05:36,870 --> 00:05:17,919

chunky your four jet ford rcs duck time

38

00:05:40,870 --> 00:05:38,790

yes sir i can verify that we are on a

39

00:05:42,230 --> 00:05:40,880

good trajectory to kennedy space center

40

00:05:44,950 --> 00:05:42,240

in florida

41

00:05:47,270 --> 00:05:44,960

we have good temps expecting

42

00:05:49,430 --> 00:05:47,280

seven n cycles

43

00:05:51,029 --> 00:05:49,440

and the positive h dot on the first roll

44

00:05:53,029 --> 00:05:51,039

reversal is now looking like about 20

45

00:05:54,870 --> 00:05:53,039

foot per second

46

00:05:57,590 --> 00:05:54,880

new closed loop guidance in it time is

47

00:06:00,790 --> 00:05:57,600

1800

48

00:06:00,800 --> 00:06:04,710

see what changed that jenny

49

00:06:09,590 --> 00:06:07,510

just curious since we were targeted

50

00:06:11,670 --> 00:06:09,600

i mean orbital dispersions i don't have

51  
00:06:12,550 --> 00:06:11,680  
anything specific i can point to

52  
00:06:13,909 --> 00:06:12,560  
okay

53  
00:06:16,950 --> 00:06:13,919  
we didn't target now you're starting to

54  
00:06:16,960 --> 00:06:28,150  
that's a good thing

55  
00:06:31,350 --> 00:06:29,909  
just real quick information uh we

56  
00:06:33,110 --> 00:06:31,360  
mentioned earlier about the you can

57  
00:06:34,309 --> 00:06:33,120  
expect a positive hdl in your first

58  
00:06:37,670 --> 00:06:34,319  
reversal looks like it's going to be

59  
00:06:48,950 --> 00:06:37,680  
about 20 feet per second

60  
00:06:52,790 --> 00:06:50,230  
all right let's see prep you're ready

61  
00:06:58,790 --> 00:06:52,800  
for your uh forward done

62  
00:07:09,189 --> 00:07:00,390  
forward dump in progress four good

63  
00:07:23,510 --> 00:07:13,110

here comes apu's one and two on time

64

00:07:28,550 --> 00:07:25,830

apu's excellent

65

00:07:30,150 --> 00:07:28,560

we're ready for that chunky also high

66

00:07:53,589 --> 00:07:30,160

fluid thermal conditioning is not

67

00:07:59,430 --> 00:07:55,029

go ahead i'd like to go ahead and get

68

00:08:03,350 --> 00:08:00,710

uh we're looking real good still

69

00:08:05,830 --> 00:08:03,360

recommending ksd one five nominally

70

00:08:09,350 --> 00:08:05,840

point nominal speed break

71

00:08:15,909 --> 00:08:09,360

and we'll be touching down 2200

72

00:08:15,919 --> 00:08:50,389

okay

73

00:08:56,470 --> 00:08:54,150

we are doing fantastic how about you

74

00:08:58,230 --> 00:08:56,480

well we're doing fantastic but i wish we

75

00:09:00,470 --> 00:08:58,240

could share everybody with everybody

76

00:09:03,750 --> 00:09:00,480

this really cool

77

00:09:05,269 --> 00:09:03,760

it's just amazing outside

78

00:09:06,949 --> 00:09:05,279

yeah we were just talking about

79

00:09:31,750 --> 00:09:06,959

imagining it

80

00:09:37,430 --> 00:09:35,190

touching down 2200 feet at 205 knots and

81

00:09:39,670 --> 00:09:37,440

you should see 19 percent on the speed

82

00:09:44,870 --> 00:09:39,680

brake

83

00:09:52,389 --> 00:09:48,230

good job jeff all right thanks jc

84

00:09:56,310 --> 00:09:54,389

you're looking good to us atlantis

85

00:09:58,630 --> 00:09:56,320

you're just passing the west coast of

86

00:10:00,150 --> 00:09:58,640

florida

87

00:10:01,670 --> 00:10:00,160

oh okay

88

00:10:04,069 --> 00:10:01,680

i thought we were got a little bit of an

89

00:10:06,550 --> 00:10:04,079

echo

90

00:10:17,750 --> 00:10:06,560

it should be clear now okay

91

00:10:22,230 --> 00:10:19,910

atlanta's own energy approaching the

92

00:10:35,829 --> 00:10:22,240

hack no changes to windsor weather

93

00:11:10,550 --> 00:10:37,910

on at the 180

94

00:11:23,350 --> 00:11:11,990

mls

95

00:11:23,360 --> 00:11:38,230

inside

96

00:11:44,069 --> 00:11:42,150

for the room on glideslope on centerline

97

00:11:46,790 --> 00:11:44,079

happy

98

00:12:00,870 --> 00:11:46,800

nominal approaching land

99

00:12:00,880 --> 00:12:14,710

gear down unlocked happy gear

100

00:12:14,720 --> 00:12:48,790

touchdown

101  
00:12:51,670 --> 00:12:50,629  
make sure you give me a heads up uh when

102  
00:12:53,990 --> 00:12:51,680  
we get the

103  
00:13:04,389 --> 00:12:54,000  
s-pan on upper intending

104  
00:13:04,399 --> 00:13:12,790  
yes you can

105  
00:13:16,629 --> 00:13:14,710  
mission complete houston

106  
00:13:17,990 --> 00:13:16,639  
after serving the world for over 30

107  
00:13:20,150 --> 00:13:18,000  
years the space shuttle's earned its

108  
00:13:22,949 --> 00:13:20,160  
place in history and come to a final

109  
00:13:26,629 --> 00:13:24,790  
we copy your will stop and we'll take

110  
00:13:27,750 --> 00:13:26,639  
this opportunity to congratulate you

111  
00:13:29,509 --> 00:13:27,760  
atlantis

112  
00:13:31,430 --> 00:13:29,519  
as well as the thousands of passionate

113  
00:13:33,110 --> 00:13:31,440

individuals across this great

114

00:13:34,949 --> 00:13:33,120

space-faring nation

115

00:13:36,230 --> 00:13:34,959

who truly empowered this incredible

116

00:13:38,230 --> 00:13:36,240

spacecraft

117

00:13:40,550 --> 00:13:38,240

which for three decades has inspired

118

00:13:44,389 --> 00:13:40,560

millions around the globe

119

00:13:48,949 --> 00:13:47,670

hey thanks butch great words great words

120

00:13:51,509 --> 00:13:48,959

you know the space shuttle's changed the

121

00:13:53,350 --> 00:13:51,519

way we view the world and change the way

122

00:13:54,470 --> 00:13:53,360

we view our universe it's a lot of

123

00:13:56,230 --> 00:13:54,480

emotion today but one thing's

124

00:13:58,150 --> 00:13:56,240

indisputable america is not going to

125

00:14:01,030 --> 00:13:58,160

stop exploring

126

00:14:03,829 --> 00:14:01,040

thank you columbia challenger discovery

127

00:14:05,269 --> 00:14:03,839

endeavor and our ship atlantis thank you

128

00:14:06,710 --> 00:14:05,279

for protecting us

129

00:14:08,550 --> 00:14:06,720

and bringing this program to such a

130

00:14:11,910 --> 00:14:08,560

fitting end god bless all of you god

131

00:14:17,910 --> 00:14:14,310

inspiring comments atlantis

132

00:14:17,920 --> 00:14:23,670

we'll see you there buddy

133

00:14:27,829 --> 00:14:25,750

all right let's see in econ we use 60

134

00:14:29,350 --> 00:14:27,839

minutes as our initial hack

135

00:14:34,310 --> 00:14:29,360

that's a good hack and we're ready for

136

00:14:36,230 --> 00:14:34,320

red ring config 5-8 okay 5-8 uh

137

00:14:42,949 --> 00:14:36,240

copy uh capcom

138

00:14:42,959 --> 00:15:10,829

vending of the reconfigure

139

00:15:14,389 --> 00:15:12,629

5-22

140

00:15:15,189 --> 00:15:14,399

nh3 reconfig let me know when you're

141

00:15:17,189 --> 00:15:15,199

there

142

00:15:23,750 --> 00:15:17,199

back up teams are expected flight

143

00:15:28,870 --> 00:15:25,590

all right now once we get up to 55 let's

144

00:15:28,880 --> 00:15:32,550

no action yet okay

145

00:15:35,670 --> 00:15:33,670

it's going to be hard but we're going to

146

00:15:38,629 --> 00:15:35,680

walk off atlanta

147

00:15:41,829 --> 00:15:38,639

we understand fergie job well done

148

00:15:45,829 --> 00:15:43,350

you're happy everything's configured the

149

00:15:47,430 --> 00:15:45,839

way you like it gnc

150

00:15:49,829 --> 00:15:47,440

max

151

00:15:51,829 --> 00:15:49,839

props in a good config accident

152

00:15:53,590 --> 00:15:51,839

gmc's

153

00:15:57,030 --> 00:15:53,600

eagle's in a good contact he comes we're

154

00:15:58,949 --> 00:15:57,040

good cps yes and encode

155

00:16:03,749 --> 00:15:58,959

we're done booster okay

156

00:16:07,509 --> 00:16:06,150

all right con brad we are uh looks like

157

00:16:08,550 --> 00:16:07,519

all the switches are good then you are

158

00:16:18,310 --> 00:16:08,560

clear to hand over to the grand

159

00:16:21,269 --> 00:16:19,430

all right guys

160

00:16:24,069 --> 00:16:21,279

got one more step here to do but before

161

00:16:28,710 --> 00:16:26,790

hopefully i can get through this but i

162

00:16:30,710 --> 00:16:28,720

don't you know

163

00:16:33,110 --> 00:16:30,720

so let's see uh i'd like to take this

164

00:16:34,829 --> 00:16:33,120

opportunity pass on a few words this

165

00:16:37,189 --> 00:16:34,839

will be the last time this team will be

166

00:16:39,430 --> 00:16:37,199

together see first and foremost i want

167

00:16:41,030 --> 00:16:39,440

to thank you guys my colleagues my

168

00:16:43,350 --> 00:16:41,040

friends the shuttle flight controllers

169

00:16:45,110 --> 00:16:43,360

of mission operations

170

00:16:46,629 --> 00:16:45,120

it's been my extreme privilege and honor

171

00:16:49,030 --> 00:16:46,639

to have worked with each one of you and

172

00:16:50,470 --> 00:16:49,040

have been part of this

173

00:16:53,189 --> 00:16:50,480

so outreach

174

00:16:54,870 --> 00:16:53,199

and passionate about the work they do

175

00:16:56,790 --> 00:16:54,880

each one of you should take great pride

176

00:16:58,150 --> 00:16:56,800

in the accomplishments you have achieved

177

00:16:59,829 --> 00:16:58,160

and know that you are the main reason

178

00:17:01,509 --> 00:16:59,839

for the success of the space shuttle

179

00:17:03,910 --> 00:17:01,519

program

180

00:17:05,750 --> 00:17:03,920

30 years ago the dream had just begun my

181

00:17:09,270 --> 00:17:05,760

flight director for entry was crimson

182

00:17:11,270 --> 00:17:09,280

flight don putty with camp gun joe allen

183

00:17:13,429 --> 00:17:11,280

as columbia's nose gear touched down and

184

00:17:15,829 --> 00:17:13,439

began rollout buddy told his team

185

00:17:17,270 --> 00:17:15,839

prepare for exhilaration

186

00:17:18,870 --> 00:17:17,280

well the shuttle hasn't failed less than

187

00:17:20,230 --> 00:17:18,880

that it was a moment for the history

188

00:17:21,829 --> 00:17:20,240

books

189

00:17:22,710 --> 00:17:21,839

today is also a moment in the history

190

00:17:25,909 --> 00:17:22,720

books

191

00:17:27,510 --> 00:17:25,919

work of the flight control teams over

192

00:17:29,190 --> 00:17:27,520

the past 30 years

193

00:17:32,070 --> 00:17:29,200

the work done in this room and this

194

00:17:33,669 --> 00:17:32,080

building will never again be duplicated

195

00:17:35,590 --> 00:17:33,679

i believe that the compliments of the

196

00:17:38,070 --> 00:17:35,600

shuttle program will become the next set

197

00:17:39,830 --> 00:17:38,080

of shoulder of giants for the few future

198

00:17:41,590 --> 00:17:39,840

programs to stand on

199

00:17:43,270 --> 00:17:41,600

hold your heads up high with pride as we

200

00:17:44,950 --> 00:17:43,280

close out the space shuttle program you

201  
00:17:47,029 --> 00:17:44,960  
have earned it

202  
00:17:49,350 --> 00:17:47,039  
for all like i always say savor the

203  
00:17:51,510 --> 00:17:49,360  
moment soaking in and know you are the

204  
00:17:53,430 --> 00:17:51,520  
best the best in the world

205  
00:17:55,590 --> 00:17:53,440  
your work here has made america and the

206  
00:17:57,430 --> 00:17:55,600  
world a better place

207  
00:18:06,870 --> 00:17:57,440  
it's been an unbelievable and amazing

208  
00:18:11,909 --> 00:18:09,830  
god bless you all and godspeed

209  
00:18:13,590 --> 00:18:11,919  
so with that i want you guys to get your

210  
00:18:14,950 --> 00:18:13,600  
mipsers guys if you want bring them all

211  
00:18:17,270 --> 00:18:14,960  
in here and we'll go ahead and watch the

212  
00:18:21,190 --> 00:18:17,280  
crew walk around and while i finish

213  
00:18:21,200 --> 00:18:34,310

all right

214

00:18:34,320 --> 00:19:07,510

okay

215

00:19:11,830 --> 00:19:09,669

here in the flight control room all of

216

00:19:13,830 --> 00:19:11,840

the engineers who have worked so

217

00:19:15,510 --> 00:19:13,840

tirelessly over the years in support of

218

00:19:17,270 --> 00:19:15,520

space shuttle missions are filtering

219

00:19:18,230 --> 00:19:17,280

into the space shuttle flight control

220

00:19:20,870 --> 00:19:18,240

room

221

00:19:22,630 --> 00:19:20,880

to share the moment

222

00:19:24,950 --> 00:19:22,640

you heard the words from entry flight

223

00:19:27,190 --> 00:19:24,960

director tony soccer but those are words

224

00:19:30,230 --> 00:19:27,200

that are echoing through the hearts of

225

00:19:32,630 --> 00:19:30,240

every single technician and engineer

226

00:19:34,310 --> 00:19:32,640

from every single discipline

227

00:19:37,669 --> 00:19:34,320

here at the johnson space center the

228

00:19:39,750 --> 00:19:37,679

film the room is quickly filling up

229

00:19:42,470 --> 00:19:39,760

handshakes all around

230

00:20:03,510 --> 00:19:42,480

a very emotional moment a very historic

231

00:20:09,270 --> 00:20:06,390

this is mission control houston amongst

232

00:20:10,549 --> 00:20:09,280

the well-wishers here in mission control

233

00:20:12,230 --> 00:20:10,559

mike coats

234

00:20:14,630 --> 00:20:12,240

the center director of the johnson space

235

00:20:16,070 --> 00:20:14,640

center

236

00:20:20,149 --> 00:20:16,080

who flew on the maiden flight of the

237

00:20:24,470 --> 00:20:22,310

joining others here in the flight

238

00:20:25,990 --> 00:20:24,480

control room which

239

00:20:27,590 --> 00:20:26,000

is now filled

240

00:20:29,510 --> 00:20:27,600

with people uh

241

00:20:31,590 --> 00:20:29,520

expressing their emotions and their

242

00:21:23,750 --> 00:20:31,600

congratulations on the completion of the

243

00:21:23,760 --> 00:21:42,310

nice

244

00:21:42,320 --> 00:21:45,430

oh

245

00:21:45,440 --> 00:22:46,070

ruins

246

00:22:46,080 --> 00:23:01,190

oh

247

00:23:01,200 --> 00:23:17,510

congratulations

248

00:23:20,950 --> 00:23:19,270

once again here in mission control the

249

00:23:23,350 --> 00:23:20,960

room is filled

250

00:23:24,710 --> 00:23:23,360

with the greats from the history of the

251

00:23:25,909 --> 00:23:24,720

shuttle program

252

00:23:28,710 --> 00:23:25,919

who have

253

00:23:30,789 --> 00:23:28,720

spent the past three decades