



1  
00:00:49,260 --> 00:00:46,860  
we're just hours away from NASA's 82nd

2  
00:00:51,120 --> 00:00:49,270  
space shuttle launch and the 22nd flight

3  
00:00:54,680 --> 00:00:51,130  
of the orbiter discovery with a crew of

4  
00:00:57,840 --> 00:00:54,690  
seven astronauts liftoff is planned at

5  
00:01:33,280 --> 00:00:57,850  
3:55 a.m. Eastern Time which is the

6  
00:01:37,640 --> 00:01:35,540  
this is shuttle launch control at

7  
00:01:39,620 --> 00:01:37,650  
t-minus three hours and holding we're

8  
00:01:41,990 --> 00:01:39,630  
standing by we do have live coverage now

9  
00:01:44,930 --> 00:01:42,000  
of the crew getting suited up

10  
00:01:47,960 --> 00:01:44,940  
you know commander Ken Bowersox this is

11  
00:01:50,270 --> 00:01:47,970  
his fourth flight he has been an

12  
00:01:52,010 --> 00:01:50,280  
astronaut for about 10 years and

13  
00:01:53,810 --> 00:01:52,020

Bowersox will have overall

14

00:01:56,180 --> 00:01:53,820

responsibility for commanding the flight

15

00:02:05,900 --> 00:01:56,190

he was the pilot for the first Hubble

16

00:02:09,050 --> 00:02:05,910

servicing mission back in 1993 and we

17

00:02:11,030 --> 00:02:09,060

have pilot horowitz as pilot he will

18

00:02:14,120 --> 00:02:11,040

assist Bowersox at the flight controls

19

00:02:15,650 --> 00:02:14,130

this is his second flight he will assist

20

00:02:17,020 --> 00:02:15,660

Bowersox during the rendezvous and

21

00:02:20,540 --> 00:02:17,030

retrieval of the Hubble Space Telescope

22

00:02:22,640 --> 00:02:20,550

on flight day three and also with the

23

00:02:25,210 --> 00:02:22,650

reboosted of Hubble if available fuel

24

00:02:28,430 --> 00:02:25,220

permits and of course with the shuttle

25

00:02:31,040 --> 00:02:28,440

landing the night landing that's planned

26

00:02:35,860 --> 00:02:31,050

here at KSC and we have mission

27

00:02:41,270 --> 00:02:35,870

specialist Mark Lee taking a brief rest

28

00:02:43,610 --> 00:02:41,280

mark Lee's making his fourth flight and

29

00:02:45,860 --> 00:02:43,620

we see heart-shaped balloons in the crew

30

00:02:52,580 --> 00:02:45,870

quarters obviously for the upcoming

31

00:02:53,990 --> 00:02:52,590

Valentine's Day across the room we've

32

00:02:55,720 --> 00:02:54,000

got the rest of the crew mission

33

00:02:59,150 --> 00:02:55,730

specialist Joe Tanner

34

00:03:01,130 --> 00:02:59,160

Tanner's making his second flight he

35

00:03:02,990 --> 00:03:01,140

will be this will be his first spacewalk

36

00:03:04,610 --> 00:03:03,000

you'll be teaming up with Greg Harbaugh

37

00:03:07,490 --> 00:03:04,620

and replacing one of the three fine

38

00:03:11,330 --> 00:03:07,500

guidance system sensors on Hubble during

39

00:03:12,979 --> 00:03:11,340

the second evie a he will also help

40

00:03:16,280 --> 00:03:12,989

replace the optical electronics

41

00:03:18,949 --> 00:03:16,290

enhancement kit in a failed engineering

42

00:03:21,199 --> 00:03:18,959

and science tape recorder on flight day

43

00:03:28,160 --> 00:03:21,209

for the team we'll replace the solar

44

00:03:33,050 --> 00:03:30,960

and we've got mission specialist Eve

45

00:03:40,830 --> 00:03:33,060

Holly

46

00:03:42,509 --> 00:03:40,840

he's serving as the flight engineer will

47

00:03:44,790 --> 00:03:42,519

assist the commander and pilot with

48

00:03:47,130 --> 00:03:44,800

asset in every entry checklist and in

49

00:03:49,440 --> 00:03:47,140

monitoring the vehicle systems Holly

50

00:03:56,339 --> 00:03:49,450

used the robot arm to deploy Hubble on

51  
00:03:59,340 --> 00:03:56,349  
sts-31 back in 1990 and we have the

52  
00:04:01,380 --> 00:03:59,350  
mission specialist Greg Harbaugh he's

53  
00:04:03,479 --> 00:04:01,390  
making his fourth flight he will be

54  
00:04:04,470 --> 00:04:03,489  
teamed up with Joe Tanner to perform two

55  
00:04:07,559 --> 00:04:04,480  
of the spacewalks

56  
00:04:10,229 --> 00:04:07,569  
Harbaugh performed a spacewalk on STS 54

57  
00:04:14,660 --> 00:04:10,239  
and was the backup evie a crew member

58  
00:04:19,009 --> 00:04:17,129  
and we have mission specialist five

59  
00:04:21,599 --> 00:04:19,019  
Steve Smith making his second flight

60  
00:04:23,550 --> 00:04:21,609  
he'll be a first-time space Walker on

61  
00:04:25,440 --> 00:04:23,560  
this flight you'll be teamed up with

62  
00:04:27,390 --> 00:04:25,450  
Mark Lee in replacing the two

63  
00:04:34,950 --> 00:04:27,400

instruments that have a combined weight

64

00:04:38,279 --> 00:04:34,960

of about 1500 pounds the crew is just

65

00:04:42,270 --> 00:04:38,289

riding the elevator down the down three

66

00:04:44,850 --> 00:04:42,280

flights ground floor where they've got a

67

00:05:29,490 --> 00:04:44,860

crowd of news media members and also

68

00:05:35,800 --> 00:05:31,930

we do have some dramatic views of the

69

00:05:37,480 --> 00:05:35,810

final inspection team on the very top

70

00:05:39,909 --> 00:05:37,490

part of the mobile launcher platform

71

00:05:44,740 --> 00:05:39,919

that is known as the zero level we can

72

00:05:47,260 --> 00:05:44,750

see the aft booster skirt also in the

73

00:05:50,230 --> 00:05:47,270

foreground here we've got the large tail

74

00:05:54,249 --> 00:05:50,240

service mast and of course some dramatic

75

00:06:41,369 --> 00:05:54,259

views of the vapor as it's boiling off

76

00:06:49,089 --> 00:06:47,619

thanks weather please well monitor this

77

00:06:52,689 --> 00:06:49,099

range weather we have no constraints

78

00:06:56,649 --> 00:06:52,699

always copy you go is that correct I'm

79

00:07:00,369 --> 00:06:56,659

surrounded avert and mission management

80

00:07:04,739 --> 00:07:00,379

team Jim the MMP is working noises

81

00:07:08,739 --> 00:07:04,749

you're clear to launch copy this and

82

00:07:11,889 --> 00:07:08,749

discovery can hear and their team have a

83

00:07:14,829 --> 00:07:11,899

great nation and do some good Hubble

84

00:07:17,399 --> 00:07:14,839

upgrades we'll see you back here in ten

85

00:07:27,249 --> 00:07:21,820

Jim thanks for the good wishes to get

86

00:07:28,779 --> 00:07:27,259

discovered hello Betty pull-on couple

87

00:07:33,219 --> 00:07:28,789

eats the best telescope in the universe

88

00:07:38,110 --> 00:07:33,229

old even better that is no and NPD your

89

00:07:39,939 --> 00:07:38,120

clear loss copy thank you just a few

90

00:07:43,329 --> 00:07:39,949

seconds the orbiter access arm will be

91

00:07:47,949 --> 00:07:43,339

attracted away from the orbiters crew

92

00:07:49,570 --> 00:07:47,959

module and that event is happening there

93

00:07:55,180 --> 00:07:49,580

arm can be re-expanded in just a few

94

00:07:55,190 --> 00:08:01,810

two months seven minutes and Counting

95

00:08:29,550 --> 00:08:04,480

now pressurizing the external tank for

96

00:08:34,150 --> 00:08:32,320

the gaseous oxygen vent hood at the top

97

00:08:46,500 --> 00:08:34,160

of the tank is being retracted away at

98

00:08:51,930 --> 00:08:51,180

t-minus 35 seconds 3 - 15 seconds and

99

00:08:58,769 --> 00:08:51,940

counting

100

00:09:06,870 --> 00:08:58,779

also there's go eight seven we have a go

101  
00:09:09,240 --> 00:09:06,880  
for engine start two one ignition and

102  
00:09:12,259 --> 00:09:09,250  
liftoff discovery now on its way to

103  
00:09:25,680 --> 00:09:12,269  
service NASA's Hubble Space Telescope

104  
00:09:27,509 --> 00:09:25,690  
Houston now controlling vehicles down

105  
00:09:29,100 --> 00:09:27,519  
position on course for a twenty eight

106  
00:09:32,189 --> 00:09:29,110  
and a half degree three hundred nine

107  
00:09:34,530 --> 00:09:32,199  
nautical mile orbit three main engines

108  
00:09:36,120 --> 00:09:34,540  
uh beginning to throttle down now as the

109  
00:09:38,040 --> 00:09:36,130  
orbiter prepares to pass through the

110  
00:09:41,069 --> 00:09:38,050  
area of maximum dynamic pressure on the

111  
00:09:42,780 --> 00:09:41,079  
vehicle in the lower atmosphere the

112  
00:09:48,180 --> 00:09:42,790  
three engines now at sixty seven percent

113  
00:09:50,250 --> 00:09:48,190

of rated thrust the solid rocket

114

00:09:51,960 --> 00:09:50,260

boosters beginning to tail off with

115

00:09:55,290 --> 00:09:51,970

their chamber pressure standing by for

116

00:10:06,480 --> 00:09:55,300

burnout and separation of the twin solid

117

00:10:12,870 --> 00:10:09,870

SRB separation is confirmed two minutes

118

00:10:15,000 --> 00:10:12,880

20 seconds into the flight discovery is

119

00:10:48,460 --> 00:10:15,010

now downrange from the launch site of 40

120

00:10:48,470 --> 00:11:04,189

GLS is go for you cloc pressurization

121

00:11:04,199 --> 00:11:12,290

all vents open cop events

122

00:11:23,110 --> 00:11:15,740

p0 has RV ignition liftoff confirmed

123

00:11:44,699 --> 00:11:26,129

we're all programs like endless enroll

124

00:11:59,570 --> 00:11:48,299

stand by for pressed ato market sorry

125

00:11:59,580 --> 00:15:17,120

now you to return negative return

126

00:15:17,130 --> 00:15:21,400

mr. discovery

127

00:15:30,280 --> 00:15:26,740

go ahead discovery Roger mark we think

128

00:15:32,980 --> 00:15:30,290

we've done the survey as required using

129

00:15:34,840 --> 00:15:32,990

the arm you probably saw some of it

130

00:15:36,220 --> 00:15:34,850

hopefully a lot of it if there's

131

00:15:37,750 --> 00:15:36,230

anything that you'd like to see you

132

00:15:40,870 --> 00:15:37,760

didn't see we can get that for you

133

00:15:41,670 --> 00:15:40,880

otherwise we'll go ahead and do our best

134

00:15:44,320 --> 00:15:41,680

Merida

135

00:17:41,440 --> 00:15:44,330

copy dr. Steve will check very quickly

136

00:18:13,589 --> 00:17:47,530

go ahead cry 0:02 manifold valve tank to

137

00:18:24,820 --> 00:18:16,629

good morning discovery today - go grab

138

00:18:31,869 --> 00:18:24,830

yourself telescope it works I guess it

139

00:18:34,450 --> 00:18:31,879

is about that time discovery Houston we

140

00:18:37,060 --> 00:18:34,460

have target takes out pick seven targets

141

00:18:40,479 --> 00:18:37,070

for the NPC to burn on their way up and

142

00:21:13,110 --> 00:18:40,489

we have the maneuver pad numbers for you

143

00:21:17,680 --> 00:21:15,430

switching views now to the color

144

00:21:19,780 --> 00:21:17,690

end-effector camera this is looking

145

00:21:57,500 --> 00:21:19,790

directly at the bottom of the telescope

146

00:22:51,049 --> 00:22:00,830

that is free drift and dr. Stevie's

147

00:23:06,930 --> 00:23:04,230

discovery and we watched it from down

148

00:23:08,520 --> 00:23:06,940

here socks it was certainly an absolute

149

00:23:12,030 --> 00:23:08,530

thrill for us to see it on television

150

00:23:13,980 --> 00:23:12,040

and congratulations to all of you for an

151  
00:23:16,320 --> 00:23:13,990  
outstanding rendezvous and a great

152  
00:23:17,820 --> 00:23:16,330  
capture we're looking forward to getting

153  
00:23:33,629 --> 00:23:17,830  
out there and starting to work on that

154  
00:23:39,629 --> 00:23:37,199  
as discovery and the hubble space

155  
00:23:42,779 --> 00:23:39,639  
telescope move off the east coast of

156  
00:24:33,239 --> 00:23:42,789  
Florida the spacecraft are now moving

157  
00:24:39,070 --> 00:24:35,799  
and the Hubble Space Telescope is now

158  
00:24:41,560 --> 00:24:39,080  
firmly in the birthing latches the

159  
00:25:19,769 --> 00:24:41,570  
sequence will be to close the latches

160  
00:25:28,749 --> 00:25:25,450  
go ahead discovery okay we've got lats

161  
00:25:29,860 --> 00:25:28,759  
and made ops complete wrap all in as

162  
00:25:32,580 --> 00:25:29,870  
soon as we do that we're gonna go to

163  
00:25:32,590 --> 00:25:42,650

okay copy mark we're watching

164

00:25:42,660 --> 00:26:00,110

got a good picture

165

00:26:07,010 --> 00:26:02,480

few days it probably rather look at HSP

166

00:26:22,180 --> 00:26:07,020

you know we'll give you that sure is

167

00:26:26,690 --> 00:26:24,800

good monitor discovery time for the

168

00:28:47,870 --> 00:26:26,700

first two princess code little work

169

00:29:03,810 --> 00:28:58,980

market oil doors just open go get that

170

00:29:20,789 --> 00:29:03,820

door what just leave it out there about

171

00:30:06,590 --> 00:29:20,799

that discovery you have a go for the

172

00:30:13,889 --> 00:30:09,659

you can see the placement now if Nick

173

00:30:18,210 --> 00:30:13,899

Moss and net angle iron that right angle

174

00:30:20,039 --> 00:30:18,220

guide rail at the bottom right Steve

175

00:30:35,899 --> 00:30:20,049

Smith is looking down the upper

176  
00:30:41,210 --> 00:30:38,970  
Steve Smith and now making the final

177  
00:30:43,950 --> 00:30:41,220  
installation of the Nick Moss into the

178  
00:30:46,940 --> 00:30:43,960  
into the after out of the Hubble Space

179  
00:30:49,710 --> 00:30:46,950  
Telescope with assistance from Mark Lee

180  
00:30:51,930 --> 00:30:49,720  
operating the shuttles robot arm is Greg

181  
00:30:54,269 --> 00:30:51,940  
Harbaugh who will be one of the

182  
00:31:10,229 --> 00:30:54,279  
spacewalkers on the second and fourth

183  
00:31:12,659 --> 00:31:10,239  
epa's okay discovery why don't you try

184  
00:31:16,229 --> 00:31:12,669  
one more time with the nominal setting

185  
00:31:19,019 --> 00:31:16,239  
and if that doesn't work then use the

186  
00:31:37,700 --> 00:31:19,029  
manual 38 like you did on the bottom

187  
00:31:41,990 --> 00:31:39,950  
discovery Houston if cameras Alfa and

188  
00:32:09,830 --> 00:31:42,000

Charlie are not in use at this time we'd

189

00:33:07,280 --> 00:32:11,930

and it will tell them that will promise

190

00:34:04,120 --> 00:33:09,170

and we're following you into the

191

00:34:13,340 --> 00:34:11,780

Joe we just got TV back in time to see

192

00:34:16,210 --> 00:34:13,350

you come out on the beginning of your

193

00:34:18,590 --> 00:34:16,220

very first TV a welcome to space and

194

00:34:38,500 --> 00:34:18,600

he's not seeing a big smile in your face

195

00:35:23,110 --> 00:34:42,050

sidereel their little sticky the

196

00:36:36,830 --> 00:35:27,230

okay dr. Stevie take me in for going in

197

00:36:40,450 --> 00:36:36,840

a reflection of Joe Tanner and Greg

198

00:36:45,400 --> 00:36:40,460

Harbaugh in the telescope's F shroud as

199

00:36:49,340 --> 00:36:45,410

the earth clearly in view behind them

200

00:36:54,650 --> 00:36:49,350

the orbiter has reached the midpoint of

201  
00:36:57,470 --> 00:36:54,660  
the 60th orbit of the mission halfway

202  
00:36:59,230 --> 00:36:57,480  
through the 60th orbit of the mission

203  
00:37:02,420 --> 00:36:59,240  
just about to cross the equator

204  
00:37:14,940 --> 00:37:02,430  
traveling southeasterly across Central

205  
00:37:52,790 --> 00:37:30,240  
a little bit more try to stop up there

206  
00:38:01,310 --> 00:37:58,680  
discovery Houston for Steve yes the more

207  
00:38:13,650 --> 00:38:01,320  
good news the OCE aliveness test is

208  
00:38:17,849 --> 00:38:13,660  
successfully completed and discovery for

209  
00:38:20,370 --> 00:38:17,859  
Steve when when opportunity presents

210  
00:38:23,760 --> 00:38:20,380  
itself during the solar race Slough we'd

211  
00:38:26,880 --> 00:38:23,770  
appreciate some feedback on the

212  
00:39:53,730 --> 00:38:26,890  
appearance of the MLIS in Bay's 1 2 3 &

213  
00:40:24,059 --> 00:39:56,410

that's because guys like Oscar and key

214

00:40:28,509 --> 00:40:26,380

Marcus hit coming up seven and a half

215

00:41:08,560 --> 00:40:28,519

two nothing turns and of course you

216

00:41:08,570 --> 00:41:39,540

roll it a little bit to the left

217

00:42:21,919 --> 00:41:41,500

actually need to wait till unless you

218

00:43:29,130 --> 00:42:26,509

you think the left sides okay still okay

219

00:44:02,609 --> 00:43:37,390

Houston discovery for a BA okay okay

220

00:44:07,420 --> 00:44:05,440

it's TV 30 puzzle just bring those up to

221

00:44:10,150 --> 00:44:07,430

the hatch right now I'm just on there

222

00:44:15,040 --> 00:44:10,160

then we'll get the Bison thermal shield

223

00:45:30,030 --> 00:44:15,050

to prepare kids I'm gonna store the PGG

224

00:45:30,040 --> 00:46:14,230

okay you with the trash bags

225

00:46:21,000 --> 00:46:16,270

I think his assessment is it's pretty

226

00:46:24,010 --> 00:46:21,010

stuck it looks like one of dogs patented

227

00:46:29,140 --> 00:46:24,020

extenders so we have absolutely no

228

00:46:39,790 --> 00:46:29,150

concern that we think we can we think we

229

00:46:41,410 --> 00:46:39,800

got toilet toilet with it we agree Greg

230

00:46:43,270 --> 00:46:41,420

since we can't really see the connectors

231

00:47:14,530 --> 00:46:43,280

on Sadie - can you come up and pan down

232

00:47:19,010 --> 00:47:17,060

well Greg since we can't really see the

233

00:47:20,359 --> 00:47:19,020

connectors on say t2 can you come up and

234

00:47:30,690 --> 00:47:20,369

pan down there you go hold it right

235

00:47:30,700 --> 00:47:48,140

a little more to your right

236

00:47:53,420 --> 00:47:51,329

about 6-feet inferno telescope so you

237

00:47:55,530 --> 00:47:53,430

can pick me up some awesome

238

00:47:56,940 --> 00:47:55,540

Greg well we're getting some pictures

239

00:47:59,130 --> 00:47:56,950

just reminder the first thing we're

240

00:48:01,440 --> 00:47:59,140

going to do is cut off a curl from

241

00:48:04,020 --> 00:48:01,450

the torn area about a 4x4 or bigger and

242

00:48:45,250 --> 00:48:04,030

put it the trash bag and your choice

243

00:48:49,370 --> 00:48:47,690

and discovery houston we've been

244

00:48:52,850 --> 00:48:49,380

watching from the ground that everybody

245

00:48:54,800 --> 00:48:52,860

is marveling at Greg's superb skills and

246

00:48:56,450 --> 00:48:54,810

putting that blanket it looks really

247

00:49:38,260 --> 00:48:56,460

great we haven't seen the top one but

248

00:49:38,270 --> 00:50:12,710

yeah

249

00:50:40,019 --> 00:50:18,720

take me down there you can adjust your

250

00:50:50,730 --> 00:50:40,029

tensions okay you will lock tight on

251

00:50:52,680 --> 00:50:50,740

that door stop all right I like that

252

00:51:00,749 --> 00:50:52,690

idea to use them nothing much come up

253

00:51:02,609 --> 00:51:00,759

with a really good plan here in Houston

254

00:51:04,499 --> 00:51:02,619

discovery one reason that particular

255

00:51:05,849 --> 00:51:04,509

patch looks a little bit funny and looks

256

00:51:07,470 --> 00:51:05,859

like that up but that might be too tight

257

00:51:11,549 --> 00:51:07,480

is because there's nothing pulling over

258

00:51:19,890 --> 00:51:11,559

the lower left corner discovery Houston

259

00:51:21,630 --> 00:51:19,900

was some word on our W go ahead we just

260

00:51:25,740 --> 00:51:21,640

completed a test on reaction wheel

261

00:51:31,400 --> 00:51:25,750

number two it's good sex out just fine

262

00:51:37,470 --> 00:51:34,950

so we're going to go ahead and press

263

00:52:18,460 --> 00:51:37,480

with our plan here for reboost to kick

264

00:52:24,260 --> 00:52:22,550

that's its - so the first step is gonna

265

00:53:04,750 --> 00:52:24,270

be the item 16 and flight controller

266

00:53:08,330 --> 00:53:06,590

kind of the only way to get rid of it

267

00:53:13,460 --> 00:53:08,340

shoots straight through the window maybe

268

00:53:35,250 --> 00:53:13,470

plants again searching back through

269

00:53:42,880 --> 00:53:38,530

you look nice is it over yet again we're

270

00:53:44,079 --> 00:53:42,890

not that again step two done I'm sure

271

00:53:48,690 --> 00:53:44,089

glad to see that first pulse in the

272

00:53:53,880 --> 00:53:50,339

there's the cargo bay of the space

273

00:53:58,440 --> 00:53:53,890

shuttle we're just having a sunrise it's

274

00:54:03,900 --> 00:53:58,450

really beautiful up here in space how's

275

00:54:05,789 --> 00:54:03,910

Neil Bob looking for you guys hey Bob

276

00:54:08,190 --> 00:54:05,799

looks great and their fact we downlink

277

00:54:11,190 --> 00:54:08,200

some video this morning of it from our

278

00:54:13,380 --> 00:54:11,200

perspective the TV cameras don't really

279

00:54:15,720 --> 00:54:13,390

do it justice in the binoculars that we

280

00:54:55,210 --> 00:54:15,730

carry onboard it's it's a very

281

00:54:55,220 --> 00:55:08,099

imagine with all this motion

282

00:56:09,520 --> 00:55:12,040

anything else I throw this chick plenty

283

00:56:17,170 --> 00:56:12,620

fifteen seconds coming up I see the

284

00:56:50,500 --> 00:56:22,309

ten-second get rid with the timers five

285

00:56:56,480 --> 00:56:53,240

view looking east from the Mission

286

00:56:59,210 --> 00:56:56,490

Control Center as discovery streaks

287

00:57:07,330 --> 00:56:59,220

through the atmosphere ten thousand four

288

00:57:12,950 --> 00:57:09,920

twin sonic booms announced the arrival

289

00:57:34,000 --> 00:57:12,960

of discovery into the landing area time

290

00:57:34,010 --> 00:57:44,650

main gear touchdown

291

00:57:50,290 --> 00:57:48,400

nose gear touchdown discovery rolling

292

00:57:53,230 --> 00:57:50,300

out on runway one-five at the Kennedy

293

00:57:57,250 --> 00:57:53,240

Space Center completing 150 orbits

294

00:57:59,950 --> 00:57:57,260

traveling 4.1 million miles ending the

295

00:58:26,400 --> 00:57:59,960

second sub servicing mission to the

296

00:58:32,580 --> 00:58:30,000

we'll stop usin toffee we'll stop scurry

297

00:58:34,530 --> 00:58:32,590

welcome back after a successful second

298

00:58:37,320 --> 00:58:34,540

Hubble servicing mission made those five

299

00:58:40,170 --> 00:58:37,330

spacewalks look real easy and we have no

300

00:58:45,210 --> 00:58:40,180

post-landing deltas pick up on page five

301

00:58:56,450 --> 00:58:45,220

- three all right Kevin we'll get over

302

00:59:07,390 --> 00:58:59,000

scurry usin on l2 we like knows well

303

00:59:12,859 --> 00:59:10,130

commander Ken Bowersox are continuing

304

00:59:15,460 --> 00:59:12,869

along with other crew members to press

305

00:59:18,200 --> 00:59:15,470

through the post landing activities

306

00:59:27,019 --> 00:59:18,210

preparing a discovery for the ground

307

00:59:29,809 --> 00:59:27,029

operations team Discovery's 22nd voyage

308

00:59:32,900 --> 00:59:29,819

in space is the sixth straight landing

309

00:59:34,430 --> 00:59:32,910

at the Kennedy Space Center at the 13th