



1
00:00:05,910 --> 00:00:02,629
i'm alvin drew mission specialist aboard

2
00:00:08,179 --> 00:00:05,920
discovery for sts-133 and you are

3
00:00:15,040 --> 00:00:08,189
watching nasa tv

4
00:00:15,050 --> 00:00:29,189
[Music]

5
00:00:29,199 --> 00:00:33,860
space the final frontier

6
00:00:37,990 --> 00:00:35,990
[Music]

7
00:00:39,590 --> 00:00:38,000
these have been the voyages of the space

8
00:00:41,990 --> 00:00:39,600
shuttle discovery

9
00:00:44,549 --> 00:00:42,000
her 30-year mission to seek out new

10
00:00:47,350 --> 00:00:44,559
science to build new outposts to bring

11
00:00:50,069 --> 00:00:47,360
nations together on the final frontier

12
00:00:56,850 --> 00:00:50,079
to boldly go and do

13
00:01:26,950 --> 00:01:16,200

[Music]

14

00:01:29,510 --> 00:01:26,960

good morning discovery

15

00:01:30,469 --> 00:01:29,520

and good morning houston and uh

16

00:01:31,910 --> 00:01:30,479

and uh

17

00:01:33,030 --> 00:01:31,920

that was the uh

18

00:01:35,510 --> 00:01:33,040

the second

19

00:01:36,710 --> 00:01:35,520

second most popular selection from the

20

00:01:38,789 --> 00:01:36,720

from the uh

21

00:01:41,190 --> 00:01:38,799

the song contest for the space shuttle

22

00:01:43,030 --> 00:01:41,200

program and i'd like to thank uh

23

00:01:45,030 --> 00:01:43,040

specifically william shannon for taking

24

00:01:47,510 --> 00:01:45,040

the time to record that special

25

00:01:51,670 --> 00:01:47,520

introduction for us

26
00:01:52,950 --> 00:01:51,680
and we agree it was really special

27
00:01:55,109 --> 00:01:52,960
this is a look at the docking connection

28
00:01:57,190 --> 00:01:55,119
between discovery and the international

29
00:01:59,270 --> 00:01:57,200
space station specifically pressurized

30
00:02:01,270 --> 00:01:59,280
emitting adapter number two

31
00:02:09,430 --> 00:02:01,280
this is on the end of the harmony node

32
00:02:12,390 --> 00:02:11,029
now one hour seven minutes away from

33
00:02:13,750 --> 00:02:12,400
undocking

34
00:02:15,270 --> 00:02:13,760
as we mentioned the station's in the

35
00:02:17,510 --> 00:02:15,280
process of spinning around and putting

36
00:02:19,190 --> 00:02:17,520
discovery out front

37
00:02:20,390 --> 00:02:19,200
it typically flies with a shuttle in the

38
00:02:22,229 --> 00:02:20,400

back of

39

00:02:23,430 --> 00:02:22,239

the combined stack as it's called this

40

00:02:25,830 --> 00:02:23,440

is to protect

41

00:02:28,630 --> 00:02:25,840

uh discovery from any sort of uh hits in

42

00:02:30,550 --> 00:02:28,640

terms of micro meteoroids

43

00:02:36,229 --> 00:02:30,560

but for undocking discover will lead the

44

00:02:40,630 --> 00:02:38,150

just under the desk free

45

00:02:50,150 --> 00:02:40,640

there's a primary rjt driver eight to

46

00:02:50,160 --> 00:02:56,229

now just two minutes away

47

00:03:00,390 --> 00:02:57,990

now just 30 seconds away we will have an

48

00:03:02,949 --> 00:03:00,400

undocking today on time at 6am central

49

00:03:06,390 --> 00:03:04,470

all the systems have been powered up

50

00:03:10,229 --> 00:03:06,400

everything on track the crew is uh in

51
00:03:14,790 --> 00:03:13,110
station physical separation

52
00:03:17,270 --> 00:03:14,800
separation confirmed discovery has

53
00:03:18,400 --> 00:03:17,280
undocked at 6 am central time

54
00:03:22,229 --> 00:03:18,410
station

55
00:03:25,030 --> 00:03:23,670
discovery says farewell to the

56
00:03:27,030 --> 00:03:25,040
international space station for the

57
00:03:31,110 --> 00:03:27,040
final time this docked mission has now

58
00:03:40,789 --> 00:03:31,120
ended discovery flies by itself now

59
00:03:44,550 --> 00:03:42,070
this is the view they saw from the

60
00:03:46,470 --> 00:03:44,560
orbiter docking system ring looking

61
00:03:47,830 --> 00:03:46,480
straight at pressurized mating adapter

62
00:03:49,270 --> 00:03:47,840
number two

63
00:03:51,190 --> 00:03:49,280

as discovery backed away from the

64

00:03:53,190 --> 00:03:51,200

international space station

65

00:03:57,830 --> 00:03:53,200

after this morning's 6am central time

66

00:04:02,229 --> 00:04:00,470

discovery edged out to a distance of 400

67

00:04:04,390 --> 00:04:02,239

feet and then pilot eric bo took over

68

00:04:05,830 --> 00:04:04,400

control and began a fly around of the

69

00:04:09,830 --> 00:04:05,840

international space station we should

70

00:04:11,190 --> 00:04:09,840

get some video uh from the crew of that

71

00:04:15,910 --> 00:04:11,200

and of course we'll bring it to you live

72

00:04:19,349 --> 00:04:17,909

a spectacular view there of the russian

73

00:04:22,310 --> 00:04:19,359

segment of the international space

74

00:04:23,749 --> 00:04:22,320

station the soyuz tma

75

00:04:26,550 --> 00:04:23,759

20 right there at the top right hand

76

00:04:27,590 --> 00:04:26,560

side the progress docked

77

00:04:28,950 --> 00:04:27,600

as well

78

00:04:31,270 --> 00:04:28,960

in the automated transfer vehicle back

79

00:04:33,070 --> 00:04:31,280

there on zvezda

80

00:04:35,830 --> 00:04:33,080

space shuttle discovery there

81

00:05:32,870 --> 00:04:35,840

769 feet away from

82

00:06:29,749 --> 00:05:34,790

discovery beginning to pass underneath

83

00:06:39,270 --> 00:06:31,909

discovery flying about 628 feet away

84

00:06:43,029 --> 00:06:41,270

still uh

85

00:06:44,629 --> 00:06:43,039

back behind and below the russian

86

00:06:46,950 --> 00:06:44,639

segment of the international space

87

00:06:46,960 --> 00:06:55,909

through 6.4 you can depress

88

00:06:59,909 --> 00:06:57,670

okay

89

00:07:00,960 --> 00:06:59,919

go for step

90

00:07:11,830 --> 00:07:00,970

6 one

91

00:07:15,749 --> 00:07:13,270

discovery undocked from the

92

00:07:18,070 --> 00:07:15,759

international space station at 6 a.m

93

00:07:20,550 --> 00:07:18,080

central time today

94

00:07:22,550 --> 00:07:20,560

with pilot eric beau at the controls

95

00:07:26,469 --> 00:07:22,560

moved out in front of the station and

96

00:07:29,270 --> 00:07:26,479

then has started a slow fly around

97

00:07:31,350 --> 00:07:29,280

at this part of the video we can see the

98

00:07:49,749 --> 00:07:31,360

discovery is moving up above the

99

00:07:55,189 --> 00:07:51,749

discovering the station approaching the

100

00:07:57,110 --> 00:07:55,199

northwestern edge of africa

101
00:07:58,629 --> 00:07:57,120
they'll be running parallel to the coast

102
00:08:01,029 --> 00:07:58,639
looking down on the western sahara in

103
00:08:02,230 --> 00:08:01,039
morocco

104
00:08:49,269 --> 00:08:02,240
right about the time the discovery

105
00:08:53,190 --> 00:08:51,030
shuttle passing over cape verde now just

106
00:09:23,350 --> 00:08:53,200
heading toward the northwestern edge of

107
00:09:27,590 --> 00:09:25,030
once again discovery's payload bay

108
00:09:30,949 --> 00:09:27,600
fairly empty at the end of this docked

109
00:09:32,710 --> 00:09:30,959
phase of sts-133 it took up

110
00:09:34,389 --> 00:09:32,720
several tons of supplies and equipment

111
00:09:36,230 --> 00:09:34,399
for the crew onboard the space station

112
00:09:38,389 --> 00:09:36,240
the permanent multi-purpose module now

113
00:09:40,310 --> 00:09:38,399

delivered

114

00:09:43,670 --> 00:09:40,320

express logistics carrier number four

115

00:09:47,590 --> 00:09:45,750

discovery now has done its job for the

116

00:09:48,630 --> 00:09:47,600

international space station finishing up

117

00:09:50,949 --> 00:09:48,640

this

118

00:09:52,070 --> 00:09:50,959

victory lap around the orbiting complex

119

00:09:53,509 --> 00:09:52,080

the crew

120

00:09:55,670 --> 00:09:53,519

getting their last looks at the space

121

00:09:56,470 --> 00:09:55,680

station complex and the expedition 26

122

00:09:59,190 --> 00:09:56,480

crew

123

00:10:45,590 --> 00:09:59,200

getting their final looks at discovery

124

00:10:51,750 --> 00:10:47,350

the sands of the sahara desert passing

125

00:10:51,760 --> 00:11:07,509

it's altitude 216 miles

126
00:11:11,110 --> 00:11:09,670
two spacecraft approaching morocco now

127
00:11:14,069 --> 00:11:11,120
as they continue heading toward the

128
00:11:16,230 --> 00:11:14,079
northeast

129
00:11:29,590 --> 00:11:16,240
about 650 feet in between discovery in

130
00:12:35,670 --> 00:11:31,750
station houston space ground 2 for

131
00:12:38,710 --> 00:12:37,190
discovery has now completed his fly

132
00:12:41,110 --> 00:12:38,720
around we're standing by for the first

133
00:12:43,829 --> 00:12:41,120
of these separation burns

134
00:13:31,030 --> 00:12:43,839
this will begin the process of discovery

135
00:13:38,150 --> 00:13:34,069
discovery setup complete uh tig was 105

136
00:13:42,230 --> 00:13:38,160
one five colon one five colon five seven

137
00:13:47,110 --> 00:13:44,790
yes steve as uh you guys are

138
00:13:48,710 --> 00:13:47,120

heading home i wanted to say one last

139

00:13:49,910 --> 00:13:48,720

time that we really enjoyed your company

140

00:13:51,269 --> 00:13:49,920

on board

141

00:13:54,310 --> 00:13:51,279

and i'm really proud of what we

142

00:13:56,310 --> 00:13:54,320

accomplished together as a team

143

00:13:59,829 --> 00:13:56,320

here on the space station

144

00:14:01,670 --> 00:13:59,839

but uh also including the larger team

145

00:14:04,150 --> 00:14:01,680

uh in houston and all the control

146

00:14:05,750 --> 00:14:04,160

centers around the world this uh

147

00:14:08,310 --> 00:14:05,760

space program and doing something as

148

00:14:10,310 --> 00:14:08,320

complicated as this really takes a uh

149

00:14:13,110 --> 00:14:10,320

team effort and that's uh i think what

150

00:14:15,509 --> 00:14:13,120

we've proven here this last week

151

00:14:18,470 --> 00:14:15,519

uh i'd like to wish you guys a safe rest

152

00:14:20,470 --> 00:14:18,480

air flight and a safe landing and i will

153

00:16:50,550 --> 00:14:20,480

see you all back in houston here in

154

00:16:55,749 --> 00:16:53,030

commander steve lindsey pilot eric bowe

155

00:16:58,470 --> 00:16:55,759

and mission specialist alvin drew are at

156

00:17:01,990 --> 00:16:58,480

the controls of the robotic arm which is

157

00:17:09,350 --> 00:17:02,000

holding the orbiter boom sensor system

158

00:17:14,309 --> 00:17:11,510

this morning uh mission specialist steve

159

00:17:15,429 --> 00:17:14,319

bowen and nicole stott completed

160

00:17:17,990 --> 00:17:15,439

the

161

00:17:21,909 --> 00:17:18,000

unpacking of spacewalking gear and

162

00:17:26,949 --> 00:17:21,919

getting that stuff stowed and then uh

163

00:17:41,990 --> 00:17:28,950

that dark colored area on the left hand

164

00:17:48,549 --> 00:17:44,230

the combined crews completed all of the

165

00:17:50,549 --> 00:17:48,559

objectives of that doc time frame

166

00:17:53,350 --> 00:17:50,559

delivering the permanent multi-purpose

167

00:17:56,710 --> 00:17:53,360

module and getting it

168

00:17:58,789 --> 00:17:56,720

more unpacked and outfitted than had or

169

00:18:01,510 --> 00:17:58,799

been in the original plan

170

00:18:04,070 --> 00:18:01,520

they also installed a new external

171

00:18:06,150 --> 00:18:04,080

stowage platform

172

00:18:09,430 --> 00:18:06,160

known as the express logistics carrier

173

00:18:15,029 --> 00:18:12,630

and they executed two spacewalks

174

00:18:16,950 --> 00:18:15,039

with steve bowen and al drew working

175

00:18:19,830 --> 00:18:16,960

outside the station their crewmates

176

00:18:22,310 --> 00:18:19,840

supporting them from inside

177

00:18:23,750 --> 00:18:22,320

as they cleaned up a lot of different uh

178

00:18:25,430 --> 00:18:23,760

tasks over

179

00:18:28,150 --> 00:18:25,440

many different areas of the space

180

00:18:30,470 --> 00:18:28,160

station

181

00:18:35,990 --> 00:18:30,480

as the shuttle is maneuvering

182

00:18:41,909 --> 00:18:38,070

we're getting this view from the vantage

183

00:18:44,070 --> 00:18:41,919

point of 215 miles above the central

184

00:18:46,470 --> 00:18:44,080

pacific ocean

185

00:18:50,310 --> 00:18:46,480

discovery is uh just crossed the equator

186

00:18:56,390 --> 00:18:53,430

shuttle discoveries now flying 220 miles

187

00:19:00,390 --> 00:18:56,400

above the eastern atlantic ocean

188

00:19:02,710 --> 00:19:00,400

clearly an orbitable orbital nighttime

189

00:19:06,070 --> 00:19:02,720

heading for landfall

190

00:19:08,390 --> 00:19:06,080

on the northwestern coast of africa

191

00:19:11,270 --> 00:19:08,400

this camera is in the aft of the payload

192

00:19:13,909 --> 00:19:11,280

bay on the starboard side

193

00:19:17,110 --> 00:19:13,919

and we can see that eric bowe and

194

00:20:16,710 --> 00:19:17,120

al drew have got the obss positioned

195

00:20:20,390 --> 00:20:18,710

this camera is at the

196

00:20:21,669 --> 00:20:20,400

forward end of the payload bay on the

197

00:20:24,870 --> 00:20:21,679

starboard side

198

00:20:26,390 --> 00:20:24,880

and is uh framing up so that we can get

199

00:20:28,230 --> 00:20:26,400

a close-up look

200

00:20:30,710 --> 00:20:28,240

as the

201
00:21:10,789 --> 00:20:30,720
shuttle's robotic arm ungrapples from

202
00:21:15,990 --> 00:21:13,190
the crew of space shuttle discovery been

203
00:21:18,149 --> 00:21:16,000
working on the late inspection of

204
00:21:19,909 --> 00:21:18,159
thermal protection system of the shuttle

205
00:21:25,029 --> 00:21:19,919
since before 10 o'clock this morning

206
00:21:30,470 --> 00:21:27,830
the robotic arm maneuvered the orbiter

207
00:21:33,029 --> 00:21:30,480
boom sensor system into position along

208
00:21:35,029 --> 00:21:33,039
the starboard wing to examine the

209
00:21:42,070 --> 00:21:35,039
reinforced carbon carbon panels that

210
00:21:46,950 --> 00:21:43,750
survey of the starboard wing got

211
00:21:49,990 --> 00:21:46,960
finished just before noon central time

212
00:21:52,789 --> 00:21:50,000
and the crew members moved on to

213
00:21:55,590 --> 00:21:52,799

start the inspection of the nose cap

214

00:21:59,110 --> 00:21:55,600

that got started at 1204 and was wrapped

215

00:22:00,870 --> 00:21:59,120

up at 12 53 central time

216

00:22:02,950 --> 00:22:00,880

now less than 50 minutes away from the

217

00:22:05,990 --> 00:22:02,960

scheduled start time of the

218

00:22:08,630 --> 00:22:06,000

cruise sleep period at 6 23 central time

219

00:22:14,710 --> 00:22:11,669

earlier this afternoon we got

220

00:22:16,470 --> 00:22:14,720

substantial replay of video shot by the

221

00:22:18,390 --> 00:22:16,480

shuttle astronauts

222

00:22:20,549 --> 00:22:18,400

with their view of the international

223

00:22:28,020 --> 00:22:20,559

space station during the fly around of