

STS-72



1
00:00:10,310 --> 00:00:08,310
endeavors astronauts wrap up their

2
00:00:12,310 --> 00:00:10,320
experiments pack up their ship and head

3
00:00:13,990 --> 00:00:12,320
into the home stretch of their journey a

4
00:00:15,829 --> 00:00:14,000
look back at the mission and a look

5
00:00:17,910 --> 00:00:15,839
ahead to landing in the pre-dawn hours

6
00:00:19,590 --> 00:00:17,920
tomorrow we've got the details of the

7
00:00:21,670 --> 00:00:19,600
final hours of the first shuttle flight

8
00:00:35,670 --> 00:00:21,680
of the year next on the flight day 9

9
00:00:39,830 --> 00:00:37,510
welcome to mission update

10
00:00:41,430 --> 00:00:39,840
now less than 17 hours away from a

11
00:00:43,430 --> 00:00:41,440
scheduled nighttime landing at the

12
00:00:45,750 --> 00:00:43,440
kennedy space center the astronauts

13
00:00:47,750 --> 00:00:45,760

aboard endeavour are set for sleep after

14

00:00:49,910 --> 00:00:47,760

a day of deactivating secondary

15

00:00:52,389 --> 00:00:49,920

experiments packing up their equipment

16

00:00:54,150 --> 00:00:52,399

and testing the orbiter's flight systems

17

00:00:55,910 --> 00:00:54,160

late last night the six astronauts

18

00:00:58,470 --> 00:00:55,920

gathered to respond to reporters

19

00:01:00,549 --> 00:00:58,480

questions both in english and japanese

20

00:01:02,630 --> 00:01:00,559

about the achievements of their mission

21

00:01:04,549 --> 00:01:02,640

those include the successful retrieval

22

00:01:06,630 --> 00:01:04,559

of the japanese space flier unit

23

00:01:08,950 --> 00:01:06,640

satellite the deployment and retrieval

24

00:01:10,950 --> 00:01:08,960

of the oastflyer satellite and two

25

00:01:13,030 --> 00:01:10,960

spacewalks which contributed more than a

26
00:01:14,950 --> 00:01:13,040
day's worth of experience in working in

27
00:01:17,190 --> 00:01:14,960
a weightless environment and testing

28
00:01:18,789 --> 00:01:17,200
construction tools and techniques being

29
00:01:19,749 --> 00:01:18,799
planned for the international space

30
00:01:22,230 --> 00:01:19,759
station

31
00:01:24,149 --> 00:01:22,240
right now endeavour is flying some 190

32
00:01:27,109 --> 00:01:24,159
miles over the pacific ocean near the

33
00:01:29,510 --> 00:01:27,119
hawaiian islands on the 131st orbit of

34
00:01:32,550 --> 00:01:29,520
the mission traveling at 17

35
00:01:34,630 --> 00:01:32,560
500 miles an hour or five miles a second

36
00:01:35,590 --> 00:01:34,640
it circles the earth once every 90

37
00:01:37,590 --> 00:01:35,600
minutes

38
00:01:39,749 --> 00:01:37,600

having completed packing up all the

39

00:01:41,910 --> 00:01:39,759

equipment in the crew cabin all six

40

00:01:43,990 --> 00:01:41,920

astronauts are in their pre-sleep period

41

00:01:46,149 --> 00:01:44,000

now in fact they are scheduled to go to

42

00:01:48,149 --> 00:01:46,159

sleep for the last time this mission at

43

00:01:50,069 --> 00:01:48,159

9 11.

44

00:01:51,990 --> 00:01:50,079

since getting up yesterday afternoon the

45

00:01:53,670 --> 00:01:52,000

astronauts focused on ensuring that

46

00:01:55,910 --> 00:01:53,680

everything with their ship is set to

47

00:01:58,149 --> 00:01:55,920

come home tomorrow morning they also

48

00:01:59,830 --> 00:01:58,159

took time out a little time out to share

49

00:02:02,709 --> 00:01:59,840

their thoughts about the mission with

50

00:02:04,230 --> 00:02:02,719

reporters on the ground

51
00:02:05,990 --> 00:02:04,240
with their mission nearing an end

52
00:02:07,990 --> 00:02:06,000
endeavors astronauts began what is

53
00:02:10,150 --> 00:02:08,000
expected to be their final full day in

54
00:02:21,190 --> 00:02:10,160
space last night with a wake-up call

55
00:02:24,790 --> 00:02:22,869
the theme from the motion picture star

56
00:02:26,630 --> 00:02:24,800
wars sent the astronauts off and running

57
00:02:29,270 --> 00:02:26,640
to prepare for saturday's scheduled

58
00:02:30,790 --> 00:02:29,280
landing commander brian duffy and pilot

59
00:02:32,949 --> 00:02:30,800
brent jett took their seats on the

60
00:02:35,350 --> 00:02:32,959
flight deck to conduct routine tests of

61
00:02:38,070 --> 00:02:35,360
endeavor's flight control systems they

62
00:02:39,830 --> 00:02:38,080
then fired endeavour's 44 steering jets

63
00:02:41,509 --> 00:02:39,840

two of which failed but flight

64

00:02:43,509 --> 00:02:41,519

controllers said backup jets would be

65

00:02:45,910 --> 00:02:43,519

used during entry with no impact to the

66

00:02:48,070 --> 00:02:45,920

ship's landing as the astronauts began

67

00:02:49,750 --> 00:02:48,080

to pack up their ship flight controllers

68

00:02:50,949 --> 00:02:49,760

told duffy that weather conditions at

69

00:02:52,949 --> 00:02:50,959

the cape were looking good for

70

00:02:54,710 --> 00:02:52,959

tomorrow's homecoming

71

00:02:57,830 --> 00:02:54,720

what we've got is we've got some great

72

00:03:00,309 --> 00:02:57,840

weather for you both saturday and sunday

73

00:03:03,270 --> 00:03:00,319

at both landing sites

74

00:03:04,710 --> 00:03:03,280

we will be bringing up ksc only on

75

00:03:07,830 --> 00:03:04,720

saturday

76

00:03:09,750 --> 00:03:07,840

with two opportunities there

77

00:03:11,589 --> 00:03:09,760

midway through their day the astronauts

78

00:03:13,750 --> 00:03:11,599

began to shut down some of endeavour's

79

00:03:15,830 --> 00:03:13,760

secondary experiments including the

80

00:03:17,830 --> 00:03:15,840

shuttle laser altimeter payload in the

81

00:03:19,670 --> 00:03:17,840

cargo bay the experiment has been

82

00:03:21,750 --> 00:03:19,680

collecting data on topographical

83

00:03:23,589 --> 00:03:21,760

features on earth and measuring the

84

00:03:25,670 --> 00:03:23,599

distance between the shuttle and those

85

00:03:27,670 --> 00:03:25,680

land masses

86

00:03:29,589 --> 00:03:27,680

before stowing endeavour's ku band

87

00:03:31,190 --> 00:03:29,599

antenna the crew gathered on the flight

88

00:03:34,149 --> 00:03:31,200

deck to answer questions about their

89

00:03:36,309 --> 00:03:34,159

mission from u.s and japanese reporters

90

00:03:38,070 --> 00:03:36,319

astronauts leroy chao and winston scott

91

00:03:40,149 --> 00:03:38,080

discussed the spacewalks conducted

92

00:03:42,149 --> 00:03:40,159

earlier this week improvements made to

93

00:03:43,910 --> 00:03:42,159

their spacesuits and the effect the

94

00:03:46,229 --> 00:03:43,920

spacewalks will have on the assembly of

95

00:03:48,070 --> 00:03:46,239

the international space station but

96

00:03:50,149 --> 00:03:48,080

overall i felt very good in the suit i

97

00:03:52,470 --> 00:03:50,159

could have continued to work in the suit

98

00:03:54,149 --> 00:03:52,480

regardless of the uh temperatures so i

99

00:03:56,229 --> 00:03:54,159

would say with we certainly have a good

100

00:03:58,789 --> 00:03:56,239

baseline for which we can

101
00:04:00,630 --> 00:03:58,799
uh going and do our work obviously you

102
00:04:02,149 --> 00:04:00,640
always want to look for improvements but

103
00:04:04,470 --> 00:04:02,159
i think we're to the point where we can

104
00:04:06,309 --> 00:04:04,480
take that suit airborne and begin to

105
00:04:07,830 --> 00:04:06,319
construct the station with it it was a

106
00:04:09,350 --> 00:04:07,840
very successful flight test we learned a

107
00:04:11,509 --> 00:04:09,360
lot it's going to feed right back into

108
00:04:14,869 --> 00:04:11,519
the space station and the space station

109
00:04:16,550 --> 00:04:14,879
program and we're ready to go build it

110
00:04:18,789 --> 00:04:16,560
endeavour's landing will be the eighth

111
00:04:21,509 --> 00:04:18,799
in darkness in shuttle history but duffy

112
00:04:23,189 --> 00:04:21,519
said not to worry i'm looking forward to

113
00:04:24,629 --> 00:04:23,199

the night landing it's something that

114

00:04:26,230 --> 00:04:24,639

we've trained for

115

00:04:27,510 --> 00:04:26,240

brent and i have been training now for

116

00:04:28,390 --> 00:04:27,520

the you know the better part of a year

117

00:04:30,150 --> 00:04:28,400

to do that

118

00:04:31,030 --> 00:04:30,160

uh we've flown hundreds of approaches at

119

00:04:33,430 --> 00:04:31,040

night

120

00:04:35,270 --> 00:04:33,440

um i don't think that it'll be all that

121

00:04:37,270 --> 00:04:35,280

different from uh from a day landing to

122

00:04:39,350 --> 00:04:37,280

tell you the truth that some people that

123

00:04:40,469 --> 00:04:39,360

have made knight landings before tell me

124

00:04:41,590 --> 00:04:40,479

that it's actually a little bit easier

125

00:04:44,469 --> 00:04:41,600

just because you don't have all the

126

00:04:45,909 --> 00:04:44,479

other things in your visual

127

00:04:47,670 --> 00:04:45,919

current range

128

00:04:49,590 --> 00:04:47,680

uh to distract you at all and all you

129

00:04:51,030 --> 00:04:49,600

have is the lit runway and the center

130

00:04:53,030 --> 00:04:51,040

line and the light sliding up the

131

00:04:54,310 --> 00:04:53,040

touchdown zone so very excited about

132

00:04:55,430 --> 00:04:54,320

doing it i've been training for it for a

133

00:04:56,790 --> 00:04:55,440

long time

134

00:04:58,790 --> 00:04:56,800

and i don't think it's going to be

135

00:05:00,790 --> 00:04:58,800

particularly difficult

136

00:05:03,749 --> 00:05:00,800

to learn about the latest preparations

137

00:05:05,430 --> 00:05:03,759

for the conclusion of mission sts 72 we

138

00:05:07,430 --> 00:05:05,440

talked to mission operations director

139

00:05:09,350 --> 00:05:07,440

lee briscoe in mission control earlier

140

00:05:11,189 --> 00:05:09,360

today i asked him if everything was

141

00:05:13,189 --> 00:05:11,199

proceeding on schedule for a landing

142

00:05:14,950 --> 00:05:13,199

tomorrow morning

143

00:05:16,790 --> 00:05:14,960

everything really is on schedule for

144

00:05:18,310 --> 00:05:16,800

landing tomorrow morning the flight's

145

00:05:20,390 --> 00:05:18,320

gone very well we're all looking forward

146

00:05:22,230 --> 00:05:20,400

to landing at ksc tomorrow

147

00:05:25,110 --> 00:05:22,240

what about the weather lee are there any

148

00:05:27,270 --> 00:05:25,120

concerns about conditions at ksc or at

149

00:05:28,790 --> 00:05:27,280

edwards for a possible landing there

150

00:05:30,390 --> 00:05:28,800

the weather's looking pretty good there

151

00:05:31,909 --> 00:05:30,400

are two frontal systems one on each

152

00:05:33,749 --> 00:05:31,919

coast that we're watching

153

00:05:35,110 --> 00:05:33,759

the one on the east coast at ksc should

154

00:05:37,029 --> 00:05:35,120

clear and that should give us just

155

00:05:39,430 --> 00:05:37,039

scattered clouds and wind right down the

156

00:05:40,790 --> 00:05:39,440

runway so that looks good at edwards the

157

00:05:43,029 --> 00:05:40,800

other front's out there and there may be

158

00:05:44,469 --> 00:05:43,039

a bit of a crosswind problem so we'll

159

00:05:46,550 --> 00:05:44,479

have to watch that but it generally

160

00:05:48,390 --> 00:05:46,560

looks really good for tomorrow

161

00:05:50,310 --> 00:05:48,400

if for some reason you should have to

162

00:05:51,990 --> 00:05:50,320

wave off tomorrow morning what are the

163

00:05:53,510 --> 00:05:52,000

next options and how long could

164

00:05:55,430 --> 00:05:53,520

endeavour stay up

165

00:05:57,110 --> 00:05:55,440

well we have a number of options again

166

00:06:00,070 --> 00:05:57,120

we'll have a number of opportunities to

167

00:06:00,870 --> 00:06:00,080

ksc and edwards on sunday morning uh and

168

00:06:02,790 --> 00:06:00,880

then we'll have a number of

169

00:06:04,790 --> 00:06:02,800

opportunities after that

170

00:06:06,390 --> 00:06:04,800

we actually have consumables on board to

171

00:06:08,230 --> 00:06:06,400

allow us to go uh

172

00:06:10,230 --> 00:06:08,240

four or five days out instead of the

173

00:06:11,510 --> 00:06:10,240

normal two days but we'll be talking

174

00:06:13,749 --> 00:06:11,520

that over with the mission management

175

00:06:15,749 --> 00:06:13,759

team this morning and coming up with our

176

00:06:18,230 --> 00:06:15,759

plan on what we want to do

177

00:06:20,550 --> 00:06:18,240

that's sts-72 mission operations

178

00:06:22,550 --> 00:06:20,560

director lee briscoe

179

00:06:24,710 --> 00:06:22,560

now here's a look ahead at the final

180

00:06:27,590 --> 00:06:24,720

hours of this flight of endeavor and our

181

00:06:29,350 --> 00:06:27,600

coverage plans here on nasa tv

182

00:06:31,189 --> 00:06:29,360

at 10 central time we'll bring you

183

00:06:33,350 --> 00:06:31,199

today's mission status briefing from

184

00:06:35,510 --> 00:06:33,360

here at the johnson space center and at

185

00:06:37,749 --> 00:06:35,520

11 30 we'll follow with the flight day

186

00:06:39,590 --> 00:06:37,759

video file the highlights of the past

187

00:06:41,909 --> 00:06:39,600

day aboard endeavour

188

00:06:44,150 --> 00:06:41,919

the crew will be awakened at 5 11 this

189

00:06:45,270 --> 00:06:44,160

afternoon and begin final preparations

190

00:06:47,590 --> 00:06:45,280

for landing

191

00:06:50,309 --> 00:06:47,600

at 8 11 this evening mission specialist

192

00:06:52,710 --> 00:06:50,319

dan barry deactivates the shuttle solar

193

00:06:55,110 --> 00:06:52,720

backscatter ultraviolet experiment

194

00:06:57,430 --> 00:06:55,120

concluding its eighth and final shuttle

195

00:06:59,830 --> 00:06:57,440

flight while commander brian duffy takes

196

00:07:02,070 --> 00:06:59,840

a final turn at the portable in-flight

197

00:07:03,830 --> 00:07:02,080

landing operations trainer to sharpen

198

00:07:05,589 --> 00:07:03,840

his flying skills

199

00:07:07,990 --> 00:07:05,599

all the astronauts will be involved in

200

00:07:10,629 --> 00:07:08,000

deorbit preparations by 9 20 this

201
00:07:12,390 --> 00:07:10,639
evening just after 10 o'clock duffy and

202
00:07:15,510 --> 00:07:12,400
jeff will be closing the payload bay

203
00:07:17,270 --> 00:07:15,520
doors about 11 15 the astronauts begin

204
00:07:19,029 --> 00:07:17,280
getting into their launch and entry

205
00:07:20,950 --> 00:07:19,039
suits for the trip home

206
00:07:23,270 --> 00:07:20,960
assuming the weather in florida remains

207
00:07:25,589 --> 00:07:23,280
good entry flight director jeff bantel

208
00:07:28,870 --> 00:07:25,599
will give a go for the deorbit burn at

209
00:07:30,870 --> 00:07:28,880
12 21 tomorrow morning 20 minutes later

210
00:07:33,749 --> 00:07:30,880
duffy will fire endeavour's breaking

211
00:07:36,150 --> 00:07:33,759
rockets to slow the shuttle by 270 feet

212
00:07:37,029 --> 00:07:36,160
per second and allow it to fall out of

213
00:07:41,510 --> 00:07:37,039

orbit

214

00:07:43,589 --> 00:07:41,520

start to feel the effects of contact

215

00:07:46,550 --> 00:07:43,599

with the atmosphere as it descends to an

216

00:07:48,390 --> 00:07:46,560

altitude of four hundred thousand feet

217

00:07:50,150 --> 00:07:48,400

on its descent endeavor will cross the

218

00:07:52,950 --> 00:07:50,160

north american coast over baja

219

00:07:55,189 --> 00:07:52,960

california travel across northern mexico

220

00:07:57,270 --> 00:07:55,199

and the breadth of texas turns southeast

221

00:07:59,670 --> 00:07:57,280

as it crosses louisiana and extreme

222

00:08:01,909 --> 00:07:59,680

southern mississippi then turn east over

223

00:08:04,390 --> 00:08:01,919

the gulf of mexico and florida as it

224

00:08:05,990 --> 00:08:04,400

makes its final approach to runway 33 at

225

00:08:08,150 --> 00:08:06,000

the shuttle landing facility at the

226

00:08:10,790 --> 00:08:08,160

kennedy space center touching down at 1

227

00:08:12,629 --> 00:08:10,800

42 central time tomorrow morning the

228

00:08:13,670 --> 00:08:12,639

eighth nighttime landing in shuttle

229

00:08:15,670 --> 00:08:13,680

history

230

00:08:17,990 --> 00:08:15,680

if it becomes necessary to wave off that

231

00:08:19,670 --> 00:08:18,000

first opportunity another is available

232

00:08:21,990 --> 00:08:19,680

on the following orbit which would put

233

00:08:24,309 --> 00:08:22,000

endeavor on the ground in florida at 3

234

00:08:26,070 --> 00:08:24,319

17 tomorrow morning

235

00:08:27,670 --> 00:08:26,080

the nine-day mission of endeavor has

236

00:08:30,230 --> 00:08:27,680

been coordinated out of the mission

237

00:08:32,149 --> 00:08:30,240

control room here in houston where rob

238

00:08:34,310 --> 00:08:32,159

kelso and his orbit 2 team of

239

00:08:36,709 --> 00:08:34,320

controllers are in what is probably

240

00:08:38,709 --> 00:08:36,719

their final shift of this mission john

241

00:08:41,829 --> 00:08:38,719

shannon's planning team comes in late

242

00:08:43,670 --> 00:08:41,839

this morning a final note next week the

243

00:08:46,230 --> 00:08:43,680

space shuttle columbia will be moved to

244

00:08:48,710 --> 00:08:46,240

the vehicle assembly building at ksc to

245

00:08:50,870 --> 00:08:48,720

prepare it for a planned february 22nd

246

00:08:52,949 --> 00:08:50,880

launch on a two-week science mission

247

00:08:55,670 --> 00:08:52,959

which includes the reflight of the

248

00:08:57,509 --> 00:08:55,680

italian tethered satellite system a firm

249

00:08:59,910 --> 00:08:57,519

launch date will be set after mission

250

00:09:02,630 --> 00:08:59,920

managers hold a flight readiness review

251

00:09:04,710 --> 00:09:02,640

scheduled for february 9th

252

00:09:06,790 --> 00:09:04,720

a reminder today's mission status

253

00:09:09,110 --> 00:09:06,800

briefing is at 10 central time and the

254

00:09:11,750 --> 00:09:09,120

flight day video file will follow at 11

255

00:09:14,550 --> 00:09:11,760

30. we'll return in about five weeks

256

00:09:16,949 --> 00:09:14,560

with the start of sts 75 on its two-week