



1
00:00:51,689 --> 00:00:48,389
this is shuttle launch control at

2
00:00:55,670 --> 00:00:51,699
t-minus three hours and holding and we

3
00:00:58,350 --> 00:00:55,680
have our first look of our commander

4
00:01:03,740 --> 00:00:58,360
Michael Baker as he is being suited up

5
00:01:08,490 --> 00:01:06,690
crew members are being assisted with

6
00:01:10,920 --> 00:01:08,500
their launch and entry suits by suit

7
00:01:12,840 --> 00:01:10,930
technicians pilot Brent jet of course

8
00:01:23,480 --> 00:01:12,850
giving thumbs-up he's ready to make his

9
00:01:23,490 --> 00:01:33,370
he last flew as a pilot aboard STS 72

10
00:01:40,450 --> 00:01:37,300
jerry linenger is going to be going into

11
00:01:41,980 --> 00:01:40,460
space this on his second trip but it

12
00:01:44,500 --> 00:01:41,990
will certainly be as longest he'll be

13
00:01:46,180 --> 00:01:44,510

staying on the MIR Space Station for

14

00:01:48,280 --> 00:01:46,190

about four months until Atlantis goes

15

00:01:52,990 --> 00:01:48,290

back to pick him up in the spring of

16

00:02:00,430 --> 00:01:53,000

this year mission specialist Jeff Weiss

17

00:02:07,740 --> 00:02:00,440

off preparing for his third flight Jeff

18

00:02:17,020 --> 00:02:12,370

mission specialist John Grunsfeld making

19

00:02:19,690 --> 00:02:17,030

his second flight into space today John

20

00:02:24,820 --> 00:02:19,700

became an astronaut in 1992 and flew for

21

00:02:26,020 --> 00:02:24,830

17 days on a mission STS 67 the longest

22

00:02:28,390 --> 00:02:26,030

space shuttle mission to date at that

23

00:02:31,660 --> 00:02:28,400

time yeah that record has since been

24

00:02:42,240 --> 00:02:31,670

broken and the last member of the crew

25

00:02:47,910 --> 00:02:44,460

have about 30 seconds remaining in our

26
00:02:56,500 --> 00:02:47,920
hold before we pick up the count at

27
00:03:01,390 --> 00:02:58,180
again everything continues to go

28
00:03:03,520 --> 00:03:01,400
according to plan operations at the pad

29
00:03:05,020 --> 00:03:03,530
with the shuttle Atlantis so proceeding

30
00:03:07,690 --> 00:03:05,030
smoothly and the astronauts are

31
00:03:10,660 --> 00:03:07,700
preparing to leave their crew quarters

32
00:03:15,460 --> 00:03:10,670
on time in just a few minutes and we're

33
00:03:17,229 --> 00:03:15,470
at t-minus 3 hours and Counting at

34
00:03:38,480 --> 00:03:17,239
t-minus 3 hours and Counting this is

35
00:03:42,960 --> 00:03:40,770
and we're seeing

36
00:03:44,550 --> 00:03:42,970
pictures of the crew is they're walking

37
00:03:45,750 --> 00:03:44,560
down the hall on the third floor of the

38
00:03:54,740 --> 00:03:45,760

operations and check-out building

39

00:04:00,680 --> 00:03:58,490

astronaut Dave Leasman is joining them

40

00:04:03,500 --> 00:04:00,690

you'll be overseeing the astronaut

41

00:04:11,860 --> 00:04:03,510

operations today and outside the

42

00:04:17,410 --> 00:04:14,050

crew is being led by commander Michael

43

00:04:19,349 --> 00:04:17,420

Baker pilot Brent Jett mission

44

00:04:38,110 --> 00:04:19,359

specialist Jerry Linenger John Grunsfeld

45

00:04:45,559 --> 00:04:41,770

this view from the 195-foot level of the

46

00:04:49,879 --> 00:04:45,569

elevator opening we expect the crew to

47

00:04:51,860 --> 00:04:49,889

be stepping out and then to the top of

48

00:05:00,770 --> 00:04:51,870

the picture is the entry to the orbiter

49

00:05:04,760 --> 00:05:02,620

now the crew is at the pad of course

50

00:05:07,250 --> 00:05:04,770

engineers continuing their operations

51
00:05:09,530 --> 00:05:07,260
they're verifying that the external tank

52
00:05:15,710 --> 00:05:09,540
is properly topped off to its proper

53
00:05:18,500 --> 00:05:15,720
levels and they're verifying that the

54
00:05:20,540 --> 00:05:18,510
water spray system which empties about

55
00:05:24,230 --> 00:05:20,550
300,000 gallons of water on to the pad

56
00:05:26,840 --> 00:05:24,240
just seconds before liftoff verifying

57
00:05:30,350 --> 00:05:26,850
that that water spray system is is

58
00:05:35,600 --> 00:05:30,360
operational and our first view of the

59
00:05:38,000 --> 00:05:35,610
white rim closeout crew members of

60
00:05:40,970 --> 00:05:38,010
course have been on station for the past

61
00:05:43,280 --> 00:05:40,980
two and a half hours or so making ready

62
00:05:54,930 --> 00:05:43,290
the orbiter and the white room for the

63
00:06:05,440 --> 00:06:03,730

CTLs do you want to be activated

64

00:06:15,300 --> 00:06:05,450

momentarily and may cause renunciation

65

00:06:18,310 --> 00:06:15,310

of messages and marshes in her seat JSC

66

00:06:21,850 --> 00:06:18,320

soup technician from the United Space

67

00:06:24,580 --> 00:06:21,860

Alliance or USA max Candler will assist

68

00:06:29,110 --> 00:06:24,590

her for the next several minutes says

69

00:06:33,120 --> 00:06:29,120

she gets strapped in meanwhile back in

70

00:06:35,610 --> 00:06:33,130

the white room our pilot Brent Jett is

71

00:06:39,040 --> 00:06:35,620

going to be the next end of the vehicle

72

00:07:11,869 --> 00:06:39,050

and he'll be taking his seat next to

73

00:07:15,820 --> 00:07:14,269

and the orbiter access arm and is now

74

00:07:18,919 --> 00:07:15,830

being retracted away from the vehicle

75

00:07:21,320 --> 00:07:18,929

this is the walkway used by the crew to

76

00:07:22,579 --> 00:07:21,330

gain entry into and out of the vehicle

77

00:07:35,879 --> 00:07:22,589

and it can be returned to position

78

00:07:41,379 --> 00:07:38,680

as the access arm continues to be

79

00:07:57,000 --> 00:07:41,389

retracted we're at t-minus seven minutes

80

00:08:16,320 --> 00:07:58,620

and the three main engines are being

81

00:08:20,040 --> 00:08:18,300

your protest conductor has requested

82

00:08:23,640 --> 00:08:20,050

that pilot print jet clear the caution

83

00:08:25,290 --> 00:08:23,650

and warning memory system everything

84

00:08:27,480 --> 00:08:25,300

looks good and we're cleared for launch

85

00:08:32,840 --> 00:08:27,490

today no problems are being reported

86

00:08:56,180 --> 00:08:34,850

so these we thought the mornings I don't

87

00:09:11,790 --> 00:08:56,190

know that's affected by 2 t minus 1

88

00:09:15,419 --> 00:09:14,939

what better 30 foot and all systems are

89

00:09:17,819 --> 00:09:15,429

go

90

00:09:19,650 --> 00:09:17,829

special Atlantis is about 90 seconds

91

00:09:25,970 --> 00:09:19,660

from beginning its 10-day mission to

92

00:09:25,980 --> 00:09:41,070

t-minus one minute 15 seconds

93

00:09:46,500 --> 00:09:43,020

what that at t-minus one minute and

94

00:09:49,440 --> 00:09:48,060

everything is still looking good for

95

00:09:52,200 --> 00:09:49,450

launch of the shuttle Atlantis from

96

00:09:54,060 --> 00:09:52,210

Kennedy Space Center in Florida t-minus

97

00:09:55,790 --> 00:09:54,070

50 seconds and we're transferring to

98

00:09:58,110 --> 00:09:55,800

orbit our internal power at this time

99

00:10:01,140 --> 00:09:58,120

Atlantis is now running off of its three

100

00:10:12,160 --> 00:10:01,150

onboard fuel cells coming up on a go for

101
00:10:16,490 --> 00:10:14,290
and we have a go for autosequence start

102
00:10:17,930 --> 00:10:16,500
Atlantis's onboard computers have

103
00:10:26,530 --> 00:10:17,940
primary control of all the vehicles

104
00:10:26,540 --> 00:10:30,120
t-minus 15

105
00:10:38,629 --> 00:10:35,970
12 - -10 8 we have a go for main engine

106
00:10:44,460 --> 00:10:38,639
start main engines up and running

107
00:10:46,590 --> 00:10:44,470
3 2 1 booster ignition and liftoff of

108
00:10:51,030 --> 00:10:46,600
the space shuttle Atlantis on a Tuesday

109
00:10:58,830 --> 00:10:52,740
Houston now controlling the flight of

110
00:11:00,180 --> 00:10:58,840
Atlantis Atlantis into the world to

111
00:11:01,950 --> 00:11:00,190
place the shuttle and ahead to down

112
00:11:14,600 --> 00:11:01,960
wings level position for the eight nine

113
00:11:18,710 --> 00:11:17,090

thirty seconds into the flight Atlantis

114

00:11:20,570 --> 00:11:18,720

mystery liquid fuel main engines now

115

00:11:21,920 --> 00:11:20,580

throttling back in a three-step fashion

116

00:11:24,110 --> 00:11:21,930

to sixty-seven percent of rated

117

00:11:25,940 --> 00:11:24,120

performance that will dampen the stress

118

00:11:43,299 --> 00:11:25,950

on the shuttles Aero surfaces as it

119

00:11:47,179 --> 00:11:45,410

one minute into the flight the main

120

00:11:48,949 --> 00:11:47,189

engines now beginning to rev up the full

121

00:11:50,749 --> 00:11:48,959

throttle 104 percent of rated

122

00:11:52,460 --> 00:11:50,759

performance they throttle up call coming

123

00:12:03,189 --> 00:11:52,470

up from spacecraft communicator Kevin

124

00:12:07,699 --> 00:12:05,509

one minute twenty seconds into the

125

00:12:10,460 --> 00:12:07,709

flight Atlantis traveling at 1500 miles

126
00:12:12,949 --> 00:12:10,470
per hour now ten miles downrange from

127
00:12:15,410 --> 00:12:12,959
the Kennedy Space Center 13 miles in

128
00:12:17,179 --> 00:12:15,420
altitude the shuttles three main engines

129
00:12:18,980 --> 00:12:17,189
three auxiliary power units three power

130
00:12:35,130 --> 00:12:18,990
producing fuel cells all functioning

131
00:12:39,329 --> 00:12:37,319
one minute 50 seconds into the flight

132
00:12:42,240 --> 00:12:39,339
standing by for solid rocket booster

133
00:12:43,920 --> 00:12:42,250
shut down in jettison that command to

134
00:12:45,509 --> 00:12:43,930
come from the on-board computers through

135
00:12:56,080 --> 00:12:45,519
the master events controller onboard

136
00:13:00,220 --> 00:12:58,360
booster officer confirms a clean solid

137
00:13:01,900 --> 00:13:00,230
rocket booster separation guidance now

138
00:13:04,330 --> 00:13:01,910

converging on Atlantis's three main

139

00:13:06,850 --> 00:13:04,340

engines as they begin to steer for a

140

00:13:21,160 --> 00:13:06,860

precise keyhole in space for main engine

141

00:13:22,930 --> 00:13:21,170

cutoff - - engine Marone those calls

142

00:13:24,610 --> 00:13:22,940

from spacecraft communicator Kevin

143

00:13:26,500 --> 00:13:24,620

Kregel to Commander Mike Baker aboard

144

00:13:28,270 --> 00:13:26,510

Atlantis indicating that the solid

145

00:13:29,920 --> 00:13:28,280

rocket boosters provided the desired

146

00:13:33,040 --> 00:13:29,930

performance during the first stage of

147

00:13:34,930 --> 00:13:33,050

this morning's ascend to orbit and if

148

00:13:36,550 --> 00:13:34,940

one and if one main engine should fail

149

00:13:38,830 --> 00:13:36,560

Atlantis has enough inertia to make a

150

00:13:41,110 --> 00:13:38,840

transoceanic abort - Marone Spain

151
00:13:43,540 --> 00:13:41,120
however all three main engines continue

152
00:15:10,500 --> 00:13:43,550
to function by the book three minutes

153
00:15:16,500 --> 00:15:13,230
Marsha you have a gold for the CWC

154
00:15:19,280 --> 00:15:16,510
number two it's silver biocide only no

155
00:15:27,629 --> 00:15:19,290
samples as listed in the timeline and

156
00:15:29,430 --> 00:15:27,639
any any bubbles you see let us know okay

157
00:15:31,769 --> 00:15:29,440
I'm just looking at this big boy here

158
00:15:33,240 --> 00:15:31,779
and and it looks like it's all water in

159
00:15:34,829 --> 00:15:33,250
there so I think we're doing okay do you

160
00:15:45,700 --> 00:15:34,839
want me to cut the laces on the next bag

161
00:15:49,210 --> 00:15:47,770
Marja no need to respond we're with you

162
00:15:50,980 --> 00:15:49,220
there in the mid-deck yes we'd like you

163
00:16:44,660 --> 00:15:50,990

to cut the laces on the second one and

164

00:16:44,670 --> 00:17:03,350

probably the only way to get out

165

00:17:03,360 --> 00:17:13,340

Seba DC cables

166

00:17:58,980 --> 00:17:15,990

maybe just come out on your side so that

167

00:17:58,990 --> 00:18:06,410

tygris

168

00:18:13,280 --> 00:18:08,420

John looks like the footswitch is

169

00:18:20,700 --> 00:18:13,290

working well like a term for a simian

170

00:18:27,570 --> 00:18:23,740

this habit Lenox for by Iraq Isis I'm

171

00:18:33,600 --> 00:18:27,580

nine green systems on my mark three two

172

00:18:33,610 --> 00:20:48,170

Lee company

173

00:20:52,920 --> 00:20:51,210

three feet point oh eight three feet

174

00:20:55,860 --> 00:20:52,930

point one

175

00:21:59,040 --> 00:20:55,870

dropping the point oh you're good you're

176

00:22:08,230 --> 00:22:06,520

capture light capture lizzie free drift

177

00:22:12,400 --> 00:22:08,240

I've got a flashing wing aligned on and

178

00:22:14,650 --> 00:22:12,410

off rocks I've got bring a line odd okay

179

00:22:19,060 --> 00:22:14,660

they've settled fifty fifty fifty PCT is

180

00:22:20,320 --> 00:22:19,070

often like a full power damping is on no

181

00:22:23,980 --> 00:22:20,330

we gotta wait until we let the up it's

182

00:24:15,070 --> 00:22:23,990

off no I'm counting okay that's fine

183

00:24:31,330 --> 00:24:16,930

Lanice Houston if you keep key in that

184

00:24:33,130 --> 00:24:31,340

mic we love the sound if we could

185

00:24:35,890 --> 00:24:33,140

request someone to push and hold the

186

00:24:40,590 --> 00:24:35,900

battery power speaker mic button so we

187

00:24:45,970 --> 00:24:43,030

I'm trying to catch up the jab looks

188

00:24:54,070 --> 00:24:45,980

like we made it to the node and I'm

189

00:24:55,300 --> 00:24:54,080

tending and up and down I modules they

190

00:24:57,730 --> 00:24:55,310

all look great I'm trying to look all

191

00:25:01,180 --> 00:24:57,740

around Jeff is turning into bass back

192

00:25:02,770 --> 00:25:01,190

let's see the US flag flying and looks

193

00:25:06,250 --> 00:25:02,780

like they really prepare things for us

194

00:25:08,770 --> 00:25:06,260

Larry up ahead fakes already made it in

195

00:25:11,620 --> 00:25:08,780

I think John blabs bringing up the rear

196

00:25:40,710 --> 00:25:11,630

so that everyone doesn't navigate make a

197

00:25:40,720 --> 00:27:15,080

thank you Michael thank you

198

00:27:20,480 --> 00:27:17,660

mayor Atlantis Houston we're in the

199

00:27:22,730 --> 00:27:20,490

process of enabling air-to-ground to to

200

00:28:00,860 --> 00:27:22,740

Moscow that should be accomplished here

201
00:28:08,240 --> 00:28:05,090
we're crossing an international boundary

202
00:28:10,610 --> 00:28:08,250
on the US side now

203
00:28:11,940 --> 00:28:10,620
and now we're on the Russian Mir Space

204
00:28:13,590 --> 00:28:11,950
Station

205
00:28:15,940 --> 00:28:13,600
their orbiter right

206
00:28:18,830 --> 00:28:15,950
I'll switch orientations to make you

207
00:28:23,239 --> 00:28:21,320
Jeff is currently holding a water bag

208
00:28:30,760 --> 00:28:23,249
we're filling lots of these water bags

209
00:28:38,470 --> 00:28:32,799
the urban or docking system will be

210
00:28:43,990 --> 00:28:41,020
all of these air ducts you see provide

211
00:28:46,659 --> 00:28:44,000
fresh air throughout the modules this is

212
00:28:49,180 --> 00:28:46,669
one of the patches and used also as a

213
00:28:50,680 --> 00:28:49,190

vacuum system for the Russians it's

214

00:28:58,899 --> 00:28:50,690

similar to the one that we use when we

215

00:28:58,909 --> 00:29:09,270

feel like I'm exploring a cave

216

00:29:09,280 --> 00:29:19,740

Brenda crystal module now

217

00:29:19,750 --> 00:29:24,499

equipment stored on all sides

218

00:29:24,509 --> 00:29:31,530

doing another orientation change

219

00:29:37,130 --> 00:29:33,150

floor becomes the ceiling the ceiling

220

00:29:41,060 --> 00:29:38,539

and the right is the greenhouse

221

00:30:02,830 --> 00:29:41,070

experiment John Bois has been growing

222

00:30:07,480 --> 00:30:04,840

and we're coming up to the central node

223

00:30:08,769 --> 00:30:07,490

the hubba with their space station and

224

00:30:12,430 --> 00:30:08,779

this is where navigation gets

225

00:30:18,759 --> 00:30:12,440

particularly tricky I think our first

226
00:30:19,960 --> 00:30:18,769
stop will be in the base block the base

227
00:30:27,539 --> 00:30:19,970
block is sort of the center of

228
00:30:32,649 --> 00:30:30,610
he's going to go into the central node

229
00:30:37,350 --> 00:30:32,659
and if you can find it he's going to

230
00:30:40,650 --> 00:30:39,120
that's somebody find it he's looking a

231
00:30:47,480 --> 00:30:40,660
little confused but I think you'll

232
00:30:47,490 --> 00:30:50,750
where is it

233
00:30:50,760 --> 00:31:07,790
and do it's one

234
00:31:07,800 --> 00:31:13,310
okay here we are entering product

235
00:31:13,320 --> 00:31:16,860
and help with the orientation

236
00:31:16,870 --> 00:31:21,150
turning around

237
00:31:25,470 --> 00:31:23,100
okay and here is the module where we

238
00:31:27,740 --> 00:31:25,480

brought all of our transfer items you

239

00:31:32,039 --> 00:31:27,750

can see them stacked up underneath gun

240

00:31:34,140 --> 00:31:32,049

lots of bags in the foreground here you

241

00:31:36,029 --> 00:31:34,150

can see a piece of the gyrodyne big

242

00:31:42,190 --> 00:31:36,039

large globe like structure that we

243

00:31:46,780 --> 00:31:44,230

see also a glove box here in the

244

00:31:57,830 --> 00:31:46,790

foreground now John's making his way

245

00:32:03,049 --> 00:32:00,740

anouk we arrived and he's found one of

246

00:32:08,710 --> 00:32:03,059

the radioactive samples that we

247

00:32:12,220 --> 00:32:10,390

he's looking anxious to get away from

248

00:32:14,490 --> 00:32:12,230

the radioactive sample that he was

249

00:32:41,010 --> 00:32:14,500

sitting on so he's going to

250

00:32:55,780 --> 00:32:48,160

Larry say hello to all right that's okay

251
00:32:59,050 --> 00:32:55,790
that's good we returning to the baseball

252
00:33:07,419 --> 00:32:59,060
go back to face block okay now we're

253
00:33:22,450 --> 00:33:09,400
John

254
00:33:31,560 --> 00:33:24,280
fascist

255
00:33:31,570 --> 00:33:35,530
yeah we're turning around

256
00:33:35,540 --> 00:33:55,150
thank you

257
00:33:55,160 --> 00:33:58,510
and now John's

258
00:33:58,520 --> 00:34:08,270
if you get the radio

259
00:34:22,950 --> 00:34:10,950
and this time we'll turn right once we

260
00:34:31,790 --> 00:34:25,500
or any version of space shuttle Atlantis

261
00:34:31,800 --> 00:34:45,030
into the cavernous space hell

262
00:34:56,070 --> 00:34:47,950
Mike Baker and mark items

263
00:34:56,080 --> 00:34:58,760

storage rat

264

00:35:02,730 --> 00:35:00,530

the file rack where Jeff and I have been

265

00:35:06,640 --> 00:35:02,740

working

266

00:35:06,650 --> 00:35:14,120

Lesly refrigerator/freezer

267

00:35:14,130 --> 00:35:25,290

all of our samples

268

00:35:25,300 --> 00:35:29,240

there's the photo box

269

00:35:29,250 --> 00:41:01,450

but

270

00:41:06,710 --> 00:41:04,099

after she was a doctrine that Arjuna

271

00:42:24,839 --> 00:41:06,720

Stanton yeah that's Patania more iike

272

00:47:03,080 --> 00:42:32,789

he said less go ahead I'll call you

273

00:49:31,610 --> 00:47:06,050

Lana Houston Moscow reports Mir is in

274

00:49:48,380 --> 00:49:34,200

again this view from long-range tracking

275

00:49:51,990 --> 00:49:50,910

planets you stand on energy approaching

276
00:49:54,150 --> 00:49:52,000
facts

277
00:49:57,810 --> 00:49:54,160
weather looks really good down here in

278
00:49:59,940 --> 00:49:57,820
Florida Windsor or one 5:05 peak to

279
00:50:16,890 --> 00:49:59,950
eight and you go for a nominal shoot

280
00:50:20,940 --> 00:50:19,260
a morning wake-up call for the residents

281
00:50:22,950 --> 00:50:20,950
of Central Florida as commander Mike

282
00:50:30,360 --> 00:50:22,960
Baker takes over manual control of the

283
00:50:33,180 --> 00:50:30,370
flying of Atlantis he is initiating an

284
00:50:34,770 --> 00:50:33,190
overhead turn of 190 degrees around the

285
00:50:53,130 --> 00:50:34,780
heading alignment cylinder to align

286
00:51:01,190 --> 00:50:59,550
- on at the 180 halfway around halfway

287
00:51:03,540 --> 00:51:01,200
around the heading alignment circle

288
00:51:05,400 --> 00:51:03,550

everything looking good for Atlantis as

289

00:51:17,130 --> 00:51:05,410

the Morning Sun gleams off of its uh

290

00:51:33,210 --> 00:51:19,240

commander Mike Baker should see the

291

00:51:41,760 --> 00:51:35,819

hey that's a cue sir copy your runway in

292

00:52:05,410 --> 00:51:43,710

Mike Baker preparing to flare-up

293

00:52:10,850 --> 00:52:08,120

Brent shut the pilot now deploying the

294

00:52:24,400 --> 00:52:10,860

landing gear landing gear down and

295

00:52:32,410 --> 00:52:28,480

main gear touchdown jet now deploying

296

00:52:36,970 --> 00:52:32,420

the drag chute Baker rotating the nose

297

00:52:37,750 --> 00:52:36,980

gear down to the deck nose gear

298

00:52:40,120 --> 00:52:37,760

touchdown

299

00:52:41,770 --> 00:52:40,130

Atlantis now rolling out on runway 33 at

300

00:52:43,660 --> 00:52:41,780

the Kennedy Space Center to wrap up its

301

00:52:45,520 --> 00:52:43,670

mission bringing astronaut John Blaha

302

00:53:32,510 --> 00:52:45,530

home after four months in orbit on the

303

00:53:38,820 --> 00:53:36,690

with that Tuffy you will stop Atlantis

304

00:53:42,990 --> 00:53:38,830

welcome back after a super mission

305

00:53:44,730 --> 00:53:43,000

fabulous way to start the year 1997 you

306

00:53:47,310 --> 00:53:44,740

guys are making the international

307

00:53:49,530 --> 00:53:47,320

missions seem easy and a special welcome