



1
00:00:00,000 --> 00:00:09,990

[Music]

2
00:00:11,000 --> 00:00:22,000

[Noise]

3
00:00:24,000 --> 00:00:27,250

[Music]

4
00:00:30,500 --> 00:00:33,740

Josh Byerly: We are in Moscow now. We're at the airport actually,

5
00:00:33,750 --> 00:00:36,740

and we're waiting on some other people to show up,

6
00:00:36,750 --> 00:00:39,490

and there's a few more NASA people that flew with us

7
00:00:39,500 --> 00:00:42,490

on the flight over here from Washington, and we are just waiting on them,

8
00:00:42,500 --> 00:00:45,740

and we will get in the van and head to the hotel here in a few minutes.

9
00:00:45,750 --> 00:00:52,740

So this is what, we are waiting, and alot of people right now--

10
00:00:52,750 --> 00:00:55,240

so--'Cause you guys are ADCOs, right?

11
00:00:55,250 --> 00:00:56,240

Wallace: Yes, that's right.

12
00:00:56,250 --> 00:00:57,990

Josh Byerly: Attitude Determination and Control Officer.

13
00:00:58,000 --> 00:00:58,990

Melissa Wallace: Right.

14

00:00:59,000 --> 00:01:00,490

Josh Byerly: Are you impressed that I actually knew that?

15

00:01:00,500 --> 00:01:02,490

Erin Watson: I'm a little bit impressed. Actually.

16

00:01:03,500 --> 00:01:04,990

Josh Byerly: Yeah. So tell people what that actually is?

17

00:01:05,000 --> 00:01:06,740

What is it? What do you do? Your station, right,

18

00:01:06,750 --> 00:01:07,990

station flight controllers.

19

00:01:08,000 --> 00:01:09,490

Melissa Wallace: Okay. So we work for the International Space Station.

20

00:01:09,500 --> 00:01:11,690

What the Attitude officer does is that we control

21

00:01:11,700 --> 00:01:14,490

how the space station is oriented as its orbits around the earth.

22

00:01:14,500 --> 00:01:15,590

Josh Byerly: So you get to point the thing.

23

00:01:15,600 --> 00:01:16,990

Melissa Wallace: Exactly right.

24

00:01:17,250 --> 00:01:18,740

Josh Byerly: Is that intimidating?

25

00:01:18,750 --> 00:01:21,740

Melissa Wallace: Sometimes. Well, we have a system that's very redundant,

26
00:01:21,750 --> 00:01:24,490
and some other times it just flies itself, it's like we use

27
00:01:24,500 --> 00:01:27,990
gyroscopes and thrusters to maintain the attitude.

28
00:01:28,000 --> 00:01:29,240
Josh Byerly: So what are you guys doing in Moscow?

29
00:01:29,250 --> 00:01:31,740
Obviously, we're here for the Soyuz landings. What are you doing?

30
00:01:31,750 --> 00:01:34,490
Erin Watson: We're here actually to fly the shuttle.

31
00:01:34,500 --> 00:01:35,740
Josh Byerly: To fly the shuttle?

32
00:01:35,750 --> 00:01:39,740
Erin Watson: Yeah. So during the shuttle missions, it gets alot more complex,

33
00:01:39,750 --> 00:01:43,240
because you've added a whole new attitude control system into the mix.

34
00:01:43,250 --> 00:01:44,740
So we went from two to three.

35
00:01:44,750 --> 00:01:45,740
Josh Byerly: Basically, you're putting a big

36
00:01:45,750 --> 00:01:47,740
giant weight on the end of the station.

37
00:01:47,750 --> 00:01:49,490
Erin Watson: Exactly. And so, with all of

38
00:01:49,500 --> 00:01:51,740

the changes that happen on a day-to-day basis

39

00:01:51,750 --> 00:01:55,490

on the shuttle missions, we find it's easier to talk face-to-face

40

00:01:55,500 --> 00:01:59,240

with our Russian counterparts, as opposed to working directly over the phone,

41

00:01:59,250 --> 00:02:01,740

or over the loops or through interpreters.

42

00:02:01,750 --> 00:02:02,990

Josh Byerly: 'Cause there's a lot of coordination that's going on

43

00:02:03,000 --> 00:02:05,740

between our team in Houston and the team here in Moscow?

44

00:02:05,750 --> 00:02:08,240

Erin Watson: There's a lot of coordination. And so, we spend

45

00:02:08,250 --> 00:02:11,240

most of our days going back and forth, making sure that everyone

46

00:02:11,250 --> 00:02:14,990

is on the same page for the attitude plan for everyday,

47

00:02:15,000 --> 00:02:18,240

and when thrusters are allowed and when they are not allowed.

48

00:02:18,250 --> 00:02:21,490

Some events actually cannot use thrusters

49

00:02:21,500 --> 00:02:22,740

cause you can damage the spacecraft.

50
00:02:22,750 --> 00:02:24,990
Josh Byerly: Yeah. And of course, we got a Soyuz

51
00:02:25,000 --> 00:02:26,740
undocking during this whole thing too, right?

52
00:02:26,750 --> 00:02:29,990
Erin Watson: And that's a whole new process.

53
00:02:30,000 --> 00:02:31,490
Something, we've never done before.

54
00:02:31,500 --> 00:02:33,990
So we're kind of paving new territory with this one.

55
00:02:34,000 --> 00:02:35,740
Josh Byerly: But we'll do it flawlessly. It's gonna be fine.

56
00:02:35,750 --> 00:02:36,490
Erin Watson: It's gonna be beautiful.

57
00:02:36,500 --> 00:02:37,240
Josh Byerly: It's gonna be flawless isn't it?

58
00:02:37,250 --> 00:02:38,250
Melissa Wallace: Make it look easy.

59
00:02:41,500 --> 00:02:42,740
Josh Byerly: Alright. Where are we heading?

60
00:02:42,750 --> 00:02:44,990
Mark Bowman: We're going to the ESA office in Moscow.

61
00:02:45,000 --> 00:02:46,490
Josh Byerly: The European Space Agency.

62
00:02:46,500 --> 00:02:47,990

Mark Bowman: Correct.

63

00:02:48,000 --> 00:02:48,990

Josh Byerly: Usually, this is our landing team meeting,

64

00:02:49,000 --> 00:02:49,990

alright, where we talk about--

65

00:02:50,000 --> 00:02:51,490

Mark Bowman: Right, landing team face to face,

66

00:02:51,500 --> 00:02:52,740

where we get together all the folks that are gonna

67

00:02:52,750 --> 00:02:55,240

go out on the helos, plus those of us supporting here

68

00:02:55,250 --> 00:02:57,990

from Moscow, all get together, tag up,

69

00:02:58,000 --> 00:03:00,240

and discuss what needs to happen and when.

70

00:03:00,250 --> 00:03:01,240

Josh Byerly: And usually, we've got this at the

71

00:03:01,250 --> 00:03:04,490

NASA office here. But we are guests of ESA today,

72

00:03:04,500 --> 00:03:06,490

'cause they have a big conference room, right?

73

00:03:06,500 --> 00:03:08,240

Mark Bowman: They have a big conference room, and they have their own chef.

74

00:03:08,250 --> 00:03:09,490

Josh Byerly: Well, that's nice.

75

00:03:09,500 --> 00:03:29,490

[Muffled speaking]

76

00:03:29,500 --> 00:03:35,240

Mark Bowman: If you happen to land very soon after the spacecraft lands,

77

00:03:35,250 --> 00:03:38,740

you see the little antennae, it's a flashing-light beacon,

78

00:03:38,750 --> 00:03:43,490

and combined UHF/VHF antenna, those have hatches that cover them,

79

00:03:43,500 --> 00:03:46,740

and they don't blow off until about 11 minutes after touchdown.

80

00:03:46,750 --> 00:03:49,740

So stay away from the vehicle, because that hatch could come

81

00:03:49,750 --> 00:03:52,490

blowing off, and the antenna will come out. And if you're

82

00:03:52,500 --> 00:03:54,490

in the path of it you could get beamed by it.

83

00:03:54,500 --> 00:03:57,740

There was an incident couple of times where the video camera

84

00:03:57,750 --> 00:04:01,240

almost got hit by the hatch. So stay clear of the vehicle

85

00:04:01,250 --> 00:04:04,490

until you see the experts going in.

86

00:04:04,500 --> 00:04:07,740

[Pause]

87

00:04:07,750 --> 00:04:09,990

Josh Byerly: Hey, everybody. It's Day 4 here in Moscow.

88

00:04:11,000 --> 00:04:12,990

It's 7 PM local time on Saturday right now.

89

00:04:13,000 --> 00:04:16,240

You saw our landing team meeting with the NASA personnel

90

00:04:16,250 --> 00:04:19,740

that we had a day before yesterday. You saw all that one went off fine.

91

00:04:19,750 --> 00:04:21,740

We got our safety briefing that we get each time

92

00:04:21,750 --> 00:04:23,490

we come over here about what to do, what not to do,

93

00:04:23,500 --> 00:04:26,490

when we get out in the field. Tomorrow morning, at about 7 o'clock,

94

00:04:26,500 --> 00:04:29,740

we're gonna leave the hotel and head up to Star City,

95

00:04:29,750 --> 00:04:32,740

which of course is where the cosmonauts and the astronauts train,

96

00:04:32,750 --> 00:04:34,990

whenever they're part of these expeditions.

We're gonna meet up

97

00:04:35,000 --> 00:04:37,490

with a few more people up there including the

98

00:04:37,500 --> 00:04:40,490

Russian Search and Recovery Forces, and then we will all

99

00:04:40,500 --> 00:04:44,490

head out to Chkalovsky Airfield, and then take about a 3-hour flight

100

00:04:44,500 --> 00:04:48,740

down to the city of Karaganda. A sort of crash course on how

101

00:04:48,750 --> 00:04:52,490

the Soyuz landings work, there are two different zones in Kazakhstan

102

00:04:52,500 --> 00:04:57,240

that the Soyuz can land in. There's a northern zone and a southern zone,

103

00:04:57,250 --> 00:05:00,240

and in each of those zones, there are two different cities

104

00:05:00,250 --> 00:05:03,240

that we focus on. There's sort of a main bigger city

105

00:05:03,250 --> 00:05:05,740

that we fly into that we stay in usually about a day or two,

106

00:05:05,750 --> 00:05:08,490

and then there is a smaller secondary city

107

00:05:08,500 --> 00:05:11,490

that is sort of the staging area that we typically fly down

108

00:05:11,500 --> 00:05:13,490

to the night before the landing. And what it does

109

00:05:13,500 --> 00:05:16,240

is just put us and the helicopters a bit closer to the

110

00:05:16,250 --> 00:05:18,240

actual landing area itself. Usually it's about a

111

00:05:18,250 --> 00:05:23,740

15-minute flight at most from those cities. So in the northern zone,

112

00:05:23,750 --> 00:05:25,740

you got the main city of Kustanai that we fly into,

113

00:05:25,750 --> 00:05:28,490

and then also the secondary city of Arkalyk, which is the

114

00:05:28,500 --> 00:05:31,740

staging city like I talked about. Down in the southern zone,

115

00:05:31,750 --> 00:05:35,490

which is where we're going tomorrow, you've got the main city of Karaganda,

116

00:05:35,500 --> 00:05:38,240

that that's where we'll actually fly into tomorrow after we leave Moscow,

117

00:05:38,250 --> 00:05:42,240

and then you've got the smaller city of Dzhezkezkhan that we will

118

00:05:42,250 --> 00:05:46,490

head down to on the helicopters the night before landing.

119

00:05:46,500 --> 00:05:49,490

There is also one more meeting that we have to go that will

120

00:05:49,500 --> 00:05:53,740

actually be the meeting with the Search and Recovery Forces themselves.

121

00:05:53,750 --> 00:05:56,240

This is where they sort of say that officially, everybody and

122

00:05:56,250 --> 00:05:59,490

all the equipment is in place, all the different helicopters

123

00:05:59,500 --> 00:06:02,340

are ready to go all the all-terrain vehicles, all the

124

00:06:02,350 --> 00:06:05,240

different medical support personnel are all set.

125

00:06:05,250 --> 00:06:09,740

So that will take place usually the second day
that we're down there.

126

00:06:09,750 --> 00:06:14,490

So everything is beginning to get busy, things
are starting to pick up.

127

00:06:14,500 --> 00:06:17,490

This is where the fun stuff starts 'cause we get to

128

00:06:17,500 --> 00:06:20,490

start flying tomorrow. So we'll see you guys in the morning.

129

00:06:20,500 --> 00:06:42,990

[Outdoor sounds, muffled speaking]

130

00:06:43,000 --> 00:07:05,990

[Airplane noise]

131

00:07:06,000 --> 00:07:09,490

Joel Montalbano: About 11,000 tenge, it's
about 70 dollars.

132

00:07:09,500 --> 00:07:13,240

So when you go to the ATM and you get confused about the

133

00:07:13,250 --> 00:07:16,990

zeroes, remember, 70 dollars is about 11,000 tenge.

134

00:07:17,000 --> 00:07:26,490

[Vehicle noise, muffled speaking]

135

00:07:27,000 --> 00:07:28,240

Josh Byerly: Are you looking for UFO's?

136

00:07:28,250 --> 00:07:29,740

[Laughter]

137

00:07:29,750 --> 00:07:32,490

Bill Ingalls: Trying to track on a satellite here.

138

00:07:33,500 --> 00:07:36,490

Josh Byerly: This is how Bill actually transmits
alot of his images back.

139

00:07:36,500 --> 00:07:39,490

That's why you get them so fast. If it works.

140

00:07:39,500 --> 00:07:41,490

Bill Ingalls: If it works.

141

00:07:44,250 --> 00:07:46,740

Russian translator: In order for us to identify whether the

142

00:07:46,750 --> 00:07:50,240

landing sites were appropriate for the landing, most aviation,

143

00:07:50,250 --> 00:07:57,490

Energia and other entities conducted, controlled a search

144

00:07:57,500 --> 00:07:59,990

of those landing sites.

145

00:08:00,000 --> 00:08:02,990

Joel Montalbano: And as a team has received their helicopter assignments,

146

00:08:03,000 --> 00:08:04,740

they are prepared and ready to support.

147

00:08:04,750 --> 00:08:17,240

Russian speaker: [Russian translation]

148

00:08:17,250 --> 00:08:19,740

Joel Montalbano: The NASA airplane is also ready to go,

149

00:08:19,750 --> 00:08:22,740

and they're ready to return the crew members back...

150

00:08:23,750 --> 00:08:29,490

Russian speaker: [Russian translation]

151

00:08:30,500 --> 00:08:31,490

Joel Montalbano: Alright. This meeting that

152

00:08:31,500 --> 00:08:33,240

controls the Mission Control Center Houston

153

00:08:33,250 --> 00:08:36,240

and coordinated with the other partner mission controls and all the

154

00:08:36,250 --> 00:08:39,490

mission control centers are ready to support undocking.

155

00:08:39,500 --> 00:08:51,990

Russian speaker: [Russian translation]

156

00:08:54,250 --> 00:08:57,490

Josh Byerly: And we're gonna fly down to Dzhezkevgan tonight, and then

157

00:08:57,500 --> 00:08:59,490

tomorrow morning, bright and early, we're going out to the landing.

158

00:08:59,500 --> 00:09:00,490

Kirk Shireman: Yes, so--

159

00:09:00,500 --> 00:09:01,990

Josh Byerly: How many of these have you done?

160

00:09:02,000 --> 00:09:03,990

Kirk Shireman: I think this is my fifth landing.

161

00:09:04,000 --> 00:09:05,740

Josh Byerly: It's always an adventure, isn't it?

162

00:09:05,750 --> 00:09:08,240

Kirk Shireman: It really is. Something is different about each one.

163

00:09:08,250 --> 00:09:11,240

The last one in March was a little chilly.

164

00:09:11,250 --> 00:09:12,490

Josh Byerly: That's what I heard.

165

00:09:12,500 --> 00:09:16,240

Kirk Shireman: The snow was blowing, the wind was very, very strong,

166

00:09:16,250 --> 00:09:21,240

30 knots, and it was--very poor visibility. So this one,

167

00:09:21,250 --> 00:09:23,490

the weather has been outstanding. So I'm--actually,

168

00:09:23,500 --> 00:09:26,240

that'll be unusual, so looking forward to it.

169

00:09:26,250 --> 00:09:28,240

Josh Byerly: There's one thing about this landing,
is that we're gonna

170

00:09:28,250 --> 00:09:32,240

get some pretty unusual pictures of the space station with the

171

00:09:32,250 --> 00:09:34,240

shuttle actually attached. So how cool is that gonna be?

172

00:09:34,250 --> 00:09:35,740

Kirk Shireman: It's great. You know, we've been
waiting for years

173

00:09:35,750 --> 00:09:38,740

to get that opportunity, and we weren't really
sure that we would.

174

00:09:38,750 --> 00:09:41,740

We've been studying this dual-docked ops which--well,

175

00:09:41,750 --> 00:09:44,490

that's what we call it, but really, once the
Soyuz backed away

176

00:09:44,500 --> 00:09:48,240

while the shuttle is still there, and we've studied it

177

00:09:48,250 --> 00:09:50,740

for quite a while, knew that we could do it,
just the opportunity

178

00:09:50,750 --> 00:09:53,240

didn't present itself. And with all these vehicles coming

179

00:09:53,250 --> 00:09:56,240

and going to ISS, we finally got the chance.

180

00:09:56,250 --> 00:09:59,240

So I'm not gonna avoid seeing these beautiful pictures of a shuttle.

181

00:11:00,500 --> 00:11:01,499

Josh Byerly: Is that a 134? That is 134.

182

00:11:01,500 --> 00:11:02,249

very important trait when you are over here and trying

183

00:11:02,250 --> 00:11:03,240

Bill Ingalls: That is 134, man.

184

00:11:03,250 --> 00:11:03,749

Josh Byerly: You are supporting the home crowd, aren't you?

185

00:11:03,750 --> 00:11:04,749

to speak Russian. Otherwise, you'll never venture out.

186

00:11:04,750 --> 00:11:06,499

Off-camera voice: Gentlemen, would you like a picture?

187

00:11:06,500 --> 00:11:06,749

But the kids are in Russian school. So they're like in immersion.

188

00:11:06,750 --> 00:11:11,249

[Simultaneous Talking]

189

00:11:11,250 --> 00:11:11,749

They are almost fluent now.

190

00:11:11,750 --> 00:11:12,499

Josh Byerly: Kirk has a gigantic bag. What's in that?

191

00:11:12,500 --> 00:11:13,490

Josh Byerly: Adapting like crazy.

192

00:11:13,500 --> 00:11:14,499

Mark Polansky: Yeah, yeah. It's embarrassing when

193

00:11:14,500 --> 00:11:14,749

Kirk Shireman: What's in this? I could tell you

194

00:11:14,750 --> 00:11:17,240

you're 7-year-old--almost 7-year-old is correcting you.

195

00:11:17,250 --> 00:11:17,499

Josh Byerly: Okay now speak. You happen to ask,
"What did you say?"

196

00:11:17,500 --> 00:11:18,749

but I'd have to kill you.

197

00:11:18,750 --> 00:11:19,499

Mark Polansky: And she goes, I can't tell you.
I can't help you.

198

00:11:19,500 --> 00:11:21,499

Josh Byerly: So you're staying behind while we go tromp around?

199

00:11:21,500 --> 00:11:22,499

Josh Byerly: So how different is doing this over here

200

00:11:22,500 --> 00:11:24,490

Mark Polansky: I am. I'm gonna stay here at the

201

00:11:24,500 --> 00:11:24,499

lovely Cosmonaut Hotel in Karaganda by the sea.

202

00:11:24,500 --> 00:11:26,749

than being a commander of a shuttle, an astronaut--

203

00:11:26,750 --> 00:11:27,999

Josh Byerly: It's a nice hotel.

204

00:11:28,000 --> 00:11:28,749

Mark Polansky: Oh goodness gracious--I mean, totally different.

205

00:11:28,750 --> 00:11:29,499

Mark Polansky: It's a beautiful hotel.

206

00:11:29,500 --> 00:11:29,749

I'm really enjoying it. I know people think that all astronauts

207

00:11:29,750 --> 00:11:30,740

Josh Byerly: They have good food.

208

00:11:30,750 --> 00:11:32,240

Mark Polansky: They've got great food here.

209

00:11:32,250 --> 00:11:34,490

Josh Byerly: So how long have you been the DOR now?

210

00:11:34,500 --> 00:11:34,499

Mark Polansky: Since January of 2011.

211

00:11:34,500 --> 00:11:36,499

wanna do is fly all the time, which maybe for some is true.

212

00:11:36,500 --> 00:11:37,249

Josh Byerly: Has it been over a year already?

213

00:11:37,250 --> 00:11:38,499

But I mean, I enjoy a change of pace, and it's really a

214

00:11:38,500 --> 00:11:40,490

Mark Polansky: That is--I'm sorry. How long?

215

00:11:40,500 --> 00:11:41,249

Josh Byerly: A year? Is that a year? It's a year!

216

00:11:41,250 --> 00:11:42,499

great environment for the family, and it's special to go

217

00:11:42,500 --> 00:11:43,740

Mark Polansky: Yeah, it's been over a year.

218

00:11:43,750 --> 00:11:43,999

It's been almost year and a half.

219

00:11:44,000 --> 00:11:44,749

ahead and do this, and it's really alot of fun to go

220

00:11:44,750 --> 00:11:45,740

Josh Byerly: Are you enjoying it?

221

00:11:45,750 --> 00:11:46,499

Mark Polansky: Yeah, having a really good time.

222

00:11:46,500 --> 00:11:46,749

ahead and watch all the astronauts that are coming out

223

00:11:46,750 --> 00:11:48,490

Josh Byerly: So you're speaking Russian

224

00:11:48,500 --> 00:11:49,740

pretty fluently now, aren't you?

225

00:11:49,750 --> 00:11:50,249

Mark Polansky: Uhhh...nyet. But the kids are.

226

00:11:50,250 --> 00:11:53,240

for training as they go through their flows to get them

227

00:11:53,250 --> 00:11:53,749

out the door, to get them down to Baikonur and watch

228

00:11:53,750 --> 00:11:54,740

Josh Byerly: Yes.

229

00:11:54,750 --> 00:11:54,749

Mark Polansky: The kids are really doing well.

230

00:11:54,750 --> 00:11:56,249

them launch, to watch them when they come back after

231

00:11:56,250 --> 00:11:59,490

Like I kinda get by and practice a little bit.

232

00:11:59,500 --> 00:11:01,490

I'm not afraid to making a fool of myself, which is a

233

00:11:56,500 --> 00:11:58,740

their landings, and it's a really rewarding thing.

234

00:11:58,750 --> 00:12:02,490

And you especially--you know, in the office, it's always

235

00:12:02,500 --> 00:12:05,490

been the case where kind of--you're used to seeing a certain

236

00:12:05,500 --> 00:12:08,490

group of astronauts because of how your jobs all line up.

237

00:12:08,500 --> 00:12:11,490

And so, there's a whole other group of astronauts

238

00:12:11,500 --> 00:12:15,240

that you barely see. And so, now I'm seeing alot

239

00:12:15,250 --> 00:12:17,240

of the folks that I normally wouldn't see that much of

240

00:12:17,250 --> 00:12:20,240

as they go through the station flow, and so, I get

241

00:12:20,250 --> 00:12:22,490

to spend more time with them. So it's been really alot of fun.

242

00:12:22,500 --> 00:12:23,490

Josh Byerly: 'Cause the training flow is like, what,

243

00:12:23,500 --> 00:12:24,740

2 years? It's about two years.

244

00:12:24,750 --> 00:12:26,740

Mark Polansky: Yeah, pretty close to doing that, between

245

00:12:26,750 --> 00:12:29,240

when they start their language training for immersion,

246

00:12:29,250 --> 00:12:31,490

and they start coming 'cause there's a lot of travel,

247

00:12:31,500 --> 00:12:34,490

especially for those that are going through as left-seaters

248

00:12:34,500 --> 00:12:36,490

in the Soyuz 'cause there's so much more additional training

249

00:12:36,500 --> 00:12:39,490

to get them ready to fly the vehicle. So some of them

250

00:12:39,500 --> 00:12:41,490

have spent a long, long time out in Russia.

250

Translator: This is a heavy helicopter, and it's going

251

00:13:04,500 --> 00:13:08,240

to be under high temperature. So they ask you not

252

00:13:08,250 --> 00:13:11,490

to move during the take off and landing.

253

00:13:11,500 --> 00:13:14,740

[Russian speaker]

254

00:13:14,750 --> 00:13:15,740

Translator: If there are any issues please

255

00:13:15,750 --> 00:13:17,490

talk to the crew, we'll get them resolved.

256

00:13:17,500 --> 00:13:20,490

[Russian speaker]

257

00:13:20,500 --> 00:13:22,240

Translator: And please do not get off the vehicle

258

00:13:22,250 --> 00:13:23,740

until everything is off.

259

00:13:23,750 --> 00:13:26,490

[Russian speaker]

260

00:13:26,500 --> 00:13:27,990

Translator: Have a nice flight.

261

00:13:28,000 --> 00:13:32,990

[Russian speaker]

262

00:13:33,000 --> 00:13:40,490

[Laughter]

263

00:13:40,500 --> 00:13:44,240

Translator: This aircraft is equipped with two emergency exits.

264

00:13:46,000 --> 00:13:47,240

Josh Byerly: One thing you have to have

265

00:13:47,250 --> 00:13:49,240

on these aircraft is hearing protection.

266

00:13:49,250 --> 00:14:09,990

[Helicopters whirring]

267

00:14:11,000 --> 00:14:11,740

Josh Byerly: So there is our ride for today.

268

00:14:11,750 --> 00:14:13,740

This is the Russian Mi-8 helicopter.

269

00:14:13,750 --> 00:14:17,740

There's gonna be I think 12 supporting the landing today.

270

00:14:17,750 --> 00:14:21,240

Usually, it's about I think anywhere between 6 and 11 of us

271

00:14:21,250 --> 00:14:24,240

that ride in these choppers out to the landing site.

272

00:14:24,250 --> 00:14:29,240

But of course, we came down last night down to the city of Dzhezkezgan.

273

00:14:29,250 --> 00:14:31,490

We spent a very short night here. Everybody got up at about

274

00:14:31,500 --> 00:14:37,490

4:30 or 5 o'clock this morning, and part of our team went ahead

275

00:14:37,500 --> 00:14:42,490

and went down to the ballistic sites which is where the capsule

276

00:14:42,500 --> 00:14:44,740

would land if it comes in a bit steeper than normally planned.

277

00:14:44,750 --> 00:14:46,490

So, they went ahead and left, and that's actually who's

278

00:14:46,500 --> 00:14:51,490

leaving right now over there. So they're gonna take off,

279
00:14:51,500 --> 00:14:54,490
and then we're gonna be airborne usually around the time

280
00:14:54,500 --> 00:14:58,490
that we get a confirmation that the deorbit burn has taken place.

281
00:14:58,500 --> 00:15:02,240
So everything is pretty much ready to go. It's actually

282
00:15:02,250 --> 00:15:06,990
a nice day out here. It can get pretty cold out here in Kazakhstan.

283
00:15:07,000 --> 00:15:08,740
But today, I think it's supposed to be in the 70's,

284
00:15:08,750 --> 00:15:12,240
and everything is...and everything is all set.

285
00:15:12,250 --> 00:15:15,740
Josh Byerly: Alright, Steve Hart, you are Cady's flight surgeon.

286
00:15:15,750 --> 00:15:16,990
Steve Hart: So they say.

287
00:15:17,000 --> 00:15:18,240
Josh Byerly: Exactly how many pounds

288
00:15:18,250 --> 00:15:19,490
of supplies are you having to carry?

289
00:15:19,500 --> 00:15:21,490
Steve Hart: I try not to think about it.

290
00:15:21,500 --> 00:15:24,740
It's probably--it's probably about 35.

291

00:15:24,750 --> 00:15:27,240

Josh Byerly: Now, talk a little bit what exactly you guys

292

00:15:27,250 --> 00:15:28,490

will do once the landing takes place? You go out there

293

00:15:28,500 --> 00:15:31,490

and you check the crews to mke sure they're feeling okay.

294

00:15:31,500 --> 00:15:36,240

Steve Hart: Yeah. Ideally, our job is Maytag repair-mannish

295

00:15:36,250 --> 00:15:39,240

in that we, you know, we're able to just stand back

296

00:15:39,250 --> 00:15:42,240

and observe the crew member. The Russians are very thorough

297

00:15:42,250 --> 00:15:44,490

in what they do as far as immediately taking care of folks,

298

00:15:44,500 --> 00:15:49,740

monitoring blood pressure and pulses and such, and I'm happy

299

00:15:49,750 --> 00:15:52,490

if I can just stand back and eyeball my crew member

300

00:15:52,500 --> 00:15:57,490

and see that she's doing well. And if I need to get involved

301

00:15:57,500 --> 00:15:59,490

--I mean, typically, that doesn't happen until we get into

302

00:15:59,500 --> 00:16:02,240

the tent, 'cause that's when the time when the suit comes

303

00:16:02,250 --> 00:16:05,490

off and we're able to do a more thorough assessment,

304
00:16:05,500 --> 00:16:11,740
and if we need to use medications, usually injections of

305
00:16:11,750 --> 00:16:14,740
Phenergan, medications like that for anti-nausea, or

306
00:16:14,750 --> 00:16:17,490
if it gets more--it's more involved then we end up

307
00:16:17,500 --> 00:16:22,490
having to put in the IVs for fluid support. And in general,

308
00:16:22,500 --> 00:16:25,490
that's--you know, if it's been a safe nominal landing,

309
00:16:25,500 --> 00:16:27,990
that's how we're up against.

310
00:16:28,000 --> 00:16:29,740
Josh Byerly: How hard is it actually to diagnose a patient

311
00:16:29,750 --> 00:16:31,740
that's actually up in space? I mean you can't actually,

312
00:16:31,750 --> 00:16:34,240
you know, see them, touch them, you know, like a

313
00:16:34,250 --> 00:16:36,490
normal doctor would. So what kind of challenge is that?

314
00:16:36,500 --> 00:16:40,240
Steve Hart: It's very difficult in the ways that doctors

315
00:16:40,250 --> 00:16:43,990
usually trained. I was educated as a neurologist, and

316

00:16:44,000 --> 00:16:46,240
that's the field where there's a whole lot of hands on

317
00:16:46,250 --> 00:16:50,240
and alot of information you get from talking to the

318
00:16:50,250 --> 00:16:53,740
patient in the form of history is helpful. For our

319
00:16:53,750 --> 00:16:57,740
crew members, usually, we're limited to emails

320
00:16:57,750 --> 00:17:00,490
three times a day at best, and then if we're lucky,

321
00:17:00,500 --> 00:17:04,490
we get phone calls on the cell phone if there's

322
00:17:04,500 --> 00:17:07,240
something going on. As far as being able to lay hands

323
00:17:07,250 --> 00:17:11,490
on it, we rely on other crew members on board to tell us

324
00:17:11,500 --> 00:17:14,490
what they feel or see, and I've spent alot of time

325
00:17:14,500 --> 00:17:17,490
looking at images, and there's quite a bit of imagery

326
00:17:17,500 --> 00:17:20,490
coming down from on board. So, there is high resolution,

327
00:17:20,500 --> 00:17:22,490
high definition imagery. So they will get in there

328
00:17:22,500 --> 00:17:25,490
and see things and ask crew members later on about,

329

00:17:25,500 --> 00:17:29,740

you know, bruised finger, or you know, scratch here,

330

00:17:29,750 --> 00:17:30,740

or something like that.

331

00:17:30,750 --> 00:17:32,740

Usually they have forgotten how it even happened.

332

00:17:32,750 --> 00:17:34,490

Josh Byerly: Now one thing I think people don't realize,

333

00:17:34,500 --> 00:17:36,490

that you're carrying a very important document,

334

00:17:36,500 --> 00:17:37,740

which is Cady's passport, right?

335

00:17:37,750 --> 00:17:42,740

Steve Hart: Yes I am. You can't--don't leave home without it.

336

00:17:42,750 --> 00:17:44,990

She obviously didn't need that.

337

00:17:45,000 --> 00:17:47,740

Josh Byerly: Technically, it's an entry into the country,

338

00:17:47,750 --> 00:17:49,490

so they've actually gotta do customs paperwork.

339

00:17:49,500 --> 00:17:50,490

Steve Hart: An exit form.

340

00:17:50,500 --> 00:17:51,740

Josh Byerly: Yeah, exactly. Exactly.

341

00:17:53,250 --> 00:17:54,490

Josh Byerly: So tell me, how many cameras do you actually carry?

342

00:17:54,500 --> 00:17:56,490

Bill Ingalls: Two. I take two cameras.

343

00:17:56,500 --> 00:17:57,990

Josh Byerly: That's it?

344

00:17:58,000 --> 00:17:59,490

Bill Ingalls: I got two arms man. That's it.

345

00:17:59,500 --> 00:18:01,490

Josh Byerly: But how many--I mean you take alot for launch though.

346

00:18:01,500 --> 00:18:02,740

'Cause you've got the remotes--

347

00:18:02,750 --> 00:18:06,240

Bill Ingalls: We take alot for launch. Yeah.
Our remotes are on the pad.

348

00:18:06,250 --> 00:18:07,740

Josh Byerly: So how many of these have you done?

349

00:18:07,750 --> 00:18:09,490

Bill Ingalls: I don't know.

350

00:18:09,500 --> 00:18:11,490

Josh Byerly: More than you can count?

351

00:18:11,500 --> 00:18:14,490

Bill Ingalls: I think every American landing except for one perhaps.

352

00:18:14,500 --> 00:18:16,740

Josh Byerly: I think alot of people don't realize that, you know,

353

00:18:16,750 --> 00:18:19,490

you don't simply just point the camera out of the window

354

00:18:19,500 --> 00:18:21,240

and take the shot that you guys--'cause you're on the

355

00:18:21,250 --> 00:18:24,490

media helicopter with the Associated Press, Reuters,

356

00:18:24,500 --> 00:18:27,740

whoever else comes out to here--and they actually open up

357

00:18:27,750 --> 00:18:31,240

the door for you guys, and strap you in, and you literally--

358

00:18:31,250 --> 00:18:33,740

basically, you've already got your harness. There you go.

359

00:18:33,750 --> 00:18:34,740

Bill Ingalls: Harnessed up. Ready to go.

360

00:18:34,750 --> 00:18:36,490

Josh Byerly: You actually lean out and take a picture, right?

361

00:18:36,500 --> 00:18:37,740

Bill Ingalls: Yeah, just a little bit.

362

00:18:37,750 --> 00:18:39,740

Josh Byerly: How do you keep it still? I mean, seriously.

363

00:18:39,750 --> 00:18:43,740

Bill Ingalls: Just a high shutter speed and stabilizer,

364

00:18:43,750 --> 00:18:45,740

and a little bit of praying.

365

00:18:45,750 --> 00:18:48,490

Josh Byerly: And once it lands, your job is not done 'cause

366

00:18:48,500 --> 00:18:49,740

you still have to take a ton of pictures with the crew

367

00:18:49,750 --> 00:18:50,990

and the capsule and the--

368

00:18:51,000 --> 00:18:52,490

Bill Ingalls: If we're lucky, we'll get on the ground

369

00:18:52,500 --> 00:18:54,990

before the crew has come out, and we can get over

370

00:18:55,000 --> 00:18:57,990

to the capsule and get some shots of them opening

371

00:18:58,000 --> 00:18:59,740

the hatch doors, and each crew member coming out,

372

00:18:59,750 --> 00:19:03,240

then hopefully--I mean, a beautiful day like today,

373

00:19:03,250 --> 00:19:04,990

they won't be in a hurry to get inside the tent

374

00:19:05,000 --> 00:19:06,990

and we imagine they will enjoy it outside, so--

375

00:19:07,000 --> 00:19:07,990

Josh Byerly: Unlike last time.

376

00:19:08,000 --> 00:19:08,990

Bill Ingalls: Unlike last time.

377

00:19:09,000 --> 00:19:09,990

Josh Byerly: Blowing freezing snow.

378

00:19:11,000 --> 00:19:10,999

Bill Ingalls: Snow was going like this...

379

00:19:11,000 --> 00:19:11,990

Josh Byerly: Sideways.

380

00:19:12,000 --> 00:19:14,240

Bill Ingalls: Sideways. So--and the first thing I saw last time

381

00:19:14,250 --> 00:19:16,490

I got off the helicopter were snowmobiles going by me.

382

00:19:16,500 --> 00:19:17,740

Josh Byerly: It's always a bad sign.

383

00:19:17,750 --> 00:19:19,490

Bill Ingalls: This is interesting, yeah. So anyway,

384

00:19:19,500 --> 00:19:21,490

hopefully today, they will sit on the ground and the

385

00:19:21,500 --> 00:19:24,240

chairs a little bit and then get some shots there,

386

00:19:24,250 --> 00:19:26,240

and then carrying them into the medical tent where they

387

00:19:26,250 --> 00:19:30,490

get their Sokol suits taken off--and--or flight suits taken off.

388

00:19:30,500 --> 00:19:33,740

Then hopefully, we'll start sending some pictures right away.

389

00:19:33,750 --> 00:19:34,249

Josh Byerly: And then, you actually have to write the captions.

390

00:19:34,250 --> 00:19:36,990

Get everything transmitted.

391

00:19:37,000 --> 00:19:38,490

Bill Ingalls: Yeah, I got those kinda in the bag. I'll just

392

00:19:38,500 --> 00:19:41,240

modify them a little bit to put the pictures up.

393

00:19:41,250 --> 00:19:42,990

Josh Byerly: As long as there's no surprises if some random

394

00:19:43,000 --> 00:19:44,740

crew member comes home or something.

395

00:19:44,750 --> 00:19:45,740

Bill Ingalls: Great.

396

00:19:45,750 --> 00:19:46,740

Josh Byerly: Change the name.

397

00:19:46,750 --> 00:19:47,740

Bill Ingalls: Exactly.

398

00:19:47,750 --> 00:21:42,240

[Helicopters whirring, muffled talking]

399

00:21:42,250 --> 00:21:45,490

Josh Byerly: So this is what it looks like right after Soyuz lands.

400

00:21:45,500 --> 00:21:47,490

You got a ton of stuff going on. That's the medical tent

401

00:21:47,500 --> 00:21:50,490

right there that they've set up probably 110 yards or so

402

00:21:50,500 --> 00:21:53,490

right from where the Soyuz landed. The team here is already

403

00:21:53,500 --> 00:21:57,240

starting to gather up this just huge parachute

404

00:21:57,250 --> 00:22:01,240

that's on the ground. And then, there's the Soyuz.

405

00:22:01,250 --> 00:22:03,740

The guys are still working on getting the hatch open.

406

00:22:03,750 --> 00:22:05,240

They're up there taking some pictures of the crew which

407

00:22:05,250 --> 00:22:08,240

is still inside. One thing we always try to look at is

408

00:22:08,250 --> 00:22:12,490

exactly how far the Soyuz has bounced. And as you can see,

409

00:22:12,500 --> 00:22:16,240

it hasn't really that much. And it's also upright.

410

00:22:16,250 --> 00:22:20,490

So what I have to do now is actually call in to Houston

411

00:22:20,500 --> 00:22:25,490

and give kind of a live report on how things look here.

412

00:22:25,500 --> 00:22:29,490

Rob Navias: Josh, it looks like a gorgeous day out there.

413

00:22:29,500 --> 00:22:34,240

Josh Byerly: You actually could not ask for a better weather,

414

00:22:34,250 --> 00:22:37,240

better operations. I mean, this has just been fairly easy

415

00:22:37,250 --> 00:22:40,240

from beginning to end. I mean, the weather is probably

416
00:22:40,250 --> 00:22:43,490
in the upper 70's right now, you can see they are taking the

417
00:22:43,500 --> 00:22:46,740
commander out right now. They just got him out of the capsule.

418
00:22:46,750 --> 00:22:48,490
You also notice the capsule is actually upright.

419
00:22:48,500 --> 00:22:57,490
[Muffled talking]

420
00:22:57,500 --> 00:23:01,490
Cady Coleman: Mmmm. Beautiful. I haven't smelled anything in a while.

421
00:23:01,500 --> 00:23:13,240
[Muffled talking]

422
00:23:13,250 --> 00:23:14,740
Josh Byerly: They're moving the crew into the medical tent now.

423
00:23:14,750 --> 00:23:17,490
They were there for probably 15 minutes. We're moving

424
00:23:17,500 --> 00:23:19,490
pretty quick today. So we'll go in there and get the

425
00:23:19,500 --> 00:23:21,740
launch suits off, put their flight suits on, and then

426
00:23:21,750 --> 00:23:24,490
everybody is gonna start getting in the helicopter, and

427
00:23:24,500 --> 00:23:28,490
we're gonna head back to Karaganda. And that's how you do that.

428

00:23:29,500 --> 00:23:31,490

Off-camera voice: The thing almost crawled up my boot.

429

00:23:31,500 --> 00:23:39,990

[Helicopter whirring]

430

00:23:40,000 --> 00:23:44,240

[Festive music]

431

00:23:44,250 --> 00:23:59,240

[Foreign Language]

432

00:23:59,250 --> 00:24:00,740

Stephanie Stoll: Welcome back to Moscow, Josh.

433

00:24:00,750 --> 00:24:01,990

Josh Byerly: Thank you. It's been a long day.

434

00:24:02,000 --> 00:24:06,240

This is Alexei Kuptsov, our videographer. Good?

435

00:24:06,250 --> 00:24:09,740

Alexei Kuptsov: [Foreign Language]

436

00:24:09,750 --> 00:24:12,740

[Laughter]

437

00:24:12,750 --> 00:24:14,740

Josh Byerly: So you guys, you have to take the tapes now that we--

438

00:24:14,750 --> 00:24:16,490

Stephanie Stoll: Actually, we're not shooting on tapes.

439

00:24:16,500 --> 00:24:20,240

We're shooting on digital now. We are at Chkalovsky Airfield,

440

00:24:20,250 --> 00:24:25,240

just about an hour North East of Moscow, where alot of the

441
00:24:25,250 --> 00:24:29,240
NASA and Russian Soyuz landing group have returned from the

442
00:24:29,250 --> 00:24:33,490
city of Karaganda where they landed--oh, actually, where they

443
00:24:33,500 --> 00:24:37,240
flew into after the Soyuz landed. It was about a 3-hour flight

444
00:24:37,250 --> 00:24:40,740
from Karaganda back here, and what we're gonna be doing in a

445
00:24:40,750 --> 00:24:45,240
little while is transmitting some of the video that Alexei

446
00:24:45,250 --> 00:24:50,740
shot in Karaganda of the welcome ceremony of the Expedition 27 crew.

447
00:24:50,750 --> 00:24:55,740
And we did some interviews with them as well, and we don't uplink

448
00:24:55,750 --> 00:24:59,740
from Karaganda, but what we're gonna do is get that to a point as

449
00:24:59,750 --> 00:25:03,240
close as we can here in Moscow and send that out to NASA TV so

450
00:25:03,250 --> 00:25:05,740
we can share that with people as quickly as we can

451
00:25:05,750 --> 00:25:08,240
and welcome our crew back home.

452
00:25:08,250 --> 00:25:11,490
Josh Byerly: And they can watch it in the video file.

453

00:25:11,500 --> 00:25:12,490
Stephanie Stoll: The NASA TV video file.

454
00:25:12,500 --> 00:25:13,740
Josh Byerly: Which we love oh so much.

455
00:25:13,750 --> 00:25:15,740
Stephanie Stoll: Yes we do. You can watch it on

456
00:25:15,750 --> 00:25:20,490
NASA TV or at www.nasa.gov/ntv.

457
00:25:20,500 --> 00:25:21,990
Josh Byerly: Hey you could be a commentator.

458
00:25:22,000 --> 00:25:22,990
Stephanie Stoll: I could.

459
00:25:23,000 --> 00:25:23,990
Josh Byerly: You could.

460
00:25:24,000 --> 00:25:25,740
Stephanie Stoll: Except for the hair.

461
00:25:26,750 --> 00:25:29,990
Josh Byerly: You know, every time that you
come over here and you

462
00:25:30,000 --> 00:25:32,490
get to work one of these Soyuz landings or
one of the launches,

463
00:25:32,500 --> 00:25:36,490
they are all different. They all have
different personalities,

464
00:25:36,500 --> 00:25:40,490
they all have different challenges, they
all have different memories.

465

00:25:40,500 --> 00:25:45,490

But the one thing that I think is the common thread through all of it is

466

00:25:45,500 --> 00:25:49,490

that each of us that get to come out here and participate in this, it's a

467

00:25:49,500 --> 00:25:54,490

high honor for us to be able to do that. It is completely different

468

00:25:54,500 --> 00:25:57,490

from the space shuttle, and totally different than the work that we do

469

00:25:57,500 --> 00:26:02,490

on the shuttle and with those crews. You're a long way from home,

470

00:26:02,500 --> 00:26:08,240

the hours are long, the work is extremely hard, you're really tired

471

00:26:08,250 --> 00:26:12,240

at the end of the day. But whenever you step back and you look at it

472

00:26:12,250 --> 00:26:16,240

and you realize that, you know, you are one of the small--part of a

473

00:26:16,250 --> 00:26:22,240

small group of people that gets to come over here and help take care

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00:26:22,250 --> 00:26:27,490

of this for NASA, and to also work with the Russians, and also our

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00:26:27,500 --> 00:26:32,490

other international partners, with the Europeans and Japanese, you know,

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00:26:32,500 --> 00:26:37,490

you realize that you're doing something that you probably never thought

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00:26:37,500 --> 00:26:40,240

that you'd be able to do whenever you were growing up. Not everybody

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00:26:40,250 --> 00:26:45,240

gets to do this. And to be able to be a part of that team is something

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00:26:45,250 --> 00:26:51,490

that is pretty remarkable. You know, you getting to go up close to this

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00:26:51,500 --> 00:26:56,490

small capsule that's all charred and has just returned from space, and you

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00:26:56,500 --> 00:26:59,490

realize it was just docked with the International Space Station just,

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00:26:59,500 --> 00:27:00,240

you know, a few hours ago, and you get to see the crew as they get out,

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00:27:00,250 --> 00:27:07,240

and they haven't been on Earth for five or six months, and you get to be

484

00:27:07,250 --> 00:27:12,490

sort of part of the welcoming party that gets to bring them back home.

485

00:27:12,500 --> 00:27:15,990

And I think that it is something that each of
us that gets to come over