



1
00:00:18,950 --> 00:00:17,670
dear chairman of the acceptance

2
00:00:22,070 --> 00:00:18,960
committee

3
00:00:25,109 --> 00:00:22,080
we are reporting this is the main crew

4
00:00:56,069 --> 00:00:25,119
of the iss expedition we are ready to

5
00:00:56,079 --> 00:00:59,590
foreign

6
00:00:59,600 --> 00:01:12,630
um

7
00:01:12,640 --> 00:01:39,030
yep

8
00:01:43,830 --> 00:01:41,429
for terry burts how has your training

9
00:01:45,270 --> 00:01:43,840
been for compared to flying the space

10
00:01:46,710 --> 00:01:45,280
shuttle as you've done previously to

11
00:01:49,109 --> 00:01:46,720
your training in the soyuz and what are

12
00:01:51,270 --> 00:01:49,119
you looking forward to the most

13
00:01:52,710 --> 00:01:51,280

one of the things that the test pilot um

14

00:01:54,789 --> 00:01:52,720

it's always fun to fly different

15

00:01:57,190 --> 00:01:54,799

airplanes and in this case i get to fly

16

00:01:58,630 --> 00:01:57,200

a different spacecraft

17

00:01:59,990 --> 00:01:58,640

one of the things that sticks out is the

18

00:02:01,830 --> 00:02:00,000

difference between the soyuz and the

19

00:02:03,270 --> 00:02:01,840

space shuttle is how the rendezvous and

20

00:02:06,630 --> 00:02:03,280

docking happen

21

00:02:08,309 --> 00:02:06,640

the the soyuz docks much faster so the

22

00:02:09,589 --> 00:02:08,319

orbital effects of gravity aren't you

23

00:02:11,350 --> 00:02:09,599

don't notice it as much so that's just

24

00:02:12,550 --> 00:02:11,360

one of the many differences that i've

25

00:02:31,350 --> 00:02:12,560

noticed between the shuttle and the

26
00:02:35,110 --> 00:02:33,190
in terms of experiments which are new

27
00:02:37,750 --> 00:02:35,120
and which are old there will be new

28
00:02:40,070 --> 00:02:37,760
experiments that are medical and and

29
00:02:42,470 --> 00:02:40,080
biological

30
00:02:44,949 --> 00:02:42,480
there will be five to seven new ones and

31
00:02:46,070 --> 00:02:44,959
about 50 that will be continued from

32
00:02:47,430 --> 00:02:46,080
before

33
00:02:49,430 --> 00:02:47,440
we will be using equipment that is

34
00:02:51,110 --> 00:02:49,440
already on station and also new

35
00:02:57,509 --> 00:02:51,120
equipment that will we will bring along

36
00:03:06,710 --> 00:02:59,030
it would take a long time to list all

37
00:03:12,229 --> 00:03:09,670
are there any more questions

38
00:03:15,190 --> 00:03:12,239

what language will be used

39

00:03:18,390 --> 00:03:15,200

on the soyuz we will be using russian

40

00:03:19,670 --> 00:03:18,400

on the iss the partners will be using

41

00:03:22,470 --> 00:03:19,680

english

42

00:03:25,030 --> 00:03:22,480

but generally we speak in a russian

43

00:03:27,509 --> 00:03:25,040

language combination we can start a

44

00:03:29,509 --> 00:03:27,519

phrase in russian and it in english it

45

00:03:31,910 --> 00:03:29,519

also depends on what the topic is

46

00:03:34,070 --> 00:03:31,920

whether it's technical or more

47

00:03:35,910 --> 00:03:34,080

conversational we don't have any

48

00:03:38,630 --> 00:03:35,920

misunderstandings we understand each

49

00:03:40,070 --> 00:03:38,640

other unless of course we start speaking

50

00:03:42,470 --> 00:03:40,080

italian well

51

00:03:44,789 --> 00:03:42,480

we can manage in italian also

52

00:03:47,830 --> 00:03:44,799

have you learned to trust each other

53

00:03:49,270 --> 00:03:47,840

yes two years of joint training of

54

00:03:51,030 --> 00:03:49,280

living together

55

00:03:52,390 --> 00:03:51,040

all of that has allowed us to get to

56

00:03:54,149 --> 00:03:52,400

know us

57

00:03:56,710 --> 00:03:54,159

to know each other very well we trust

58

00:03:58,949 --> 00:03:56,720

each other fully there is no doubt

59

00:04:00,949 --> 00:03:58,959

in that

60

00:04:02,949 --> 00:04:00,959

both nasa and issa

61

00:04:05,190 --> 00:04:02,959

how are you feeling about your flight

62

00:04:06,309 --> 00:04:05,200

and the soyuz as an experienced pilot

63

00:04:07,910 --> 00:04:06,319

yourself and what are you looking

64

00:04:12,789 --> 00:04:07,920

forward to the most if you could answer

65

00:04:17,270 --> 00:04:14,630

for me it's just amazing to be here for

66

00:04:20,229 --> 00:04:17,280

now at the end of a very long training

67

00:04:23,030 --> 00:04:20,239

flow i mean i came to star city to start

68

00:04:24,469 --> 00:04:23,040

studying the soyuz in june 2011 for the

69

00:04:26,390 --> 00:04:24,479

first time it's been over three and a

70

00:04:28,310 --> 00:04:26,400

half years and to be here on the last

71

00:04:29,749 --> 00:04:28,320

day of training where on the day where

72

00:04:31,270 --> 00:04:29,759

we can actually show everything that

73

00:04:33,909 --> 00:04:31,280

we've learned and that we are ready to

74

00:04:35,590 --> 00:04:33,919

go and fly it's just an amazing feeling

75

00:04:37,350 --> 00:04:35,600

and then of course i just look forward

76

00:04:39,350 --> 00:04:37,360

to sitting in the real thing in just

77

00:05:13,110 --> 00:04:39,360

three weeks time and actually blast up

78

00:05:13,120 --> 00:05:45,590

foreign

79

00:05:45,600 --> 00:05:52,230

sorry

80

00:05:52,240 --> 00:06:18,070

um

81

00:06:18,080 --> 00:06:36,550

foreign

82

00:06:36,560 --> 00:06:52,150

um

83

00:06:56,629 --> 00:06:54,230

astronaut dan burbank director of

84

00:06:58,469 --> 00:06:56,639

russian operations for nasa at star city

85

00:06:59,830 --> 00:06:58,479

russia you yourself an astronaut who's

86

00:07:02,469 --> 00:06:59,840

flown not only on board the space

87

00:07:03,990 --> 00:07:02,479

shuttle but on a soyuz yourself uh just

88

00:07:05,830 --> 00:07:04,000

three years ago

89

00:07:07,830 --> 00:07:05,840

the crew is taking their final exams in

90

00:07:09,350 --> 00:07:07,840

the soyuz vehicle behind you can you can

91

00:07:11,029 --> 00:07:09,360

you talk about the kind of challenges

92

00:07:13,510 --> 00:07:11,039

that they're facing today and what kind

93

00:07:14,710 --> 00:07:13,520

of emergency emergency scenarios that

94

00:07:17,029 --> 00:07:14,720

they might be going through as part of

95

00:07:19,270 --> 00:07:17,039

their test okay so this is the

96

00:07:21,270 --> 00:07:19,280

culmination of two years of training and

97

00:07:22,870 --> 00:07:21,280

the crews worked very hard they've had a

98

00:07:25,670 --> 00:07:22,880

lot of classroom instruction they've had

99

00:07:27,510 --> 00:07:25,680

a lot of simulators typically initially

100

00:07:29,909 --> 00:07:27,520

focused on specific systems and

101
00:07:31,909 --> 00:07:29,919
gradually working up to representative

102
00:07:33,430 --> 00:07:31,919
missions just like they would this one

103
00:07:35,589 --> 00:07:33,440
you know today for example will include

104
00:07:37,589 --> 00:07:35,599
a launch it'll include the insertion

105
00:07:39,670 --> 00:07:37,599
into orbit it'll include a rendezvous

106
00:07:41,110 --> 00:07:39,680
with space station about midday there'll

107
00:07:42,230 --> 00:07:41,120
be a break for lunch the crew will come

108
00:07:44,390 --> 00:07:42,240
back in the afternoon and they'll

109
00:07:45,990 --> 00:07:44,400
simulate the undocking and return to

110
00:07:48,070 --> 00:07:46,000
earth from there

111
00:07:50,230 --> 00:07:48,080
and the entire day is pretty full

112
00:07:52,550 --> 00:07:50,240
there'll be a series of probably five to

113
00:07:54,629 --> 00:07:52,560

six or seven different malfunctions uh

114

00:07:56,150 --> 00:07:54,639

some of which are are pretty challenging

115

00:07:58,390 --> 00:07:56,160

there'll be a couple of major cases in

116

00:08:01,110 --> 00:07:58,400

there and things like fire thing like

117

00:08:03,670 --> 00:08:01,120

things like a deep press that and so

118

00:08:06,869 --> 00:08:03,680

forth things that may force them to

119

00:08:08,469 --> 00:08:06,879

download the entry to a more uh to a

120

00:08:10,390 --> 00:08:08,479

more off nominal one for example to

121

00:08:12,070 --> 00:08:10,400

safely return for example in a ballistic

122

00:08:13,510 --> 00:08:12,080

entry can't really speculate on the

123

00:08:14,869 --> 00:08:13,520

specific cases they'll have the way it

124

00:08:17,189 --> 00:08:14,879

works as they show up in the morning

125

00:08:18,869 --> 00:08:17,199

they are greeted by the commission uh

126
00:08:20,790 --> 00:08:18,879
typically the commander will then you

127
00:08:23,029 --> 00:08:20,800
know salute and as anton did earlier

128
00:08:24,950 --> 00:08:23,039
today and uh in front of them on the

129
00:08:26,869 --> 00:08:24,960
table will be set a bunch of envelopes

130
00:08:29,589 --> 00:08:26,879
and inside the envelopes will be

131
00:08:31,270 --> 00:08:29,599
the billet or the the

132
00:08:32,949 --> 00:08:31,280
the card that'll have all the different

133
00:08:34,949 --> 00:08:32,959
malfunctions and so they'll they'll pick

134
00:08:37,589 --> 00:08:34,959
one of those randomly and the crew will

135
00:08:39,670 --> 00:08:37,599
all sign it and date it and and then

136
00:08:41,670 --> 00:08:39,680
the sim team will use the malfunctions

137
00:08:43,990 --> 00:08:41,680
that are listed on that card and they've

138
00:08:45,829 --> 00:08:44,000

essentially you know selected their fate

139

00:08:47,190 --> 00:08:45,839

so to speak for this it's a busy day

140

00:08:48,949 --> 00:08:47,200

it's a really

141

00:08:50,790 --> 00:08:48,959

intensive kind of sim it is really the

142

00:08:51,910 --> 00:08:50,800

final exam for them the people that are

143

00:08:54,230 --> 00:08:51,920

here on the commission the people that

144

00:08:56,150 --> 00:08:54,240

are evaluating them are not just their

145

00:08:57,990 --> 00:08:56,160

instructors but also the flight

146

00:08:59,670 --> 00:08:58,000

controllers and engineers from inervia

147

00:09:01,990 --> 00:08:59,680

flight controllers from soup mission

148

00:09:03,829 --> 00:09:02,000

control in moscow so you've got the best

149

00:09:05,590 --> 00:09:03,839

best minds in the uh in the business

150

00:09:07,430 --> 00:09:05,600

over here that are evaluating everything

151
00:09:09,590 --> 00:09:07,440
they do so it's kind of a high pressure

152
00:09:11,269 --> 00:09:09,600
thing but it's very representative of

153
00:09:13,509 --> 00:09:11,279
what a real mission to be like and it

154
00:09:15,030 --> 00:09:13,519
kind of replicates in a pretty close

155
00:09:34,829 --> 00:09:15,040
manner the kind of pressure you'd feel

156
00:09:40,550 --> 00:09:37,430
yeah mr chairman of the acceptance

157
00:09:44,230 --> 00:09:40,560
committee this is the primary crew

158
00:09:47,269 --> 00:09:44,240
of the iss reporting to you

159
00:10:43,590 --> 00:09:47,279
for the russian segment examination we

160
00:10:43,600 --> 00:10:57,910
i am included personally in the crew

161
00:11:01,990 --> 00:11:00,630
the main tasks of course we know we have

162
00:11:06,870 --> 00:11:02,000
reviewed them

163
00:11:10,150 --> 00:11:07,910

there will be

164

00:11:12,870 --> 00:11:10,160

a usual day that we will spend on the

165

00:11:15,670 --> 00:11:12,880

iss starting from

166

00:11:17,110 --> 00:11:15,680

waking up until the evening dpc the only

167

00:11:23,030 --> 00:11:17,120

thing that we do not know are the

168

00:11:29,910 --> 00:11:26,310

there's a very intense program planned

169

00:11:37,030 --> 00:11:29,920

we have over 100 experiments planned

170

00:11:42,069 --> 00:11:40,230

yes the sim is set up in such a way as

171

00:11:44,150 --> 00:11:42,079

to have at least five of nominal

172

00:11:46,150 --> 00:11:44,160

situations we do not know what they are

173

00:11:48,310 --> 00:11:46,160

we have selected the list of the off

174

00:11:50,470 --> 00:11:48,320

nominal situations

175

00:11:52,069 --> 00:11:50,480

our instructors and specialists will be

176

00:11:55,110 --> 00:11:52,079

putting them in

177

00:11:57,030 --> 00:11:55,120

into the simulator over the duration of

178

00:11:58,629 --> 00:11:57,040

this day and we'll be actually

179

00:12:11,829 --> 00:11:58,639

accordingly to the way we were trained

180

00:12:15,030 --> 00:12:13,430

actually i

181

00:12:18,150 --> 00:12:15,040

did not select

182

00:12:20,310 --> 00:12:18,160

traditional italian meals but the ones

183

00:12:23,509 --> 00:12:20,320

that are good for your health

184

00:12:24,870 --> 00:12:23,519

because i want to live well upon station

185

00:12:27,030 --> 00:12:24,880

i want to

186

00:12:29,030 --> 00:12:27,040

maintain my health

187

00:12:31,670 --> 00:12:29,040

and that's why

188

00:12:33,750 --> 00:12:31,680

i picked the healthy meals as opposed to

189

00:12:35,670 --> 00:12:33,760

the traditional ones like lasagna that

190

00:12:38,389 --> 00:12:35,680

other astronauts have picked but i

191

00:12:39,910 --> 00:12:38,399

picked ones that are good for you

192

00:12:41,670 --> 00:12:39,920

how are you feeling about your level of

193

00:12:43,430 --> 00:12:41,680

preparation as you prepare to take your

194

00:12:46,230 --> 00:12:43,440

final exams in the space station russian

195

00:12:48,230 --> 00:12:46,240

segment we feel really prepared this

196

00:12:49,350 --> 00:12:48,240

crew is great it's been over two years

197

00:12:51,430 --> 00:12:49,360

of training

198

00:12:53,750 --> 00:12:51,440

and so we've had training in every

199

00:12:55,350 --> 00:12:53,760

possible situation and we're really

200

00:13:33,110 --> 00:12:55,360

feeling ready for the work on the

201
00:13:37,910 --> 00:13:35,670
dear chairman of the acceptance

202
00:13:40,230 --> 00:13:37,920
committee this is the

203
00:14:04,949 --> 00:13:40,240
backup crew of the

204
00:14:57,670 --> 00:14:25,030
foreign

205
00:14:57,680 --> 00:15:18,069
so

206
00:15:22,550 --> 00:15:20,150
what are you doing right now

207
00:15:24,870 --> 00:15:22,560
this simulation includes all of the

208
00:15:27,430 --> 00:15:24,880
stages of the transport vehicle from

209
00:15:29,430 --> 00:15:27,440
insertion into orbit all the way down to

210
00:15:33,829 --> 00:15:29,440
descent and the entire day will be