



1
00:00:28,470 --> 00:00:16,870
for the fifth we put the fourth

2
00:00:56,709 --> 00:00:30,470
sash plays it on your head just a little

3
00:00:56,719 --> 00:01:35,190
and once again please turn ahead

4
00:01:35,200 --> 00:01:50,469
just give him a second

5
00:01:50,479 --> 00:02:10,150
i

6
00:02:10,160 --> 00:02:14,070
please turn

7
00:02:14,080 --> 00:02:26,630
and then one on this side

8
00:02:31,270 --> 00:02:29,910
i would like to say that god is saving

9
00:02:33,110 --> 00:02:31,280
you from harm

10
00:02:43,670 --> 00:02:33,120
i have a great responsibility and let

11
00:02:43,680 --> 00:03:11,750
got help

12
00:03:11,760 --> 00:03:32,550
you're on

13
00:05:04,870 --> 00:04:03,030

oh

14

00:07:06,550 --> 00:06:33,749

um

15

00:07:11,670 --> 00:07:09,189

the members of the state commission

16

00:07:14,309 --> 00:07:11,680

all the guests invited

17

00:07:18,710 --> 00:07:14,319

you were happy to inform you

18

00:07:18,720 --> 00:07:23,350

you've shown good results at your exams

19

00:07:30,710 --> 00:07:26,070

and hope that you will proceed just as

20

00:07:32,469 --> 00:07:30,720

perfect as uh the way you've been taught

21

00:07:34,790 --> 00:07:32,479

and of course those who are right now on

22

00:07:37,350 --> 00:07:34,800

board the station will show you what

23

00:07:39,510 --> 00:07:37,360

life there looks like i just uh we

24

00:07:42,070 --> 00:07:39,520

received a call today from

25

00:07:45,990 --> 00:07:42,080

the center for youth art

26

00:07:48,230 --> 00:07:46,000

they said hi to you and uh

27

00:07:49,270 --> 00:07:48,240

they asked you on behalf of the entire

28

00:07:51,350 --> 00:07:49,280

center

29

00:07:53,589 --> 00:07:51,360

to wish you all the best

30

00:07:55,189 --> 00:07:53,599

good to see you you've uh you know you

31

00:07:57,510 --> 00:07:55,199

guys have trained hard

32

00:07:59,270 --> 00:07:57,520

i know uh you got a very busy increment

33

00:08:01,749 --> 00:07:59,280

in front of you

34

00:08:03,830 --> 00:08:01,759

but i know you'll do

35

00:08:06,629 --> 00:08:03,840

a great job while you're there you are

36

00:08:08,230 --> 00:08:06,639

able to take time to enjoy your

37

00:08:10,390 --> 00:08:08,240

environment and

38

00:08:12,309 --> 00:08:10,400

look down on the earth and appreciate

39

00:08:15,029 --> 00:08:12,319

the experience that you're getting an

40

00:08:16,869 --> 00:08:15,039

opportunity to partake in

41

00:08:19,510 --> 00:08:16,879

so you're an integrated crew you have a

42

00:08:21,510 --> 00:08:19,520

run of the entire space station i

43

00:08:24,790 --> 00:08:21,520

personally invite you each to spend some

44

00:08:27,270 --> 00:08:24,800

time in the cupola and enjoy the view

45

00:08:28,309 --> 00:08:27,280

and so have a great flight and we look

46

00:08:36,230 --> 00:08:28,319

forward to hearing about your

47

00:08:41,430 --> 00:08:37,350

dear friends

48

00:08:42,790 --> 00:08:41,440

alexander andrei graham

49

00:08:44,310 --> 00:08:42,800

i would like to

50

00:08:45,910 --> 00:08:44,320

accordingly congratulate you on the

51
00:08:48,550 --> 00:08:45,920
beginning of your flight

52
00:08:51,030 --> 00:08:48,560
this fight is special

53
00:08:53,110 --> 00:08:51,040
where will soon be celebrating the 50th

54
00:08:54,790 --> 00:08:53,120
anniversary of the first human flight

55
00:08:56,870 --> 00:08:54,800
into space

56
00:09:00,550 --> 00:08:56,880
performed by yuri gagarin

57
00:09:05,910 --> 00:09:02,150
this process

58
00:09:09,350 --> 00:09:05,920
went uh very quickly and in very sharp

59
00:09:10,790 --> 00:09:09,360
competition with united states

60
00:09:13,590 --> 00:09:10,800
however today

61
00:09:15,350 --> 00:09:13,600
the science exploration development goes

62
00:09:17,030 --> 00:09:15,360
hand in hand

63
00:09:19,590 --> 00:09:17,040

together with the united states and

64

00:09:22,310 --> 00:09:19,600

russia and other countries

65

00:09:24,870 --> 00:09:22,320

and uh we're sure that this will bring

66

00:09:27,430 --> 00:09:24,880

new acquisitions new results

67

00:09:29,829 --> 00:09:27,440

and we wish you all the very best and

68

00:09:31,750 --> 00:09:29,839

the best results ever possible during

69

00:09:34,630 --> 00:09:31,760

this flight we know this slide was

70

00:09:39,350 --> 00:09:34,640

successful and we hope to see you soon

71

00:09:44,230 --> 00:09:41,670

hi to those whom i haven't greeted yet

72

00:09:45,990 --> 00:09:44,240

i'm very happy to see you all

73

00:09:47,509 --> 00:09:46,000

we've had a very good training had very

74

00:09:49,190 --> 00:09:47,519

good

75

00:09:51,269 --> 00:09:49,200

rest here

76
00:09:54,389 --> 00:09:51,279
and finally we already set our hands on

77
00:09:56,710 --> 00:09:54,399
what we've been trying to do

78
00:09:59,750 --> 00:09:56,720
uh good evening i'd rather it's already

79
00:10:04,310 --> 00:10:02,230
we did all that we could

80
00:10:06,389 --> 00:10:04,320
we did our best one starting at uh just

81
00:10:08,310 --> 00:10:06,399
to see

82
00:10:10,710 --> 00:10:08,320
and uh the machinery is good the

83
00:10:11,670 --> 00:10:10,720
equipment is good reliable

84
00:10:18,870 --> 00:10:11,680
so

85
00:10:20,310 --> 00:10:18,880
thank you

86
00:10:21,829 --> 00:10:20,320
it's a great honor to me and great

87
00:10:31,990 --> 00:10:21,839
responsibility

88
00:10:32,000 --> 00:10:35,990

i hope that you rock will be successful

89

00:10:42,470 --> 00:10:39,910

that your launch is successful

90

00:10:44,310 --> 00:10:42,480

and that your work is fruitful on board

91

00:10:52,790 --> 00:10:44,320

the iss

92

00:10:58,710 --> 00:10:55,990

uh to call us from orbit i will do our

93

00:11:29,030 --> 00:10:58,720

best when assisting you from here from

94

00:11:29,040 --> 00:11:51,590

yeah they're coming

95

00:11:51,600 --> 00:12:19,910

this is the vehicle command

96

00:12:19,920 --> 00:12:33,350

my

97

00:12:33,360 --> 00:12:51,269

run

98

00:12:51,279 --> 00:13:45,350

okay

99

00:13:45,360 --> 00:14:23,269

now

100

00:14:23,279 --> 00:14:31,110

so

101
00:14:35,110 --> 00:14:33,509
t-minus 15 seconds there goes the second

102
00:14:37,110 --> 00:14:35,120
umbilical tower moving away from the

103
00:14:39,110 --> 00:14:37,120
soyuz

104
00:14:40,870 --> 00:14:39,120
t-minus 10 first stage engines are at

105
00:14:41,990 --> 00:14:40,880
flight speed

106
00:14:43,670 --> 00:14:42,000
sit five

107
00:14:44,790 --> 00:14:43,680
four three

108
00:14:49,030 --> 00:14:44,800
two

109
00:14:54,870 --> 00:14:52,150
and liftoff lift off of the soyuz rocket

110
00:14:57,189 --> 00:14:54,880
as ron guerin andrew alexander sama

111
00:15:11,269 --> 00:14:57,199
kutiyap and andre borisenko begin their

112
00:15:11,279 --> 00:15:19,110
fine on station

113
00:15:19,120 --> 00:15:24,389

30 seconds flight

114

00:15:24,399 --> 00:15:29,110

fine lunch vehicle fine

115

00:15:32,710 --> 00:15:30,310

as you're hearing everything looking

116

00:15:34,710 --> 00:15:32,720

good so far in the first 45 seconds of

117

00:15:36,470 --> 00:15:34,720

the soyuz tma-21s

118

00:15:37,749 --> 00:15:36,480

flight the soyuz is now heading toward a

119

00:15:44,949 --> 00:15:37,759

link up with the international space

120

00:15:58,949 --> 00:15:47,670

is within norm and we are doing well on

121

00:16:03,189 --> 00:16:00,629

one minute and 12 seconds into flight

122

00:16:04,230 --> 00:16:03,199

velocity of the soyuz is now 1100 miles

123

00:16:05,910 --> 00:16:04,240

per hour

124

00:16:08,150 --> 00:16:05,920

and good first stage performance and the

125

00:16:10,230 --> 00:16:08,160

soyuz is delivering 102 tons of thrust

126
00:16:12,150 --> 00:16:10,240
from its four boosters

127
00:16:16,710 --> 00:16:12,160
single engine

128
00:16:20,710 --> 00:16:18,550
first stage of the soyuz measured 68

129
00:16:22,629 --> 00:16:20,720
feet in length and 24 feet in diameter

130
00:16:24,550 --> 00:16:22,639
and it's burning liquid fuel for the

131
00:16:26,310 --> 00:16:24,560
first two minutes and six seven six

132
00:16:29,590 --> 00:16:26,320
seconds of the flight

133
00:16:31,509 --> 00:16:29,600
1 18

134
00:16:33,269 --> 00:16:31,519
1 1 5

135
00:16:45,509 --> 00:16:33,279
we are doing good then all the

136
00:16:45,519 --> 00:16:53,829
doing good

137
00:16:57,350 --> 00:16:55,910
jason and the four strap-on boosters

138
00:16:59,030 --> 00:16:57,360

these completed their job and have

139

00:17:00,389 --> 00:16:59,040

dropped away at an altitude of 28

140

00:17:02,710 --> 00:17:00,399

statute miles

141

00:17:06,230 --> 00:17:02,720

soyuz is traveling at about

142

00:17:08,429 --> 00:17:06,240

3 350 miles per hour now 2 minutes and

143

00:17:19,189 --> 00:17:08,439

20 seconds into its flight

144

00:17:19,199 --> 00:17:23,029

150.

145

00:17:27,909 --> 00:17:25,750

you hear inside the capsule as the crew

146

00:17:30,230 --> 00:17:27,919

is making their way into orbit

147

00:17:32,230 --> 00:17:30,240

and there is a view of nasa astronaut

148

00:17:35,510 --> 00:17:32,240

ron garan making his way into space for

149

00:17:37,270 --> 00:17:35,520

the second time run is mine

150

00:17:38,390 --> 00:17:37,280

soyuz core stage is performing as

151
00:17:40,390 --> 00:17:38,400
expected

152
00:17:42,549 --> 00:17:40,400
the core stage of the soyuz is 56 feet

153
00:17:44,310 --> 00:17:42,559
in length 13 and a half feet in diameter

154
00:17:46,390 --> 00:17:44,320
with a single engine with four fuel

155
00:17:48,070 --> 00:17:46,400
chambers providing 96 tons of thrust for

156
00:17:49,190 --> 00:17:48,080
its 3 minutes and 28 seconds of

157
00:17:51,909 --> 00:17:49,200
operation

158
00:17:53,270 --> 00:17:51,919
now 3 minutes and 37 seconds into the

159
00:17:55,270 --> 00:17:53,280
flight

160
00:18:03,190 --> 00:17:55,280
so right now right before the separation

161
00:18:03,200 --> 00:18:07,830
340 seconds in flight

162
00:18:16,390 --> 00:18:09,510
no issues

163
00:18:20,390 --> 00:18:19,190

six minutes now until into the flight of

164

00:18:22,630 --> 00:18:20,400

uh

165

00:18:29,590 --> 00:18:22,640

ron guerin alexander sama kutiaya banan

166

00:18:36,950 --> 00:18:31,750

waving there

167

00:18:36,960 --> 00:18:43,669

three hours

168

00:18:49,510 --> 00:18:47,350

you can also see they're in view the uh

169

00:18:51,990 --> 00:18:49,520

toy dog which is uh

170

00:18:54,310 --> 00:18:52,000

being used as a operating

171

00:18:55,669 --> 00:18:54,320

indication of when the crew reaches zero

172

00:18:58,230 --> 00:18:55,679

gravity

173

00:19:00,630 --> 00:18:58,240

that dog was given to commander soyuz

174

00:19:17,750 --> 00:19:00,640

commander alexander simakutiyaev by his

175

00:19:23,270 --> 00:19:19,669

eight and a half minutes now into flight

176
00:19:25,830 --> 00:19:23,280
all right alexander andre ronald

177
00:19:28,549 --> 00:19:25,840
i wish you luck

178
00:19:29,830 --> 00:19:28,559
we will have separation now

179
00:19:32,070 --> 00:19:29,840
uh and

180
00:19:35,909 --> 00:19:32,080
this is a great

181
00:19:38,630 --> 00:19:35,919
great anniversary plate and

182
00:19:40,150 --> 00:19:38,640
have a great one

183
00:19:41,430 --> 00:19:40,160
more welsh well which is there by the

184
00:19:43,830 --> 00:19:41,440
team on the ground

185
00:19:46,110 --> 00:19:43,840
we are wasteless

186
00:19:48,950 --> 00:19:46,120
rice separation

187
00:19:51,350 --> 00:19:48,960
confirming separation confirming

188
00:19:54,150 --> 00:19:51,360

weightlessness

189

00:19:58,470 --> 00:19:54,160

very good and we are handed over to the

190

00:20:01,350 --> 00:20:00,150

nine minutes and ten seconds into the

191

00:20:03,110 --> 00:20:01,360

flight and as you heard there at the

192

00:20:19,270 --> 00:20:03,120

nine minute mark with the third stage

193

00:20:23,669 --> 00:20:20,789

thank you

194

00:20:29,430 --> 00:20:23,679

and we are waiting for you

195

00:20:34,470 --> 00:20:30,710

keep

196

00:20:40,950 --> 00:20:34,480

monitoring as kazoo purge

197

00:20:46,310 --> 00:20:42,390

so uh

198

00:20:50,710 --> 00:20:47,750

still seeing a view here inside the

199

00:20:53,029 --> 00:20:50,720

soyuz capsule with that uh toy dog used

200

00:20:55,669 --> 00:20:53,039

to indicate the entrance into zero

201
00:20:57,990 --> 00:20:55,679
gravity now floating rather than hanging

202
00:21:00,870 --> 00:20:58,000
and you can see in this view the soyuz

203
00:21:02,549 --> 00:21:00,880
commander alexander semicotia

204
00:21:04,549 --> 00:21:02,559
who was given that toy dog by his

205
00:21:06,789 --> 00:21:04,559
daughter and just sitting next to him

206
00:21:08,870 --> 00:21:06,799
and this view um

207
00:21:12,070 --> 00:21:08,880
flight engineer

208
00:21:13,270 --> 00:21:12,080
andre borisenko just out of view

209
00:21:20,070 --> 00:21:13,280
the uh

210
00:21:25,909 --> 00:21:22,230
mike suffered in the iss program manager

211
00:21:27,830 --> 00:21:25,919
mike the gagarin soyuz tma-21

212
00:21:30,470 --> 00:21:27,840
streaked through a starry sky to your

213
00:21:32,390 --> 00:21:30,480

space station tonight uh your thoughts

214

00:21:34,549 --> 00:21:32,400

at this moment in history just one week

215

00:21:36,070 --> 00:21:34,559

shy of the 50th anniversary of the birth

216

00:21:38,070 --> 00:21:36,080

of human space flight

217

00:21:40,230 --> 00:21:38,080

well it's a it's a remarkable time in

218

00:21:42,230 --> 00:21:40,240

space station we always talk about all

219

00:21:45,029 --> 00:21:42,240

the historical events

220

00:21:46,549 --> 00:21:45,039

but but clearly on the eve of uh yuri

221

00:21:48,549 --> 00:21:46,559

garen's first flight to have such a

222

00:21:50,390 --> 00:21:48,559

flawless launch and have three more crew

223

00:21:52,230 --> 00:21:50,400

head up towards iss

224

00:21:54,549 --> 00:21:52,240

during an increment which we'll see the

225

00:21:56,470 --> 00:21:54,559

uh the retirement of the space shuttle

226

00:21:58,470 --> 00:21:56,480

program uh

227

00:22:00,470 --> 00:21:58,480

yeah it's it's a monumental evening and

228

00:22:03,510 --> 00:22:00,480

it was outstanding the vehicle flew so

229

00:22:06,390 --> 00:22:03,520

flawlessly uh into low earth orbit

230

00:22:09,510 --> 00:22:06,400

this is an extraordinarily complex time

231

00:22:11,750 --> 00:22:09,520

the sts-134 mission had its launch date

232

00:22:13,990 --> 00:22:11,760

adjusted to accommodate the progress

233

00:22:15,990 --> 00:22:14,000

that's coming up with supplies talk a

234

00:22:18,230 --> 00:22:16,000

little bit about uh the traffic pattern

235

00:22:19,830 --> 00:22:18,240

up up at the complex right now well this

236

00:22:21,909 --> 00:22:19,840

is something we talk about a lot of

237

00:22:23,990 --> 00:22:21,919

people don't uh it's hard to kind of

238

00:22:25,909 --> 00:22:24,000

imagine it but but this is a very good

239

00:22:27,270 --> 00:22:25,919

example we have we have a number of

240

00:22:29,510 --> 00:22:27,280

things that have to occur over the next

241

00:22:32,149 --> 00:22:29,520

few months months and they have to occur

242

00:22:34,070 --> 00:22:32,159

in a certain order we have atv up there

243

00:22:36,149 --> 00:22:34,080

right now and atv is going to raise the

244

00:22:38,390 --> 00:22:36,159

altitude of iss to

245

00:22:41,350 --> 00:22:38,400

about 400 kilometers

246

00:22:43,110 --> 00:22:41,360

before that can occur sts-134 has to fly

247

00:22:44,310 --> 00:22:43,120

to station because it does not have the

248

00:22:45,590 --> 00:22:44,320

performance to get all the way to

249

00:22:47,669 --> 00:22:45,600

altitude

250

00:22:49,830 --> 00:22:47,679

um however we have a progress that needs

251
00:22:51,190 --> 00:22:49,840
to launch that's got research on board

252
00:22:53,110 --> 00:22:51,200
that has to get quickly the space

253
00:22:54,630 --> 00:22:53,120
station so he can't loiter while shuttle

254
00:22:56,470 --> 00:22:54,640
flies sooner

255
00:22:57,909 --> 00:22:56,480
so it's it's always this delicate

256
00:22:59,350 --> 00:22:57,919
balance of getting all the pieces in

257
00:23:02,230 --> 00:22:59,360
there and we also have a a crew

258
00:23:03,510 --> 00:23:02,240
departing in and and a crew rotation in

259
00:23:04,870 --> 00:23:03,520
the in the

260
00:23:06,870 --> 00:23:04,880
late may uh

261
00:23:08,950 --> 00:23:06,880
early june time frame and so these

262
00:23:11,669 --> 00:23:08,960
things all have to be balanced and and

263
00:23:14,230 --> 00:23:11,679

this this decision recently

264

00:23:16,149 --> 00:23:14,240

um is a is an indication of if we're

265

00:23:18,470 --> 00:23:16,159

just continually balancing these things

266

00:23:19,909 --> 00:23:18,480

to get them all lined up because

267

00:23:21,909 --> 00:23:19,919

you they just can't fly whenever they

268

00:23:23,110 --> 00:23:21,919

want to they need to fly in a certain

269

00:23:24,710 --> 00:23:23,120

order and they need to fly when the

270

00:23:26,230 --> 00:23:24,720

station can take them

271

00:23:27,830 --> 00:23:26,240

mike finally

272

00:23:30,149 --> 00:23:27,840

half a century has passed since the

273

00:23:32,070 --> 00:23:30,159

garden launched from the same launch pad

274

00:23:34,630 --> 00:23:32,080

behind you

275

00:23:36,710 --> 00:23:34,640

could anyone back then have ever

276

00:23:38,310 --> 00:23:36,720

envisioned that tonight this spacecraft

277

00:23:40,310 --> 00:23:38,320

would be launched to a complex as

278

00:23:42,630 --> 00:23:40,320

sophisticated as huge as the

279

00:23:45,190 --> 00:23:42,640

international space station

280

00:23:47,990 --> 00:23:45,200

uh gosh i i i don't i don't know rob you

281

00:23:50,549 --> 00:23:48,000

know in our dreams we've uh a lot of us

282

00:23:52,870 --> 00:23:50,559

read a lot of books like 2001 and 2010

283

00:23:55,110 --> 00:23:52,880

and wish we'd been further along but uh

284

00:23:56,950 --> 00:23:55,120

having lived through the assembly of

285

00:23:58,310 --> 00:23:56,960

this uh this

286

00:24:00,789 --> 00:23:58,320

fantastic

287

00:24:02,470 --> 00:24:00,799

beast we have on orbit

288

00:24:05,830 --> 00:24:02,480

and knowing the complications of keeping

289

00:24:07,110 --> 00:24:05,840

it operational uh it's uh it's hard for

290

00:24:09,510 --> 00:24:07,120

me to imagine

291

00:24:11,830 --> 00:24:09,520

us being here uh when we are so it's

292

00:24:13,830 --> 00:24:11,840

it's probably more magnificent is the

293

00:24:16,310 --> 00:24:13,840

fact that it's such an international

294

00:24:18,149 --> 00:24:16,320

partner effort it's it's we rely on each

295

00:24:20,149 --> 00:24:18,159

other and it takes us all together to do

296

00:24:21,830 --> 00:24:20,159

this and it'll take us all together as