
Johnson
34

1
00:00:04,390 --> 00:00:02,869
good afternoon everybody welcome back to

2
00:00:06,230 --> 00:00:04,400
nasa's johnson space center here in

3
00:00:08,790 --> 00:00:06,240
houston texas as we take a look at the

4
00:00:10,629 --> 00:00:08,800
expedition 33 and 34 mission that's

5
00:00:12,390 --> 00:00:10,639
coming up later on this year i'm joined

6
00:00:15,589 --> 00:00:12,400
to my left by kevin ford who will be the

7
00:00:17,430 --> 00:00:15,599
commander of expedition 34. to his left

8
00:00:19,349 --> 00:00:17,440
is oleg novitskiy who's going to be the

9
00:00:20,630 --> 00:00:19,359
soyuz commander that will fly this crew

10
00:00:22,550 --> 00:00:20,640
up to the station and also bring them

11
00:00:24,470 --> 00:00:22,560
back home at the end of their journey

12
00:00:26,150 --> 00:00:24,480
and then also to his left as you have

13
00:00:27,189 --> 00:00:26,160

guinea telrelkin so we're going to hear

14
00:00:28,870 --> 00:00:27,199
from each one of these three crew

15
00:00:30,550 --> 00:00:28,880
members about their upcoming flight

16
00:00:32,630 --> 00:00:30,560
we're going to start off with kevin okay

17
00:00:34,709 --> 00:00:32,640
just uh just a few words from us thank

18
00:00:36,150 --> 00:00:34,719
you very much josh and then we'll uh

19
00:00:37,990 --> 00:00:36,160
we'll take some questions about the

20
00:00:39,430 --> 00:00:38,000
mission i think you all had a science

21
00:00:41,270 --> 00:00:39,440
briefing this morning so hopefully you

22
00:00:43,590 --> 00:00:41,280
got uh pretty pretty filled in on how

23
00:00:46,549 --> 00:00:43,600
big busy we're going to be up there

24
00:00:48,310 --> 00:00:46,559
as josh said we're the crew of soyuz 32s

25
00:00:50,549 --> 00:00:48,320
the three-person team uh that will

26
00:00:52,470 --> 00:00:50,559
become part of expeditions 33

27
00:00:54,510 --> 00:00:52,480
and then 34 while we're on board we're

28
00:00:58,310 --> 00:00:54,520
going to be flying up on

29
00:01:00,630 --> 00:00:58,320
tma-06m as the designation for our soyuz

30
00:01:01,750 --> 00:01:00,640
and launching in just a little over 11

31
00:01:03,990 --> 00:01:01,760
weeks

32
00:01:06,630 --> 00:01:04,000
obviously i can't tell you how how

33
00:01:09,350 --> 00:01:06,640
privileged we feel to be part of the

34
00:01:11,109 --> 00:01:09,360
crew going to the space station and how

35
00:01:13,590 --> 00:01:11,119
thrilled we are to be at this point in

36
00:01:16,710 --> 00:01:13,600
our training uh just coming up right now

37
00:01:18,710 --> 00:01:16,720
on the last few weeks of our us training

38
00:01:21,590 --> 00:01:18,720

and uh i have just a little bit of

39
00:01:23,429 --> 00:01:21,600
training left in in europe and then

40
00:01:25,510 --> 00:01:23,439
we'll be joining up

41
00:01:27,510 --> 00:01:25,520
about five weeks prior to launch in

42
00:01:29,429 --> 00:01:27,520
russia for our final

43
00:01:31,190 --> 00:01:29,439
stages of uh getting getting our

44
00:01:33,590 --> 00:01:31,200
polishing touches there and then taking

45
00:01:35,590 --> 00:01:33,600
our exams and qualifications to fly up

46
00:01:38,550 --> 00:01:35,600
to the international space station so

47
00:01:40,469 --> 00:01:38,560
we're really looking forward to that

48
00:01:42,870 --> 00:01:40,479
i want to say before i uh introduce

49
00:01:44,789 --> 00:01:42,880
these guys um we really

50
00:01:47,270 --> 00:01:44,799
uh appreciate the magnitude of the

51
00:01:49,109 --> 00:01:47,280
effort uh to get us into space and what

52
00:01:52,870 --> 00:01:49,119
the space station represents

53
00:01:54,710 --> 00:01:52,880
uh so few people uh get to fly up there

54
00:01:56,950 --> 00:01:54,720
compared to the number of people who

55
00:01:59,670 --> 00:01:56,960
invest their lives in it and put such an

56
00:02:01,749 --> 00:01:59,680
effort into to building this magnificent

57
00:02:04,069 --> 00:02:01,759
machine that is the space station and

58
00:02:07,749 --> 00:02:04,079
then it's teaching us so much

59
00:02:10,710 --> 00:02:07,759
about space and what we'll be able to do

60
00:02:13,110 --> 00:02:10,720
in space how the human body functions

61
00:02:14,869 --> 00:02:13,120
and learning about science also

62
00:02:17,270 --> 00:02:14,879
applicable just to our life on earth up

63
00:02:18,949 --> 00:02:17,280

there so i want to thank all those

64
00:02:22,150 --> 00:02:18,959
people who have invested in building it

65
00:02:25,430 --> 00:02:22,160
of course and uh and operating it now

66
00:02:28,150 --> 00:02:25,440
also quickly our trainers uh who have

67
00:02:29,589 --> 00:02:28,160
taught us uh everything they can uh each

68
00:02:32,150 --> 00:02:29,599
of our trainers know more about their

69
00:02:33,830 --> 00:02:32,160
subjects than we will ever know but

70
00:02:35,910 --> 00:02:33,840
they've put a little bit

71
00:02:37,509 --> 00:02:35,920
of what we need to know into us so that

72
00:02:39,910 --> 00:02:37,519
we can go up there and operate the space

73
00:02:41,990 --> 00:02:39,920
station hardware safely

74
00:02:45,190 --> 00:02:42,000
and of course keep the crew safe and get

75
00:02:46,550 --> 00:02:45,200
the mission done as uh as the the

76
00:02:48,070 --> 00:02:46,560
increment manager and our flight

77
00:02:50,390 --> 00:02:48,080
directors uh

78
00:02:53,430 --> 00:02:50,400
want us want us to carry it out so

79
00:02:55,750 --> 00:02:53,440
um those opening comments uh like i

80
00:02:57,830 --> 00:02:55,760
mentioned i got a couple friends here to

81
00:02:59,589 --> 00:02:57,840
my left now very good friends and uh

82
00:03:00,710 --> 00:02:59,599
colleagues cosmetics both from ross

83
00:03:03,030 --> 00:03:00,720
cosmos

84
00:03:05,910 --> 00:03:03,040
uh sitting to my left will be the soyuz

85
00:03:08,790 --> 00:03:05,920
commander oleg novitskiy and he's from

86
00:03:10,550 --> 00:03:08,800
belarus originally and will be his first

87
00:03:13,910 --> 00:03:10,560
flight to the space station

88
00:03:16,830 --> 00:03:13,920

and uh to his left is evgeny thurelkin

89
00:03:19,350 --> 00:03:16,840
who will be our flight engineer on the

90
00:03:23,270 --> 00:03:19,360
soyuz and uh he's from the cheetah

91
00:03:25,350 --> 00:03:23,280
region of russia over uh toward the east

92
00:03:27,350 --> 00:03:25,360
and also a first time flier to the space

93
00:03:29,830 --> 00:03:27,360
station it's also my first time to fly

94
00:03:32,070 --> 00:03:29,840
to the space station on the soyuz so

95
00:03:34,070 --> 00:03:32,080
all three of us have many interesting

96
00:03:35,110 --> 00:03:34,080
experiences to look forward to together

97
00:03:37,030 --> 00:03:35,120
and

98
00:03:39,430 --> 00:03:37,040
i couldn't think of two better guys to

99
00:03:41,030 --> 00:03:39,440
do it with so very excited about the

100
00:03:41,990 --> 00:03:41,040
upcoming flight

101
00:03:43,750 --> 00:03:42,000
i'll let

102
00:03:45,990 --> 00:03:43,760
you have all i can tell you maybe just a

103
00:03:48,149 --> 00:03:46,000
little bit about the the soyuz to and

104
00:03:49,430 --> 00:03:48,159
from and

105
00:03:50,550 --> 00:03:49,440
if you have guinea has a couple words

106
00:03:51,990 --> 00:03:50,560
and then we'll start taking some

107
00:03:57,270 --> 00:03:52,000
questions

108
00:03:57,280 --> 00:04:11,589
very much

109
00:04:11,599 --> 00:04:56,870
just launch time and the time in

110
00:05:00,950 --> 00:04:58,469
so to make it short and brief we are

111
00:05:03,350 --> 00:05:00,960
going to launch on october 15th from the

112
00:05:05,590 --> 00:05:03,360
bike on our cosmodrome the launchpad

113
00:05:07,830 --> 00:05:05,600

site is number 31 which is somewhat

114
00:05:09,670 --> 00:05:07,840
unusual because for the past 30 years

115
00:05:10,710 --> 00:05:09,680
there are no launches from this launch

116
00:05:13,510 --> 00:05:10,720
pad

117
00:05:16,310 --> 00:05:13,520
then on october 17th we're going to dock

118
00:05:18,950 --> 00:05:16,320
to the iss and i will start working with

119
00:05:22,230 --> 00:05:18,960
our six-member crew

120
00:05:24,150 --> 00:05:22,240
up until march 19th when the undock will

121
00:05:36,710 --> 00:05:24,160
take place and then they are going to

122
00:05:36,720 --> 00:05:50,310
uh

123
00:05:50,320 --> 00:05:56,550
system

124
00:06:00,950 --> 00:05:59,110
i guess i'd like to say forwards too

125
00:06:03,350 --> 00:06:00,960
i'd like to say that the soil is a very

126
00:06:05,590 --> 00:06:03,360
very reliable vehicle which has been

127
00:06:08,070 --> 00:06:05,600
flying for a number of years now so

128
00:06:09,749 --> 00:06:08,080
we're fully confident in the machine

129
00:06:11,350 --> 00:06:09,759
we're confident in our knowledge we

130
00:06:15,270 --> 00:06:11,360
learned a great deal and we feel fully

131
00:06:15,280 --> 00:06:17,749
business

132
00:06:17,759 --> 00:06:22,870
have no optional situations whatsoever

133
00:06:27,670 --> 00:06:25,990
okay okay thank you i might just say uh

134
00:06:29,990 --> 00:06:27,680
just a few more words

135
00:06:32,150 --> 00:06:30,000
when we get to the space station uh

136
00:06:32,830 --> 00:06:32,160
already on board operating as what we

137
00:06:35,830 --> 00:06:32,840
call

138
00:06:38,309 --> 00:06:35,840

33 3 where we have already begun

139
00:06:40,150 --> 00:06:38,319
expedition 33 with three people sunny

140
00:06:41,670 --> 00:06:40,160
williams aki hosside and yuri

141
00:06:43,830 --> 00:06:41,680
malenchenko will have already been on

142
00:06:46,870 --> 00:06:43,840
board for uh for a while

143
00:06:49,350 --> 00:06:46,880
we'll we'll have uh until november 12th

144
00:06:52,150 --> 00:06:49,360
after our october 17th docking we'll

145
00:06:54,550 --> 00:06:52,160
have to november 12th as a handover time

146
00:06:57,189 --> 00:06:54,560
with them so a lot of that time will be

147
00:06:59,110 --> 00:06:57,199
very busy just uh just learning the lay

148
00:07:00,550 --> 00:06:59,120
of the land and figuring out how to

149
00:07:02,950 --> 00:07:00,560
operate

150
00:07:05,749 --> 00:07:02,960
efficiently after they depart for the

151
00:07:08,390 --> 00:07:05,759
ground and then uh we'll have almost

152
00:07:11,270 --> 00:07:08,400
four weeks before the um

153
00:07:14,309 --> 00:07:11,280
crew of uh the complement of expedition

154
00:07:16,950 --> 00:07:14,319
34. tom washburn chris hadfield and

155
00:07:17,909 --> 00:07:16,960
roman romanenko join us for the six

156
00:07:21,430 --> 00:07:17,919
person

157
00:07:23,749 --> 00:07:21,440
uh expedition 34 crew uh so that's a

158
00:07:25,909 --> 00:07:23,759
little bit unusual that that handover

159
00:07:28,790 --> 00:07:25,919
it's a little bit left over from the the

160
00:07:30,870 --> 00:07:28,800
soyuz delay we had um just about seven

161
00:07:32,469 --> 00:07:30,880
or eight months ago but after our

162
00:07:34,550 --> 00:07:32,479
expedition is complete we're coming home

163
00:07:36,870 --> 00:07:34,560

one time uh the same time we always plan

164
00:07:38,230 --> 00:07:36,880
to march 19th and after that the

165
00:07:40,469 --> 00:07:38,240
schedule will be back to normal with

166
00:07:41,909 --> 00:07:40,479
just uh much shorter uh three-person

167
00:07:44,390 --> 00:07:41,919
crew times which will allow us to keep

168
00:07:47,430 --> 00:07:44,400
the science going at a nice high level

169
00:07:48,390 --> 00:07:47,440
which is what we're after nowadays

170
00:07:49,830 --> 00:07:48,400
i heard

171
00:07:51,110 --> 00:07:49,840
this morning that we're kind of it's

172
00:07:53,510 --> 00:07:51,120
it's a good thought that we're just now

173
00:07:55,990 --> 00:07:53,520
getting into kind of the second

174
00:07:57,830 --> 00:07:56,000
full year of utilization on the space

175
00:07:59,189 --> 00:07:57,840
station so we really want to keep the

176
00:08:02,230 --> 00:07:59,199
science experiments running at a high

177
00:08:04,950 --> 00:08:02,240
tempo and get as much time as we can

178
00:08:06,629 --> 00:08:04,960
getting getting the science done

179
00:08:09,350 --> 00:08:06,639
so uh with that

180
00:08:11,270 --> 00:08:09,360
that's about all i wanted to add to this

181
00:08:13,749 --> 00:08:11,280
morning's briefing and we'll be happy to

182
00:08:15,189 --> 00:08:13,759
take some questions

183
00:08:16,309 --> 00:08:15,199
okay we'll start off uh here at the

184
00:08:17,510 --> 00:08:16,319
johnson space center then we'll go to

185
00:08:19,830 --> 00:08:17,520
the phone lines

186
00:08:22,550 --> 00:08:19,840
uh mr crow go ahead

187
00:08:24,790 --> 00:08:22,560
thank you uh mark caro for aviation week

188
00:08:27,749 --> 00:08:24,800

and i think it's for kevin ford but i'll

189
00:08:30,629 --> 00:08:27,759
be happy to have a comment what what is

190
00:08:33,110 --> 00:08:30,639
the challenge as you see it

191
00:08:35,029 --> 00:08:33,120
for keeping the station maintained and

192
00:08:36,110 --> 00:08:35,039
having a more aggressive science

193
00:08:39,269 --> 00:08:36,120
schedule

194
00:08:41,589 --> 00:08:39,279
is it doable or is it a test kind of

195
00:08:43,589 --> 00:08:41,599
daily or weekly how do you guys kind of

196
00:08:46,949 --> 00:08:43,599
tackle that

197
00:08:49,990 --> 00:08:46,959
well in the in in the us os of course we

198
00:08:51,590 --> 00:08:50,000
we're limited by by crew time there are

199
00:08:53,030 --> 00:08:51,600
just so many things that have to go into

200
00:08:54,470 --> 00:08:53,040
your day of course

201
00:08:56,790 --> 00:08:54,480
station maintenance

202
00:08:59,190 --> 00:08:56,800
not only the routine tasks but things

203
00:09:00,790 --> 00:08:59,200
that might need uh some repairs and i

204
00:09:02,070 --> 00:09:00,800
guess i would also include in that some

205
00:09:04,550 --> 00:09:02,080
upgrades

206
00:09:07,350 --> 00:09:04,560
for example um we're looking at with the

207
00:09:11,110 --> 00:09:07,360
state of the art now and and com and

208
00:09:14,310 --> 00:09:11,120
digital uh technology increasing uh the

209
00:09:15,750 --> 00:09:14,320
comm rate by 10 times in the course of

210
00:09:17,670 --> 00:09:15,760
our expedition so i'm going to have some

211
00:09:19,990 --> 00:09:17,680
work to do on this new high rate com

212
00:09:21,590 --> 00:09:20,000
system allows

213
00:09:23,590 --> 00:09:21,600

four video channels to the ground

214
00:09:25,430 --> 00:09:23,600
instead of the current two and uh

215
00:09:29,590 --> 00:09:25,440
multiple uh

216
00:09:31,430 --> 00:09:29,600
channels i might not have that that

217
00:09:33,030 --> 00:09:31,440
number right but more more video and

218
00:09:35,269 --> 00:09:33,040
more common to the ground and also

219
00:09:37,030 --> 00:09:35,279
allows ku commanding to the space

220
00:09:38,630 --> 00:09:37,040
station so quite quite an improvement

221
00:09:42,389 --> 00:09:38,640
now and and you know how fast things are

222
00:09:44,310 --> 00:09:42,399
moving in the digital era so um

223
00:09:45,990 --> 00:09:44,320
we're trying to get get a handle on you

224
00:09:47,430 --> 00:09:46,000
know operating the space station also

225
00:09:48,870 --> 00:09:47,440
but then sharing crew time with the

226
00:09:50,870 --> 00:09:48,880
science some of the challenge comes in

227
00:09:53,430 --> 00:09:50,880
and just making things as efficient as

228
00:09:55,829 --> 00:09:53,440
we can and as hands off hands off as we

229
00:09:57,590 --> 00:09:55,839
can be and the procedures is good

230
00:09:59,350 --> 00:09:57,600
you know minimizing tool use and that

231
00:10:00,949 --> 00:09:59,360
sort of thing can really add to

232
00:10:02,630 --> 00:10:00,959
efficiency so you don't have to gather

233
00:10:04,630 --> 00:10:02,640
tools and put tools away and kind of

234
00:10:06,949 --> 00:10:04,640
keep things running build up and tear

235
00:10:08,870 --> 00:10:06,959
down all those kinds of things so

236
00:10:11,670 --> 00:10:08,880
certainly uh you know a bigger crew

237
00:10:13,030 --> 00:10:11,680
compliment someday down the road might

238
00:10:14,310 --> 00:10:13,040

might be uh

239
00:10:15,670 --> 00:10:14,320
might be a big step in the right

240
00:10:16,710 --> 00:10:15,680
direction

241
00:10:18,069 --> 00:10:16,720
but

242
00:10:19,829 --> 00:10:18,079
you know i do think that the amount of

243
00:10:22,550 --> 00:10:19,839
science we're doing right now is really

244
00:10:23,990 --> 00:10:22,560
is really a very very healthy amount

245
00:10:25,269 --> 00:10:24,000
and we're going to see a lot of

246
00:10:27,910 --> 00:10:25,279
interesting things happen now in this

247
00:10:29,829 --> 00:10:27,920
new utilization phase

248
00:10:32,150 --> 00:10:29,839
at this point are there any u.s or

249
00:10:33,829 --> 00:10:32,160
russian space walks playing during your

250
00:10:35,590 --> 00:10:33,839
period i know you train for a lot of

251
00:10:37,750 --> 00:10:35,600
stuff i just wonder if anything is kind

252
00:10:40,470 --> 00:10:37,760
of falling into your stay at this point

253
00:10:42,150 --> 00:10:40,480
we did so things fell out of our uh of

254
00:10:44,550 --> 00:10:42,160
our increment actually and it's a little

255
00:10:46,310 --> 00:10:44,560
bit because of the uh the way the

256
00:10:49,590 --> 00:10:46,320
visiting vehicles and schedules have

257
00:10:52,630 --> 00:10:49,600
changed a little bit around it

258
00:10:54,230 --> 00:10:52,640
we had trained an eva 19 which depended

259
00:10:55,750 --> 00:10:54,240
on spacex 2 hardware and with that

260
00:10:57,509 --> 00:10:55,760
slipping down just a little bit they're

261
00:10:59,030 --> 00:10:57,519
going to go ahead and move that eva 19

262
00:11:00,389 --> 00:10:59,040
out to a later increment so that'll

263
00:11:02,389 --> 00:11:00,399

still be done

264
00:11:03,190 --> 00:11:02,399
probably sometime about a year down the

265
00:11:05,750 --> 00:11:03,200
road

266
00:11:09,350 --> 00:11:05,760
my crewmates chris hadfield tom

267
00:11:12,470 --> 00:11:09,360
marshburn who will be the 3435 group

268
00:11:14,310 --> 00:11:12,480
have trained as a backup for the cva 18

269
00:11:16,710 --> 00:11:14,320
which is coming up at the end of august

270
00:11:18,949 --> 00:11:16,720
probably for sunny williams and

271
00:11:20,870 --> 00:11:18,959
akihosi day so if they for some reason

272
00:11:23,269 --> 00:11:20,880
situation doesn't permit them to get

273
00:11:24,790 --> 00:11:23,279
that eva accomplished we'll do it in the

274
00:11:26,550 --> 00:11:24,800
34 time frame

275
00:11:28,949 --> 00:11:26,560
and then of course just like the

276
00:11:30,310 --> 00:11:28,959
cosmonauts we train here for many

277
00:11:31,829 --> 00:11:30,320
different contingencies there are many

278
00:11:34,630 --> 00:11:31,839
things that could happen outside that

279
00:11:37,030 --> 00:11:34,640
would need immediate attention and if

280
00:11:38,470 --> 00:11:37,040
that should happen we have

281
00:11:41,269 --> 00:11:38,480
all the skills we need on board to get

282
00:11:43,829 --> 00:11:41,279
out and take care of that

283
00:11:45,829 --> 00:11:43,839
get the get the space station uh back

284
00:11:47,990 --> 00:11:45,839
exactly where we want it uh and fully

285
00:11:49,430 --> 00:11:48,000
operational again

286
00:11:52,550 --> 00:11:49,440
okay robert

287
00:11:54,550 --> 00:11:52,560
uh robert with collectspace.com uh first

288
00:11:57,110 --> 00:11:54,560

for for kevin uh

289
00:11:58,710 --> 00:11:57,120
you mentioned um

290
00:12:01,030 --> 00:11:58,720
balancing science or the right amount of

291
00:12:02,790 --> 00:12:01,040
science on the station how during your

292
00:12:05,030 --> 00:12:02,800
training how well versed you get on the

293
00:12:07,269 --> 00:12:05,040
198 experiments we heard this morning

294
00:12:08,790 --> 00:12:07,279
are currently running and how much of it

295
00:12:10,069 --> 00:12:08,800
is just waiting for you to get up there

296
00:12:12,069 --> 00:12:10,079
and then just receiving day-to-day

297
00:12:13,910 --> 00:12:12,079
instruction

298
00:12:15,990 --> 00:12:13,920
the amount that's just waiting for us to

299
00:12:19,190 --> 00:12:16,000
learn on board is pretty small it's

300
00:12:21,509 --> 00:12:19,200
probably down you know in the 10 15

301
00:12:23,350 --> 00:12:21,519
there's a good complement of science uh

302
00:12:25,590 --> 00:12:23,360
alpha magnetic spectrometer you know our

303
00:12:27,269 --> 00:12:25,600
interface with that is a is a laptop

304
00:12:29,430 --> 00:12:27,279
that collects data on board during time

305
00:12:30,949 --> 00:12:29,440
outages and just keeping that healthy

306
00:12:33,750 --> 00:12:30,959
and making sure that they have the

307
00:12:35,670 --> 00:12:33,760
connections they need um

308
00:12:38,629 --> 00:12:35,680
same way with a lot of the payloads you

309
00:12:40,470 --> 00:12:38,639
know on the exposed facility maybe the

310
00:12:42,230 --> 00:12:40,480
spdm some of the things that are going

311
00:12:44,389 --> 00:12:42,240
on on outside

312
00:12:46,470 --> 00:12:44,399
that are space station experiments the

313
00:12:49,190 --> 00:12:46,480

crew has very inner very little

314
00:12:51,750 --> 00:12:49,200
interaction with and just because of our

315
00:12:53,990 --> 00:12:51,760
our time pressures for training purposes

316
00:12:56,150 --> 00:12:54,000
we don't spend you know a good deal of

317
00:12:57,829 --> 00:12:56,160
time we just get overviews on kind of

318
00:12:59,590 --> 00:12:57,839
the things that are going on

319
00:13:01,590 --> 00:12:59,600
uh on those experiments the ones we get

320
00:13:03,350 --> 00:13:01,600
the bulk of the time are the ones that

321
00:13:06,310 --> 00:13:03,360
we'll have to get in there

322
00:13:07,430 --> 00:13:06,320
set this experiment up perhaps and then

323
00:13:11,110 --> 00:13:07,440
actually

324
00:13:12,710 --> 00:13:11,120
take part in activation something like

325
00:13:14,150 --> 00:13:12,720
the burning and suppression of solids

326
00:13:16,710 --> 00:13:14,160
for example i just had training on it

327
00:13:18,389 --> 00:13:16,720
just a few days ago literally and it's

328
00:13:21,030 --> 00:13:18,399
all about putting

329
00:13:23,110 --> 00:13:21,040
putting different samples of materials

330
00:13:25,750 --> 00:13:23,120
that can combust inside

331
00:13:27,990 --> 00:13:25,760
watching uh flow rates and then igniting

332
00:13:30,230 --> 00:13:28,000
it and taking photos of it so that's

333
00:13:31,750 --> 00:13:30,240
you know if we don't do that well they

334
00:13:33,670 --> 00:13:31,760
don't get the data so those kinds of

335
00:13:35,990 --> 00:13:33,680
things they have to train us

336
00:13:38,310 --> 00:13:36,000
very diligently on and i would i would

337
00:13:40,949 --> 00:13:38,320
say we get we get training on about

338
00:13:42,550 --> 00:13:40,959

maybe a third of that that total package

339
00:13:43,829 --> 00:13:42,560
of experiments that's that's going on

340
00:13:45,030 --> 00:13:43,839
and that's kind of just a rough guess

341
00:13:46,069 --> 00:13:45,040
but i would say it's somewhere around

342
00:13:47,990 --> 00:13:46,079
there

343
00:13:49,350 --> 00:13:48,000
yeah you've seen spheres too maybe i'll

344
00:13:50,710 --> 00:13:49,360
throw that out the sphere is on board

345
00:13:52,150 --> 00:13:50,720
you know the crew has a big interaction

346
00:13:54,310 --> 00:13:52,160
with that one

347
00:13:55,590 --> 00:13:54,320
and i've had training on that too but uh

348
00:13:58,710 --> 00:13:55,600
some of the other stuff we don't see too

349
00:14:00,949 --> 00:13:58,720
much about we're just there to help

350
00:14:02,150 --> 00:14:00,959
okay thanks um and for all like you

351
00:14:04,710 --> 00:14:02,160
mentioned that this is going to be

352
00:14:06,230 --> 00:14:04,720
launching from a different launchpad um

353
00:14:09,110 --> 00:14:06,240
can you explain why the switch to

354
00:14:51,430 --> 00:14:09,120
another pad and when that pad was last

355
00:14:51,440 --> 00:14:55,829
actually launchpad requires some uh

356
00:14:59,430 --> 00:14:57,430
remodeling and

357
00:15:01,750 --> 00:14:59,440
modernization from time to time so this

358
00:15:04,550 --> 00:15:01,760
is a planned change before us all the

359
00:15:06,870 --> 00:15:04,560
launches used to take place at occur at

360
00:15:09,110 --> 00:15:06,880
the gregorian launch pad and now we're

361
00:15:11,189 --> 00:15:09,120
going to switch a tradition by going to

362
00:15:13,269 --> 00:15:11,199
show that launches can actually occur

363
00:15:15,590 --> 00:15:13,279

from any launch pad at the cosmodrome at

364
00:15:16,790 --> 00:15:15,600
the at the cosmodrome

365
00:15:20,870 --> 00:15:16,800
baikonur

366
00:15:23,670 --> 00:15:22,150
okay

367
00:15:25,670 --> 00:15:23,680
over here

368
00:15:28,310 --> 00:15:25,680
yeah down with the german space agency

369
00:15:30,470 --> 00:15:28,320
and space expo association question for

370
00:15:32,310 --> 00:15:30,480
kevin ford what kind of training and

371
00:15:35,030 --> 00:15:32,320
preparation do you have to go through

372
00:15:36,230 --> 00:15:35,040
from now until launch in october

373
00:15:37,350 --> 00:15:36,240
thank you

374
00:15:38,470 --> 00:15:37,360
well

375
00:15:41,910 --> 00:15:38,480
we

376
00:15:45,590 --> 00:15:41,920
served as backups uh for um gennady

377
00:15:46,389 --> 00:15:45,600
padalka sergei revin and joe acaba back

378
00:15:47,749 --> 00:15:46,399
in

379
00:15:50,150 --> 00:15:47,759
the middle of may

380
00:15:51,910 --> 00:15:50,160
so um that the reason i mentioned it is

381
00:15:54,790 --> 00:15:51,920
because they they really take us up to a

382
00:15:55,749 --> 00:15:54,800
fully qualified status to be that backup

383
00:15:58,230 --> 00:15:55,759
crew

384
00:16:00,150 --> 00:15:58,240
and uh between uh

385
00:16:02,310 --> 00:16:00,160
and to do some of their experiments on

386
00:16:04,150 --> 00:16:02,320
board too you know so i'll study a few

387
00:16:06,550 --> 00:16:04,160
things that i probably won't even see in

388
00:16:09,509 --> 00:16:06,560

my prime increment to get to that to

389
00:16:11,030 --> 00:16:09,519
that backup status but then in between i

390
00:16:12,550 --> 00:16:11,040
come back come back to houston i did

391
00:16:14,870 --> 00:16:12,560
make one trip back to

392
00:16:17,990 --> 00:16:14,880
to uh star city russia as well and we

393
00:16:20,230 --> 00:16:18,000
trained against some russian segment

394
00:16:22,389 --> 00:16:20,240
issues some some changes in some

395
00:16:24,629 --> 00:16:22,399
procedures some capabilities we have on

396
00:16:26,310 --> 00:16:24,639
space station for emergency scenarios

397
00:16:27,509 --> 00:16:26,320
for example we've

398
00:16:29,110 --> 00:16:27,519
we've got some new and improved

399
00:16:31,509 --> 00:16:29,120
techniques and

400
00:16:33,030 --> 00:16:31,519
and equipment on board so we get to

401
00:16:35,509 --> 00:16:33,040
learn all about that

402
00:16:37,670 --> 00:16:35,519
and also refresh your trainings on a lot

403
00:16:40,550 --> 00:16:37,680
of stuff a few more runs in the neutral

404
00:16:42,550 --> 00:16:40,560
buoyancy lab to keep proficiencies up

405
00:16:44,310 --> 00:16:42,560
with all the tools and equipments and

406
00:16:46,310 --> 00:16:44,320
then also

407
00:16:48,389 --> 00:16:46,320
they save this time also for some of

408
00:16:50,150 --> 00:16:48,399
that prime science that we'll be doing

409
00:16:52,069 --> 00:16:50,160
because it'll be fresher in your mind

410
00:16:53,990 --> 00:16:52,079
anyway if you'd flown as a backup you

411
00:16:56,310 --> 00:16:54,000
wouldn't have done it anyway so they

412
00:16:58,629 --> 00:16:56,320
save that for this increment so

413
00:17:00,389 --> 00:16:58,639

i just have

414
00:17:03,189 --> 00:17:00,399
three more weeks of us training and one

415
00:17:04,549 --> 00:17:03,199
week in cologne to get to get through

416
00:17:07,110 --> 00:17:04,559
all the rest of that

417
00:17:08,789 --> 00:17:07,120
and uh i i frankly i don't look too far

418
00:17:10,710 --> 00:17:08,799
ahead of my training i kind of kind of

419
00:17:12,230 --> 00:17:10,720
look day-to-day and

420
00:17:14,309 --> 00:17:12,240
there are people

421
00:17:16,390 --> 00:17:14,319
here that take care of me i have

422
00:17:20,230 --> 00:17:16,400
you know a training integrator kathy

423
00:17:21,990 --> 00:17:20,240
bolt who really builds my entire plan as

424
00:17:23,590 --> 00:17:22,000
just like a manager of a team or

425
00:17:26,230 --> 00:17:23,600
something just puts me in a position to

426
00:17:28,630 --> 00:17:26,240
be there and ready and so she's put that

427
00:17:30,150 --> 00:17:28,640
plan together for me and

428
00:17:31,669 --> 00:17:30,160
until i get on board

429
00:17:33,990 --> 00:17:31,679
i won't be sure i got everything i need

430
00:17:35,350 --> 00:17:34,000
to know but i i think she thinks i'll be

431
00:17:37,029 --> 00:17:35,360
ready so

432
00:17:39,270 --> 00:17:37,039
that's the most important thing and then

433
00:17:40,870 --> 00:17:39,280
we'll do this brush up in star city uh

434
00:17:43,110 --> 00:17:40,880
with soyuz

435
00:17:44,390 --> 00:17:43,120
get back in there and get really current

436
00:17:47,510 --> 00:17:44,400
and make sure we're all ready for the

437
00:17:50,150 --> 00:17:47,520
dynamic phases of flight and take exams

438
00:17:52,150 --> 00:17:50,160

that you probably well know about and

439
00:17:54,789 --> 00:17:52,160
then went down to baikonur about two

440
00:17:57,909 --> 00:17:54,799
weeks prior to launch and then some time

441
00:17:59,590 --> 00:17:57,919
for relaxation just just some easy kind

442
00:18:01,110 --> 00:17:59,600
of light days still some training

443
00:18:02,549 --> 00:18:01,120
involved but some light days just to

444
00:18:03,830 --> 00:18:02,559
kind of make sure

445
00:18:07,110 --> 00:18:03,840
by the time you get to lunch day you're

446
00:18:08,789 --> 00:18:07,120
rested and as prepared as you can be

447
00:18:10,549 --> 00:18:08,799
so do you guys have any

448
00:18:12,710 --> 00:18:10,559
any comments on your training in russia

449
00:18:13,750 --> 00:18:12,720
from here on out because

450
00:18:23,909 --> 00:18:13,760
they may have i don't know if they have

451
00:18:23,919 --> 00:18:31,510
um

452
00:18:35,750 --> 00:18:33,029
of course there are runs in the hydro

453
00:18:37,990 --> 00:18:35,760
lab because uh as of now we cannot yet

454
00:18:39,750 --> 00:18:38,000
say whether we're going to have russian

455
00:18:59,990 --> 00:18:39,760
space work or not

456
00:19:04,230 --> 00:19:02,070
but in general we do have runs so we're

457
00:19:06,230 --> 00:19:04,240
fully prepared and fully ready

458
00:19:08,630 --> 00:19:06,240
and uh to tell the truth we had full

459
00:19:11,029 --> 00:19:08,640
preparation when uh

460
00:19:20,230 --> 00:19:11,039
revan and padalka had their training so

461
00:19:32,549 --> 00:19:22,549
we are ready for the vernier day and if

462
00:19:36,310 --> 00:19:33,990
but i don't really see any major

463
00:19:39,510 --> 00:19:36,320

differences between the preparation for

464
00:19:45,510 --> 00:19:39,520
an eva in russia or in the west i think

465
00:19:45,520 --> 00:19:49,190
techniques

466
00:19:53,190 --> 00:19:50,870
there are certain differences in

467
00:19:55,590 --> 00:19:53,200
spacesuits but otherwise it's all the

468
00:20:04,710 --> 00:19:56,470
no

469
00:20:08,149 --> 00:20:06,710
as a regards training here it's more

470
00:20:10,630 --> 00:20:08,159
station wise

471
00:20:13,029 --> 00:20:10,640
emergency and of normal situations on

472
00:20:29,510 --> 00:20:13,039
board the international space station as

473
00:20:34,870 --> 00:20:32,390
but it's mostly russian modules again

474
00:20:36,390 --> 00:20:34,880
a recovery from offline situations and

475
00:20:44,950 --> 00:20:36,400
uh

476
00:20:44,960 --> 00:20:49,590
as

477
00:20:54,549 --> 00:20:51,750
however the major part is devoted to the

478
00:20:57,110 --> 00:20:54,559
source vehicle because the station is uh

479
00:20:59,909 --> 00:20:57,120
not as rapid and not as dynamic as the

480
00:21:08,149 --> 00:20:59,919
soyuz vehicle

481
00:21:15,029 --> 00:21:10,470
so we need to really have all the skills

482
00:21:19,990 --> 00:21:17,750
i think that's it

483
00:21:21,029 --> 00:21:20,000
okay is that it here in houston okay

484
00:21:23,029 --> 00:21:21,039
let's go to the phone lines we have

485
00:21:24,310 --> 00:21:23,039
denise chao with space.com go ahead

486
00:21:26,870 --> 00:21:24,320
denise

487
00:21:28,789 --> 00:21:26,880
hi thanks uh question for kevin

488
00:21:31,190 --> 00:21:28,799

um while you're on the station you're

489
00:21:34,149 --> 00:21:31,200
going to be visited by either the cygnus

490
00:21:36,630 --> 00:21:34,159
or the dragon capsule how exciting is it

491
00:21:38,470 --> 00:21:36,640
to be on the station during this time

492
00:21:40,149 --> 00:21:38,480
as we transition to commercial cargo

493
00:21:42,950 --> 00:21:40,159
vehicles

494
00:21:45,270 --> 00:21:42,960
oh that's that's a great question

495
00:21:47,909 --> 00:21:45,280
the big big transition time for nasa

496
00:21:50,390 --> 00:21:47,919
bringing these these guys aboard uh

497
00:21:52,070 --> 00:21:50,400
they've been doing really a fantastic

498
00:21:54,310 --> 00:21:52,080
job with development i can tell you

499
00:21:55,909 --> 00:21:54,320
everybody at nasa is really very

500
00:21:57,590 --> 00:21:55,919
impressed uh

501
00:22:00,390 --> 00:21:57,600
with with how the plans are coming along

502
00:22:02,470 --> 00:22:00,400
it's very very difficult thing to do

503
00:22:03,590 --> 00:22:02,480
both the vehicles look to be uh very

504
00:22:05,190 --> 00:22:03,600
capable

505
00:22:07,669 --> 00:22:05,200
we're really keeping our fingers crossed

506
00:22:08,950 --> 00:22:07,679
that they can they can start to move you

507
00:22:11,110 --> 00:22:08,960
know or start

508
00:22:12,390 --> 00:22:11,120
start moving just right on time in a

509
00:22:14,950 --> 00:22:12,400
regular tempo

510
00:22:17,110 --> 00:22:14,960
so that we can handle the

511
00:22:19,270 --> 00:22:17,120
the supply the supply issues that we

512
00:22:21,669 --> 00:22:19,280
have uh the supply requirements that we

513
00:22:23,750 --> 00:22:21,679

have and also the disposal

514
00:22:25,270 --> 00:22:23,760
and return issues that we have that we

515
00:22:27,590 --> 00:22:25,280
can take advantage of the the return

516
00:22:29,669 --> 00:22:27,600
also with dragon so both things uh both

517
00:22:33,190 --> 00:22:29,679
parts of that are very important to us

518
00:22:36,070 --> 00:22:33,200
uh just just from um a kind of a g whiz

519
00:22:37,990 --> 00:22:36,080
point of view um i i can remember it

520
00:22:39,270 --> 00:22:38,000
just doesn't seem like

521
00:22:41,350 --> 00:22:39,280
long ago at all that we were just

522
00:22:43,190 --> 00:22:41,360
talking about this concept of flying up

523
00:22:44,950 --> 00:22:43,200
underneath the space station and

524
00:22:47,830 --> 00:22:44,960
reaching out and grappling it with

525
00:22:49,350 --> 00:22:47,840
canadarm2 and bringing it aboard and uh

526
00:22:51,430 --> 00:22:49,360
manis in the astronaut office thought

527
00:22:53,110 --> 00:22:51,440
wow that's you know that's a pretty neat

528
00:22:54,870 --> 00:22:53,120
idea and it would really be neat to be a

529
00:22:57,669 --> 00:22:54,880
part of that and see it fly this vehicle

530
00:22:59,990 --> 00:22:57,679
fly up underneath and actively reach out

531
00:23:00,870 --> 00:23:00,000
grab it and bring it aboard

532
00:23:04,070 --> 00:23:00,880
so

533
00:23:06,070 --> 00:23:04,080
we've had success doing it with htv now

534
00:23:07,750 --> 00:23:06,080
already several times got another one

535
00:23:10,310 --> 00:23:07,760
coming up another grapple coming up here

536
00:23:12,870 --> 00:23:10,320
very shortly and uh the first flight of

537
00:23:14,710 --> 00:23:12,880
dragon worked uh so well so it's a real

538
00:23:16,149 --> 00:23:14,720

testament to the engineering kind of

539
00:23:17,750 --> 00:23:16,159
what we've learned in the history of

540
00:23:19,190 --> 00:23:17,760
space flight so that these these first

541
00:23:21,669 --> 00:23:19,200
flights of these vehicles can be very

542
00:23:23,190 --> 00:23:21,679
highly successful and the information

543
00:23:24,870 --> 00:23:23,200
sharing and with those companies is

544
00:23:26,310 --> 00:23:24,880
going really well

545
00:23:29,510 --> 00:23:26,320
pretty soon they'll just be delivering

546
00:23:31,350 --> 00:23:29,520
our supplies uh just in a regular way as

547
00:23:33,350 --> 00:23:31,360
a third party delivery company and

548
00:23:35,590 --> 00:23:33,360
that'll allow us to really concentrate

549
00:23:36,789 --> 00:23:35,600
on the other things that nasa shines at

550
00:23:38,789 --> 00:23:36,799
which is

551
00:23:41,430 --> 00:23:38,799
investing our money and testing and

552
00:23:43,190 --> 00:23:41,440
developing really new things and uh just

553
00:23:44,870 --> 00:23:43,200
letting them do the take care of the

554
00:23:46,549 --> 00:23:44,880
provisions for us so that's an exciting

555
00:23:48,470 --> 00:23:46,559
time to be up there and and see that

556
00:23:49,990 --> 00:23:48,480
happen

557
00:23:51,590 --> 00:23:50,000
okay is that it denise do you have any

558
00:23:53,190 --> 00:23:51,600
more

559
00:23:56,390 --> 00:23:53,200
no that's all thanks okay did i miss

560
00:24:00,070 --> 00:23:57,510
okay let's come back here to houston

561
00:24:01,909 --> 00:24:00,080
anybody have any follow-ups here

562
00:24:04,149 --> 00:24:01,919
go ahead robert um

563
00:24:05,430 --> 00:24:04,159

you've uh robert with collectspace.com

564
00:24:06,950 --> 00:24:05,440
again

565
00:24:08,549 --> 00:24:06,960
in addition to the three of you on board

566
00:24:11,269 --> 00:24:08,559
your soyuz as i understand you'll have

567
00:24:13,350 --> 00:24:11,279
30 some on japanese fish

568
00:24:15,830 --> 00:24:13,360
will they become your unofficial mascots

569
00:24:18,789 --> 00:24:15,840
or pets for the two-day trip to the

570
00:24:20,789 --> 00:24:18,799
international space station i might

571
00:24:22,710 --> 00:24:20,799
answer that i'm not sure if uh oleg and

572
00:24:23,750 --> 00:24:22,720
evgeny are well versed i just heard

573
00:24:27,110 --> 00:24:23,760
myself

574
00:24:29,750 --> 00:24:27,120
i've had training on these uh these fish

575
00:24:32,070 --> 00:24:29,760
they're madaka maybe just a little bit

576
00:24:35,510 --> 00:24:32,080
larger than guppy's and i've been

577
00:24:37,190 --> 00:24:35,520
trained on in japan on uh handling them

578
00:24:39,110 --> 00:24:37,200
they will be on our soyuz with us so all

579
00:24:40,950 --> 00:24:39,120
together we'll have 32 fish plus the

580
00:24:42,310 --> 00:24:40,960
three of us at least i don't know if

581
00:24:44,149 --> 00:24:42,320
there's other living creatures on there

582
00:24:47,029 --> 00:24:44,159
that i don't know about or not but

583
00:24:49,669 --> 00:24:47,039
so at least at least 35 living creatures

584
00:24:52,470 --> 00:24:49,679
the habitat for those fish uh is going

585
00:24:54,230 --> 00:24:52,480
to be delivered on htv and aki hosida

586
00:24:56,149 --> 00:24:54,240
will set that up and as when we come

587
00:24:58,310 --> 00:24:56,159
aboard one of the first

588
00:25:00,710 --> 00:24:58,320

the first items will be to get these

589
00:25:03,990 --> 00:25:00,720
fish transferred and into their habitat

590
00:25:05,909 --> 00:25:04,000
and get this experiment kind of underway

591
00:25:08,789 --> 00:25:05,919
it's an experiment for

592
00:25:10,470 --> 00:25:08,799
essentially osteoporosis these fish have

593
00:25:13,269 --> 00:25:10,480
bone structure the way it's built and

594
00:25:16,149 --> 00:25:13,279
destroyed is like mammals and so

595
00:25:18,149 --> 00:25:16,159
by by looking at the way that

596
00:25:19,430 --> 00:25:18,159
the changes in these fish in a zero-g

597
00:25:21,590 --> 00:25:19,440
environment they're going to see a lot

598
00:25:23,990 --> 00:25:21,600
about uh the way these osteoclasts and

599
00:25:26,470 --> 00:25:24,000
blasts which are forming and destroying

600
00:25:29,029 --> 00:25:26,480
bone uh change in the zero-g environment

601
00:25:31,029 --> 00:25:29,039
and really it's it's really about human

602
00:25:33,430 --> 00:25:31,039
research but it's uh it's being done

603
00:25:36,230 --> 00:25:33,440
with these uh these madoka fish so

604
00:25:38,950 --> 00:25:36,240
that'll be a very fun hands-on uh type

605
00:25:41,029 --> 00:25:38,960
experiment uh for me as well so

606
00:25:43,110 --> 00:25:41,039
i i meant to take along a fish that had

607
00:25:44,710 --> 00:25:43,120
to said gone fishing but i didn't you

608
00:25:46,950 --> 00:25:44,720
have to pack a year in advance for space

609
00:25:49,669 --> 00:25:46,960
flight so i didn't get my gun fishing

610
00:25:51,750 --> 00:25:49,679
hat up there unfortunately

611
00:25:52,630 --> 00:25:51,760
okay

612
00:25:53,590 --> 00:25:52,640
all right on that note we're going to

613
00:25:55,750 --> 00:25:53,600

wrap it up we want to thank our

614
00:25:57,430 --> 00:25:55,760
gentlemen for joining us today of course

615
00:25:59,029 --> 00:25:57,440
if you would like to learn more about

616
00:26:00,390 --> 00:25:59,039
this crew or the upcoming expedition

617
00:26:04,950 --> 00:26:00,400
later on this year just log on to the

618
00:26:10,789 --> 00:26:09,110
station once again it's www.nasa.gov

619
00:26:12,789 --> 00:26:10,799
station of course we invite you to join

620
00:26:15,350 --> 00:26:12,799
us early tomorrow morning beginning at 6

621
00:26:16,789 --> 00:26:15,360
00 a.m central time 7 a.m eastern time

622
00:26:19,909 --> 00:26:16,799
as we bring you live coverage of the

623
00:26:22,310 --> 00:26:19,919
arrival of the japanese htv-3 cargo

624
00:26:24,390 --> 00:26:22,320
craft as joe acaba and aki hoshide get

625
00:26:25,909 --> 00:26:24,400
ready to reach out and install

626
00:26:27,669 --> 00:26:25,919
that cargo vehicle on the bottom of the

627
00:26:28,789 --> 00:26:27,679
international space station so we'll see