
Johnso
ohnson Sp

1
00:00:04,870 --> 00:00:03,590
good afternoon thank you for joining us

2
00:00:07,190 --> 00:00:04,880
for this afternoon's crew news

3
00:00:08,870 --> 00:00:07,200
conference joining us are nasa astronaut

4
00:00:10,950 --> 00:00:08,880
mike fossum

5
00:00:12,950 --> 00:00:10,960
cosmonaut sergey volkov and jaxa

6
00:00:15,509 --> 00:00:12,960
astronaut satoshi furukawa members of

7
00:00:17,269 --> 00:00:15,519
the expedition 28 and 29 cruise the

8
00:00:18,950 --> 00:00:17,279
three are scheduled to launch on a soyuz

9
00:00:21,269 --> 00:00:18,960
may 30th with docking to the space

10
00:00:22,870 --> 00:00:21,279
station on june 1st their mission is

11
00:00:23,990 --> 00:00:22,880
expected to conclude with a landing in

12
00:00:25,589 --> 00:00:24,000
november

13
00:00:27,509 --> 00:00:25,599

we'll now start with introductions and

14
00:00:29,189 --> 00:00:27,519
then take questions we'll begin with

15
00:00:30,950 --> 00:00:29,199
nasa astronaut mike fossum who will

16
00:00:32,950 --> 00:00:30,960
serve as a flight engineer for

17
00:00:34,470 --> 00:00:32,960
expedition 28 and is commander for

18
00:00:36,069 --> 00:00:34,480
expedition 29.

19
00:00:38,389 --> 00:00:36,079
mike was born in sioux falls south

20
00:00:40,790 --> 00:00:38,399
dakota and grew up in mcallen texas he

21
00:00:42,630 --> 00:00:40,800
holds degrees from texas a m university

22
00:00:44,869 --> 00:00:42,640
the air force institute of technology

23
00:00:46,549 --> 00:00:44,879
and the university of houston clear lake

24
00:00:48,709 --> 00:00:46,559
mike received his commission in the u.s

25
00:00:51,990 --> 00:00:48,719
air force from texas a m university in

26
00:00:53,910 --> 00:00:52,000
may of 1980 and in 1981 he was detailed

27
00:00:55,590 --> 00:00:53,920
to the nasa johnson space center where

28
00:00:58,389 --> 00:00:55,600
where he supported space shuttle flight

29
00:01:00,549 --> 00:00:58,399
operations beginning with sts-3

30
00:01:01,990 --> 00:01:00,559
he was selected for air force test pilot

31
00:01:05,350 --> 00:01:02,000
school at edwards air force base

32
00:01:06,950 --> 00:01:05,360
california where he graduated in 1985.

33
00:01:09,990 --> 00:01:06,960
mike resigned as a colonel from active

34
00:01:12,870 --> 00:01:10,000
duty in 1992 to work for nasa

35
00:01:14,870 --> 00:01:12,880
in january 1993 mike was employed by

36
00:01:16,870 --> 00:01:14,880
nasa as a systems engineer serving

37
00:01:19,350 --> 00:01:16,880
numerous roles before being selected as

38
00:01:20,870 --> 00:01:19,360

an astronaut in june 1998.

39
00:01:25,429 --> 00:01:20,880
he has flown on two space shuttle

40
00:01:28,070 --> 00:01:25,439
missions sts-121 in 2006 and sts-124 in

41
00:01:29,990 --> 00:01:28,080
2008 and has performed three spacewalks

42
00:01:32,390 --> 00:01:30,000
on each mission with that we'll now turn

43
00:01:33,830 --> 00:01:32,400
it over to mike to introduce his crew

44
00:01:35,670 --> 00:01:33,840
hi i'm mike fossum commander of

45
00:01:37,429 --> 00:01:35,680
expedition 29

46
00:01:40,069 --> 00:01:37,439
we're excited to be here we're excited

47
00:01:42,950 --> 00:01:40,079
to be part of opening up the second half

48
00:01:45,350 --> 00:01:42,960
decade of humans or half century rather

49
00:01:47,749 --> 00:01:45,360
of human space flight

50
00:01:50,230 --> 00:01:47,759
it's a really busy time for us

51
00:01:52,069 --> 00:01:50,240
scott kelly returned to houston on

52
00:01:55,510 --> 00:01:52,079
thursday morning after his landing in

53
00:01:58,630 --> 00:01:55,520
kazakhstan on wednesday and this morning

54
00:02:01,270 --> 00:01:58,640
ron garan and his crew including backup

55
00:02:03,670 --> 00:02:01,280
dan burbank left star city headed for

56
00:02:05,590 --> 00:02:03,680
kazakhstan to go through their final

57
00:02:06,550 --> 00:02:05,600
flight preparations it's a really busy

58
00:02:07,990 --> 00:02:06,560
time

59
00:02:09,910 --> 00:02:08,000
we're just a couple of months behind

60
00:02:11,990 --> 00:02:09,920
them and going through our final work

61
00:02:13,270 --> 00:02:12,000
here in houston this week and sergey is

62
00:02:15,830 --> 00:02:13,280
heading back to russia and we'll be

63
00:02:17,670 --> 00:02:15,840

joining him there very soon

64
00:02:21,190 --> 00:02:17,680
i'd like to introduce my three crewmate

65
00:02:23,990 --> 00:02:21,200
or my my crewmates first uh to my left

66
00:02:26,470 --> 00:02:24,000
sergey alexandrovich volkov

67
00:02:28,229 --> 00:02:26,480
he was born in ukraine and grew up in

68
00:02:29,990 --> 00:02:28,239
star city russia

69
00:02:31,589 --> 00:02:30,000
he's married and has two sons the

70
00:02:33,190 --> 00:02:31,599
youngest of which is only two and a half

71
00:02:35,190 --> 00:02:33,200
months old

72
00:02:37,790 --> 00:02:35,200
he's an air force pilot

73
00:02:39,350 --> 00:02:37,800
and was selected as a cosmonaut in

74
00:02:41,509 --> 00:02:39,360
1997.

75
00:02:43,270 --> 00:02:41,519
he's uh trained on several backup crews

76
00:02:47,350 --> 00:02:43,280
and for a period of time trained with

77
00:02:49,190 --> 00:02:47,360
the sts-121 crew to fly with me on 121

78
00:02:50,630 --> 00:02:49,200
before there were some crew changes and

79
00:02:53,830 --> 00:02:50,640
we missed that opportunity to fly

80
00:02:56,350 --> 00:02:53,840
together but we made up for it in 2008

81
00:02:58,149 --> 00:02:56,360
when he was the commander of soyuz

82
00:03:01,270 --> 00:02:58,159
tma-12

83
00:03:04,309 --> 00:03:01,280
and the commander of expedition 17

84
00:03:06,869 --> 00:03:04,319
and he hosted us on discovery on mission

85
00:03:08,470 --> 00:03:06,879
1j sts-124 when we installed the

86
00:03:10,309 --> 00:03:08,480
japanese laboratory so we've been in

87
00:03:11,910 --> 00:03:10,319
space together

88
00:03:13,830 --> 00:03:11,920

during that his previous flight he had

89
00:03:16,229 --> 00:03:13,840
two evas

90
00:03:19,190 --> 00:03:16,239
he is a hero of the russian federation

91
00:03:20,149 --> 00:03:19,200
and the first second generation space

92
00:03:21,750 --> 00:03:20,159
flier

93
00:03:24,149 --> 00:03:21,760
i'm really really happy to be flying

94
00:03:27,589 --> 00:03:24,159
with sergey again

95
00:03:30,470 --> 00:03:27,599
to my far left satoshi furukawa

96
00:03:32,630 --> 00:03:30,480
he was born in yokohama japan and i grew

97
00:03:33,670 --> 00:03:32,640
up there he's married and has a son and

98
00:03:36,390 --> 00:03:33,680
a daughter

99
00:03:39,030 --> 00:03:36,400
he is a medical doctor a surgeon and has

100
00:03:40,470 --> 00:03:39,040
a phd in medical sciences

101
00:03:43,270 --> 00:03:40,480
it's been observed he's probably the

102
00:03:46,070 --> 00:03:43,280
most educated crew member to fly on the

103
00:03:48,630 --> 00:03:46,080
us on the international space station

104
00:03:52,789 --> 00:03:48,640
and in spite of the double uh degrees

105
00:03:55,589 --> 00:03:52,799
there we refused to call him dr doctor

106
00:03:57,670 --> 00:03:55,599
he was selected as an astronaut in 99

107
00:04:00,789 --> 00:03:57,680
he's had extensive training first in

108
00:04:04,149 --> 00:04:00,799
japan then in russia then in the united

109
00:04:06,710 --> 00:04:04,159
states in three primary languages

110
00:04:08,309 --> 00:04:06,720
he served previously on two backup crews

111
00:04:10,149 --> 00:04:08,319
he'll be our main flight engineer on the

112
00:04:12,309 --> 00:04:10,159
soyuz and a flight engineer on the space

113
00:04:14,630 --> 00:04:12,319

station and i really look forward to

114
00:04:16,229 --> 00:04:14,640
sharing his first flight

115
00:04:18,150 --> 00:04:16,239
all right thank you mike we'll begin

116
00:04:20,150 --> 00:04:18,160
with questions and if you'll just state

117
00:04:21,590 --> 00:04:20,160
your name and affiliation we'll start on

118
00:04:23,510 --> 00:04:21,600
this side

119
00:04:25,430 --> 00:04:23,520
uh thanks so i'm mark caro i'm

120
00:04:27,590 --> 00:04:25,440
representing aviation week and space

121
00:04:29,350 --> 00:04:27,600
technology and i think i'll start with

122
00:04:31,270 --> 00:04:29,360
uh mike fossum

123
00:04:32,710 --> 00:04:31,280
could you uh sort of give us a little

124
00:04:33,990 --> 00:04:32,720
bit of the flavor of the sort of

125
00:04:36,150 --> 00:04:34,000
scientific

126
00:04:38,230 --> 00:04:36,160
activity and the pace of research that

127
00:04:39,590 --> 00:04:38,240
you anticipate during your stay on the

128
00:04:41,350 --> 00:04:39,600
station

129
00:04:43,030 --> 00:04:41,360
hi mark good to see you again

130
00:04:45,350 --> 00:04:43,040
uh the

131
00:04:47,270 --> 00:04:45,360
where we are now is moving out of the

132
00:04:49,030 --> 00:04:47,280
assembly phase and into the more

133
00:04:51,990 --> 00:04:49,040
extensive science phase

134
00:04:54,070 --> 00:04:52,000
because of the addition of sts-135

135
00:04:55,430 --> 00:04:54,080
there's a lot more logistics coming up

136
00:04:57,189 --> 00:04:55,440
and so we're going to be dealing with a

137
00:04:59,270 --> 00:04:57,199
little more trying to put things away

138
00:05:00,790 --> 00:04:59,280

and make room to work

139
00:05:03,029 --> 00:05:00,800
while we're up there too

140
00:05:04,870 --> 00:05:03,039
the sciences it covers the gamut the

141
00:05:07,029 --> 00:05:04,880
first would be you know us as the guinea

142
00:05:08,870 --> 00:05:07,039
pigs studying everything from the the

143
00:05:10,870 --> 00:05:08,880
standard bone muscle

144
00:05:12,230 --> 00:05:10,880
uh a cardiovascular system and things

145
00:05:15,029 --> 00:05:12,240
like that

146
00:05:18,390 --> 00:05:15,039
we do have a few new things going

147
00:05:19,270 --> 00:05:18,400
uh and one that's really interesting is

148
00:05:22,110 --> 00:05:19,280
is

149
00:05:25,670 --> 00:05:22,120
using a doppler uh

150
00:05:27,430 --> 00:05:25,680
uh a measurement system to actually look

151
00:05:30,070 --> 00:05:27,440
or i'll be operating that and studying

152
00:05:32,629 --> 00:05:30,080
satoshi's heart and the valves and the

153
00:05:34,390 --> 00:05:32,639
changes in the heart itself uh first at

154
00:05:36,390 --> 00:05:34,400
rest and then he'll go work up a sweat

155
00:05:38,790 --> 00:05:36,400
and and we'll uh we'll wire him up and

156
00:05:40,710 --> 00:05:38,800
and get more i'm doing a different

157
00:05:42,629 --> 00:05:40,720
exercise protocol called the sprint

158
00:05:44,870 --> 00:05:42,639
which uses a higher intensity shorter

159
00:05:46,710 --> 00:05:44,880
duration kind of exercise and they want

160
00:05:49,749 --> 00:05:46,720
to compare that to the results with

161
00:05:51,590 --> 00:05:49,759
doing the more nominal kinds of exercise

162
00:05:53,350 --> 00:05:51,600
we in addition we've got some different

163
00:05:55,909 --> 00:05:53,360

nutrition studies high protein low

164
00:05:57,990 --> 00:05:55,919
protein differences in sodium salt

165
00:05:59,909 --> 00:05:58,000
levels things like that all trying to

166
00:06:01,350 --> 00:05:59,919
understand those those basic effects on

167
00:06:03,749 --> 00:06:01,360
the human body

168
00:06:05,350 --> 00:06:03,759
we're also watching the eyes

169
00:06:07,189 --> 00:06:05,360
closely these days

170
00:06:09,029 --> 00:06:07,199
we've seen some things

171
00:06:10,790 --> 00:06:09,039
and changes in vision and so we've come

172
00:06:12,710 --> 00:06:10,800
there's more ways of measuring the eyes

173
00:06:14,550 --> 00:06:12,720
and keeping track of that so

174
00:06:16,710 --> 00:06:14,560
we really are the lab rats the guinea

175
00:06:18,309 --> 00:06:16,720
pigs for a lot of the stuff

176
00:06:19,990 --> 00:06:18,319
there's a wide variety of other

177
00:06:22,550 --> 00:06:20,000
experiments all the way from you know

178
00:06:23,270 --> 00:06:22,560
plant growth type experiments from you

179
00:06:25,430 --> 00:06:23,280
know

180
00:06:28,309 --> 00:06:25,440
zero to two g's

181
00:06:30,230 --> 00:06:28,319
material science where where we have the

182
00:06:32,790 --> 00:06:30,240
the samples of materials in the furnace

183
00:06:35,270 --> 00:06:32,800
with different cooling

184
00:06:38,070 --> 00:06:35,280
sequences and things like that for the

185
00:06:40,790 --> 00:06:38,080
crystal growth uh one that's one of my

186
00:06:42,790 --> 00:06:40,800
favorites is a is a flame uh it's a

187
00:06:44,790 --> 00:06:42,800
flammability or a flame experiment where

188
00:06:47,110 --> 00:06:44,800

we're studying the effects of

189
00:06:49,830 --> 00:06:47,120
microgravity on the flames and with

190
00:06:51,110 --> 00:06:49,840
different fuel mixtures and a very s you

191
00:06:53,189 --> 00:06:51,120
know

192
00:06:56,230 --> 00:06:53,199
trying to actually get the flame to lift

193
00:06:58,790 --> 00:06:56,240
off using lift off of the burner so it's

194
00:07:01,110 --> 00:06:58,800
a suspended flame in and moving air

195
00:07:03,430 --> 00:07:01,120
uh and and getting into the real physics

196
00:07:04,150 --> 00:07:03,440
and and chemistry of the the details of

197
00:07:09,589 --> 00:07:04,160
the

198
00:07:10,309 --> 00:07:09,599
and uh as a second question i wondered

199
00:07:14,309 --> 00:07:10,319
if

200
00:07:16,710 --> 00:07:14,319
talk about any spacewalks that are

201
00:07:18,550 --> 00:07:16,720
planned at this point

202
00:07:19,990 --> 00:07:18,560
well sure sergey and i can both talk

203
00:07:21,990 --> 00:07:20,000
about them we right now are each

204
00:07:25,029 --> 00:07:22,000
scheduled for a spacewalk uh mine is

205
00:07:26,629 --> 00:07:25,039
with ron garan my 124 spacewalk partner

206
00:07:30,070 --> 00:07:26,639
we've been outside three times together

207
00:07:31,510 --> 00:07:30,080
and look forward to stepping out when

208
00:07:34,550 --> 00:07:31,520
shuttle atlantis was up there for the

209
00:07:36,150 --> 00:07:34,560
135 mission the purpose of that is to

210
00:07:38,469 --> 00:07:36,160
get the

211
00:07:40,790 --> 00:07:38,479
the pump module which failed about nine

212
00:07:42,710 --> 00:07:40,800
months ago or so and we want to bring

213
00:07:44,629 --> 00:07:42,720

that failed pump module to the ground so

214
00:07:45,749 --> 00:07:44,639
it can be analyzed and see why it failed

215
00:07:47,510 --> 00:07:45,759
so early

216
00:07:49,270 --> 00:07:47,520
it failed prematurely and part of what

217
00:07:51,670 --> 00:07:49,280
we hope to learn out of this program is

218
00:07:53,350 --> 00:07:51,680
why things fail and learn how to make

219
00:07:55,830 --> 00:07:53,360
them better and so it's a really high

220
00:07:57,270 --> 00:07:55,840
priority to get that pump module

221
00:07:59,749 --> 00:07:57,280
back to the ground so we'll be moving

222
00:08:02,950 --> 00:07:59,759
that from its stowage location

223
00:08:05,189 --> 00:08:02,960
outside the close to the u.s airlock

224
00:08:07,270 --> 00:08:05,199
and it's putting it into the payload bay

225
00:08:08,950 --> 00:08:07,280
and we'll be picking up

226
00:08:10,230 --> 00:08:08,960
another

227
00:08:12,469 --> 00:08:10,240
experiment

228
00:08:16,309 --> 00:08:12,479
payload in there called the rrm it's a

229
00:08:18,469 --> 00:08:16,319
goddard payload it's a refueling type

230
00:08:20,390 --> 00:08:18,479
activities and moving that to a

231
00:08:23,110 --> 00:08:20,400
temporary still location

232
00:08:26,710 --> 00:08:23,120
on the on the space station then the

233
00:08:29,589 --> 00:08:26,720
spdm will relocate it later that should

234
00:08:31,510 --> 00:08:29,599
take us somewhere around three hours and

235
00:08:33,909 --> 00:08:31,520
after that they've got a

236
00:08:35,750 --> 00:08:33,919
host of tasks that we'll get into it

237
00:08:39,190 --> 00:08:35,760
depends on how priorities rack up but

238
00:08:40,790 --> 00:08:39,200

more than likely swapping out a bulky

239
00:08:43,110 --> 00:08:40,800
camera on the exterior of the space

240
00:08:45,509 --> 00:08:43,120
station and maybe getting into some

241
00:08:47,269 --> 00:08:45,519
other some other tasks that may

242
00:08:50,070 --> 00:08:47,279
you know whatever is left after the next

243
00:08:52,389 --> 00:08:50,080
two shuttle flights

244
00:08:54,389 --> 00:08:52,399
hi robert perlman with collectspace.com

245
00:08:55,829 --> 00:08:54,399
uh with a question i think for sergey

246
00:08:58,310 --> 00:08:55,839
uh

247
00:09:00,630 --> 00:08:58,320
granted that tma-01m

248
00:09:03,110 --> 00:09:00,640
just landed but during its flight it had

249
00:09:05,430 --> 00:09:03,120
experienced a couple of issues one with

250
00:09:06,870 --> 00:09:05,440
the neptune display system and a pre i

251
00:09:08,389 --> 00:09:06,880
think a pressurization issue during

252
00:09:09,509 --> 00:09:08,399
launch um

253
00:09:11,430 --> 00:09:09,519
in the preparation for your own

254
00:09:12,630 --> 00:09:11,440
spacecraft the second in this digital

255
00:09:14,470 --> 00:09:12,640
series

256
00:09:16,310 --> 00:09:14,480
do they have an understanding at what

257
00:09:17,750 --> 00:09:16,320
what the issues were and how that's

258
00:09:18,949 --> 00:09:17,760
going to be corrected on on your

259
00:09:20,949 --> 00:09:18,959
spacecraft

260
00:09:23,430 --> 00:09:20,959
i'm going to start from

261
00:09:25,509 --> 00:09:23,440
pressurization issues that they've had

262
00:09:27,590 --> 00:09:25,519
during the pre-launch

263
00:09:30,550 --> 00:09:27,600

uh actually

264
00:09:34,150 --> 00:09:30,560
they figure out this very quickly and

265
00:09:37,269 --> 00:09:34,160
like maybe two weeks after launch of the

266
00:09:40,070 --> 00:09:37,279
700 seiu's they knew what was the reason

267
00:09:41,750 --> 00:09:40,080
the reason what the wealth the

268
00:09:44,150 --> 00:09:41,760
new material that they used and they

269
00:09:46,790 --> 00:09:44,160
just switched to another material and

270
00:09:48,790 --> 00:09:46,800
we don't expect to have these problems

271
00:09:50,870 --> 00:09:48,800
in an hour and actually it's not only

272
00:09:52,949 --> 00:09:50,880
our sizes all

273
00:09:54,630 --> 00:09:52,959
previous i use that

274
00:09:56,269 --> 00:09:54,640
going to be launching i'm talking about

275
00:10:02,470 --> 00:09:56,279
expedition

276
00:10:07,990 --> 00:10:06,630
uh uh what about neptune um

277
00:10:10,230 --> 00:10:08,000
they were able to

278
00:10:12,550 --> 00:10:10,240
make a repairment actually all this you

279
00:10:15,590 --> 00:10:12,560
probably heard about this and the

280
00:10:18,949 --> 00:10:15,600
advantage of a new uh software that they

281
00:10:21,590 --> 00:10:18,959
were able to reprogram the neptune and

282
00:10:23,350 --> 00:10:21,600
they received practically

283
00:10:25,750 --> 00:10:23,360
whole data

284
00:10:27,030 --> 00:10:25,760
after undocking and landing

285
00:10:29,990 --> 00:10:27,040
but we have

286
00:10:34,870 --> 00:10:30,000
backup equipment already installed on

287
00:10:38,710 --> 00:10:37,509
devices that already were checked by the

288
00:10:40,949 --> 00:10:38,720

expedition

289
00:10:42,470 --> 00:10:40,959
has recently returned from space and

290
00:10:45,670 --> 00:10:42,480
they work properly

291
00:10:46,790 --> 00:10:45,680
we have already installed this equipment

292
00:10:48,389 --> 00:10:46,800
and uh

293
00:10:50,150 --> 00:10:48,399
since all three of you represent three

294
00:10:51,750 --> 00:10:50,160
different countries i wonder if you

295
00:10:53,670 --> 00:10:51,760
could talk a little bit about what

296
00:10:56,150 --> 00:10:53,680
outreach activities you're doing to

297
00:10:57,670 --> 00:10:56,160
reach out while you're in space to your

298
00:11:06,470 --> 00:10:57,680
respective populations and to the

299
00:11:13,190 --> 00:11:09,910
from japanese point of view uh i'm going

300
00:11:14,710 --> 00:11:13,200
going to uh perform

301
00:11:16,949 --> 00:11:14,720
many

302
00:11:19,030 --> 00:11:16,959
outreaches i mean pao events or

303
00:11:20,310 --> 00:11:19,040
educational events especially in

304
00:11:21,990 --> 00:11:20,320
japanese

305
00:11:24,550 --> 00:11:22,000
that would help

306
00:11:28,389 --> 00:11:26,069
people uh

307
00:11:31,910 --> 00:11:28,399
in the japanese uh

308
00:11:33,910 --> 00:11:31,920
speaking society to uh

309
00:11:39,990 --> 00:11:33,920
get up get to understand the space

310
00:11:45,590 --> 00:11:42,710
from my previous experience usually we

311
00:11:47,750 --> 00:11:45,600
have sort of together

312
00:11:49,910 --> 00:11:47,760
po events when we're going to be three

313
00:11:52,310 --> 00:11:49,920

hours we'll talk with the kids or

314
00:11:54,710 --> 00:11:52,320
primarily that's our primary target to

315
00:11:58,389 --> 00:11:54,720
talk with the kids with the students

316
00:12:00,310 --> 00:11:58,399
to inspire them to be not maybe the

317
00:12:02,470 --> 00:12:00,320
austrians or cosmos but at least be

318
00:12:04,069 --> 00:12:02,480
involved in this program you know

319
00:12:04,870 --> 00:12:04,079
uh

320
00:12:06,470 --> 00:12:04,880
where

321
00:12:10,069 --> 00:12:06,480
we can

322
00:12:14,790 --> 00:12:10,079
explore something new for us

323
00:12:19,269 --> 00:12:16,790
po events with

324
00:12:21,430 --> 00:12:19,279
our own citizens and for me it's going

325
00:12:22,829 --> 00:12:21,440
to be of course russian

326
00:12:26,389 --> 00:12:22,839
russian schools

327
00:12:28,550 --> 00:12:26,399
russian maybe institutes and

328
00:12:30,870 --> 00:12:28,560
some highest authorities because it's

329
00:12:33,350 --> 00:12:30,880
fifth anniversary of the first space

330
00:12:35,829 --> 00:12:33,360
flight and the year dedicated to this

331
00:12:38,949 --> 00:12:35,839
and of course it's a lot attention right

332
00:12:41,430 --> 00:12:38,959
now and i expect that we'll have more

333
00:12:43,190 --> 00:12:41,440
till the end of the year

334
00:12:45,190 --> 00:12:43,200
and for me i'd say in general having

335
00:12:47,590 --> 00:12:45,200
flown two short duration missions on the

336
00:12:49,269 --> 00:12:47,600
shuttle you're so busy it's a it's a

337
00:12:51,269 --> 00:12:49,279
complete race for the two weeks that

338
00:12:53,590 --> 00:12:51,279

you're up and the short time that you're

339
00:12:55,350 --> 00:12:53,600
on the space station eight or nine days

340
00:12:57,750 --> 00:12:55,360
i look forward to having the opportunity

341
00:12:59,350 --> 00:12:57,760
on time to not just you know working in

342
00:13:01,509 --> 00:12:59,360
space for a short time but actually

343
00:13:03,670 --> 00:13:01,519
living there and having the opportunity

344
00:13:05,750 --> 00:13:03,680
to do more of these kind of of

345
00:13:10,470 --> 00:13:05,760
activities just to reach out and and

346
00:13:14,710 --> 00:13:12,790
representing bay area houston magazine

347
00:13:17,509 --> 00:13:14,720
question for sergey

348
00:13:19,910 --> 00:13:17,519
of course you've flown on station before

349
00:13:21,110 --> 00:13:19,920
what will you think be your most

350
00:13:23,110 --> 00:13:21,120
challenging

351
00:13:26,629 --> 00:13:23,120
part of your mission this time and the

352
00:13:28,230 --> 00:13:26,639
most rewarding part for this mission uh

353
00:13:30,710 --> 00:13:28,240
honestly it's hard to tell before the

354
00:13:32,389 --> 00:13:30,720
flight uh that

355
00:13:35,750 --> 00:13:32,399
going to be the most challenging part of

356
00:13:41,030 --> 00:13:35,760
our flight because

357
00:13:44,629 --> 00:13:42,150
so far

358
00:13:47,350 --> 00:13:44,639
just to live for a long period of time

359
00:13:49,110 --> 00:13:47,360
out of our families i think that most

360
00:13:50,310 --> 00:13:49,120
challenging part

361
00:13:53,829 --> 00:13:50,320
but still

362
00:13:54,629 --> 00:13:53,839
and i'm sure of 100 none of us will want

363
00:13:57,829 --> 00:13:54,639

to

364
00:14:00,870 --> 00:13:57,839
be back home earlier than it's scheduled

365
00:14:01,750 --> 00:14:00,880
that's also sort of challenging part

366
00:14:04,389 --> 00:14:01,760
and

367
00:14:06,389 --> 00:14:04,399
rewarding part

368
00:14:08,069 --> 00:14:06,399
be able to work onboard the space

369
00:14:10,550 --> 00:14:08,079
station

370
00:14:15,189 --> 00:14:12,230
that's i think the most rewarding part

371
00:14:18,710 --> 00:14:17,110
all right switching to this side you can

372
00:14:19,430 --> 00:14:18,720
state your name and affiliation please

373
00:14:22,710 --> 00:14:19,440
yeah

374
00:14:25,269 --> 00:14:22,720
i want to ask the mr furukawa about the

375
00:14:26,870 --> 00:14:25,279
japanese big ass cake so in japanese

376
00:14:28,069 --> 00:14:26,880
alright

377
00:15:27,110 --> 00:14:28,079
thank you

378
00:15:31,670 --> 00:15:29,829
okay our thoughts and prayers are with

379
00:15:35,030 --> 00:15:31,680
those that suffered a great deal of

380
00:15:37,910 --> 00:15:35,040
damage from the big earthquake in japan

381
00:15:39,910 --> 00:15:37,920
and uh ganbara nippon

382
00:15:41,749 --> 00:15:39,920
we are with you people all over the

383
00:15:42,550 --> 00:15:41,759
world are with you

384
00:15:44,870 --> 00:15:42,560
and

385
00:15:46,230 --> 00:15:44,880
i'd like to do whatever i can

386
00:15:52,389 --> 00:15:46,240
to

387
00:15:54,870 --> 00:15:52,399
for others for those that are suffered

388
00:15:57,030 --> 00:15:54,880

from the damage and for all the japanese

389
00:15:58,150 --> 00:15:57,040
and for all the people all over the

390
00:16:03,189 --> 00:15:58,160
world

391
00:16:03,199 --> 00:16:09,670
moving along on this side

392
00:16:15,590 --> 00:16:13,670
okay uh jim oberg with nbc hello

393
00:16:18,389 --> 00:16:15,600
can i talk about the digital soyuz again

394
00:16:20,389 --> 00:16:18,399
this is only the second flight uh are

395
00:16:23,430 --> 00:16:20,399
there additional test flight additional

396
00:16:26,310 --> 00:16:23,440
test objectives for you to broaden the

397
00:16:28,550 --> 00:16:26,320
envelope to widen the capability of this

398
00:16:30,550 --> 00:16:28,560
of the new ship are you doing special

399
00:16:32,949 --> 00:16:30,560
activities in the beginning of the

400
00:16:35,110 --> 00:16:32,959
mission at the end of the mission to

401
00:16:36,949 --> 00:16:35,120
further explore the digital soyuz

402
00:16:38,870 --> 00:16:36,959
capabilities

403
00:16:40,550 --> 00:16:38,880
actually for us it's going to be the

404
00:16:41,590 --> 00:16:40,560
middle of our autonomous flight to the

405
00:16:44,389 --> 00:16:41,600
station

406
00:16:45,430 --> 00:16:44,399
uh when we'll uh

407
00:16:46,790 --> 00:16:45,440
will

408
00:16:50,389 --> 00:16:46,800
use for

409
00:16:51,670 --> 00:16:50,399
almost 100 all abilities of new

410
00:16:54,389 --> 00:16:51,680
tv

411
00:16:56,310 --> 00:16:54,399
for the document that's uh they

412
00:16:57,670 --> 00:16:56,320
going to be really new because previous

413
00:16:59,350 --> 00:16:57,680

iu they just

414
00:17:02,069 --> 00:16:59,360
use uh

415
00:17:04,949 --> 00:17:02,079
only partially all these abilities

416
00:17:05,909 --> 00:17:04,959
that's our primary goal is uh

417
00:17:06,870 --> 00:17:05,919
testing

418
00:17:09,510 --> 00:17:06,880
uh

419
00:17:10,230 --> 00:17:09,520
700 says

420
00:17:12,710 --> 00:17:10,240
and

421
00:17:14,870 --> 00:17:12,720
another more practical question uh once

422
00:17:17,909 --> 00:17:14,880
you get there both russian coyotes will

423
00:17:20,870 --> 00:17:17,919
be occupied where are you going to sleep

424
00:17:26,390 --> 00:17:22,789
i hope michael allowed me to sleep in

425
00:17:28,069 --> 00:17:26,400
note 2 as a commander

426
00:17:30,310 --> 00:17:28,079
we'll make room for him

427
00:17:34,150 --> 00:17:30,320
somewhere all right there's six coyotes

428
00:17:37,430 --> 00:17:35,669
hi um i'm at

429
00:17:39,270 --> 00:17:37,440
from tv asahi japanese television

430
00:17:42,310 --> 00:17:39,280
network i have a question for mr

431
00:17:44,310 --> 00:17:42,320
furukawa i also like to ask the

432
00:17:46,390 --> 00:17:44,320
what is the most challenging and also

433
00:17:49,110 --> 00:17:46,400
rewarding part of this mission

434
00:17:49,120 --> 00:17:52,470
okay

435
00:17:56,390 --> 00:17:54,230
challenging part

436
00:17:58,070 --> 00:17:56,400
i cannot

437
00:17:59,909 --> 00:17:58,080
imagine well

438
00:18:02,310 --> 00:17:59,919

because this is my first flight

439
00:18:05,190 --> 00:18:02,320
everything i am very excited at

440
00:18:06,630 --> 00:18:05,200
everything uh during the mission

441
00:18:16,549 --> 00:18:06,640
and

442
00:18:19,510 --> 00:18:16,559
everything is the rewarding part

443
00:18:21,190 --> 00:18:19,520
did i answer a question yes thank you

444
00:18:23,590 --> 00:18:21,200
actually excuse me

445
00:18:25,190 --> 00:18:23,600
i've been training taking training for

446
00:18:26,950 --> 00:18:25,200
12 years

447
00:18:30,390 --> 00:18:26,960
in other words

448
00:18:32,950 --> 00:18:30,400
i dedicated one-fourth of my life to

449
00:18:34,470 --> 00:18:32,960
astronaut training so i'm really looking

450
00:18:40,230 --> 00:18:34,480
forward to that

451
00:18:43,830 --> 00:18:41,990
hi i'm marianne dyson with the national

452
00:18:47,190 --> 00:18:43,840
space society i had the pleasure of

453
00:18:49,510 --> 00:18:47,200
working with with mike uh 30 years ago

454
00:18:51,750 --> 00:18:49,520
in the flight activity officers support

455
00:18:53,669 --> 00:18:51,760
room and i'm wondering if you could

456
00:18:54,630 --> 00:18:53,679
describe how you've seen flight planning

457
00:18:55,590 --> 00:18:54,640
evolve

458
00:18:57,510 --> 00:18:55,600
from

459
00:18:59,270 --> 00:18:57,520
that time period to the way you work

460
00:19:01,029 --> 00:18:59,280
with mission control nowadays to plan

461
00:19:01,909 --> 00:19:01,039
your typical week up on the space

462
00:19:03,510 --> 00:19:01,919
station

463
00:19:06,070 --> 00:19:03,520

wow yeah marianne it's good seeing you

464
00:19:08,230 --> 00:19:06,080
again it's been a lot of changes since

465
00:19:09,750 --> 00:19:08,240
since we were flying with one space

466
00:19:11,830 --> 00:19:09,760
shuttle orbiter

467
00:19:13,830 --> 00:19:11,840
and then figuring out how we were going

468
00:19:15,510 --> 00:19:13,840
to handle two and we were going to write

469
00:19:17,909 --> 00:19:15,520
flight procedures to handle the minor

470
00:19:21,029 --> 00:19:17,919
differences in those two vehicles

471
00:19:23,029 --> 00:19:21,039
and at in those days all of the flight

472
00:19:24,710 --> 00:19:23,039
procedures were completely rewritten for

473
00:19:26,549 --> 00:19:24,720
every flight because they were six to

474
00:19:28,710 --> 00:19:26,559
eight months apart and we had time to

475
00:19:30,789 --> 00:19:28,720
rewrite them to a cruise

476
00:19:32,070 --> 00:19:30,799
whims if you will and there were a lot

477
00:19:34,150 --> 00:19:32,080
of them as people had their own

478
00:19:35,990 --> 00:19:34,160
preferences as we've moved forward

479
00:19:37,669 --> 00:19:36,000
beyond that we couldn't rewrite the

480
00:19:39,190 --> 00:19:37,679
procedures to everybody's personal

481
00:19:40,870 --> 00:19:39,200
preference and you had to begin training

482
00:19:41,750 --> 00:19:40,880
to more standards and standardizing

483
00:19:43,430 --> 00:19:41,760
things

484
00:19:46,950 --> 00:19:43,440
and coming up with standard ways the

485
00:19:49,110 --> 00:19:46,960
procedures could handle differences

486
00:19:50,870 --> 00:19:49,120
you know and and so

487
00:19:54,150 --> 00:19:50,880
with the space station it's it's quite

488
00:19:56,630 --> 00:19:54,160

different and we don't carry 90 to 100

489
00:19:58,549 --> 00:19:56,640
pounds of books of procedures anymore we

490
00:20:00,230 --> 00:19:58,559
really just have very few primarily

491
00:20:01,350 --> 00:20:00,240
emergency books and a few others that

492
00:20:03,830 --> 00:20:01,360
are in paper

493
00:20:07,110 --> 00:20:03,840
the rest are electronic

494
00:20:09,750 --> 00:20:07,120
when we first began that it was

495
00:20:11,430 --> 00:20:09,760
frankly very frustrating and a lot of us

496
00:20:13,430 --> 00:20:11,440
were skeptical that we would be able to

497
00:20:15,350 --> 00:20:13,440
move from paper to electronic procedures

498
00:20:17,750 --> 00:20:15,360
but they got a they finally got really

499
00:20:19,510 --> 00:20:17,760
smart with it where you can link from

500
00:20:21,190 --> 00:20:19,520
procedure to procedure and you can hit

501
00:20:23,190 --> 00:20:21,200
the back button it takes you back to

502
00:20:26,230 --> 00:20:23,200
that nested procedure where you left off

503
00:20:29,029 --> 00:20:26,240
and pick it up again it's actually quite

504
00:20:30,950 --> 00:20:29,039
good now you can write your values in on

505
00:20:32,310 --> 00:20:30,960
the computer and it saves it for the

506
00:20:35,510 --> 00:20:32,320
ground

507
00:20:37,350 --> 00:20:35,520
on space station also that the the crew

508
00:20:39,830 --> 00:20:37,360
or the ground is

509
00:20:40,789 --> 00:20:39,840
very busy replanting

510
00:20:43,029 --> 00:20:40,799
your

511
00:20:44,789 --> 00:20:43,039
not today but tomorrow and the day after

512
00:20:46,149 --> 00:20:44,799
really planning about a week out with a

513
00:20:48,390 --> 00:20:46,159

lot of details

514
00:20:50,310 --> 00:20:48,400
so we try to get our job done today but

515
00:20:52,230 --> 00:20:50,320
if we don't get it all done today then

516
00:20:54,149 --> 00:20:52,240
some of it goes into tomorrow or the day

517
00:20:55,430 --> 00:20:54,159
after and so a lot of it's kind of

518
00:20:59,190 --> 00:20:55,440
modular

519
00:21:01,350 --> 00:20:59,200
working on maintenance activities and

520
00:21:03,830 --> 00:21:01,360
then you complete that and you step into

521
00:21:06,149 --> 00:21:03,840
the the science procedures you go change

522
00:21:08,470 --> 00:21:06,159
out the samples activate a rack uh make

523
00:21:10,470 --> 00:21:08,480
some observations that kind of thing and

524
00:21:12,549 --> 00:21:10,480
so it's all done in blocks using an

525
00:21:15,590 --> 00:21:12,559
electronic planner the onboard

526
00:21:17,590 --> 00:21:15,600
short-term plan viewer ostpv it's the

527
00:21:19,830 --> 00:21:17,600
bane of our existence

528
00:21:21,430 --> 00:21:19,840
there's a red line marching across and

529
00:21:23,909 --> 00:21:21,440
all the procedure blocks that you're

530
00:21:27,110 --> 00:21:23,919
supposed to be doing and you look and

531
00:21:29,590 --> 00:21:27,120
you see that i'm behind again

532
00:21:31,909 --> 00:21:29,600
and as you're really scrambling and i've

533
00:21:34,470 --> 00:21:31,919
seen that even on a short shuttle flight

534
00:21:35,909 --> 00:21:34,480
like oh you know it's it's

535
00:21:38,149 --> 00:21:35,919
but it's it's a wonderful thing because

536
00:21:39,669 --> 00:21:38,159
it it's a graphical way a very visual

537
00:21:41,270 --> 00:21:39,679
way of knowing where you are what's

538
00:21:42,149 --> 00:21:41,280

coming up next what your crewmates are

539
00:21:43,750 --> 00:21:42,159
doing

540
00:21:45,510 --> 00:21:43,760
and and you can see if somebody's

541
00:21:46,950 --> 00:21:45,520
getting behind that you know where you

542
00:21:48,950 --> 00:21:46,960
need to roll over to give them a hand

543
00:21:50,470 --> 00:21:48,960
and help catch up and you can also see

544
00:21:52,230 --> 00:21:50,480
dependencies

545
00:21:54,390 --> 00:21:52,240
where different procedures have to be

546
00:21:56,630 --> 00:21:54,400
done back to back in order and you can't

547
00:21:58,710 --> 00:21:56,640
get things out of order so it's amazing

548
00:22:00,470 --> 00:21:58,720
from the days when we had to rewrite 100

549
00:22:02,149 --> 00:22:00,480
pounds worth of procedures you know

550
00:22:06,950 --> 00:22:02,159
custom ride them for for a shuttle

551
00:22:10,470 --> 00:22:09,190
okay any other follow-ups on this side

552
00:22:11,990 --> 00:22:10,480
of the room

553
00:22:13,270 --> 00:22:12,000
all right if not we will switch back to

554
00:22:19,669 --> 00:22:13,280
the side where we believe we have at

555
00:22:23,590 --> 00:22:22,390
jill tolk with bay area houston magazine

556
00:22:26,230 --> 00:22:23,600
we've asked

557
00:22:27,350 --> 00:22:26,240
sergey and satoshi one question so let's

558
00:22:29,430 --> 00:22:27,360
ask mike

559
00:22:30,950 --> 00:22:29,440
what's the most challenging part that

560
00:22:32,549 --> 00:22:30,960
you think might this this mission might

561
00:22:34,390 --> 00:22:32,559
bring to you and also the most rewarding

562
00:22:35,750 --> 00:22:34,400
part

563
00:22:38,310 --> 00:22:35,760

the most challenging is going to be

564
00:22:41,350 --> 00:22:38,320
separation from family you know i have

565
00:22:43,669 --> 00:22:41,360
four kids in a brand new granddaughter

566
00:22:45,909 --> 00:22:43,679
that's just three weeks old and so i'm

567
00:22:46,710 --> 00:22:45,919
gonna you know miss seeing them

568
00:22:47,510 --> 00:22:46,720
but

569
00:22:49,750 --> 00:22:47,520
you know

570
00:22:51,750 --> 00:22:49,760
the uh i i look forward to the challenge

571
00:22:54,470 --> 00:22:51,760
of doing this i've dreamed about doing

572
00:22:55,909 --> 00:22:54,480
this since i was a small child i was

573
00:22:57,510 --> 00:22:55,919
working in mission control when

574
00:23:00,549 --> 00:22:57,520
president reagan announced the start of

575
00:23:04,230 --> 00:23:00,559
the space station program in 1984.

576
00:23:06,630 --> 00:23:04,240
i came back to nasa and began work in 93

577
00:23:08,549 --> 00:23:06,640
just when we kicked into a

578
00:23:10,630 --> 00:23:08,559
fairly extensive redesign

579
00:23:12,390 --> 00:23:10,640
and a few months later the russians were

580
00:23:14,390 --> 00:23:12,400
major partners in the program much to

581
00:23:16,870 --> 00:23:14,400
our surprise and it's been a great

582
00:23:19,270 --> 00:23:16,880
partnership and a just a great benefit

583
00:23:22,310 --> 00:23:19,280
to us all and so it that all of this

584
00:23:24,549 --> 00:23:22,320
working for all these years and now to i

585
00:23:26,470 --> 00:23:24,559
helped build it helped design it in ways

586
00:23:29,149 --> 00:23:26,480
and during the redesign process in the

587
00:23:32,950 --> 00:23:29,159
mid-90s i helped build it on

588
00:23:39,750 --> 00:23:32,960

sts-121 and 124 and now i get to live on

589
00:23:43,190 --> 00:23:41,750
uh genus and sari abc news for mike

590
00:23:47,510 --> 00:23:43,200
forgive me if this has been asked but

591
00:23:50,710 --> 00:23:49,269
there's no room for my aggie boots on

592
00:23:52,870 --> 00:23:50,720
board

593
00:23:54,710 --> 00:23:52,880
so in lieu of the boots what will you be

594
00:23:56,710 --> 00:23:54,720
taking from a m

595
00:23:59,029 --> 00:23:56,720
might be an aggie ring or two on board

596
00:24:02,950 --> 00:23:59,039
yeah all right thank you you bet there

597
00:24:07,430 --> 00:24:05,669
any uh remaining follow-ups

598
00:24:09,590 --> 00:24:07,440
with that uh we'll conclude our briefing

599
00:24:10,950 --> 00:24:09,600
a reminder you can find information

600
00:24:12,390 --> 00:24:10,960
about the crew and the international

601
00:24:15,190 --> 00:24:12,400
space station on our website at