
n Space Cent
ce Center

1
00:00:05,990 --> 00:00:03,750
good afternoon thank you for joining us

2
00:00:08,230 --> 00:00:06,000
here today for today's mission status

3
00:00:10,070 --> 00:00:08,240
update of sts-135

4
00:00:12,230 --> 00:00:10,080
here with me today is the lead station

5
00:00:15,030 --> 00:00:12,240
flight director chris edelen he'll begin

6
00:00:17,109 --> 00:00:15,040
with a few remarks and then we'll

7
00:00:18,550 --> 00:00:17,119
open the floor for some questions chris

8
00:00:20,070 --> 00:00:18,560
thank you amica

9
00:00:22,310 --> 00:00:20,080
well i'm pleased to report another good

10
00:00:24,790 --> 00:00:22,320
day in space today we followed up

11
00:00:27,349 --> 00:00:24,800
yesterday's successful eva with uh today

12
00:00:29,669 --> 00:00:27,359
a busy day of cargo transfer that was

13
00:00:31,669 --> 00:00:29,679

the theme for today the crew is now

14
00:00:34,310 --> 00:00:31,679
about halfway complete

15
00:00:37,030 --> 00:00:34,320
of unloading the

16
00:00:39,590 --> 00:00:37,040
rafaello multipurpose logistics module

17
00:00:41,590 --> 00:00:39,600
moving that cargo out of the the module

18
00:00:43,670 --> 00:00:41,600
and into the space station and bringing

19
00:00:44,470 --> 00:00:43,680
back the the spare parts the trash and

20
00:00:46,150 --> 00:00:44,480
the other

21
00:00:47,590 --> 00:00:46,160
various pieces of equipment that will be

22
00:00:49,830 --> 00:00:47,600
coming back to earth

23
00:00:51,990 --> 00:00:49,840
back into the logistics module so about

24
00:00:53,189 --> 00:00:52,000
halfway complete we're running ahead of

25
00:00:54,549 --> 00:00:53,199
the schedule

26
00:00:56,790 --> 00:00:54,559
as far as the the remainder of the

27
00:00:57,670 --> 00:00:56,800
mission is concerned for cargo trends

28
00:01:02,229 --> 00:00:57,680
for

29
00:01:04,549 --> 00:01:02,239
about halfway complete again we're right

30
00:01:06,070 --> 00:01:04,559
on schedule with that so today the crew

31
00:01:08,230 --> 00:01:06,080
of atlanta spent

32
00:01:10,310 --> 00:01:08,240
most of their day supporting cargo

33
00:01:12,469 --> 00:01:10,320
operations if you saw some of the

34
00:01:14,230 --> 00:01:12,479
downlink video you may have noticed

35
00:01:16,550 --> 00:01:14,240
that it's it's very cluttered in the

36
00:01:18,310 --> 00:01:16,560
logistics module there's bags and boxes

37
00:01:21,670 --> 00:01:18,320
everywhere just like at your house on

38
00:01:24,070 --> 00:01:21,680

moving day but it's a controlled chaos

39
00:01:26,390 --> 00:01:24,080
the the team here in houston is working

40
00:01:28,469 --> 00:01:26,400
very closely with the crew they've

41
00:01:29,510 --> 00:01:28,479
they've choreographed the movements of

42
00:01:31,429 --> 00:01:29,520
equipment

43
00:01:33,749 --> 00:01:31,439
in and out of the logistics module so

44
00:01:36,230 --> 00:01:33,759
that there's a place for everything and

45
00:01:38,310 --> 00:01:36,240
we're making sure very carefully that

46
00:01:40,230 --> 00:01:38,320
everything that we need to be resupplied

47
00:01:41,670 --> 00:01:40,240
on the station ends up on the station

48
00:01:43,030 --> 00:01:41,680
and everything that we want to come home

49
00:01:45,830 --> 00:01:43,040
ends up on

50
00:01:47,830 --> 00:01:45,840
raphaelo so we also had a great

51
00:01:49,749 --> 00:01:47,840
assistance today from our russian crew

52
00:01:51,990 --> 00:01:49,759
members onboard the space station they

53
00:01:54,950 --> 00:01:52,000
helped out with the cargo transfer task

54
00:01:57,749 --> 00:01:54,960
as well as satoshi furukawa our jaxa

55
00:01:59,990 --> 00:01:57,759
astronaut on the space station

56
00:02:02,069 --> 00:02:00,000
mike fossum today he went into our

57
00:02:04,230 --> 00:02:02,079
closet on the space station that's the

58
00:02:06,389 --> 00:02:04,240
permanent mating adapter number three

59
00:02:08,389 --> 00:02:06,399
that's attached to the tranquility

60
00:02:10,630 --> 00:02:08,399
module he went into that closet and

61
00:02:13,030 --> 00:02:10,640
retrieved an old piece of hardware

62
00:02:16,309 --> 00:02:13,040
that's no longer required it's the

63
00:02:18,869 --> 00:02:16,319

resistive exercise device or ired and

64
00:02:21,510 --> 00:02:18,879
it's a it was the early

65
00:02:23,430 --> 00:02:21,520
weight lifting or resistive exercise

66
00:02:25,830 --> 00:02:23,440
device that was used in the early days

67
00:02:27,990 --> 00:02:25,840
of the space station program to keep

68
00:02:29,990 --> 00:02:28,000
astronauts healthy he retrieved that old

69
00:02:31,430 --> 00:02:30,000
piece of hardware and it is also being

70
00:02:33,750 --> 00:02:31,440
moved back into the

71
00:02:35,910 --> 00:02:33,760
the logistics module for return that's

72
00:02:38,229 --> 00:02:35,920
going to free up a lot of storage space

73
00:02:39,830 --> 00:02:38,239
in in the permanent multi

74
00:02:41,589 --> 00:02:39,840
permanent mating adapter number three

75
00:02:44,309 --> 00:02:41,599
and we'll use that to improve our

76
00:02:45,910 --> 00:02:44,319
stowage situation on the space station

77
00:02:48,390 --> 00:02:45,920
so that was something that we took

78
00:02:50,390 --> 00:02:48,400
advantage of the extra day on the

79
00:02:52,229 --> 00:02:50,400
mission to add that activity that was

80
00:02:53,830 --> 00:02:52,239
not originally part of this flight plan

81
00:02:54,869 --> 00:02:53,840
but with the additional day that

82
00:02:56,309 --> 00:02:54,879
atlantis

83
00:02:57,990 --> 00:02:56,319
is going to stay docked that allowed us

84
00:03:00,470 --> 00:02:58,000
to complete that activity

85
00:03:02,790 --> 00:03:00,480
ron guerin today he spent several hours

86
00:03:05,670 --> 00:03:02,800
working on the space station toilet the

87
00:03:07,509 --> 00:03:05,680
waste hygiene compartment whc he

88
00:03:09,190 --> 00:03:07,519

replaced several components there that

89
00:03:11,030 --> 00:03:09,200
were starting to

90
00:03:12,470 --> 00:03:11,040
give some noises and vibrations that

91
00:03:14,229 --> 00:03:12,480
were indicating that the those

92
00:03:17,430 --> 00:03:14,239
components were approaching their end of

93
00:03:19,670 --> 00:03:17,440
life and he replaced those and now

94
00:03:21,750 --> 00:03:19,680
reports that the space station toilet is

95
00:03:23,190 --> 00:03:21,760
working just fine so of course when you

96
00:03:25,350 --> 00:03:23,200
have a lot of company that brought up a

97
00:03:27,110 --> 00:03:25,360
bunch of food and fresh supplies you

98
00:03:28,710 --> 00:03:27,120
want to be good hosts and and have a

99
00:03:30,229 --> 00:03:28,720
toilet that works when they're there so

100
00:03:32,470 --> 00:03:30,239
uh we're pleased to report that the

101
00:03:35,350 --> 00:03:32,480
space station toilet is uh

102
00:03:36,949 --> 00:03:35,360
fully operational and we've even invited

103
00:03:38,390 --> 00:03:36,959
the shuttle crew members to use it if

104
00:03:39,509 --> 00:03:38,400
they need to

105
00:03:41,190 --> 00:03:39,519
and uh

106
00:03:43,030 --> 00:03:41,200
we uh we also

107
00:03:44,949 --> 00:03:43,040
followed up on yesterday's spacewalk

108
00:03:45,990 --> 00:03:44,959
with uh some reports from the crew on

109
00:03:48,710 --> 00:03:46,000
their

110
00:03:50,149 --> 00:03:48,720
we

111
00:03:51,990 --> 00:03:50,159
have determined that there's no problems

112
00:03:54,390 --> 00:03:52,000
with the spacesuits and everything's

113
00:03:56,869 --> 00:03:54,400

good in that department we also today on

114
00:03:59,429 --> 00:03:56,879
the space station resumed processing of

115
00:04:02,390 --> 00:03:59,439
the urine processor apparatus

116
00:04:04,390 --> 00:04:02,400
as all of you know we do recycle urine

117
00:04:06,949 --> 00:04:04,400
into drinking water on the space station

118
00:04:09,190 --> 00:04:06,959
this is an important technology that we

119
00:04:11,270 --> 00:04:09,200
are demonstrating and perfecting in low

120
00:04:13,509 --> 00:04:11,280
earth orbit so that it can be used on

121
00:04:15,750 --> 00:04:13,519
future missions into deep space it's

122
00:04:17,990 --> 00:04:15,760
vitally important that we recycle all

123
00:04:20,150 --> 00:04:18,000
our water all forms of our water because

124
00:04:22,310 --> 00:04:20,160
it's so heavy and you can't resupply a

125
00:04:23,830 --> 00:04:22,320
mission with water when you're far from

126
00:04:25,990 --> 00:04:23,840
the earth and it's very rare in the

127
00:04:28,150 --> 00:04:26,000
solar system so it's important that we

128
00:04:30,710 --> 00:04:28,160
have that system working we resumed

129
00:04:31,990 --> 00:04:30,720
processing today and that system was

130
00:04:33,749 --> 00:04:32,000
working well

131
00:04:35,830 --> 00:04:33,759
so just to give you a couple examples of

132
00:04:36,870 --> 00:04:35,840
some of the hardware that was moved over

133
00:04:39,030 --> 00:04:36,880
today

134
00:04:41,030 --> 00:04:39,040
speaking of our urine recycling system

135
00:04:42,950 --> 00:04:41,040
we moved over some new

136
00:04:44,870 --> 00:04:42,960
recycle filter tank

137
00:04:47,030 --> 00:04:44,880
assemblies that are used to filter the

138
00:04:49,510 --> 00:04:47,040

urine and turn that into new drink into

139
00:04:52,390 --> 00:04:49,520
fresh drinking water we

140
00:04:55,189 --> 00:04:52,400
got a new spare wireless eva

141
00:04:57,510 --> 00:04:55,199
transceiver assembly which allows the

142
00:05:00,390 --> 00:04:57,520
space walking astronauts helmet cam to

143
00:05:02,070 --> 00:05:00,400
be transmitted to the monitors that that

144
00:05:04,629 --> 00:05:02,080
to the crew on board and to us on the

145
00:05:07,029 --> 00:05:04,639
ground so we've got now have us an

146
00:05:08,870 --> 00:05:07,039
additional spare we also

147
00:05:11,990 --> 00:05:08,880
transferred over a distillation assembly

148
00:05:14,870 --> 00:05:12,000
for our urine processing apparatus and

149
00:05:17,029 --> 00:05:14,880
lots and lots of food and clothes so

150
00:05:18,629 --> 00:05:17,039
again it was a very successful day and

151
00:05:20,710 --> 00:05:18,639
the crew is doing great we're not

152
00:05:23,510 --> 00:05:20,720
working any issues on atlantis and the

153
00:05:25,189 --> 00:05:23,520
space station is also in great shape

154
00:05:27,909 --> 00:05:25,199
for tomorrow's plan

155
00:05:30,950 --> 00:05:27,919
uh we're going to finally give the both

156
00:05:31,990 --> 00:05:30,960
the u.s and russian crew half a day off

157
00:05:34,150 --> 00:05:32,000
they're going to do half a day of

158
00:05:35,830 --> 00:05:34,160
transfer in the morning the russians

159
00:05:38,469 --> 00:05:35,840
will be working on

160
00:05:40,629 --> 00:05:38,479
replacing the gyroscope on their

161
00:05:43,270 --> 00:05:40,639
treadmill the tevus treadmill back in

162
00:05:45,590 --> 00:05:43,280
the service module and and then in the

163
00:05:47,990 --> 00:05:45,600

afternoon the crews will take take some

164
00:05:49,590 --> 00:05:48,000
well-deserved time off here on the

165
00:05:51,350 --> 00:05:49,600
seventh day of the mission

166
00:05:52,870 --> 00:05:51,360
so with that that's all i had i'll be

167
00:05:54,550 --> 00:05:52,880
glad to open up the floor for any

168
00:05:57,350 --> 00:05:54,560
questions

169
00:05:58,710 --> 00:05:57,360
okay and for those of you who are here

170
00:05:59,590 --> 00:05:58,720
if you will just please step up to the

171
00:06:02,870 --> 00:05:59,600
mic

172
00:06:02,880 --> 00:06:05,670
go ahead

173
00:06:10,150 --> 00:06:07,590
dan vergano with usa today i don't know

174
00:06:11,590 --> 00:06:10,160
if you could say a little bit about uh

175
00:06:13,749 --> 00:06:11,600
the astronauts going from sort of the

176
00:06:15,029 --> 00:06:13,759
sublime of uh the spacewalk and some of

177
00:06:16,390 --> 00:06:15,039
the other more dramatic things to the

178
00:06:18,309 --> 00:06:16,400
sort of

179
00:06:20,550 --> 00:06:18,319
maybe more work a day uh seeming things

180
00:06:22,070 --> 00:06:20,560
that went on today uh is that all in the

181
00:06:24,790 --> 00:06:22,080
life of an astronaut

182
00:06:26,309 --> 00:06:24,800
that is exactly right in fact uh i think

183
00:06:28,309 --> 00:06:26,319
it was mike fossen actually made that

184
00:06:29,110 --> 00:06:28,319
very comment that you know just

185
00:06:30,790 --> 00:06:29,120
you know

186
00:06:32,390 --> 00:06:30,800
24 hours ago he was doing the most

187
00:06:34,309 --> 00:06:32,400
amazing thing that a human being could

188
00:06:37,110 --> 00:06:34,319

possibly do to walk in the you know to

189
00:06:39,350 --> 00:06:37,120
float in the vacuum of space 240 miles

190
00:06:41,590 --> 00:06:39,360
above the earth and today he's basically

191
00:06:43,670 --> 00:06:41,600
rearranging a closet and his buddy is

192
00:06:51,909 --> 00:06:43,680
working on the toilet so yes that's

193
00:06:56,790 --> 00:06:54,309
hi robert perlman with collectspace.com

194
00:06:59,189 --> 00:06:56,800
um given this crew's tendency to want to

195
00:07:01,589 --> 00:06:59,199
work ahead and and be eager and getting

196
00:07:02,469 --> 00:07:01,599
ahead on their schedule

197
00:07:05,749 --> 00:07:02,479
how

198
00:07:07,670 --> 00:07:05,759
need to give them to take the time off

199
00:07:09,270 --> 00:07:07,680
tomorrow afternoon

200
00:07:10,469 --> 00:07:09,280
are they eager for the time off or you

201
00:07:11,589 --> 00:07:10,479
think they might work through that as

202
00:07:13,189 --> 00:07:11,599
well

203
00:07:15,749 --> 00:07:13,199
i think part of the reason they've been

204
00:07:17,189 --> 00:07:15,759
working so hard is that they do want to

205
00:07:19,990 --> 00:07:17,199
you know take advantage of a little bit

206
00:07:22,390 --> 00:07:20,000
of downtime and uh so i do not expect

207
00:07:23,749 --> 00:07:22,400
any problem at all tomorrow uh getting

208
00:07:25,510 --> 00:07:23,759
them to take a little bit of time off

209
00:07:27,110 --> 00:07:25,520
we're going to emphasize that in our

210
00:07:28,710 --> 00:07:27,120
morning tag up that they are actually

211
00:07:30,550 --> 00:07:28,720
running ahead of schedule there's no

212
00:07:32,150 --> 00:07:30,560
need at all for them to to work into

213
00:07:33,830 --> 00:07:32,160

their off-duty time and i'm sure they'll

214
00:07:35,990 --> 00:07:33,840
take advantage of it they've been going

215
00:07:39,430 --> 00:07:36,000
strong for uh you know for a week a week

216
00:07:42,870 --> 00:07:41,589
go ahead mark thanks uh mark caro for

217
00:07:45,990 --> 00:07:42,880
aviation week

218
00:07:47,830 --> 00:07:46,000
you mentioned in your remarks that

219
00:07:49,909 --> 00:07:47,840
there was work on the urine processor

220
00:07:52,070 --> 00:07:49,919
assembly and i wondered if that was a

221
00:07:54,309 --> 00:07:52,080
repair or maintenance and just sort of

222
00:07:55,749 --> 00:07:54,319
what they were troubleshooting

223
00:07:58,390 --> 00:07:55,759
and actually that was all ground

224
00:08:01,670 --> 00:07:58,400
commanded activity we kicked off another

225
00:08:04,469 --> 00:08:01,680
cycle of our urine processor apparatus

226
00:08:07,110 --> 00:08:04,479
and again there was no crew involvement

227
00:08:10,710 --> 00:08:07,120
the issue was about 10 days ago over the

228
00:08:12,950 --> 00:08:10,720
july 4th weekend we did have a leak in

229
00:08:15,749 --> 00:08:12,960
part of the space station toilet the uh

230
00:08:18,150 --> 00:08:15,759
the pump separator motor had a leak and

231
00:08:20,950 --> 00:08:18,160
in the process of that leak and changing

232
00:08:22,950 --> 00:08:20,960
that out uh successfully it did allow

233
00:08:24,950 --> 00:08:22,960
some air to uh

234
00:08:27,110 --> 00:08:24,960
we believe some air was ingested into

235
00:08:30,150 --> 00:08:27,120
the urine processor and so we've been

236
00:08:32,550 --> 00:08:30,160
very gingerly and very carefully uh

237
00:08:34,870 --> 00:08:32,560
doing our urine processing to make sure

238
00:08:37,110 --> 00:08:34,880

that we're not over stressing any of the

239
00:08:39,350 --> 00:08:37,120
components in that and we and there was

240
00:08:42,149 --> 00:08:39,360
a report of an odor the day before

241
00:08:43,829 --> 00:08:42,159
yesterday that we believe is associated

242
00:08:45,670 --> 00:08:43,839
with that air that was ingested as it

243
00:08:47,350 --> 00:08:45,680
works its way out of the system so we

244
00:08:50,070 --> 00:08:47,360
were pleased today that we were able to

245
00:08:52,870 --> 00:08:50,080
process for almost four hours

246
00:08:54,870 --> 00:08:52,880
with no issues no odors reported and no

247
00:08:58,949 --> 00:08:54,880
anomalous indications on the uh on the

248
00:09:03,350 --> 00:09:01,110
gina cinceri abc news so tomorrow the

249
00:09:05,030 --> 00:09:03,360
crew is having a virtual dinner are you

250
00:09:07,190 --> 00:09:05,040
going to share in this dinner in mission

251
00:09:08,949 --> 00:09:07,200
control oh i hope they if they are

252
00:09:10,310 --> 00:09:08,959
having a virtual dinner i do hope we get

253
00:09:12,070 --> 00:09:10,320
a little bit of down link and they

254
00:09:13,910 --> 00:09:12,080
typically do put a camera on for for

255
00:09:15,829 --> 00:09:13,920
part of that just to sort of let us

256
00:09:17,509 --> 00:09:15,839
share in the fun and they'll typically

257
00:09:19,350 --> 00:09:17,519
uh you know everyone will bring their

258
00:09:20,150 --> 00:09:19,360
food to the party like any good potluck

259
00:09:22,070 --> 00:09:20,160
uh

260
00:09:23,990 --> 00:09:22,080
meal with the shuttle food and some of

261
00:09:25,910 --> 00:09:24,000
the space station food and the russian

262
00:09:30,630 --> 00:09:25,920
food so yeah hopefully we'll take part

263
00:09:35,509 --> 00:09:33,350

hi irene klotz with reuters i know

264
00:09:37,990 --> 00:09:35,519
you're very focused on day to day things

265
00:09:41,110 --> 00:09:38,000
but today nasa announced its

266
00:09:44,710 --> 00:09:41,120
selection for the non-profit to run the

267
00:09:46,949 --> 00:09:44,720
national lab portion of iss and i was

268
00:09:49,110 --> 00:09:46,959
wondering if you had any thoughts on

269
00:09:50,870 --> 00:09:49,120
operationally what that will mean to

270
00:09:53,670 --> 00:09:50,880
have another entity

271
00:09:54,630 --> 00:09:53,680
as a kind of a co-host co-user of

272
00:09:57,190 --> 00:09:54,640
station

273
00:09:59,190 --> 00:09:57,200
and also um if the

274
00:10:00,949 --> 00:09:59,200
agreement do you think eventually

275
00:10:03,509 --> 00:10:00,959
would lead to

276
00:10:04,710 --> 00:10:03,519
non-nasa astronauts or non-government

277
00:10:06,790 --> 00:10:04,720
astronauts

278
00:10:08,630 --> 00:10:06,800
being uh guest researchers on the

279
00:10:10,630 --> 00:10:08,640
station

280
00:10:11,590 --> 00:10:10,640
okay uh well i'll hit the last part

281
00:10:13,990 --> 00:10:11,600
first

282
00:10:15,509 --> 00:10:14,000
on the shuttle we we used to fly

283
00:10:17,590 --> 00:10:15,519
occasionally would fly a payload

284
00:10:19,590 --> 00:10:17,600
specialist a non-astronaut that would be

285
00:10:20,949 --> 00:10:19,600
trained to operate experiments on a

286
00:10:22,790 --> 00:10:20,959
shuttle mission

287
00:10:24,710 --> 00:10:22,800
i'm not aware of any plans to do that on

288
00:10:26,150 --> 00:10:24,720

the space station but it's certainly not

289
00:10:28,310 --> 00:10:26,160
beyond the realm of possibility

290
00:10:29,670 --> 00:10:28,320
considering we've done it in the past as

291
00:10:31,750 --> 00:10:29,680
far as the announcement that you

292
00:10:34,389 --> 00:10:31,760
mentioned i did hear about that i don't

293
00:10:36,069 --> 00:10:34,399
have any uh in any detailed knowledge

294
00:10:37,990 --> 00:10:36,079
obviously we're focusing on the

295
00:10:39,430 --> 00:10:38,000
day-to-day operations of the mission but

296
00:10:41,509 --> 00:10:39,440
just to comment a little bit on where

297
00:10:43,190 --> 00:10:41,519
we're going with the space station um

298
00:10:45,670 --> 00:10:43,200
you know this being the last shuttle

299
00:10:46,470 --> 00:10:45,680
flight to the station means we're moving

300
00:10:49,110 --> 00:10:46,480
from

301
00:10:51,509 --> 00:10:49,120
an assembly phase and a resupply you

302
00:10:53,430 --> 00:10:51,519
know an intense resupply phase of lots

303
00:10:55,430 --> 00:10:53,440
and lots of spares more into a

304
00:10:57,350 --> 00:10:55,440
utilization phase where the focus is

305
00:10:58,949 --> 00:10:57,360
really going to be on science we we do a

306
00:11:00,790 --> 00:10:58,959
lot of science already on the station

307
00:11:03,269 --> 00:11:00,800
but we're expecting to increase the

308
00:11:05,110 --> 00:11:03,279
number of hours that the crew

309
00:11:07,190 --> 00:11:05,120
works science experiments and i think

310
00:11:09,509 --> 00:11:07,200
this announcement uh sort of heralds the

311
00:11:11,990 --> 00:11:09,519
beginning of that that really uh high

312
00:11:13,430 --> 00:11:12,000
utilization phase and i think uh you

313
00:11:15,350 --> 00:11:13,440

know the kind of research we're doing on

314
00:11:17,509 --> 00:11:15,360
the station um you know it really

315
00:11:19,190 --> 00:11:17,519
provides a lot of benefits uh for people

316
00:11:21,430 --> 00:11:19,200
on earth it's not just about you know

317
00:11:23,750 --> 00:11:21,440
how the astronauts adapt to space and

318
00:11:25,910 --> 00:11:23,760
improving equipment for space flight uh

319
00:11:28,630 --> 00:11:25,920
for example uh you know on the on the

320
00:11:30,069 --> 00:11:28,640
flight we're flying now on on atlantis

321
00:11:32,389 --> 00:11:30,079
we're flying uh

322
00:11:34,870 --> 00:11:32,399
an op an opti-cell processing module

323
00:11:37,670 --> 00:11:34,880
which is a cell biology experiment um

324
00:11:39,750 --> 00:11:37,680
and we're also flying 30 mice and these

325
00:11:42,470 --> 00:11:39,760
mice are they're having a therapeutic

326
00:11:44,870 --> 00:11:42,480
countermeasure for muscle atrophy so

327
00:11:47,030 --> 00:11:44,880
again the immediate application is for

328
00:11:49,350 --> 00:11:47,040
astronauts adapting to weightlessness

329
00:11:51,269 --> 00:11:49,360
and the muscle decay that we see in

330
00:11:52,949 --> 00:11:51,279
astronauts but there are applications

331
00:11:54,870 --> 00:11:52,959
for people that are on bed rest on the

332
00:11:56,790 --> 00:11:54,880
earth and and those with uh you know

333
00:11:58,870 --> 00:11:56,800
with with weak muscles that we can

334
00:12:00,069 --> 00:11:58,880
understand basically how the human body

335
00:12:02,069 --> 00:12:00,079
works because

336
00:12:04,230 --> 00:12:02,079
space is a very unique environment and

337
00:12:05,829 --> 00:12:04,240
it allows us to see the human body from

338
00:12:07,829 --> 00:12:05,839

a different vantage point so the life

339
00:12:10,470 --> 00:12:07,839
sciences research that we do on space

340
00:12:13,350 --> 00:12:10,480
space station is uh is very

341
00:12:15,110 --> 00:12:13,360
uh pertinent to life on earth as well as

342
00:12:17,590 --> 00:12:15,120
you know the studies of the heavens like

343
00:12:20,150 --> 00:12:17,600
for example the alpha magnetic magnetic

344
00:12:21,670 --> 00:12:20,160
spectrometer looking back into the into

345
00:12:24,150 --> 00:12:21,680
the past towards the big bang and

346
00:12:26,069 --> 00:12:24,160
looking for antimatter so it the space

347
00:12:28,310 --> 00:12:26,079
station is just such a unique

348
00:12:30,389 --> 00:12:28,320
asset a national asset that runs the

349
00:12:32,550 --> 00:12:30,399
gamut of many different disciplines of

350
00:12:36,829 --> 00:12:32,560
science so i'm excited that we're moving

351
00:12:40,550 --> 00:12:38,389
okay

352
00:12:43,190 --> 00:12:40,560
phillip sloss with nasaspaceflight.com

353
00:12:45,990 --> 00:12:43,200
um i think on mike's uh in in the flight

354
00:12:49,110 --> 00:12:46,000
plan for mike he when he was in uh

355
00:12:51,670 --> 00:12:49,120
doing the work on pma3 there was also a

356
00:12:53,430 --> 00:12:51,680
center disc cover install on the port i

357
00:12:56,150 --> 00:12:53,440
guess on the port hatch could you just

358
00:12:57,509 --> 00:12:56,160
explain um why he was doing that now and

359
00:12:59,670 --> 00:12:57,519
what that's for

360
00:13:01,509 --> 00:12:59,680
yes he was just doing that to to we

361
00:13:03,190 --> 00:13:01,519
wanted to make sure that the items

362
00:13:06,310 --> 00:13:03,200
inside the permanent mating adapter

363
00:13:09,430 --> 00:13:06,320

number three don't shift into the uh

364
00:13:10,470 --> 00:13:09,440
into the hatch mechanism envelope

365
00:13:12,470 --> 00:13:10,480
thanks

366
00:13:14,470 --> 00:13:12,480
hey mom can you have one more

367
00:13:16,870 --> 00:13:14,480
uh thanks mark caro for aviation week

368
00:13:19,670 --> 00:13:16,880
i'm going to go back to your report on

369
00:13:21,590 --> 00:13:19,680
the cargo transfers and see if i

370
00:13:24,150 --> 00:13:21,600
understood correctly did you say that

371
00:13:25,670 --> 00:13:24,160
half of the mplm and half of the mid

372
00:13:27,910 --> 00:13:25,680
deck have been

373
00:13:29,430 --> 00:13:27,920
transferred to the station side at this

374
00:13:30,230 --> 00:13:29,440
point

375
00:13:32,790 --> 00:13:30,240
or

376
00:13:36,470 --> 00:13:32,800
half of the gross half of the out we're

377
00:13:38,550 --> 00:13:36,480
halfway complete with the with the uh

378
00:13:40,470 --> 00:13:38,560
uh with the

379
00:13:42,230 --> 00:13:40,480
with the the number of hours that we

380
00:13:44,310 --> 00:13:42,240
expect so

381
00:13:46,230 --> 00:13:44,320
unloading the mplm is about a third of

382
00:13:48,470 --> 00:13:46,240
the hours that we've budgeted and

383
00:13:50,629 --> 00:13:48,480
reloading it is a little more a little

384
00:13:52,230 --> 00:13:50,639
more complicated and it's that's about

385
00:13:55,430 --> 00:13:52,240
two-thirds of the time that we've

386
00:13:56,949 --> 00:13:55,440
budgeted so of that total 100 time we're

387
00:13:58,629 --> 00:13:56,959
about 50

388
00:14:01,189 --> 00:13:58,639

completed so that means we've just about

389
00:14:03,750 --> 00:14:01,199
completely unloaded the mplm

390
00:14:05,509 --> 00:14:03,760
uh well let me let me go back we

391
00:14:07,269 --> 00:14:05,519
some of the items have not quite been

392
00:14:09,189 --> 00:14:07,279
unloaded from the mplm yet i don't have

393
00:14:10,710 --> 00:14:09,199
an exact number but we are in a mixed

394
00:14:13,590 --> 00:14:10,720
config where some items are still

395
00:14:15,829 --> 00:14:13,600
waiting to come out and many items to be

396
00:14:17,829 --> 00:14:15,839
returned are already in the

397
00:14:20,150 --> 00:14:17,839
so we're about halfway done in terms of

398
00:14:22,710 --> 00:14:20,160
the number of hours that we expect it

399
00:14:24,790 --> 00:14:22,720
will take and just uh just from a big

400
00:14:26,710 --> 00:14:24,800
picture sense going back to where you

401
00:14:29,430 --> 00:14:26,720
sort of anticipated

402
00:14:31,670 --> 00:14:29,440
you might be at this point which is

403
00:14:33,829 --> 00:14:31,680
almost the halfway point of the mission

404
00:14:36,389 --> 00:14:33,839
with the extension

405
00:14:39,030 --> 00:14:36,399
do you do you feel like you're on on

406
00:14:41,110 --> 00:14:39,040
pace to accomplish what you wanted

407
00:14:43,350 --> 00:14:41,120
within the time you have or

408
00:14:44,629 --> 00:14:43,360
is there still a lot of kind of pressure

409
00:14:49,509 --> 00:14:44,639
to

410
00:14:52,310 --> 00:14:49,519
yeah that's that's a fair question if we

411
00:14:54,550 --> 00:14:52,320
had not had the extension day

412
00:14:56,629 --> 00:14:54,560
we would obviously we would not be ahead

413
00:14:59,590 --> 00:14:56,639

of schedule and we would not have been

414
00:15:01,430 --> 00:14:59,600
able to do uh for example today we would

415
00:15:03,269 --> 00:15:01,440
not have been able to afford to have uh

416
00:15:05,269 --> 00:15:03,279
ron garan work on the space station

417
00:15:07,829 --> 00:15:05,279
toilet doing a little bit of preemptive

418
00:15:09,110 --> 00:15:07,839
maintenance that took about four hours

419
00:15:11,189 --> 00:15:09,120
we would not have done that we would

420
00:15:12,790 --> 00:15:11,199
have had him work in cargo transfer we

421
00:15:15,030 --> 00:15:12,800
would have had to have

422
00:15:17,110 --> 00:15:15,040
dedicated the crew

423
00:15:19,189 --> 00:15:17,120
more extensively to cargo transfer than

424
00:15:20,389 --> 00:15:19,199
we've been able to do so we've

425
00:15:22,550 --> 00:15:20,399
instead of

426
00:15:25,030 --> 00:15:22,560
using the extension day

427
00:15:26,389 --> 00:15:25,040
for all cargo transfer

428
00:15:27,509 --> 00:15:26,399
knowing that we're going to get the you

429
00:15:29,990 --> 00:15:27,519
know that we have the extension day and

430
00:15:32,470 --> 00:15:30,000
the plan we're going ahead and filling

431
00:15:36,150 --> 00:15:32,480
some of the days with other activities

432
00:15:40,949 --> 00:15:38,629
denise ciao at space.com um with the

433
00:15:42,870 --> 00:15:40,959
amount of cargo that atlantis brought up

434
00:15:44,629 --> 00:15:42,880
um and with a lot of it being for

435
00:15:46,230 --> 00:15:44,639
long-term use um has there been any

436
00:15:48,230 --> 00:15:46,240
problems with finding places to store

437
00:15:51,749 --> 00:15:48,240
all of this cargo yes

438
00:15:53,389 --> 00:15:51,759

yes that that has been a huge challenge

439
00:15:56,470 --> 00:15:53,399
you may recall back on

440
00:15:58,790 --> 00:15:56,480
sts-133 earlier this year discovery on

441
00:16:00,470 --> 00:15:58,800
her last flight brought up the

442
00:16:11,749 --> 00:16:00,480
the

443
00:16:12,949 --> 00:16:11,759
permanent storage you can call it a

444
00:16:15,269 --> 00:16:12,959
basement because it's on one of the

445
00:16:18,949 --> 00:16:15,279
lower hatches towards the earth and it

446
00:16:21,670 --> 00:16:18,959
is used just for storage and

447
00:16:23,110 --> 00:16:21,680
even with that big module just for

448
00:16:25,670 --> 00:16:23,120
storage

449
00:16:26,870 --> 00:16:25,680
after atlantis flight

450
00:16:29,269 --> 00:16:26,880
all of its

451
00:16:31,910 --> 00:16:29,279
rack storage spaces are going to be full

452
00:16:34,790 --> 00:16:31,920
and 14 out of the 16 racks will have

453
00:16:37,350 --> 00:16:34,800
cargo stacked on the front so it will be

454
00:16:39,110 --> 00:16:37,360
you know not difficult to get in and out

455
00:16:42,550 --> 00:16:39,120
of but it will certainly be congested

456
00:16:45,350 --> 00:16:42,560
and full of lots of spares and many of

457
00:16:46,230 --> 00:16:45,360
the other locations in space station

458
00:16:49,269 --> 00:16:46,240
have

459
00:16:51,189 --> 00:16:49,279
more cargo stored on it than was

460
00:16:53,990 --> 00:16:51,199
originally intended i mean ideally you'd

461
00:16:57,430 --> 00:16:54,000
have a nice clear path

462
00:16:59,829 --> 00:16:57,440
and open faces on the various science

463
00:17:01,189 --> 00:16:59,839

racks and and hardware racks to where

464
00:17:03,910 --> 00:17:01,199
you wouldn't have to move cargo around

465
00:17:05,909 --> 00:17:03,920
but because we have so much cargo stored

466
00:17:08,630 --> 00:17:05,919
on station intentionally

467
00:17:11,189 --> 00:17:08,640
it sometimes is difficult

468
00:17:13,110 --> 00:17:11,199
to access some of the racks that we that

469
00:17:15,429 --> 00:17:13,120
the crew needs to access and sometimes

470
00:17:16,710 --> 00:17:15,439
proves to be a challenge to access tools

471
00:17:18,630 --> 00:17:16,720
and other hardware that you need for

472
00:17:21,029 --> 00:17:18,640
maintenance tasks so stowage is a

473
00:17:23,909 --> 00:17:21,039
challenge um again one reason we're

474
00:17:26,069 --> 00:17:23,919
bulking up on our our cargo is because

475
00:17:27,510 --> 00:17:26,079
we're entering a new phase with shuttle

476
00:17:29,909 --> 00:17:27,520
being retired we're going to be

477
00:17:30,950 --> 00:17:29,919
dependent upon our commercial resupply

478
00:17:33,750 --> 00:17:30,960
vehicles

479
00:17:35,510 --> 00:17:33,760
spacex and orbital are both vying to to

480
00:17:37,430 --> 00:17:35,520
supply the space station they'll be

481
00:17:40,070 --> 00:17:37,440
coming online

482
00:17:42,150 --> 00:17:40,080
early in 2012 and uh as they go through

483
00:17:44,150 --> 00:17:42,160
their flight test program we wanted to

484
00:17:46,630 --> 00:17:44,160
make sure we had plenty of supplies on

485
00:17:48,789 --> 00:17:46,640
board in case they run into any problems

486
00:17:50,630 --> 00:17:48,799
and of course we're we're always going

487
00:17:52,870 --> 00:17:50,640
to be partly reliant on the russians

488
00:17:55,350 --> 00:17:52,880

with their supply craft as well as the

489
00:17:57,669 --> 00:17:55,360
europeans and japanese that uh that

490
00:17:59,350 --> 00:17:57,679
perform uh periodic

491
00:18:01,990 --> 00:17:59,360
resupply missions with unmanned

492
00:18:03,510 --> 00:18:02,000
spacecraft to the space station

493
00:18:05,510 --> 00:18:03,520
okay thank you bill

494
00:18:07,270 --> 00:18:05,520
bill harwood cbs

495
00:18:08,470 --> 00:18:07,280
just along those lines i was confused in

496
00:18:10,710 --> 00:18:08,480
the pre-flight briefings when mike

497
00:18:13,029 --> 00:18:10,720
suffordini said that the stuff coming up

498
00:18:16,470 --> 00:18:13,039
on this flight would add six months when

499
00:18:18,310 --> 00:18:16,480
you look at atv and htv progress

500
00:18:19,669 --> 00:18:18,320
um and everybody else we've been saying

501
00:18:21,909 --> 00:18:19,679
it's a year's worth of supplies and i'm

502
00:18:23,590 --> 00:18:21,919
confused about that um

503
00:18:24,950 --> 00:18:23,600
i mean when you're looking ahead to 2012

504
00:18:26,710 --> 00:18:24,960
what exactly

505
00:18:29,270 --> 00:18:26,720
are you getting with this flight versus

506
00:18:31,430 --> 00:18:29,280
what what how it's extending if we had

507
00:18:32,950 --> 00:18:31,440
just this flight and no other resupply

508
00:18:35,830 --> 00:18:32,960
missions we would not be able to make it

509
00:18:38,390 --> 00:18:35,840
through 2012. so this flight gets us

510
00:18:40,710 --> 00:18:38,400
through 2012 but also including

511
00:18:43,110 --> 00:18:40,720
specifically the russian progress

512
00:18:45,270 --> 00:18:43,120
contributions which the russians are are

513
00:18:46,870 --> 00:18:45,280

very key players and important players

514
00:18:48,870 --> 00:18:46,880
with cargo delivery

515
00:18:51,270 --> 00:18:48,880
with the progress is as well as as you

516
00:18:53,750 --> 00:18:51,280
know the crew delivery with the soyuz so

517
00:18:57,590 --> 00:18:53,760
progress plus atlantis gets us through

518
00:18:58,630 --> 00:18:57,600
2012 and i'm i believe the the htv and

519
00:18:59,990 --> 00:18:58,640
atv

520
00:19:05,510 --> 00:19:00,000
plans uh

521
00:19:08,549 --> 00:19:07,750
is that everybody here today

522
00:19:10,070 --> 00:19:08,559
so

523
00:19:12,710 --> 00:19:10,080
maybe let's go to the bone bridge i

524
00:19:14,630 --> 00:19:12,720
think um do we have marsha yes hi can

525
00:19:17,350 --> 00:19:14,640
you hear me yes we do

526
00:19:19,270 --> 00:19:17,360
yeah the exercise equipment that mike

527
00:19:22,070 --> 00:19:19,280
fossum bundled up

528
00:19:23,750 --> 00:19:22,080
for transfer to the cargo carrier that

529
00:19:26,549 --> 00:19:23,760
sounds pretty big

530
00:19:28,549 --> 00:19:26,559
how bulky is it how much space is it i'm

531
00:19:32,310 --> 00:19:28,559
you know just trying to get an idea of

532
00:19:40,150 --> 00:19:36,390
uh just a rough number uh approximately

533
00:19:43,029 --> 00:19:41,909
if you if you had a comparison if you

534
00:19:45,350 --> 00:19:43,039
were looking at that what would it

535
00:19:48,470 --> 00:19:45,360
remind you of all boxed up

536
00:19:50,630 --> 00:19:48,480
well let's see uh our standard

537
00:19:51,909 --> 00:19:50,640
cargo transfer bag that you might see on

538
00:19:53,590 --> 00:19:51,919

some of the video where the crew is

539
00:19:57,110 --> 00:19:53,600
moving those back and forth it's

540
00:20:00,789 --> 00:19:57,120
equivalent to about 10 of those so 10

541
00:20:03,190 --> 00:20:00,799
small suitcases or large handbags

542
00:20:04,870 --> 00:20:03,200
great thank you and

543
00:20:09,110 --> 00:20:04,880
just one quick question about the urine

544
00:20:11,350 --> 00:20:09,120
processor was anything done differently

545
00:20:13,350 --> 00:20:11,360
to try to

546
00:20:14,950 --> 00:20:13,360
get that smell out of the way or was it

547
00:20:17,110 --> 00:20:14,960
just a matter of letting it sit and let

548
00:20:18,789 --> 00:20:17,120
the air bubbles or whatever it was go

549
00:20:20,870 --> 00:20:18,799
through

550
00:20:22,630 --> 00:20:20,880
it was the latter we uh we just let it

551
00:20:25,430 --> 00:20:22,640
sit for a day primarily we didn't want

552
00:20:27,909 --> 00:20:25,440
to run a risk of uh of introducing any

553
00:20:30,149 --> 00:20:27,919
odors uh yesterday when the crew had a

554
00:20:31,750 --> 00:20:30,159
very busy day and a very stressful day

555
00:20:33,909 --> 00:20:31,760
of uh getting in their spacesuits

556
00:20:36,710 --> 00:20:33,919
getting ready for the spacewalk and uh

557
00:20:38,950 --> 00:20:36,720
performing the robotics operations there

558
00:20:40,630 --> 00:20:38,960
in the tranquility module which is right

559
00:20:43,110 --> 00:20:40,640
across the aisle from our urine

560
00:20:45,350 --> 00:20:43,120
processing apparatus so we stood down on

561
00:20:47,909 --> 00:20:45,360
any processing allowed the system to

562
00:20:50,390 --> 00:20:47,919
settle out and uh and and and then we

563
00:20:52,630 --> 00:20:50,400

reprocessed today uh we

564
00:20:55,190 --> 00:20:52,640
counted as a is good news that the odor

565
00:20:57,190 --> 00:20:55,200
didn't get released today but it may

566
00:20:58,950 --> 00:20:57,200
reappear tomorrow as this gas works

567
00:21:01,430 --> 00:20:58,960
through the system the engineers looking

568
00:21:04,230 --> 00:21:01,440
at the data do not see any

569
00:21:05,270 --> 00:21:04,240
abnormal indications so we really don't

570
00:21:07,190 --> 00:21:05,280
have a

571
00:21:09,270 --> 00:21:07,200
full understanding of whether all the

572
00:21:11,350 --> 00:21:09,280
gas made it out of the system or whether

573
00:21:13,350 --> 00:21:11,360
there still might be some some odor

574
00:21:14,390 --> 00:21:13,360
issues but again the crew said you know

575
00:21:15,669 --> 00:21:14,400
they could live with it they could deal

576
00:21:17,430 --> 00:21:15,679
with it it's just again it's not the

577
00:21:19,029 --> 00:21:17,440
kind of thing you want to have when you

578
00:21:20,470 --> 00:21:19,039
have house guests and you have a real

579
00:21:22,710 --> 00:21:20,480
busy schedule

580
00:21:24,470 --> 00:21:22,720
thanks a lot

581
00:21:26,470 --> 00:21:24,480
okay thank you chris

582
00:21:29,190 --> 00:21:26,480
and uh with that we'll conclude the

583
00:21:31,029 --> 00:21:29,200
today's mission briefing um

584
00:21:32,870 --> 00:21:31,039
we are the station crew has gone to bed

585
00:21:35,350 --> 00:21:32,880
at four o'clock atlantis cruises is

586
00:21:37,750 --> 00:21:35,360
going to bed just now and uh up next on

587
00:21:39,990 --> 00:21:37,760
nasa tv just a couple of programming

588
00:21:41,590 --> 00:21:40,000

notes uh launching our dreams it's a

589
00:21:44,310 --> 00:21:41,600
special space shuttle program video will

590
00:21:46,470 --> 00:21:44,320
air at 5 pm central time here on nasa

591
00:21:48,549 --> 00:21:46,480
television also flight day 6 highlights

592
00:21:50,470 --> 00:21:48,559
will begin airing at 6 pm

593
00:21:51,510 --> 00:21:50,480
these will be aired at the top of every

594
00:21:53,430 --> 00:21:51,520
hour

595
00:21:55,110 --> 00:21:53,440
and also a special video on the space

596
00:21:58,549 --> 00:21:55,120
shuttle

597
00:22:00,310 --> 00:21:58,559
narrated by william shatner and

598
00:22:02,390 --> 00:22:00,320
tomorrow there will be playback video

599
00:22:04,390 --> 00:22:02,400
from atlanta's solid rocket boosters on

600
00:22:06,470 --> 00:22:04,400
splashdown that will begin at 9 00 a.m

601
00:22:08,149 --> 00:22:06,480
and then there will be other replays

602
00:22:10,230 --> 00:22:08,159
after that throughout the day

603
00:22:12,390 --> 00:22:10,240
the next mission status briefing will be

604
00:22:14,390 --> 00:22:12,400
held here again tomorrow at 4 pm central

605
00:22:16,549 --> 00:22:14,400
time thank you chris and everyone for

606
00:22:18,470 --> 00:22:16,559
joining us here the tv schedule is now

607
00:22:21,350 --> 00:22:18,480
on revision f and can be found at

608
00:22:22,789 --> 00:22:21,360
www.nasa.gov

609
00:22:31,270 --> 00:22:22,799
shuttle tv

610
00:22:36,789 --> 00:22:34,230
hi i'm steve sides ruben de leon shanna

611
00:22:38,310 --> 00:22:36,799
andrew and i'm heidi brewer we are the

612
00:22:40,630 --> 00:22:38,320
instrumentation and communication