
AUDIO REPLAY

1
00:00:22,230 --> 00:00:20,630
good morning and welcome to mission

2
00:00:24,310 --> 00:00:22,240
control houston and the international

3
00:00:25,509 --> 00:00:24,320
space station update hour we're here

4
00:00:26,950 --> 00:00:25,519
with the international space station

5
00:00:28,390 --> 00:00:26,960
flight control team inside the

6
00:00:31,269 --> 00:00:28,400
international space station flight

7
00:00:32,950 --> 00:00:31,279
control room where flight director judd

8
00:00:36,069 --> 00:00:32,960
freeling is leading the team with help

9
00:00:37,430 --> 00:00:36,079
from capcom rob hayhurst

10
00:00:39,430 --> 00:00:37,440
on board the space station the three

11
00:00:41,030 --> 00:00:39,440
members of the expedition 34 crew are

12
00:00:44,709 --> 00:00:41,040
more than halfway through their day and

13
00:00:46,869 --> 00:00:44,719

currently orbiting 261 miles above china

14
00:00:49,670 --> 00:00:46,879
they are commander kevin ford and flight

15
00:00:52,150 --> 00:00:49,680
engineer tom marshburn of nasa

16
00:00:55,110 --> 00:00:52,160
russian flight engineers oleg novitskiy

17
00:00:57,510 --> 00:00:55,120
of guinea charlkin and roman romanenko

18
00:01:01,750 --> 00:00:57,520
and canadian space station space agency

19
00:01:05,990 --> 00:01:04,469
ford novitskiy and tarelkin have been at

20
00:01:08,469 --> 00:01:06,000
the space station since october when

21
00:01:10,390 --> 00:01:08,479
their soyuz tma-06m vehicle docked to

22
00:01:12,630 --> 00:01:10,400
the russian poisk module they're now

23
00:01:15,670 --> 00:01:12,640
working on their 118th day at the space

24
00:01:17,190 --> 00:01:15,680
station and their 120th day in space

25
00:01:19,429 --> 00:01:17,200
and they were joined in december by

26
00:01:21,429 --> 00:01:19,439
marshburn hadfield and romanenko who

27
00:01:23,109 --> 00:01:21,439
dunked to uh who docked their soyuz

28
00:01:24,870 --> 00:01:23,119
tma-07m

29
00:01:27,510 --> 00:01:24,880
to the station's ron spent module on

30
00:01:29,270 --> 00:01:27,520
december 1st they're on their 63rd day

31
00:01:30,870 --> 00:01:29,280
in space and their 61st at the space

32
00:01:32,789 --> 00:01:30,880
station

33
00:01:34,870 --> 00:01:32,799
so very this is a very busy and

34
00:01:36,310 --> 00:01:34,880
challenging week for expedition 34 with

35
00:01:38,390 --> 00:01:36,320
a number of different activities going

36
00:01:40,149 --> 00:01:38,400
on on board the station one of the

37
00:01:42,069 --> 00:01:40,159
biggest activities for the week is a

38
00:01:44,870 --> 00:01:42,079

transition to a new software suite

39
00:01:46,550 --> 00:01:44,880
called r12 as part of a yearly update

40
00:01:48,230 --> 00:01:46,560
for the space station

41
00:01:49,590 --> 00:01:48,240
that transition started yesterday when

42
00:01:52,149 --> 00:01:49,600
the new software was sent up to the

43
00:01:54,069 --> 00:01:52,159
station's command and control computers

44
00:01:56,069 --> 00:01:54,079
and today the crew is scheduled to

45
00:01:58,230 --> 00:01:56,079
update seven of the station's laptops by

46
00:01:59,990 --> 00:01:58,240
swapping their current hard drives with

47
00:02:01,429 --> 00:02:00,000
new ones pre-loaded with the new

48
00:02:03,749 --> 00:02:01,439
software

49
00:02:04,950 --> 00:02:03,759
the plan was to swap two of the hard

50
00:02:06,149 --> 00:02:04,960
drives and then allow the ground to

51
00:02:08,469 --> 00:02:06,159
switch over

52
00:02:11,750 --> 00:02:08,479
to using the new software system before

53
00:02:11,750 --> 00:02:11,760
the remaining five were

54
00:02:16,949 --> 00:02:14,390
were swapped out um however when the

55
00:02:19,030 --> 00:02:16,959
ground did that they lost s-band

56
00:02:21,510 --> 00:02:19,040
communication with the space station

57
00:02:26,710 --> 00:02:21,520
that's what allows uh us to stay in

58
00:02:30,869 --> 00:02:28,470
that

59
00:02:32,949 --> 00:02:30,879
happened about 8 45

60
00:02:34,070 --> 00:02:32,959
a.m central time and the team here on

61
00:02:35,750 --> 00:02:34,080
the ground has been working through

62
00:02:37,350 --> 00:02:35,760
exactly what happened and what to do

63
00:02:39,670 --> 00:02:37,360

about that since then

64
00:02:41,270 --> 00:02:39,680
they got a snapshot of some of the data

65
00:02:43,750 --> 00:02:41,280
from the space station about 20 minutes

66
00:02:46,790 --> 00:02:43,760
after that occurred that showed the

67
00:02:47,670 --> 00:02:46,800
vehicle was under control and all well

68
00:02:49,350 --> 00:02:47,680
but

69
00:02:51,509 --> 00:02:49,360
because the

70
00:02:53,509 --> 00:02:51,519
new laptop that the

71
00:02:55,509 --> 00:02:53,519
that was back up to the one that had the

72
00:03:00,229 --> 00:02:55,519
problems with the s-band had not been

73
00:03:03,589 --> 00:03:01,990
when it was time to swap to a new tdrs

74
00:03:05,030 --> 00:03:03,599
satellite again that is part of the

75
00:03:07,990 --> 00:03:05,040
system that

76
00:03:10,550 --> 00:03:08,000
sends us information down to the ground

77
00:03:12,470 --> 00:03:10,560
uh that that swap didn't happen so we

78
00:03:15,830 --> 00:03:12,480
were without uh

79
00:03:18,390 --> 00:03:15,840
voice communication with the crew for

80
00:03:19,990 --> 00:03:18,400
until uh for about an hour while the

81
00:03:22,309 --> 00:03:20,000
crew or the

82
00:03:23,670 --> 00:03:22,319
team here on the ground worked through

83
00:03:25,830 --> 00:03:23,680
steps for the crew to take when they

84
00:03:27,430 --> 00:03:25,840
were able to contact with them

85
00:03:28,869 --> 00:03:27,440
they were able to get in contact with

86
00:03:30,830 --> 00:03:28,879
them when the station went over the

87
00:03:33,430 --> 00:03:30,840
russian ground stations

88
00:03:35,270 --> 00:03:33,440

another method for getting

89
00:03:38,070 --> 00:03:35,280
voice communication contact with the

90
00:03:39,990 --> 00:03:38,080
station that happened about 10 minutes

91
00:03:41,670 --> 00:03:40,000
ago and we have a clip

92
00:03:42,789 --> 00:03:41,680
of the conversation with the crew at

93
00:03:44,710 --> 00:03:42,799
that time they're going to play for you

94
00:03:48,149 --> 00:03:44,720
now

95
00:03:49,350 --> 00:03:48,159
papi i have a procedure to for you to

96
00:03:50,710 --> 00:03:49,360
execute

97
00:03:55,429 --> 00:03:50,720
is going to be

98
00:03:58,229 --> 00:03:55,439
cnt procedure 4 decimal 312

99
00:04:00,710 --> 00:03:58,239
and that system reconfig after a standby

100
00:04:02,710 --> 00:04:00,720
primary cnc trans

101
00:04:05,589 --> 00:04:02,720
as soon as you can we need for you to

102
00:04:09,589 --> 00:04:05,599
execute steps 2 through 10

103
00:04:11,350 --> 00:04:09,599
and 12 through 14 to establish stable

104
00:04:12,830 --> 00:04:11,360
s-band

105
00:04:16,870 --> 00:04:12,840
on step

106
00:04:19,509 --> 00:04:16,880
5. config for the current currently

107
00:04:21,110 --> 00:04:19,519
active s-band string

108
00:04:22,310 --> 00:04:21,120
we think that's string two but you can

109
00:04:34,070 --> 00:04:22,320
confirm

110
00:04:38,710 --> 00:04:36,550
for step five uh you can configure the

111
00:04:41,350 --> 00:04:38,720
current active s-band string

112
00:04:44,550 --> 00:04:41,360
you can confirm that at the cnt group

113
00:04:52,310 --> 00:04:46,550

on step nine

114
00:04:57,590 --> 00:04:53,990
on step twelve

115
00:04:59,350 --> 00:04:57,600
slot one will be tdrs-171

116
00:05:00,870 --> 00:04:59,360
and slot two will be

117
00:05:09,189 --> 00:05:00,880
peters275

118
00:05:12,310 --> 00:05:10,310
here i've got copyright already

119
00:05:14,710 --> 00:05:12,320
connected node three and jim tcs's we

120
00:05:16,790 --> 00:05:14,720
had a stand by the prime c three is the

121
00:05:21,270 --> 00:05:16,800
current so let's go ahead and reconnect

122
00:05:24,070 --> 00:05:21,280
them using procedure 4.312 and the cnt

123
00:05:25,830 --> 00:05:24,080
uh two through ten steps and then twelve

124
00:05:29,510 --> 00:05:25,840
through fourteen steps

125
00:05:33,990 --> 00:05:29,520
at step five configure to the current uh

126
00:05:35,990 --> 00:05:34,000
s band uh using the group overview page

127
00:05:38,790 --> 00:05:36,000
and uh step nine the index is twenty

128
00:05:44,870 --> 00:05:38,800
seven seventy step 12

129
00:05:50,310 --> 00:05:47,430
all good kevin

130
00:05:51,590 --> 00:05:50,320
okay copy that hey just uh fyi the

131
00:05:54,469 --> 00:05:51,600
station's still flying straight

132
00:05:56,629 --> 00:05:54,479
everybody's in good shape of course and

133
00:05:57,830 --> 00:05:56,639
nothing uh nothing unexpected other than

134
00:05:59,430 --> 00:05:57,840
lots of caution and wanting to

135
00:06:00,790 --> 00:05:59,440
understand of course we have no system

136
00:06:02,230 --> 00:06:00,800
inside we'll get that back to you as

137
00:06:03,909 --> 00:06:02,240
soon as we can

138
00:06:07,590 --> 00:06:03,919

uh in the gym

139
00:06:10,230 --> 00:06:07,600
we did have a extra module ventilation

140
00:06:11,830 --> 00:06:10,240
fan failure so jim fan bravo just kind

141
00:06:13,590 --> 00:06:11,840
of shut down

142
00:06:15,430 --> 00:06:13,600
we looked at a related procedure and it

143
00:06:17,749 --> 00:06:15,440
says uh just for the crew to be cautious

144
00:06:20,870 --> 00:06:17,759
and no special action uh you might pass

145
00:06:22,469 --> 00:06:20,880
that on to uh scuba but everything all

146
00:06:24,230 --> 00:06:22,479
the systems and power

147
00:06:26,790 --> 00:06:24,240
supplies look like they're doing just

148
00:06:30,710 --> 00:06:28,469
okay great to hear kevin and just to

149
00:06:33,270 --> 00:06:30,720
make sure the procedure number was four

150
00:06:35,670 --> 00:06:33,280
decimal three one two not sure if

151
00:06:39,029 --> 00:06:35,680
we got that correctly up to you and also

152
00:06:43,189 --> 00:06:39,039
if we are no joy in restoring calm

153
00:06:46,390 --> 00:06:43,199
prior to 1644 the new teeter slots on

154
00:06:54,150 --> 00:06:46,400
step 12 will be 41

155
00:07:02,550 --> 00:06:58,390
okay after 1641 1640 maybe you said uh

156
00:07:07,510 --> 00:07:02,560
slot one will be 41 and 275.

157
00:07:11,189 --> 00:07:10,150
okay we copy that uh thanks a lot we

158
00:07:13,510 --> 00:07:11,199
just wanted you just to hang out and

159
00:07:15,990 --> 00:07:13,520
wait on vhs and uh we appreciate the

160
00:07:17,510 --> 00:07:16,000
words what do you expect uh the config

161
00:07:19,270 --> 00:07:17,520
to be actually take care of this you

162
00:07:25,510 --> 00:07:19,280
think we'll be at perfect time after all

163
00:07:29,990 --> 00:07:27,830

and kevin after these steps are executed

164
00:07:33,270 --> 00:07:30,000
we expect aspen to be in a stable config

165
00:07:35,189 --> 00:07:33,280
about 10 minutes after that

166
00:07:37,110 --> 00:07:35,199
okay copy that we'll be patient uh

167
00:07:38,550 --> 00:07:37,120
anything that you would want from us if

168
00:07:44,469 --> 00:07:38,560
we don't talk to you again before the

169
00:07:44,479 --> 00:07:51,350
checking

170
00:07:54,710 --> 00:07:52,950
that again was a

171
00:07:57,670 --> 00:07:54,720
clip from a conversation recorded

172
00:07:59,430 --> 00:07:57,680
earlier between capcom rob hayhurst and

173
00:08:00,790 --> 00:07:59,440
commander kevin ford going through the

174
00:08:02,710 --> 00:08:00,800
steps that the team here on the ground

175
00:08:05,589 --> 00:08:02,720
determined that the crew needed to go

176
00:08:07,430 --> 00:08:05,599
through to get the communication link

177
00:08:09,670 --> 00:08:07,440
reestablished between the station and

178
00:08:11,189 --> 00:08:09,680
the ground that took place as the

179
00:08:13,189 --> 00:08:11,199
station was flying over the russian

180
00:08:15,589 --> 00:08:13,199
ground stations which alter offer an

181
00:08:16,950 --> 00:08:15,599
alternative way for us to communicate

182
00:08:18,550 --> 00:08:16,960
with the station

183
00:08:20,869 --> 00:08:18,560
and as you heard kevin ford confirmed

184
00:08:22,550 --> 00:08:20,879
there that everything is uh looking good

185
00:08:24,950 --> 00:08:22,560
on the station other than the loss of

186
00:08:26,950 --> 00:08:24,960
communication with the ground and they

187
00:08:29,749 --> 00:08:26,960
were able to get all the steps needed up

188
00:08:31,189 --> 00:08:29,759

to the crew to switch over or rather

189
00:08:34,550 --> 00:08:31,199
load the

190
00:08:36,310 --> 00:08:34,560
tdrs information that's

191
00:08:39,430 --> 00:08:36,320
the satellite that sends information

192
00:08:41,990 --> 00:08:39,440
from the station to the ground um get

193
00:08:44,149 --> 00:08:42,000
that information loaded on this backup

194
00:08:45,750 --> 00:08:44,159
laptop that they're using so that they

195
00:08:47,350 --> 00:08:45,760
can re-establish our regular

196
00:08:49,509 --> 00:08:47,360
communication

197
00:08:51,509 --> 00:08:49,519
that's expected to take about 10 minutes

198
00:08:53,190 --> 00:08:51,519
after the crew finishes going through

199
00:08:54,310 --> 00:08:53,200
their steps because we don't have that

200
00:08:56,230 --> 00:08:54,320
communication we don't have a lot of

201
00:08:59,030 --> 00:08:56,240
insight into how that

202
00:09:01,190 --> 00:08:59,040
work is going on the station but

203
00:09:02,710 --> 00:09:01,200
have reason to expect that we should be

204
00:09:04,630 --> 00:09:02,720
getting communication back in a

205
00:09:05,910 --> 00:09:04,640
reasonable amount of time and if for

206
00:09:08,470 --> 00:09:05,920
some reason that doesn't work out we'll

207
00:09:10,630 --> 00:09:08,480
simply talk with them as we go over the

208
00:09:13,910 --> 00:09:10,640
russian ground sites again on the next

209
00:09:17,750 --> 00:09:15,350
so one more time although they are

210
00:09:19,829 --> 00:09:17,760
working through these software

211
00:09:22,630 --> 00:09:19,839
issues that have caused the

212
00:09:23,829 --> 00:09:22,640
communication link between the

213
00:09:26,389 --> 00:09:23,839

mission control

214
00:09:29,269 --> 00:09:26,399
room here in houston and the space

215
00:09:32,070 --> 00:09:30,870
have caused that communication link to

216
00:09:34,470 --> 00:09:32,080
go out

217
00:09:36,230 --> 00:09:34,480
everything on board the station is doing

218
00:09:43,750 --> 00:09:36,240
well and the crew is working through the

219
00:09:48,310 --> 00:09:45,910
other activities going on

220
00:09:52,070 --> 00:09:48,320
on board the space station today

221
00:09:57,829 --> 00:09:55,030
science experiments

222
00:09:59,030 --> 00:09:57,839
including the in space 3 experiment

223
00:10:00,870 --> 00:09:59,040
which

224
00:10:02,790 --> 00:10:00,880
looks at the fundamental behaviors of

225
00:10:04,630 --> 00:10:02,800
magnetic colloidal fluids under the

226
00:10:09,110 --> 00:10:04,640
influence of various

227
00:10:14,630 --> 00:10:12,470
and several russian experiments that

228
00:10:16,790 --> 00:10:14,640
look at

229
00:10:20,630 --> 00:10:16,800
radiation on board the space station as

230
00:10:22,630 --> 00:10:20,640
well as a earth observation down below

231
00:10:25,350 --> 00:10:22,640
and also the crew is beginning now to

232
00:10:26,630 --> 00:10:25,360
practice and get ready for the arrival

233
00:10:29,750 --> 00:10:26,640
of the next

234
00:10:31,670 --> 00:10:29,760
dragon spacex vehicle scheduled to

235
00:10:33,430 --> 00:10:31,680
launch on monday