1
00:00:04,550 --> 00:00:01,829
the only difference is obviously

2
00:00:07,190 --> 00:00:04,560
progress does not require uh life

3
00:00:07,990 --> 00:00:07,200
support systems so it uh can carry a

4
00:00:12,070 --> 00:00:08,000
full

5
00:00:13,430 --> 00:00:12,080
um cargo this uh progress is uh

6
00:00:16,870 --> 00:00:13,440
bringing

7
00:00:18,870 --> 00:00:16,880
about uh 5 800 pounds worth of cargo to

8
00:00:20,310 --> 00:00:18,880
the station

9
00:00:22,910 --> 00:00:20,320
that

10
00:00:29,150 --> 00:00:25,910
764 pounds of propellant

11
00:00:32,549 --> 00:00:29,160
another 110 pounds of oxygen and air

12
00:00:35,190 --> 00:00:32,559
926 pounds of water and 3000 pounds of

13
00:00:38,069 --> 00:00:35,200

spare parts experiment hardware

14
00:00:40,229 --> 00:00:38,079
and various logistics equipment

15
00:00:55,029 --> 00:00:40,239
range rate is zero point

16
00:01:00,310 --> 00:00:57,750
the total weight of the progress

17
00:01:02,069 --> 00:01:00,320
spacecraft including the hardware upon

18
00:01:03,990 --> 00:01:02,079
arrival is about

19
00:01:06,550 --> 00:01:04,000
a little more than thirteen thousand

20
00:01:10,950 --> 00:01:09,350
station's mass currently uh

21
00:01:14,070 --> 00:01:10,960
eight hundred ninety thousand four

22
00:01:15,510 --> 00:01:14,080
hundred pounds and after uh the fifty

23
00:01:17,990 --> 00:01:15,520
progress arrival

24
00:01:19,350 --> 00:01:18,000
the station's mass will be

25
00:01:20,870 --> 00:01:19,360
recorded as

26
00:01:45,749 --> 00:01:20,880
nine hundred and three thousand five

27
00:01:45,759 --> 00:02:06,709
this station is moving to the left

28
00:02:06,719 --> 00:02:12,150
there is

29
00:02:18,070 --> 00:02:16,150
is the same and range rate is minus 0.1

30
00:02:26,470 --> 00:02:18,080
and we are continuing with the maneuver

31
00:02:30,630 --> 00:02:28,070
you can see the

32
00:02:33,670 --> 00:02:30,640
small thruster firings as the progress

33
00:02:36,710 --> 00:02:33,680
continues its fly around to

34
00:02:39,350 --> 00:02:36,720
align a line with the docking port on

35
00:02:43,750 --> 00:02:39,360
the russian segment of the station

36
00:02:48,630 --> 00:02:45,750
you will see

37
00:02:50,790 --> 00:02:48,640
initial then

38
00:02:55,270 --> 00:02:50,800

after

39
00:02:58,149 --> 00:02:55,280
we will be

40
00:03:00,149 --> 00:02:58,159
go for final approach okay copy off i'll

41
00:03:01,750 --> 00:03:00,159
be standing by for

42
00:03:04,550 --> 00:03:01,760
for your goal

43
00:03:07,030 --> 00:03:04,560
right and we'll prompt you again we just

44
00:03:09,270 --> 00:03:07,040
want you to prompt you that that's

45
00:03:23,270 --> 00:03:09,280
what's to be expected and we'll give you

46
00:03:29,509 --> 00:03:27,030
and a beautiful view high above the

47
00:03:32,550 --> 00:03:29,519
southeastern pacific ocean tracking

48
00:03:42,869 --> 00:03:32,560
northeasterly toward the coastline of

49
00:03:47,990 --> 00:03:44,789
report that they are in

50
00:03:52,869 --> 00:03:48,000
station keeping at 650 feet

51
00:03:57,670 --> 00:03:55,190
activate display 44.

52
00:03:59,830 --> 00:03:57,680
the top in this view is the zvezda

53
00:04:03,270 --> 00:03:59,840
service module that the bottom part is

54
00:04:06,309 --> 00:04:03,280
the zarya control module

55
00:04:07,990 --> 00:04:06,319
okay and done

56
00:04:10,309 --> 00:04:08,000
and a little bit early they've been

57
00:04:11,830 --> 00:04:10,319
given a go for the final approach

58
00:04:16,150 --> 00:04:11,840
approach approach

59
00:04:18,229 --> 00:04:16,160
we've got and we're working for page 23.

60
00:04:21,110 --> 00:04:18,239
copy and we're monitoring and working

61
00:04:23,670 --> 00:04:21,120
for page 23.

62
00:04:28,710 --> 00:04:23,680
then we will be activating work once

63
00:04:50,710 --> 00:04:30,550

and then work

64
00:05:02,310 --> 00:04:54,150
the docking assembly is in the middle

65
00:05:07,749 --> 00:05:05,029
velocity corresponds to the range we

66
00:05:11,029 --> 00:05:07,759
have 140 copy

67
00:05:23,590 --> 00:05:11,039
that's about 450 feet from the

68
00:05:46,629 --> 00:05:27,029
to the left by one degree a range is 120

69
00:05:51,670 --> 00:05:51,110
110 minus 0.66

70
00:06:11,670 --> 00:05:51,680
three copy

71
00:06:15,629 --> 00:06:12,870
degrees

72
00:06:25,749 --> 00:06:15,639
90 meters and minus

73
00:06:56,870 --> 00:06:29,110
target is to the left and down 0.5

74
00:06:56,880 --> 00:07:03,430
range rate is minus 0.35

75
00:07:08,950 --> 00:07:06,710
this view from 260 feet to the docking

76
00:07:11,189 --> 00:07:08,960
port almost directly in the crosshairs

77
00:07:21,990 --> 00:07:11,199
the assembly corresponds to the range

78
00:07:39,749 --> 00:07:25,350
28 meters per second

79
00:08:11,029 --> 00:07:44,710
and the range rate is minus 0.28

80
00:08:11,039 --> 00:08:15,670
23 rate

81
00:08:15,680 --> 00:08:48,710
180 feet

82
00:08:51,269 --> 00:08:49,670
is

83
00:09:02,230 --> 00:08:51,279
great

84
00:09:02,240 --> 00:09:16,630
the target is stable cutting

85
00:09:16,640 --> 00:09:39,829
inside 150 feet now

86
00:10:02,829 --> 00:09:40,949
18

87
00:10:02,839 --> 00:10:28,230
degrees of fruit has collected

88
00:10:28,240 --> 00:10:41,430

getting close to 30 meters range

89
00:10:55,990 --> 00:10:43,670
correct

90
00:10:56,000 --> 00:11:11,829
activation copy

91
00:11:11,839 --> 00:11:26,470
observing

92
00:11:26,480 --> 00:11:40,230
happy

93
00:11:45,750 --> 00:11:42,310
the initial contact and capture will be

94
00:11:53,509 --> 00:11:45,760
through that uh docking probe on the uh

95
00:11:53,519 --> 00:11:59,190
now about 80 feet from arrival range

96
00:12:12,949 --> 00:12:01,030
rate

97
00:12:17,829 --> 00:12:14,870
now perfectly aligned with the docking

98
00:12:19,350 --> 00:12:17,839
target just underneath the hatchway of

99
00:12:43,269 --> 00:12:19,360
the

100
00:12:49,430 --> 00:12:45,750
now about 50 feet

101
00:13:04,790 --> 00:12:49,440
left roll slight left row

102
00:13:04,800 --> 00:13:11,670
together

103
00:13:11,680 --> 00:13:24,550
happy

104
00:13:46,870 --> 00:13:27,990
250 miles above bogota colombia tracking

105
00:13:46,880 --> 00:13:58,949
target

106
00:13:58,959 --> 00:14:02,550
37

107
00:14:02,560 --> 00:14:06,470
now 20 feet from docking

108
00:15:05,110 --> 00:14:08,550
target

109
00:15:08,790 --> 00:15:07,670
inside ten feet standing by for contact

110
00:15:15,750 --> 00:15:08,800
and capture

111
00:15:24,310 --> 00:15:17,509
and the space station is in free drift

112
00:15:29,910 --> 00:15:26,470
we'll stand by for the official docking

113
00:15:32,150 --> 00:15:29,920

time looks like it's about 2 35 a little

114
00:15:33,910 --> 00:15:32,160
aft a little more than that maybe 236

115
00:15:35,749 --> 00:15:33,920
we'll stand by for the

116
00:15:49,749 --> 00:15:35,759
official word from visiting vehicle

117
00:15:49,759 --> 00:16:00,870
foreign

118
00:16:04,710 --> 00:16:01,910
only

119
00:16:19,509 --> 00:16:04,720
then we will be able to monitor it

120
00:16:23,749 --> 00:16:21,509
and then we'll complete everything in

121
00:16:30,710 --> 00:16:23,759
page 27.

122
00:16:30,720 --> 00:16:33,910
and um

123
00:16:38,150 --> 00:16:34,829
and

124
00:16:40,470 --> 00:16:38,160
waiting on toro apps

125
00:16:43,910 --> 00:16:40,480
share your comment and congratulations

126
00:17:18,789 --> 00:16:43,920
on automatic docking

127
00:17:22,309 --> 00:17:20,390
and this is mission control houston the

128
00:17:25,029 --> 00:17:22,319
50 progress vehicles arrived at the

129
00:17:27,350 --> 00:17:25,039
international space station uh

130
00:17:30,789 --> 00:17:27,360
official

131
00:17:32,549 --> 00:17:30,799
automated automated uh docking time is

132
00:17:34,789 --> 00:17:32,559
uh 2 35

133
00:17:36,630 --> 00:17:34,799
p.m central time

134
00:17:39,909 --> 00:17:36,640
for those keeping track of seconds the

135
00:17:42,390 --> 00:17:39,919
report was 19 seconds so 235 and 19

136
00:17:45,270 --> 00:17:42,400
seconds for the arrival

137
00:17:53,830 --> 00:17:45,280
that is 5 hours and 55 minutes from

138
00:17:57,029 --> 00:17:54,950

the

139
00:17:58,789 --> 00:17:57,039
arrival

140
00:18:00,549 --> 00:17:58,799
docking came

141
00:18:02,710 --> 00:18:00,559
just as the space station and the

142
00:18:33,270 --> 00:18:02,720
progress vehicle tracked

143
00:18:40,310 --> 00:18:35,830
the space station remains in free drift

144
00:18:43,350 --> 00:18:40,320
during the process post docking of um

145
00:18:45,510 --> 00:18:43,360
retracting the progress probe that

146
00:18:48,470 --> 00:18:45,520
initial contact probe and then closing

147
00:18:52,310 --> 00:18:48,480
the hooks and latches in order to

148
00:18:55,830 --> 00:18:52,320
seal the newly arrived cargo vehicle

149
00:19:04,070 --> 00:18:55,840
to the international space station's

150
00:19:08,390 --> 00:19:05,510
once the

151
00:19:10,150 --> 00:19:08,400
progress hooks are

152
00:19:12,230 --> 00:19:10,160
seen through the telemetry is being

153
00:19:15,029 --> 00:19:12,240
closed then the signal will

154
00:19:16,870 --> 00:19:15,039
command the hooks to close on the other

155
00:19:28,310 --> 00:19:16,880
side of the interface on the piers

156
00:19:36,230 --> 00:19:30,549
and that should only take a couple of

157
00:21:01,750 --> 00:19:38,310
and we do have confirmation the probe is

158
00:21:06,310 --> 00:21:04,230
on the laptop is scheduled for me but it

159
00:21:09,029 --> 00:21:06,320
is not

160
00:21:53,029 --> 00:21:09,039
is that the one that's activated now i

161
00:21:53,039 --> 00:22:09,909
yes the second roman

162
00:22:09,919 --> 00:22:17,110
i

163
00:22:17,120 --> 00:22:32,070

eleven

164
00:22:32,080 --> 00:23:07,270
you know

165
00:23:07,280 --> 00:23:47,430
in work

166
00:23:47,440 --> 00:23:52,470
general volume

167
00:24:14,870 --> 00:23:53,510
about

168
00:24:14,880 --> 00:24:22,630
um

169
00:24:29,990 --> 00:24:26,710
190 000 kilobytes

170
00:24:40,390 --> 00:24:30,000
so three of the first ones and the last

171
00:24:47,430 --> 00:24:42,470
where they are

172
00:24:51,510 --> 00:24:50,310
and at 2 45 p.m we do have confirmation

173
00:24:52,950 --> 00:24:51,520
that the

174
00:24:54,630 --> 00:24:52,960
hooks on the progress side of the

175
00:24:57,909 --> 00:24:54,640
interface have been

176
00:25:01,909 --> 00:24:59,909
completing all of the

177
00:25:04,549 --> 00:25:01,919
rendezvous and docking tasks for the

178
00:25:05,669 --> 00:25:04,559
progress vehicle the 50

179
00:25:06,630 --> 00:25:05,679
progress

180
00:25:10,310 --> 00:25:06,640
launched

181
00:25:12,789 --> 00:25:10,320
from the baikonur cosmodrome just

182
00:25:16,390 --> 00:25:12,799
yet a little more than six hours ago

183
00:25:19,110 --> 00:25:16,400
at 8 41 this morning central time

184
00:25:21,990 --> 00:25:19,120
five hours 55 minutes later the

185
00:25:23,669 --> 00:25:22,000
50 progress docked to the piers docking

186
00:25:27,190 --> 00:25:23,679
port on the russian segment of the

187
00:25:28,950 --> 00:25:27,200
international space station at 2 35 pm

188
00:25:30,789 --> 00:25:28,960

central

189
00:25:32,149 --> 00:25:30,799
10 minutes later the hooks and latches

190
00:25:34,710 --> 00:25:32,159
have been closed

191
00:25:37,430 --> 00:25:34,720
securing the progress to the

192
00:25:41,350 --> 00:25:37,440
space station as it begins to track into

193
00:25:44,789 --> 00:25:43,669
before sunset activation

194
00:25:46,630 --> 00:25:44,799
you sure

195
00:25:48,230 --> 00:25:46,640
so i was still waiting waiting for seven

196
00:25:50,149 --> 00:25:48,240
minutes right

197
00:25:53,029 --> 00:25:50,159
yes

198
00:25:55,190 --> 00:25:53,039
so the rest of the cruise day will be to

199
00:25:57,510 --> 00:25:55,200
gather for their afternoon

200
00:25:59,669 --> 00:25:57,520
teleconference with flight controllers

201
00:26:02,149 --> 00:25:59,679
on the ground supporting international

202
00:26:05,990 --> 00:26:02,159
space station operations

203
00:26:10,549 --> 00:26:07,990
a little less than two hours from now

204
00:26:13,269 --> 00:26:10,559
their scheduled sleep time begins at 4

205
00:26:15,830 --> 00:26:13,279
30 p.m central time

206
00:26:16,950 --> 00:26:15,840
so they will not be opening the hatches

207
00:26:19,830 --> 00:26:16,960
to their

208
00:26:22,549 --> 00:26:19,840
newly arrived cargo vehicle but it is

209
00:26:24,070 --> 00:26:22,559
in the timeline for the crew members

210
00:26:29,350 --> 00:26:24,080
on

211
00:26:32,230 --> 00:26:29,360
the uh leak checks complete all of that

212
00:26:33,830 --> 00:26:32,240
activity uh before five o'clock in the

213
00:26:36,630 --> 00:26:33,840

morning uh

214
00:26:39,029 --> 00:26:36,640
us central time and the plan is for the

215
00:26:41,830 --> 00:26:39,039
hatch to be opened somewhere in the six

216
00:26:43,510 --> 00:26:41,840
o'clock hour on tuesday

217
00:26:46,149 --> 00:26:43,520
so we'll have all of the

218
00:26:47,669 --> 00:26:46,159
results from that activity for you

219
00:26:50,789 --> 00:26:47,679
during the

220
00:26:53,269 --> 00:26:50,799
iss update hour which will

221
00:26:55,750 --> 00:26:53,279
begin at the usual time on tuesday of 10

222
00:26:57,269 --> 00:26:55,760
a.m central time 11

223
00:26:59,430 --> 00:26:57,279
eastern time

224
00:27:00,950 --> 00:26:59,440
so we'll be back to

225
00:27:02,789 --> 00:27:00,960
provide an hour of coverage of

226
00:27:04,470 --> 00:27:02,799
expedition 34's

227
00:27:07,269 --> 00:27:04,480
voyage aboard the international space

228
00:27:09,750 --> 00:27:07,279
station at that time also as a bonus

229
00:27:11,750 --> 00:27:09,760
within that hour

230
00:27:14,470 --> 00:27:11,760
two of the crew members are going to

231
00:27:16,149 --> 00:27:14,480
take time out to talk about their

232
00:27:18,470 --> 00:27:16,159
mission aboard the station commander

233
00:27:19,990 --> 00:27:18,480
kevin ford and flight engineer dr tom

234
00:27:21,029 --> 00:27:20,000
marshburn

235
00:27:23,430 --> 00:27:21,039
will be

236
00:27:26,070 --> 00:27:23,440
talking about the mission with wboi

237
00:27:30,549 --> 00:27:26,080
radio out of fort wayne indiana and news

238
00:27:33,750 --> 00:27:30,559

14 carolina that begins at 10 15 central

239
00:27:36,470 --> 00:27:33,760
time on tuesday so be sure to tune in

240
00:27:37,350 --> 00:27:36,480
for that as well during that iss update

241
00:27:39,830 --> 00:27:37,360
hour

242
00:27:41,350 --> 00:27:39,840
so again the 50 progress vehicle has

243
00:27:43,029 --> 00:27:41,360
arrived at the international space

244
00:27:45,909 --> 00:27:43,039
station the hatches will be opened in

245
00:27:48,470 --> 00:27:45,919
the early hours on tuesday

246
00:27:50,950 --> 00:27:48,480
so that the crew can access all of the

247
00:27:53,669 --> 00:27:50,960
hardware and supplies uh logistics that

248
00:27:56,630 --> 00:27:53,679
were delivered in that smooth uh five

249
00:27:59,830 --> 00:27:56,640
hour 55 minute launch to docking

250
00:28:02,149 --> 00:27:59,840
of the 50 progress spacecraft we'll be

251
00:28:04,950 --> 00:28:02,159
back again tomorrow with another hour of