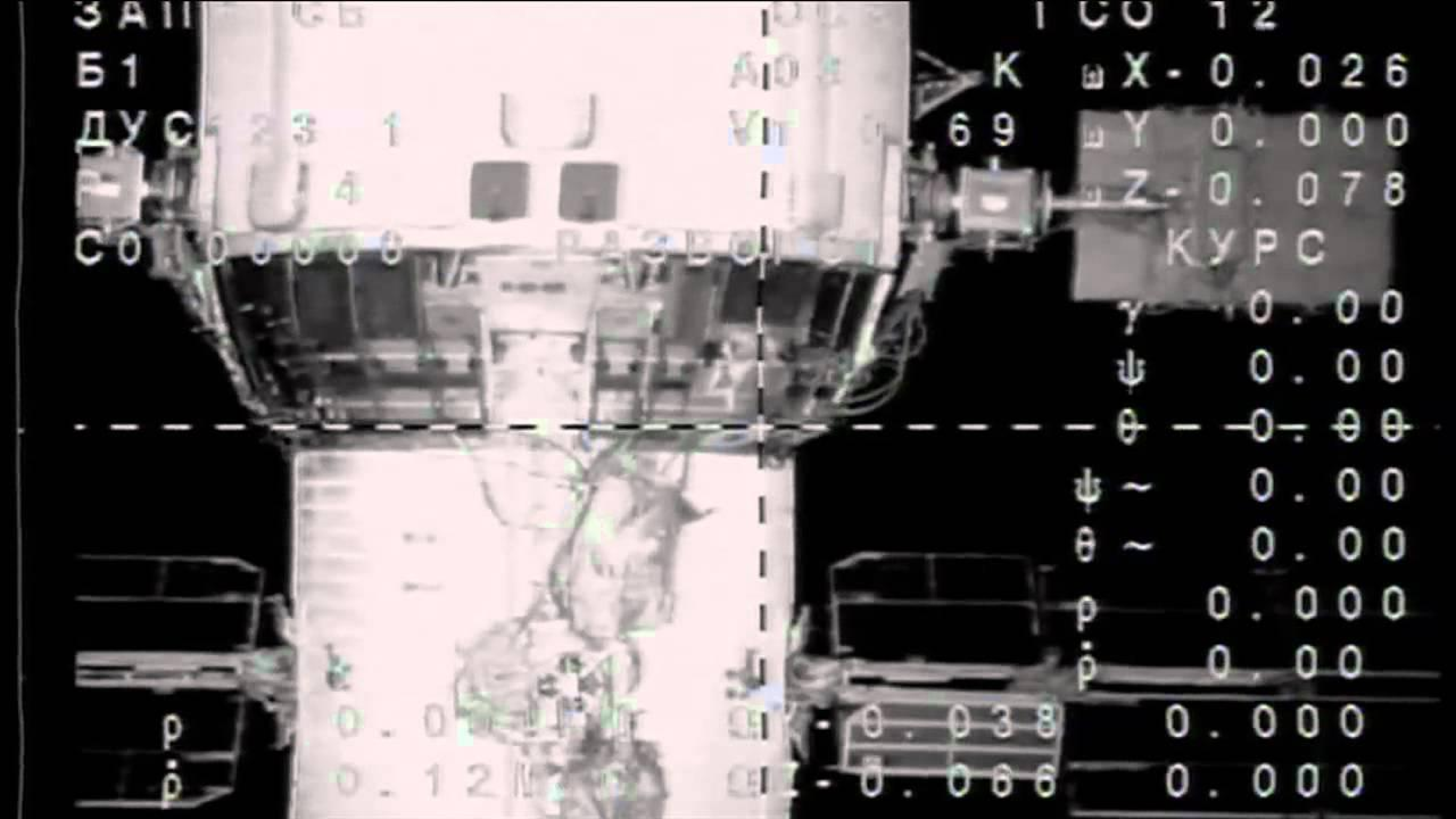

Б1
ДУС
К
ωX -0.026
ωY 0.000
ωZ -0.078
69
КУРС
γ 0.00
ψ 0.00
θ 0.00
ψ~ 0.00
θ~ 0.00
ρ 0.000
0.000
0.000

1
00:00:05,349 --> 00:00:03,669
a little over two hours ago as uh the

2
00:00:06,869 --> 00:00:05,359
crew members began their final

3
00:00:09,030 --> 00:00:06,879
preparations uh

4
00:00:11,749 --> 00:00:09,040
for uh the soyuz vehicle and its

5
00:00:14,390 --> 00:00:11,759
upcoming undocking they had a moment to

6
00:00:16,790 --> 00:00:14,400
gather at the hatchway to the soyuz

7
00:00:18,870 --> 00:00:16,800
spacecraft in the poisk module again the

8
00:00:22,710 --> 00:00:18,880
module to which the

9
00:00:25,269 --> 00:00:22,720
soyuz tma-04m docked back on may 17th

10
00:00:27,269 --> 00:00:25,279
the poisk module is the space facing

11
00:00:30,150 --> 00:00:27,279
module and docking port

12
00:00:32,549 --> 00:00:30,160
on the zvezda service module suni

13
00:00:36,310 --> 00:00:32,559

williams and malenchenko and hoshide

14
00:00:38,709 --> 00:00:36,320
their soyuz vehicle the o5m spacecraft

15
00:00:41,190 --> 00:00:38,719
is docked to the rassvet module on the

16
00:00:43,750 --> 00:00:41,200
earth-facing side of the russian segment

17
00:00:44,869 --> 00:00:43,760
of the international space station

18
00:00:46,950 --> 00:00:44,879
but

19
00:00:49,750 --> 00:00:46,960
about two hours ago the crew members had

20
00:00:52,709 --> 00:00:49,760
an opportunity to say farewell to one

21
00:00:54,549 --> 00:00:52,719
another so let's uh let's roll that tape

22
00:01:18,950 --> 00:00:54,559
of the activities that occurred at about

23
00:01:22,469 --> 00:01:20,870
you see uh williams hoshide and

24
00:01:24,950 --> 00:01:22,479
malenchenko uh

25
00:01:28,230 --> 00:01:24,960
saying uh farewell there to uh sergey

26
00:01:30,230 --> 00:01:28,240
revin and acaba and gennady padalka will

27
00:01:32,469 --> 00:01:30,240
float into the field of view those

28
00:01:35,190 --> 00:01:32,479
particles you see were identified by the

29
00:01:37,510 --> 00:01:35,200
environmental systems officer as dust

30
00:01:38,789 --> 00:01:37,520
particles that's not uncommon it's just

31
00:01:41,270 --> 00:01:38,799
that the light

32
00:01:43,910 --> 00:01:41,280
in the module at this time

33
00:01:45,910 --> 00:01:43,920
illuminated those dust particles you see

34
00:01:47,670 --> 00:01:45,920
the off-going commander padalka hugging

35
00:01:49,590 --> 00:01:47,680
the new commander of the space station

36
00:01:52,230 --> 00:01:49,600
suni williams who

37
00:01:53,830 --> 00:01:52,240
will along with her crewmates have

38
00:01:56,709 --> 00:01:53,840

control of the international space

39
00:01:59,270 --> 00:01:56,719
station until they come home on november

40
00:02:01,590 --> 00:01:59,280
12th padalka waving goodbye the crew

41
00:02:04,469 --> 00:02:01,600
actually entered the soyuz vehicle to

42
00:02:07,109 --> 00:02:04,479
begin a series of switch configurations

43
00:02:26,309 --> 00:02:07,119
uh in advance of the actual closing of

44
00:02:31,350 --> 00:02:29,510
this view now from a camera on the soyuz

45
00:02:33,910 --> 00:02:31,360
vehicle you can see the crosshair

46
00:02:36,150 --> 00:02:33,920
docking target on the right side of the

47
00:02:37,270 --> 00:02:36,160
screen

48
00:02:38,949 --> 00:02:37,280
providing

49
00:02:40,470 --> 00:02:38,959
informational data for the russian

50
00:02:42,710 --> 00:02:40,480
flight controllers

51
00:02:46,869 --> 00:02:42,720
as they will watch the soyuz back away

52
00:02:54,949 --> 00:02:48,630
about one minute away from physical

53
00:02:58,869 --> 00:02:56,470
and we confirm

54
00:03:00,710 --> 00:02:58,879
that the screen

55
00:03:02,470 --> 00:03:00,720
is off

56
00:03:07,350 --> 00:03:02,480
the international space station flying

57
00:03:07,360 --> 00:03:18,070
skirting up the east coast of africa

58
00:03:22,949 --> 00:03:20,229
we see it on the trainer so now we're

59
00:03:28,949 --> 00:03:22,959
going to restart so we can see the ss

60
00:03:33,589 --> 00:03:31,670
padalka revan and acaba launched on a

61
00:03:35,670 --> 00:03:33,599
warm sunny morning from the baikonur

62
00:03:37,110 --> 00:03:35,680
cosmodrome in kazakhstan back on may

63
00:03:38,550 --> 00:03:37,120

15th

64
00:03:40,470 --> 00:03:38,560
arrived at the international space

65
00:03:43,509 --> 00:03:40,480
station two days later

66
00:03:46,550 --> 00:03:43,519
now about to depart for the final time

67
00:03:47,910 --> 00:03:46,560
physical separation confirmed the ss

68
00:03:50,229 --> 00:03:47,920
repair mode

69
00:03:51,670 --> 00:03:50,239
has been restarted so you should see it

70
00:03:55,190 --> 00:03:51,680
on the camera

71
00:04:06,869 --> 00:03:55,200
undocking occurring on time at 609 pm

72
00:04:10,070 --> 00:04:08,390
now we can see

73
00:04:12,149 --> 00:04:10,080
the brightness

74
00:04:15,190 --> 00:04:12,159
now we can see the target very well do

75
00:04:17,270 --> 00:04:15,200
you see any foreign objects

76
00:04:19,189 --> 00:04:17,280
on the interface so the docking

77
00:04:39,430 --> 00:04:19,199
mechanism we do not see it through the

78
00:04:43,350 --> 00:04:42,550
are we selecting the narrow lens we tend

79
00:04:44,550 --> 00:04:43,360
to

80
00:04:47,110 --> 00:04:44,560
see

81
00:04:55,670 --> 00:04:47,120
the target very well gennady you need to

82
00:05:00,469 --> 00:04:57,430
slowly backing away from the poisk

83
00:05:02,070 --> 00:05:00,479
module at a rate of about one-tenth

84
00:05:03,830 --> 00:05:02,080
of a meter per second activate the

85
00:05:05,510 --> 00:05:03,840
brightness before we send the command

86
00:05:06,870 --> 00:05:05,520
for the special lens

87
00:05:09,270 --> 00:05:06,880
two minutes from now there'll be a

88
00:05:11,110 --> 00:05:09,280

separation burn of 15-second firing of

89
00:05:13,189 --> 00:05:11,120
the soyuz engines to increase the

90
00:05:15,670 --> 00:05:13,199
opening rate

91
00:05:18,629 --> 00:05:15,680
so we have selected the narrow angle

92
00:05:26,150 --> 00:05:18,639
lens now we can see the picture on the

93
00:05:33,029 --> 00:05:28,150
we can see all the structural elements

94
00:05:38,550 --> 00:05:35,270
we have selected

95
00:05:40,790 --> 00:05:38,560
copy expedition 33 now has officially

96
00:05:42,790 --> 00:05:40,800
begun under the command of suni williams

97
00:05:45,110 --> 00:05:42,800
joined by yuri malenchenko and aki

98
00:05:47,270 --> 00:05:45,120
hoshide aboard the international space

99
00:05:49,189 --> 00:05:47,280
station they'll be tending to the

100
00:05:53,270 --> 00:05:49,199
station as a three-person crew for the

101
00:05:57,670 --> 00:05:55,749
but we do not see the target any longer

102
00:06:04,390 --> 00:05:57,680
so it's difficult for us to judge where

103
00:06:04,400 --> 00:06:23,510
i can see the antennae

104
00:06:28,710 --> 00:06:26,550
standing by for the separation burn

105
00:06:29,590 --> 00:06:28,720
this will be a uh

106
00:06:31,909 --> 00:06:29,600
now

107
00:06:34,150 --> 00:06:31,919
half a meter per second

108
00:06:36,070 --> 00:06:34,160
change in velocity again a 15 second

109
00:06:37,990 --> 00:06:36,080
burn of the soyuz engines that will

110
00:06:39,909 --> 00:06:38,000
enable the soyuz to drift away from the

111
00:06:42,070 --> 00:06:39,919
international space station to an

112
00:06:45,270 --> 00:06:42,080
eventual distance of 12 kilometers for

113
00:06:48,950 --> 00:06:45,280

the deorbit burn that is scheduled at 8

114
00:06:50,469 --> 00:06:48,960
56 pm central time and the separation

115
00:06:58,309 --> 00:06:50,479
burn is underway confirmed by the

116
00:07:03,909 --> 00:07:01,749
padalka revan and acaba bidding farewell

117
00:07:15,029 --> 00:07:03,919
to the complex that has been their home

118
00:07:19,029 --> 00:07:17,110
so now we're maneuvering to the larger

119
00:07:25,270 --> 00:07:19,039
diameter so we'll have a better view

120
00:07:27,990 --> 00:07:26,950
please continue your comments on the

121
00:07:30,790 --> 00:07:28,000
range

122
00:07:33,670 --> 00:07:30,800
yes we can still see

123
00:07:35,029 --> 00:07:33,680
the station we are getting a stable

124
00:07:40,070 --> 00:07:35,039
photo

125
00:07:40,080 --> 00:07:48,790
we see the large diameter very well

126
00:07:53,990 --> 00:07:51,670
and once again uh the final uh

127
00:07:57,029 --> 00:07:54,000
moments uh of the descent of the soyuz

128
00:07:58,710 --> 00:07:57,039
spacecraft under its shoot

129
00:08:01,270 --> 00:07:58,720
you can see one of the russian search

130
00:08:04,230 --> 00:08:01,280
and recovery helicopters

131
00:08:14,469 --> 00:08:04,240
that will land uh within seconds

132
00:08:14,479 --> 00:08:26,629
and standing by for touchdown

133
00:08:30,550 --> 00:08:28,629
and touchdown confirmed

134
00:08:32,310 --> 00:08:30,560
the soft landing engines firing the

135
00:08:33,350 --> 00:08:32,320
touchdown has

136
00:08:36,949 --> 00:08:33,360
occurred

137
00:08:39,829 --> 00:08:36,959
at 9 53 p.m central time

138
00:08:42,230 --> 00:08:39,839

10 53 p.m eastern time just north of

139
00:09:01,670 --> 00:08:42,240
arcola kazakhstan gennady padalka sergei

140
00:09:05,110 --> 00:09:03,430
you can see the glare of the early

141
00:09:07,030 --> 00:09:05,120
morning sunlight on monday morning at

142
00:09:11,509 --> 00:09:07,040
the landing site in kazakhstan where the

143
00:09:11,519 --> 00:09:16,870
a cloudless sky

144
00:09:21,590 --> 00:09:19,030
a gagarin cosmonaut training center

145
00:09:32,870 --> 00:09:21,600
photographer peering inside the open

146
00:09:37,110 --> 00:09:34,470
and there's our first view of gennady

147
00:09:39,509 --> 00:09:37,120
padalka the soyuz commander veteran

148
00:09:41,350 --> 00:09:39,519
cosmonaut

149
00:09:43,190 --> 00:09:41,360
as he sits in the bright sunshine of a

150
00:09:46,550 --> 00:09:43,200
monday morning having completed his

151
00:09:48,550 --> 00:09:46,560
fourth flight into space in 711 days

152
00:10:12,949 --> 00:09:48,560
making him the fourth most experienced

153
00:10:19,509 --> 00:10:14,949
and that would be uh sergey revin we

154
00:10:19,519 --> 00:10:33,910
okay

155
00:10:38,949 --> 00:10:36,870
the crew members who are situated in the

156
00:10:41,509 --> 00:10:38,959
left and right seats

157
00:10:44,310 --> 00:10:41,519
of the descent module take a few more

158
00:10:46,150 --> 00:10:44,320
minutes to extract than the commander

159
00:10:53,910 --> 00:10:46,160
who is a straight shot out of the center

160
00:11:09,350 --> 00:10:56,310
and uh we are awaiting the extraction of

161
00:11:14,150 --> 00:11:12,150
out of the soyuz spacecraft

162
00:11:15,990 --> 00:11:14,160
completing his second flight into space

163
00:11:19,430 --> 00:11:16,000

13 days aboard the space shuttle

164
00:11:22,470 --> 00:11:19,440
discovery in march of 2009

165
00:11:23,829 --> 00:11:22,480
on the sts-119 mission now home

166
00:11:32,710 --> 00:11:23,839
after four months aboard the

167
00:11:32,720 --> 00:11:55,509
how are you

168
00:11:59,269 --> 00:11:57,269
there's a unique uh

169
00:12:00,870 --> 00:11:59,279
shot we're watching gennady padalka

170
00:12:04,230 --> 00:12:00,880
signing his name

171
00:12:06,150 --> 00:12:04,240
uh to the soyuz tma-04m josh the next

172
00:12:08,470 --> 00:12:06,160
time you do this in november landing for

173
00:12:10,389 --> 00:12:08,480
sunny williams aki hoshide and yuri

174
00:12:12,550 --> 00:12:10,399
malenchenko will be just after sunrise

175
00:12:14,550 --> 00:12:12,560
in november i don't think it's going to

176
00:12:17,030 --> 00:12:14,560
be quite as warm

177
00:12:19,110 --> 00:12:17,040
as the crew is making their way inside

178
00:12:20,870 --> 00:12:19,120
the medical tent

179
00:12:23,350 --> 00:12:20,880
information is always

180
00:12:24,949 --> 00:12:23,360
wonderful to come by and from a variety

181
00:12:27,190 --> 00:12:24,959
of sources uh

182
00:12:30,310 --> 00:12:27,200
we find out that the signing of their

183
00:12:32,870 --> 00:12:30,320
names on the spacecraft unique to this

184
00:12:34,870 --> 00:12:32,880
particular landing because this

185
00:12:35,670 --> 00:12:34,880
spacecraft is going to be moved uh to

186
00:12:38,550 --> 00:12:35,680
the

187
00:12:39,590 --> 00:12:38,560
schalkovsky museum in kaluga

188
00:12:41,750 --> 00:12:39,600

russia

189
00:12:43,190 --> 00:12:41,760
the schalkovsky museum named after the

190
00:12:45,269 --> 00:12:43,200
father of

191
00:12:47,509 --> 00:12:45,279
russian space flight constantine

192
00:12:49,269 --> 00:12:47,519
schalkowski so a very unique and

193
00:12:50,949 --> 00:12:49,279
historic moment

194
00:12:52,870 --> 00:12:50,959
for this crew to have the privilege of