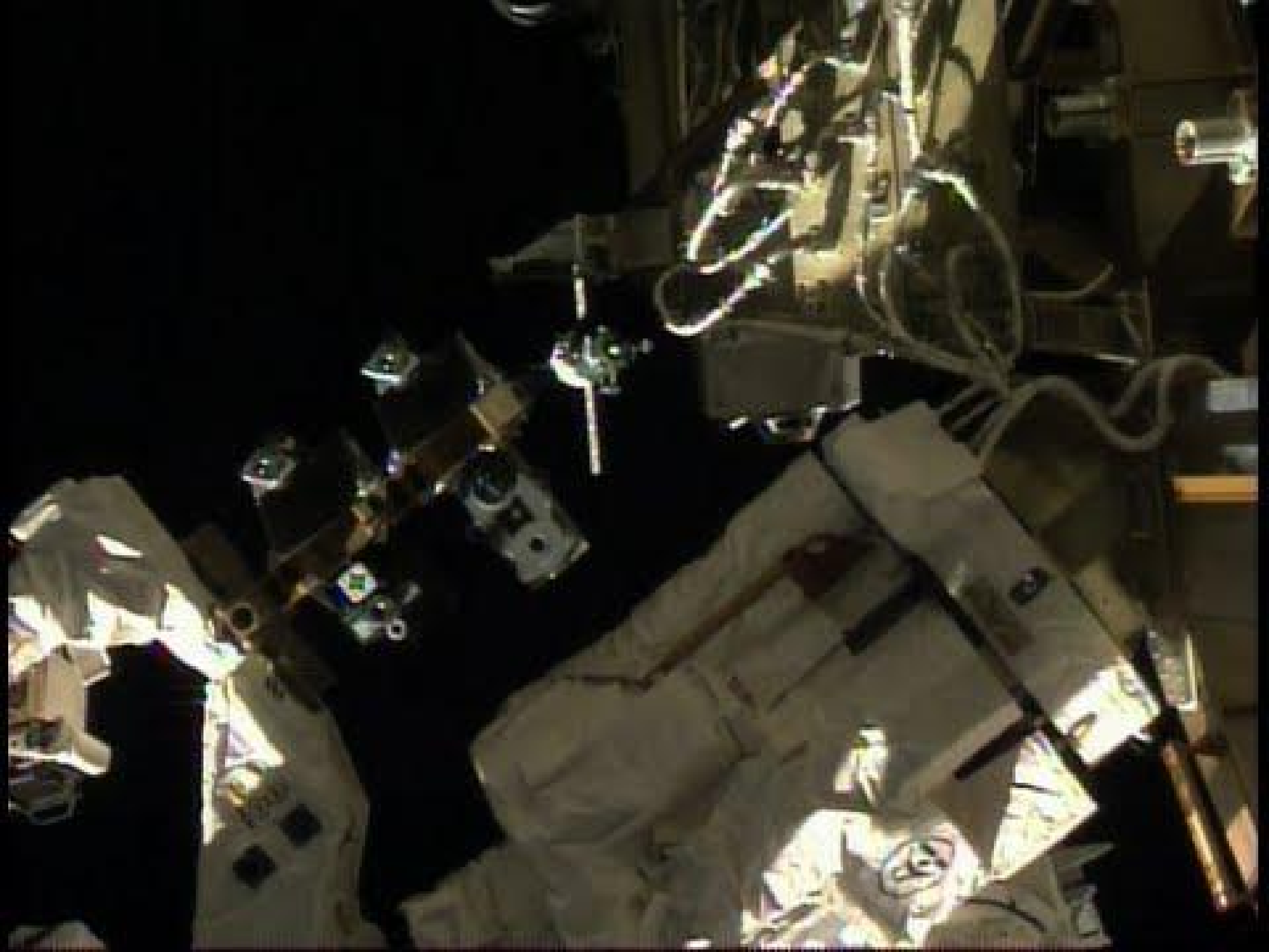

1
00:00:05,269 --> 00:00:03,590
and that dot on your screen uh to the

2
00:00:06,789 --> 00:00:05,279
left-hand side of your view from this

3
00:00:09,270 --> 00:00:06,799
external camera on the international

4
00:00:11,589 --> 00:00:09,280
space station is a tally ho on the soyuz

5
00:00:13,910 --> 00:00:11,599
tma-12m spacecraft

6
00:00:15,430 --> 00:00:13,920
better late than never the soyuz now

7
00:00:16,470 --> 00:00:15,440
about to approach the neighborhood of

8
00:00:18,630 --> 00:00:16,480
the complex

9
00:00:19,910 --> 00:00:18,640
as the soyuz and the international space

10
00:00:21,429 --> 00:00:19,920
station

11
00:00:23,269 --> 00:00:21,439
pass

12
00:00:37,190 --> 00:00:23,279
beyond the new guinea about to begin a

13
00:00:41,430 --> 00:00:38,869

during the two-day

14
00:00:42,389 --> 00:00:41,440
sojourn from the launch pad to this

15
00:00:45,270 --> 00:00:42,399
point

16
00:00:48,470 --> 00:00:45,280
the crew on board uh the soyuz swanson

17
00:00:50,790 --> 00:00:48,480
uh sports arf and uh artemiev had an

18
00:00:52,950 --> 00:00:50,800
opportunity to doff their sokol launch

19
00:00:54,709 --> 00:00:52,960
and entry suits uh to stow them they

20
00:00:56,950 --> 00:00:54,719
have an upper compartment called the

21
00:01:00,549 --> 00:00:56,960
orbital module that

22
00:01:02,950 --> 00:01:00,559
has a potty as well as uh a bit of room

23
00:01:05,189 --> 00:01:02,960
for the crew to stretch out as well as

24
00:01:07,830 --> 00:01:05,199
where their provisions are located uh

25
00:01:10,550 --> 00:01:07,840
they were able uh then uh to enjoy the

26
00:01:11,750 --> 00:01:10,560
view of earth uh and uh to communicate

27
00:01:14,469 --> 00:01:11,760
with the flight controllers here in

28
00:01:16,870 --> 00:01:14,479
korea over russian ground stations over

29
00:01:19,990 --> 00:01:16,880
the course of these uh two days

30
00:01:22,710 --> 00:01:20,000
in transit this is the again the old way

31
00:01:25,109 --> 00:01:22,720
that the rendezvous used to be conducted

32
00:01:26,870 --> 00:01:25,119
from a soyuz vehicle both in the days of

33
00:01:28,630 --> 00:01:26,880
the mir space station

34
00:01:30,870 --> 00:01:28,640
as well as the international space

35
00:01:33,030 --> 00:01:30,880
station until a year ago when chris

36
00:01:35,670 --> 00:01:33,040
cassidy and his crewmates alexander

37
00:01:38,069 --> 00:01:35,680
misurkin and pavel vinogradov executed

38
00:01:39,749 --> 00:01:38,079

the first single day launch to docking

39
00:01:42,149 --> 00:01:39,759
in the space station era the

40
00:01:44,950 --> 00:01:42,159
international space station era

41
00:01:47,830 --> 00:01:44,960
the next three crews also executed that

42
00:01:50,389 --> 00:01:47,840
single day uh six hour four orbit

43
00:01:53,590 --> 00:01:50,399
rendezvous uh procedure it was to have

44
00:01:56,230 --> 00:01:53,600
occurred again this time but the failure

45
00:01:59,030 --> 00:01:56,240
of a critical rendezvous burn uh just a

46
00:02:01,590 --> 00:01:59,040
few hours after launch back on tuesday

47
00:02:03,590 --> 00:02:01,600
evening u.s time

48
00:02:06,389 --> 00:02:03,600
caused a default in the rendezvous plan

49
00:02:08,550 --> 00:02:06,399
to the backup 34 orbit plan that is

50
00:02:11,670 --> 00:02:08,560
currently in the final minutes of being

51
00:02:13,670 --> 00:02:11,680
executed as you see the soyuz uh

52
00:02:16,390 --> 00:02:13,680
very calmly very gently approaching the

53
00:02:18,309 --> 00:02:16,400
international space station now about a

54
00:02:19,350 --> 00:02:18,319
half a kilometer away from the poisk

55
00:02:21,510 --> 00:02:19,360
module

56
00:02:24,470 --> 00:02:21,520
its rate of closure now down to less

57
00:02:28,150 --> 00:02:24,480
than two meters per second uh the rate

58
00:02:40,390 --> 00:02:28,160
is two or one nine five dollars

59
00:02:45,670 --> 00:02:42,710
sailing serenely over the south pacific

60
00:02:47,589 --> 00:02:45,680
at an altitude of 252 statute miles of

61
00:02:51,190 --> 00:02:47,599
the soyuz tma

62
00:02:53,350 --> 00:02:51,200
12m spacecraft is aligning itself with

63
00:02:55,589 --> 00:02:53,360

the poisk module

64
00:02:57,670 --> 00:02:55,599
in about eight minutes uh it will put on

65
00:02:59,509 --> 00:02:57,680
the brakes for the start of uh just a

66
00:03:03,270 --> 00:02:59,519
couple of minutes or so of station

67
00:03:05,270 --> 00:03:03,280
keeping at a range of 195 meters

68
00:03:07,430 --> 00:03:05,280
everything is continuing to go as

69
00:03:09,910 --> 00:03:07,440
planned all of the soyuz systems in

70
00:03:12,390 --> 00:03:09,920
excellent shape in the final minutes uh

71
00:03:15,030 --> 00:03:12,400
before swanson sports off and artemia

72
00:03:16,830 --> 00:03:15,040
have reached their destination and their

73
00:03:27,430 --> 00:03:16,840
home for the next

74
00:03:27,440 --> 00:03:34,470
the rate 0.62 250 meters 0.48

75
00:03:34,480 --> 00:03:43,190
and approaching

76
00:03:43,200 --> 00:03:49,830
i'm not quitting

77
00:03:54,309 --> 00:03:52,710
it's a very smooth slow fly around it's

78
00:04:10,869 --> 00:03:54,319
almost like we're

79
00:04:10,879 --> 00:04:19,909
okay

80
00:04:23,590 --> 00:04:21,509
compartment wise everything is normal

81
00:04:24,830 --> 00:04:23,600
we're flying around rain

82
00:04:43,670 --> 00:04:24,840
range

83
00:04:47,950 --> 00:04:44,790
you should be getting a really nice

84
00:04:58,310 --> 00:04:47,960
visual of us from your crew quarters

85
00:05:02,390 --> 00:05:00,230
as you can see the automated computers

86
00:05:04,469 --> 00:05:02,400
on the soyuz currently uh conducting a

87
00:05:06,950 --> 00:05:04,479
roll of the vehicle

88
00:05:09,029 --> 00:05:06,960

this uh enables

89
00:05:11,430 --> 00:05:09,039
this maneuver enables the soyuz to have

90
00:05:13,670 --> 00:05:11,440
its solar arrays oriented in the correct

91
00:05:15,830 --> 00:05:13,680
position for docking

92
00:05:33,749 --> 00:05:15,840
just prior to the initiation of station

93
00:05:37,749 --> 00:05:35,510
and the soyuz now has

94
00:05:39,270 --> 00:05:37,759
completed its braking it's role maneuver

95
00:05:40,230 --> 00:05:39,280
now complete and we're in station

96
00:05:45,670 --> 00:05:40,240
keeping

97
00:05:47,670 --> 00:05:45,680
this is likely to last uh only a couple

98
00:05:49,029 --> 00:05:47,680
of minutes everything should be assessed

99
00:05:52,310 --> 00:05:49,039
very quickly by the russian flight

100
00:05:54,070 --> 00:05:52,320
controllers uh before they give the go

101
00:05:57,110 --> 00:05:54,080
for the initiation of the automated

102
00:05:59,189 --> 00:05:57,120
commanding for final approach

103
00:06:00,469 --> 00:05:59,199
we confirm the final approach on the

104
00:06:08,870 --> 00:06:00,479
monitor

105
00:06:13,909 --> 00:06:09,990
uh

106
00:06:17,830 --> 00:06:15,830
copy and work

107
00:06:20,710 --> 00:06:17,840
switching formats

108
00:06:23,670 --> 00:06:20,720
moving on to the uh

109
00:06:23,680 --> 00:07:03,990
a bit better

110
00:07:07,909 --> 00:07:06,070
this docking will not be occurring over

111
00:07:10,309 --> 00:07:07,919
russian ground stations of the docking

112
00:07:13,830 --> 00:07:10,319
expected to occur over northern brazil

113
00:07:15,350 --> 00:07:13,840

and as such the video of the approach of

114
00:07:17,430 --> 00:07:15,360
the soyuz

115
00:07:18,950 --> 00:07:17,440
for its docking to the international

116
00:07:21,749 --> 00:07:18,960
space station is handled by u.s

117
00:07:24,150 --> 00:07:21,759
communications assets we'll be handing

118
00:07:25,830 --> 00:07:24,160
over between tracking and data relay

119
00:07:28,150 --> 00:07:25,840
satellite systems satellites here

120
00:07:29,110 --> 00:07:28,160
shortly for about a one minute loss of

121
00:07:30,870 --> 00:07:29,120
signal

122
00:07:32,790 --> 00:07:30,880
yeah just basically uh you know follow

123
00:07:34,550 --> 00:07:32,800
your own

124
00:07:36,150 --> 00:07:34,560
discretion if you feel like you need the

125
00:08:07,029 --> 00:07:36,160
light activated go ahead and do it by

126
00:08:14,950 --> 00:08:09,909
all right and the video is back on

127
00:08:20,230 --> 00:08:17,510
flying over paraguay now the soyuz

128
00:08:21,749 --> 00:08:20,240
inside 20 meters to docking a perfect

129
00:08:23,270 --> 00:08:21,759
approach rate of one tenth of a meter

130
00:08:24,869 --> 00:08:23,280
per second the

131
00:08:26,469 --> 00:08:24,879
automated rendezvous

132
00:08:28,710 --> 00:08:26,479
systems on the soyuz

133
00:08:30,309 --> 00:08:28,720
precisely aligning the forward docking

134
00:08:33,110 --> 00:08:30,319
probe on the vehicle

135
00:08:34,070 --> 00:08:33,120
to the pois module docking port

136
00:08:36,310 --> 00:08:34,080
everything

137
00:08:52,150 --> 00:08:36,320
in preparation now for contact and

138
00:08:55,910 --> 00:08:54,470

everything is nominal

139
00:09:05,350 --> 00:08:55,920
copy

140
00:09:05,360 --> 00:09:18,710
score is

141
00:09:23,829 --> 00:09:21,590
now just a handful of meters away flight

142
00:09:25,670 --> 00:09:23,839
controllers here in korea and in houston

143
00:09:42,389 --> 00:09:25,680
standing by for contact and capture of

144
00:09:42,399 --> 00:09:57,829
standing by for contact

145
00:10:01,990 --> 00:10:00,389
docking confirmed at 6 53 pm central

146
00:10:03,829 --> 00:10:02,000
time we have mechanical capture as the