



1
00:00:06,240 --> 00:00:12,629
ten seconds

2
00:00:12,639 --> 00:00:18,470
five seconds

3
00:00:22,790 --> 00:00:20,630
engines at maximum thrust and liftoff of

4
00:00:25,109 --> 00:00:22,800
the soyuz tma-20

5
00:00:26,630 --> 00:00:25,119
as katie coleman paolo nespoli and

6
00:00:35,750 --> 00:00:26,640
dimitri contraction head toward the

7
00:00:41,910 --> 00:00:37,110
all the parameters of the control

8
00:00:45,190 --> 00:00:43,670
this was lighting up the night sky there

9
00:00:46,470 --> 00:00:45,200
at the baikonur cosmodrome it's a good

10
00:00:49,270 --> 00:00:46,480
pitch program according to flight

11
00:00:53,910 --> 00:00:51,910
functioning

12
00:00:56,069 --> 00:00:53,920
thrusters are stable this will use it

13
00:00:58,389 --> 00:00:56,079

delivering 102 tons of thrust from its

14

00:01:00,470 --> 00:00:58,399

four boosters in single engine the first

15

00:01:02,709 --> 00:01:00,480

stage of the soyuz measures 68 feet in

16

00:01:04,310 --> 00:01:02,719

length and 24 feet in diameter it is

17

00:01:15,109 --> 00:01:04,320

burning liquid fuel for the first two

18

00:01:15,119 --> 00:01:20,550

pressure is normal

19

00:01:26,070 --> 00:01:23,270

60 seconds

20

00:01:27,429 --> 00:01:26,080

your pitch and roll are within the norm

21

00:01:29,030 --> 00:01:27,439

one minute and ten seconds into the

22

00:01:31,510 --> 00:01:29,040

flight the velocity is at one thousand

23

00:01:38,310 --> 00:01:31,520

one hundred miles per hour

24

00:01:41,350 --> 00:01:39,830

there are live view inside the soyuz

25

00:01:43,270 --> 00:01:41,360

palo nespoli there on the right-hand

26
00:01:44,950 --> 00:01:43,280
side dimitri kandrati of there in the

27
00:01:47,030 --> 00:01:44,960
middle seat he is the commander of the

28
00:01:48,469 --> 00:01:47,040
spacecraft and on the left-hand side is

29
00:01:50,550 --> 00:01:48,479
katie coleman

30
00:01:53,030 --> 00:01:50,560
parameters of the launch vehicle are

31
00:01:59,510 --> 00:01:53,040
normal okay copy everything is nominal

32
00:02:03,910 --> 00:02:01,350
have you loud and clear everything is

33
00:02:07,830 --> 00:02:03,920
not on board further inaudible

34
00:02:09,990 --> 00:02:07,840
dima yes can you hear me this is 19 so

35
00:02:11,910 --> 00:02:10,000
love you yes i have you loud and clear

36
00:02:15,750 --> 00:02:11,920
everything's good on our side

37
00:02:20,790 --> 00:02:18,869
on the successful orbital insertion

38
00:02:23,190 --> 00:02:20,800

everything is good everything pressure