



1
00:00:06,230 --> 00:00:04,470
vehicle to internal power separation of

2
00:00:08,150 --> 00:00:06,240
the first tower

3
00:00:11,910 --> 00:00:08,160
the first umbilical now separating from

4
00:00:19,590 --> 00:00:14,950
umbilical tower separation in process

5
00:00:19,600 --> 00:00:27,349
t-minus 20 seconds and counting

6
00:00:27,359 --> 00:00:40,470
independent power

7
00:00:46,709 --> 00:00:43,830
we have ignition of the soyuz

8
00:00:49,910 --> 00:00:46,719
liftoff liftoff as chris cassidy pavel

9
00:00:51,670 --> 00:00:49,920
vinogradov and alexander misurkin are on

10
00:01:10,310 --> 00:00:51,680
a fast track to the international space

11
00:01:13,350 --> 00:01:11,910
into the flight the rocket is nominal

12
00:01:14,950 --> 00:01:13,360
the crew is doing well we have good

13
00:01:17,749 --> 00:01:14,960

first stage performance the soyuz

14

00:01:19,990 --> 00:01:17,759

delivering 102 tons of thrust from its

15

00:01:22,070 --> 00:01:20,000

four boosters in single engine the first

16

00:01:24,310 --> 00:01:22,080

stage of the soyuz measures 68 feet in

17

00:01:25,749 --> 00:01:24,320

length and 24 feet in diameter it is

18

00:01:36,630 --> 00:01:25,759

burning liquid fuel for the first two

19

00:01:36,640 --> 00:01:49,830

combustion chamber pressure

20

00:01:55,109 --> 00:01:52,230

velocity is now approaching 1 100 miles

21

00:01:57,350 --> 00:01:55,119

per hour

22

00:02:09,109 --> 00:01:57,360

70 seconds into the flight

23

00:02:17,589 --> 00:02:10,630

one minute 30 seconds into the flight

24

00:02:17,599 --> 00:02:32,790

stage one operating normally

25

00:02:32,800 --> 00:02:45,830

110 seconds

26

00:02:48,949 --> 00:02:47,350

two minutes five seconds into the flight

27

00:02:50,309 --> 00:02:48,959

the four strap-on boosters have now been

28

00:02:51,990 --> 00:02:50,319

jettisoned these have completed their

29

00:02:54,229 --> 00:02:52,000

job and have dropped away at an altitude

30

00:02:56,790 --> 00:02:54,239

of 28 statute miles the soyuz is

31

00:02:58,790 --> 00:02:56,800

traveling at about 3 350 miles an hour

32

00:03:09,270 --> 00:02:58,800

now

33

00:03:13,110 --> 00:03:11,509

there's a look at chris cassidy

34

00:03:14,309 --> 00:03:13,120

sitting in the left seat pavlenograd of

35

00:03:15,509 --> 00:03:14,319

the commander of the soyuz there in the

36

00:03:16,550 --> 00:03:15,519

middle just off to the right of the

37

00:03:18,149 --> 00:03:16,560

screen

38

00:03:22,309 --> 00:03:18,159

alexander misurkin they're off to the

39

00:03:25,190 --> 00:03:23,670

there you see pavel vinogradov in the

40

00:03:26,710 --> 00:03:25,200

middle

41

00:03:28,630 --> 00:03:26,720

alexander misurkin there on the right

42

00:03:30,830 --> 00:03:28,640

hand side

43

00:03:32,070 --> 00:03:30,840

so again chris cassidy alexander

44

00:03:34,070 --> 00:03:32,080

misurkin using the wrong papal

45

00:03:36,390 --> 00:03:34,080

vinogradov having a fairly smooth ride

46

00:03:37,990 --> 00:03:36,400

up into space today they now begin

47

00:03:40,070 --> 00:03:38,000

a fast track with the international

48

00:03:41,750 --> 00:03:40,080

space station now chasing down the