

1
00:00:15,270 --> 00:00:02,869
we're just a few seconds away from the

2
00:00:15,280 --> 00:00:32,310
t-minus 20 seconds

3
00:00:38,790 --> 00:00:35,110
the launch command has been issued

4
00:00:42,389 --> 00:00:40,790
and

5
00:00:45,750 --> 00:00:42,399
liftoff of the

6
00:00:59,349 --> 00:00:45,760
iss progress 46 the 46th reef supply

7
00:01:03,750 --> 00:01:01,270
20 seconds into the flight

8
00:01:26,789 --> 00:01:03,760
roll and pitch program initiated nominal

9
00:01:30,069 --> 00:01:28,390
the vehicle is stable according to the

10
00:01:32,069 --> 00:01:30,079
reports being received from the russian

11
00:01:35,270 --> 00:01:32,079
mission control center via the baikonur

12
00:01:39,350 --> 00:01:37,270
chamber pressure is nominal

13
00:01:42,789 --> 00:01:39,360

going through maximum dynamic pressure

14

00:01:48,069 --> 00:01:46,069

roll pitch and yaw on the vehicle is all

15

00:01:50,149 --> 00:01:48,079

by the book

16

00:01:59,350 --> 00:01:50,159

70 seconds into the flight the flight is

17

00:02:07,270 --> 00:02:01,590

coming up on the one minute 30 second

18

00:02:10,630 --> 00:02:09,669

all parameters reported to be

19

00:02:12,949 --> 00:02:10,640

nominal

20

00:02:29,589 --> 00:02:12,959

the vehicle traveling almost 1400 miles

21

00:02:32,309 --> 00:02:31,270

coming up on the two minute mark into

22

00:02:34,309 --> 00:02:32,319

the flight

23

00:02:36,309 --> 00:02:34,319

the four strap-on boosters will be

24

00:02:38,470 --> 00:02:36,319

jettisoned

25

00:02:46,390 --> 00:02:38,480

and will be standing by for first stage

26

00:02:58,390 --> 00:02:48,229

first stage separation is confirmed

27

00:03:03,350 --> 00:03:00,390

soyuz booster is traveling at about 3

28

00:03:07,190 --> 00:03:03,360

500 miles an hour right now some 30

29

00:03:22,149 --> 00:03:09,110

a few seconds from now the escape tower

30

00:03:25,750 --> 00:03:23,910

coming up on the three-minute mark into

31

00:03:27,589 --> 00:03:25,760

the flight

32

00:03:30,470 --> 00:03:27,599

the launch route has been jettisoned

33

00:03:34,869 --> 00:03:30,480

exposing the progress 46 vehicle to the

34

00:03:41,830 --> 00:03:36,789

all control systems are reported to be

35

00:03:46,390 --> 00:03:44,390

soyuz now traveling 5 000 miles an hour

36

00:04:13,190 --> 00:03:46,400

downrange all systems reported to be

37

00:04:18,069 --> 00:04:15,509

the second stage engines are reported to

38

00:04:21,749 --> 00:04:18,079

be functioning normally everything is

39

00:04:26,710 --> 00:04:24,469

220 seconds into the flight as it is

40

00:04:28,629 --> 00:04:26,720

calculated by the launch engineers down

41

00:04:34,469 --> 00:04:28,639

in baikonur all systems are functioning

42

00:04:38,950 --> 00:04:36,230

the vehicle is stable

43

00:04:41,909 --> 00:04:38,960

running on the

44

00:04:43,990 --> 00:04:41,919

second stage engines everything is going

45

00:04:51,909 --> 00:04:44,000

extremely well as the progress heads

46

00:04:56,469 --> 00:04:54,390

roll pitch and yaw parameters are normal

47

00:04:57,749 --> 00:04:56,479

second stage engines are functioning

48

00:04:59,430 --> 00:04:57,759

normally

49

00:05:02,070 --> 00:04:59,440

you're looking at the progress

50

00:05:05,270 --> 00:05:02,080

disappearing from view downrange through

51
00:05:07,590 --> 00:05:05,280
long range tracking cameras 260 seconds

52
00:05:36,790 --> 00:05:07,600
into the flight the flight is reported

53
00:05:43,749 --> 00:05:38,870
we've confirmed second stage separation

54
00:05:51,270 --> 00:05:46,390
the soyuz now at an altitude of 105

55
00:05:55,270 --> 00:05:53,510
traveling almost 10 000 miles an hour

56
00:05:57,590 --> 00:05:55,280
downrange

57
00:06:01,029 --> 00:05:57,600
vehicle stabilization is reported to be

58
00:06:01,039 --> 00:06:08,629
almost six minutes into the flight

59
00:06:14,150 --> 00:06:10,790
the single engine of the soyuz boosters

60
00:06:23,590 --> 00:06:14,160
third stage providing uh this

61
00:06:27,029 --> 00:06:25,510
control system parameters reported to be

62
00:06:28,469 --> 00:06:27,039
nominal you're looking at the

63
00:06:29,909 --> 00:06:28,479

international space station flight

64

00:06:33,189 --> 00:06:29,919

control room at the russian mission

65

00:06:35,510 --> 00:06:33,199

control center in karayof outside moscow

66

00:06:37,830 --> 00:06:35,520

monitoring the performance

67

00:06:38,629 --> 00:06:37,840

being reported by the launch engineering

68

00:06:40,469 --> 00:06:38,639

team

69

00:06:44,550 --> 00:06:40,479

down at the baikonur cosmodrome in

70

00:06:51,350 --> 00:06:48,150

launch time was 506 and 40 seconds p.m

71

00:06:58,150 --> 00:06:51,360

central time 506 a.m baikonur time on

72

00:07:04,629 --> 00:07:00,469

everything uh continuing uh

73

00:07:08,550 --> 00:07:06,710

third stage engine is performing

74

00:07:22,469 --> 00:07:08,560

normally almost eight minutes into the

75

00:07:27,029 --> 00:07:24,390

the flight is nominal we're in the home

76

00:07:50,869 --> 00:07:27,039

stretch of the progress 46 ascent to

77

00:07:56,950 --> 00:07:53,110

about 35 seconds of powered flight

78

00:08:22,550 --> 00:07:59,350

the third stage engine continues to burn

79

00:08:22,560 --> 00:08:28,629

foreign

80

00:08:31,990 --> 00:08:30,390

coming up on the nine minute mark into

81

00:08:42,790 --> 00:08:32,000

the flight everything continues to

82

00:08:42,800 --> 00:08:56,870

foreign

83

00:09:00,310 --> 00:08:58,389

the vehicle is still reported to be

84

00:09:02,470 --> 00:09:00,320

stable

85

00:09:04,870 --> 00:09:02,480

500 seconds into the flight everything

86

00:09:25,269 --> 00:09:04,880

is nominal with the vehicle we're

87

00:09:29,670 --> 00:09:27,990

the control systems uh are nominal third

88

00:09:40,630 --> 00:09:29,680

stage engine continues to function

89

00:09:47,590 --> 00:09:43,590

and we have third stage shutdown

90

00:10:02,069 --> 00:09:49,030

standing by for solar array and

91

00:10:06,870 --> 00:10:03,990

and we have confirmation now of solar

92

00:10:08,790 --> 00:10:06,880

array deploy navigational antenna deploy

93

00:10:12,949 --> 00:10:08,800

the international space station's

94

00:10:14,949 --> 00:10:12,959

progress 46 cargo craft now in orbit

95

00:10:17,110 --> 00:10:14,959

in its preliminary orbit on route to the

96

00:10:18,630 --> 00:10:17,120

international space station after a

97

00:10:19,910 --> 00:10:18,640

flawless launch from the baikonur