



الجمهورية العراقية
وزارة التعليم والبحث العلمي

الجامعة العراقية

الكلية الهندسية

الهندسة المدنية

الهندسة المعمارية

الهندسة الكهربائية

الهندسة الميكانيكية

الهندسة الكيميائية

الهندسة البيئية

الهندسة الحاسوبية

الهندسة النووية

الهندسة الفضائية

الهندسة البحرية

الهندسة الجوية

الهندسة الفضائية

1
00:00:18,070 --> 00:00:06,309
the first umbilical now being retracted

2
00:00:23,189 --> 00:00:20,230
the launch command has been issued

3
00:00:29,509 --> 00:00:23,199
standing by for main engine start

4
00:00:33,280 --> 00:00:33,270
we have main engine ignition

5
00:00:38,630 --> 00:00:34,069
three

6
00:00:41,990 --> 00:00:38,640
two one turbo pumps up to flight speed

7
00:00:45,190 --> 00:00:42,000
maximum thrust and liftoff

8
00:00:47,110 --> 00:00:45,200
liftoff of the 60th progress resupply

9
00:00:55,510 --> 00:00:47,120
vehicle enroute to the international

10
00:00:59,910 --> 00:00:57,670
all structural parameters reported to be

11
00:01:06,870 --> 00:00:59,920
normal good role pitching yaw program

12
00:01:18,870 --> 00:01:08,469
progress 60

13
00:01:22,870 --> 00:01:20,870

structural stability is reported to be

14

00:01:24,469 --> 00:01:22,880

normal from the block house at baikonur

15

00:01:31,990 --> 00:01:24,479

coming up on the one minute mark into

16

00:01:49,109 --> 00:01:33,990

combustion and chamber pressures are

17

00:01:56,469 --> 00:01:50,789

one minute 20 seconds into the flight

18

00:02:18,869 --> 00:01:58,310

the soyuz passing through the area of

19

00:02:26,150 --> 00:02:21,030

one minute 50 seconds into the flight

20

00:02:44,630 --> 00:02:28,470

standing by for

21

00:02:47,990 --> 00:02:46,150

first stage separation has been

22

00:02:51,110 --> 00:02:48,000

confirmed

23

00:02:54,150 --> 00:02:51,120

the progress 60 atop the soyuz booster

24

00:02:57,110 --> 00:02:54,160

30 miles in altitude 73 miles downrange

25

00:02:59,110 --> 00:02:57,120

from the baikonur cosmodrome

26

00:03:00,869 --> 00:02:59,120

two and a half minutes into the flight

27

00:03:10,390 --> 00:03:00,879

structural stability is reported to be

28

00:03:13,910 --> 00:03:11,750

second stage

29

00:03:15,750 --> 00:03:13,920

engines are up and running in good shape

30

00:03:17,110 --> 00:03:15,760

according to the block house at baikonur

31

00:03:18,790 --> 00:03:17,120

everything looking good so far

32

00:03:23,110 --> 00:03:18,800

approaching the three-minute mark into

33

00:03:43,509 --> 00:03:25,509

the launch shroud has been jettisoned

34

00:03:48,149 --> 00:03:45,750

stability is steady

35

00:03:59,270 --> 00:03:48,159

reports coming from the block house at

36

00:04:01,910 --> 00:04:00,710

there's that view from the balcony

37

00:04:03,990 --> 00:04:01,920

camera

38

00:04:06,070 --> 00:04:04,000

at the russian mission control center in

39

00:04:07,750 --> 00:04:06,080

koreaf

40

00:04:09,589 --> 00:04:07,760

they will take over control of the

41

00:04:11,509 --> 00:04:09,599

flight of the progress at third stage

42

00:04:30,469 --> 00:04:11,519

separation after the progress is

43

00:04:39,270 --> 00:04:32,629

four minutes into the flight vehicle

44

00:04:43,990 --> 00:04:41,430

second stage thrusters continue to fire

45

00:04:45,749 --> 00:04:44,000

normally we're about 40 seconds away

46

00:04:49,110 --> 00:04:45,759

from second stage shutdown and

47

00:05:12,790 --> 00:04:51,430

roll pitch and yaw all the parameters

48

00:05:17,110 --> 00:05:15,110

nearing the end the end of the second

49

00:05:32,550 --> 00:05:17,120

stage performance everything is reported

50

00:05:39,830 --> 00:05:35,029

second stage separation is confirmed

51
00:05:43,670 --> 00:05:41,830
the lower skirt has been jettisoned from

52
00:05:45,990 --> 00:05:43,680
the third stage

53
00:05:53,189 --> 00:05:46,000
third stage engine up and running five

54
00:05:59,110 --> 00:05:56,270
the soyuz booster 104 miles in altitude

55
00:06:03,590 --> 00:05:59,120
179 miles downrange from the baikonur

56
00:06:19,430 --> 00:06:05,749
third stage engine performance reported

57
00:06:23,909 --> 00:06:21,590
control systems are all normal third

58
00:06:25,990 --> 00:06:23,919
stage performance is nominal everything

59
00:06:31,590 --> 00:06:26,000
looking good so far coming up on the six

60
00:06:36,309 --> 00:06:34,230
mark six minutes into the flight the

61
00:06:38,150 --> 00:06:36,319
progress 60 continues to track right

62
00:06:40,629 --> 00:06:38,160
down the money right down the center

63
00:06:49,589 --> 00:06:42,870

your roll and pitch parameters are

64

00:07:11,670 --> 00:06:51,270

about two and a half minutes of powered

65

00:07:15,110 --> 00:07:13,909

third stage engine continues to run

66

00:07:29,990 --> 00:07:15,120

normally

67

00:07:33,909 --> 00:07:31,670

seven minutes into the flight everything

68

00:07:35,189 --> 00:07:33,919

continues to go very well the launch was

69

00:07:39,670 --> 00:07:35,199

right on time

70

00:07:44,230 --> 00:07:39,680

at 11 55 and 48 seconds p.m central time

71

00:07:51,830 --> 00:07:44,240

10 55 and 48 seconds a.m baikonur time

72

00:07:56,469 --> 00:07:54,390

third stage engine continues to operate

73

00:07:58,390 --> 00:07:56,479

normally structural parameters are

74

00:08:15,110 --> 00:07:58,400

excellent according to the reports from

75

00:08:20,469 --> 00:08:18,230

seven minutes 45 seconds into the flight

76
00:08:33,750 --> 00:08:20,479
about one more minute of powered flight

77
00:08:43,110 --> 00:08:36,630
everything continues to perform normally

78
00:08:51,990 --> 00:08:45,269
all control system parameters are normal

79
00:09:13,910 --> 00:08:53,829
about 30 seconds of powered flight

80
00:09:18,870 --> 00:09:16,470
third stage engine performance continues

81
00:09:21,190 --> 00:09:18,880
to function as advertised

82
00:09:32,310 --> 00:09:21,200
as we stand by for third stage shutdown

83
00:09:36,150 --> 00:09:34,389
we have third stage shutdown and

84
00:09:50,550 --> 00:09:36,160
separation spacecraft separation

85
00:10:01,990 --> 00:09:52,710
navigational antennas have been deployed

86
00:10:06,790 --> 00:10:04,069
and we have confirmation of the

87
00:10:09,829 --> 00:10:06,800
deployment of the progress 60s solar

88
00:10:12,230 --> 00:10:09,839

rays and navigational antennas the

89

00:10:14,310 --> 00:10:12,240

progress 60 now in great shape and its

90

00:10:16,069 --> 00:10:14,320

preliminary orbit

91

00:10:17,750 --> 00:10:16,079

beginning its two-day trip to the

92

00:10:32,790 --> 00:10:17,760

international space station everything

93

00:10:37,110 --> 00:10:35,350

all telemetry from the progress 60 is

94

00:10:38,630 --> 00:10:37,120

being received at the russian mission