



1
00:00:03,189 --> 00:00:01,829
25

2
00:00:06,869 --> 00:00:03,199
status check

3
00:00:09,030 --> 00:00:06,879
go atlas go centaur go cyrus rex

4
00:00:10,950 --> 00:00:09,040
everyone is go

5
00:00:12,629 --> 00:00:10,960
standing by for launch after liftoff

6
00:00:14,789 --> 00:00:12,639
you'll hear the voice of united launch

7
00:00:17,750 --> 00:00:14,799
alliance's marty malinowski providing

8
00:00:20,950 --> 00:00:17,760
launch vehicle ascent data ten seconds

9
00:00:21,990 --> 00:00:20,960
nine eight seven six

10
00:00:22,870 --> 00:00:22,000
five

11
00:00:23,990 --> 00:00:22,880
four

12
00:00:25,029 --> 00:00:24,000
three

13
00:00:28,150 --> 00:00:25,039

two

14

00:00:33,350 --> 00:00:31,429

and lift off of osiris-rex

15

00:00:34,950 --> 00:00:33,360

it's seven-year mission

16

00:00:50,950 --> 00:00:34,960

to boldly go

17

00:00:55,350 --> 00:00:53,270

during the voice of marty malinowski

18

00:01:10,830 --> 00:00:55,360

the atlas has begun a pitch and yaw

19

00:01:10,840 --> 00:01:25,030

good 45

20

00:01:31,510 --> 00:01:27,270

and the atlas seconds carrying

21

00:01:33,990 --> 00:01:31,520

osiris-rex has gone supersonic

22

00:01:36,310 --> 00:01:34,000

standing by to pack pass through max q

23

00:01:38,230 --> 00:01:36,320

maximum aerodynamic pressure

24

00:01:39,749 --> 00:01:38,240

max cube if the hydra to continue to

25

00:01:41,510 --> 00:01:39,759

look good this is the point when the

26
00:01:43,830 --> 00:01:41,520
mechanical stress on the rocket reaches

27
00:01:45,590 --> 00:01:43,840
its end because of the rocket's velocity

28
00:01:58,469 --> 00:01:45,600
and resistance created by the earth's

29
00:01:58,479 --> 00:02:01,590
signatures look good

30
00:02:07,190 --> 00:02:04,630
current altitude is 14 miles downrange

31
00:02:10,550 --> 00:02:07,200
distance it's 9 miles current velocity

32
00:02:12,390 --> 00:02:10,560
488 miles per hour range track shows the

33
00:02:16,150 --> 00:02:12,400
vehicle progressing down the middle of

34
00:02:19,510 --> 00:02:17,910
in about 30 seconds

35
00:02:29,430 --> 00:02:19,520
a single solid rocket booster will be

36
00:02:38,229 --> 00:02:31,589
and booster has throttled back down it's

37
00:02:46,710 --> 00:02:41,750
next major event will be srb jettison

38
00:02:50,070 --> 00:02:48,550

and you see the solid rocket booster

39

00:02:52,790 --> 00:02:50,080

jettison

40

00:02:56,470 --> 00:02:52,800

separation looks good

41

00:02:57,670 --> 00:02:56,480

vehicle has enabled closed loop ql for

42

00:03:00,070 --> 00:02:57,680

steering

43

00:03:02,630 --> 00:03:00,080

rd-180 engine continues

44

00:03:04,869 --> 00:03:02,640

powering the atlas centaur at osiris-rex

45

00:03:07,030 --> 00:03:04,879

into space

46

00:03:09,990 --> 00:03:07,040

next major milestone will be booster

47

00:03:13,990 --> 00:03:12,229

four minutes and two seconds into flight

48

00:03:15,670 --> 00:03:14,000

has been fired that system is now

49

00:03:19,030 --> 00:03:15,680

pressurizing the flight level signatures

50

00:03:24,190 --> 00:03:20,949

current altitude 40 miles downrange

51
00:03:26,869 --> 00:03:24,200
distance 75 miles current velocity

52
00:03:36,949 --> 00:03:26,879
5988 miles per hour

53
00:03:43,910 --> 00:03:40,390
about uh one minute away from

54
00:03:45,270 --> 00:03:43,920
atlas booster engine cutoffs

55
00:03:46,710 --> 00:03:45,280
pump speeds and check the pressures

56
00:03:48,869 --> 00:03:46,720
within band

57
00:03:51,270 --> 00:03:48,879
vehicle body rates look good

58
00:03:55,750 --> 00:03:51,280
vehicles now one quarter of its lift off

59
00:04:02,630 --> 00:03:57,509
coming up on our

60
00:04:11,830 --> 00:04:04,309
and we have the gun throttling to

61
00:04:11,840 --> 00:04:19,830
new space cooldown is underway

62
00:04:23,670 --> 00:04:22,069
and begun to throttle to 4.6 gs in

63
00:04:30,230 --> 00:04:23,680

preparation for pico whose space

64

00:04:34,310 --> 00:04:32,230

and we have beco engine shutdown looks

65

00:04:36,870 --> 00:04:34,320

good

66

00:04:40,830 --> 00:04:36,880

booster engine cutoff confirmed

67

00:04:48,469 --> 00:04:43,590

after spacecraft separation for the

68

00:04:53,510 --> 00:04:51,189

we have ignition and full thrust on the

69

00:04:56,870 --> 00:04:53,520

rl10

70

00:04:59,030 --> 00:04:56,880

we're up on payload for jettison

71

00:05:02,310 --> 00:04:59,040

everything continuing normally the

72

00:05:03,350 --> 00:05:02,320

centaur engine producing 22 900 pounds

73

00:05:04,950 --> 00:05:03,360

of thrust

74

00:05:08,629 --> 00:05:04,960

and it will burn for just over eight

75

00:05:08,639 --> 00:05:14,870

our body rates look very good

76

00:05:14,880 --> 00:05:22,830

steering has been

77

00:05:27,909 --> 00:05:25,110

enabled and the payload fairing which

78

00:05:31,830 --> 00:05:27,919

was covering osiris-rex was jettisoned

79

00:05:34,150 --> 00:05:31,840

everything continuing on the timeline

80

00:05:37,029 --> 00:05:34,160

current altitude for centaur is 101

81

00:05:40,230 --> 00:05:37,039

miles range downrange distance is 471

82

00:05:42,550 --> 00:05:40,240

miles current velocity 12 589 miles per

83

00:05:47,510 --> 00:05:45,189

we do have a report from