



1
00:00:00,480 --> 00:00:01,710
Mike Curie, NASA Launch Commentator: Ten seconds

2
00:00:01,710 --> 00:00:02,710
nine

3
00:00:02,710 --> 00:00:03,290
eight

4
00:00:03,290 --> 00:00:03,850
seven

5
00:00:04,020 --> 00:00:04,680
six

6
00:00:04,980 --> 00:00:05,480
five

7
00:00:05,940 --> 00:00:06,440
four..

8
00:00:07,000 --> 00:00:07,500
three

9
00:00:07,880 --> 00:00:08,400
two

10
00:00:08,880 --> 00:00:09,540
one

11
00:00:12,060 --> 00:00:14,860
And liftoff of OSIRIS-REx

12
00:00:14,869 --> 00:00:21,929
Its seven-year mission to boldly go to the
asteroid Bennu and back.

13

00:00:23,800 --> 00:00:24,800

Marty Malinowski, ULA Atlas V Flight Commentator

14

00:00:24,800 --> 00:00:25,800

(inaudible) look good.

15

00:00:27,240 --> 00:00:29,760

Pump speeds and (inaudible) pressure

16

00:00:31,440 --> 00:00:32,840

Chamber pressures have plateaued.

17

00:00:32,840 --> 00:00:34,080

and have begun to ramp off.

18

00:00:34,780 --> 00:00:37,399

Mike Curie, NASA Launch Commentator: We're hearing the voice of Marty Malinowski.

19

00:00:37,399 --> 00:00:43,770

The Atlas has begun a pitch and yaw maneuver to steer to its planned 38.5 degrees inclination

20

00:00:43,770 --> 00:00:44,930

for the equator.

21

00:00:44,930 --> 00:00:49,430

Marty Malinowski: SRB pressure is almost plateaued at this point

22

00:00:49,860 --> 00:00:51,920

(inaudible) pressures look good.

23

00:00:55,720 --> 00:00:57,660

Mike Curie, NASA Launch Commentator: 45 seconds into flight

24

00:01:00,200 --> 00:01:02,260

Marty Malinowski: Hold program is complete

25

00:01:05,460 --> 00:01:06,760

Boosters have throttled down

26

00:01:09,120 --> 00:01:13,860

Mike: The Atlas rocket carrying OSIRIS-REx has gone supersonic.

27

00:01:15,020 --> 00:01:17,580

We're standing by to pass to Max-Q

28

00:01:17,640 --> 00:01:19,600

Maximum aerodynamic pressure

29

00:01:20,280 --> 00:01:21,280

Marty: Max-Q

30

00:01:21,420 --> 00:01:22,580

Vehicle hydraulics continue to look good.

31

00:01:22,720 --> 00:01:25,990

Mike: This is the point when the mechanical stress on the rocket reaches its peak because

32

00:01:25,990 --> 00:01:26,990

of the rocket's

33

00:01:26,990 --> 00:01:30,310

velocity and resistance created by the Earth's atmosphere.

34

00:01:42,140 --> 00:01:43,380

Marty: Signatures look good.

35

00:01:45,700 --> 00:01:48,320

Burn altitude is 14 miles.

36

00:01:48,320 --> 00:01:49,930

Downrange distance is nine miles.

37

00:01:49,930 --> 00:01:52,950

Current velocity 2,488 miles per hour.

38

00:01:52,950 --> 00:01:57,130

Range track shows vehicle traversing down the middle of the range.

39

00:02:00,220 --> 00:02:06,100

Mike: In about 30 seconds, the single solid rocket booster will be jettisoned at 2 minutes, 19 seconds

40

00:02:13,540 --> 00:02:15,460

Marty: And the booster has throttled backed down.

41

00:02:15,460 --> 00:02:17,660

It's now 50 percent of its liftoff weight.

42

00:02:22,340 --> 00:02:24,880

Next major event will be SRB jettison.

43

00:02:25,660 --> 00:02:27,260

Coming up momentarily.