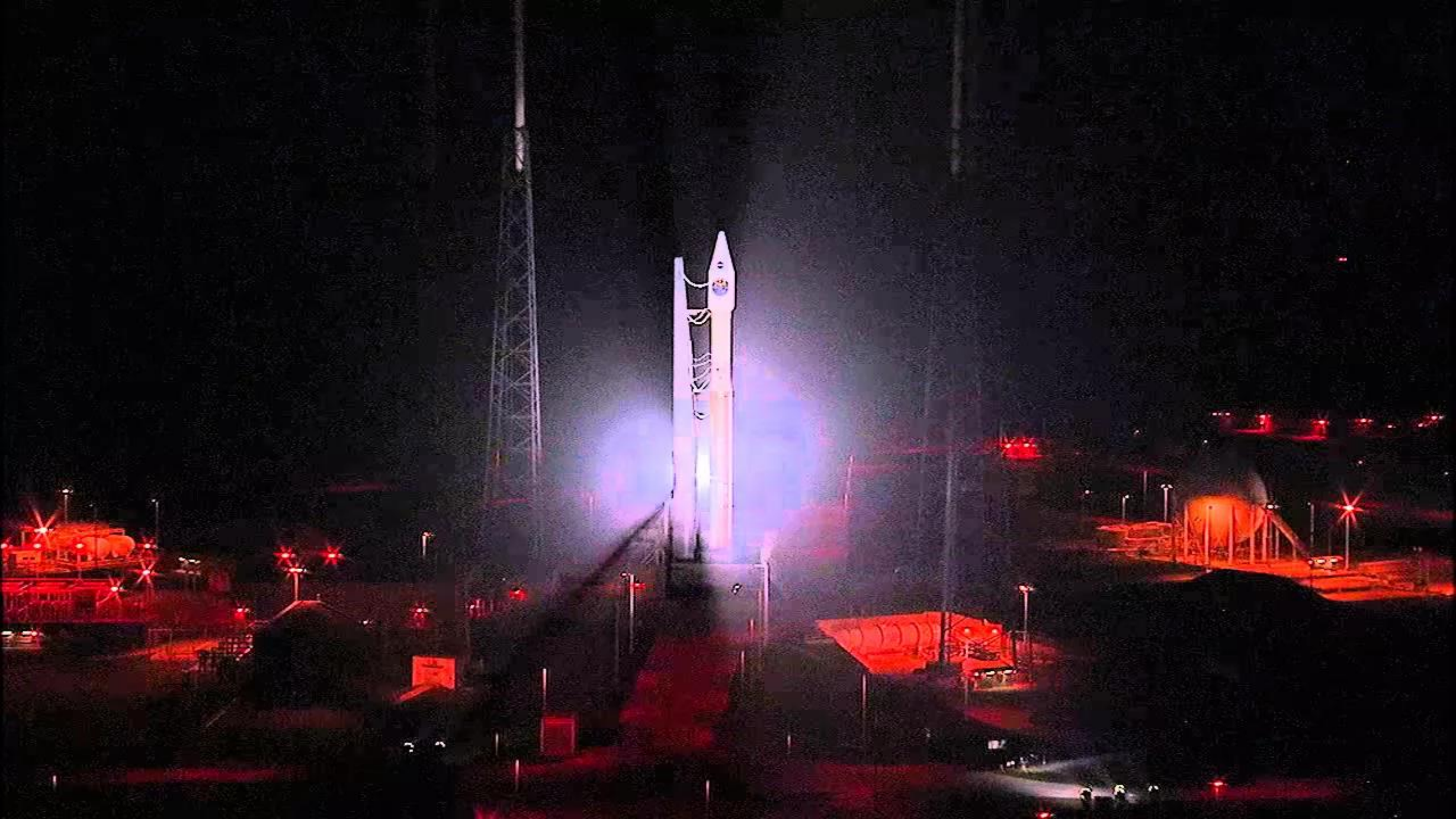

1
00:00:01,500 --> 00:00:05,390
Voice: George Diller, Launch Commentator:
This is Atlas Launch Control at T-2 hours

2
00:00:05,390 --> 00:00:06,870
and holding.

3
00:00:06,870 --> 00:00:12,160
We're now considering the built-in hold time
that we have remaining in our countdown tonight.

4
00:00:12,160 --> 00:00:17,450
We're approximately two hours and 45 minutes
away from the liftoff of NASA's Magnetospheric

5
00:00:17,450 --> 00:00:23,960
Multiscale Mission, known for short as just
MMS. Launches atop a United Launch Alliance

6
00:00:23,960 --> 00:00:25,000
Atlas V rocket

7
00:00:25,000 --> 00:00:28,430
from Launch Complex 41 at Cape Canaveral.

8
00:00:28,430 --> 00:00:35,430
The launch window today extends from 10:44
to 11:14 p.m. A duration of exactly 30 minutes.

9
00:00:37,260 --> 00:00:44,260
This will be the 53rd Atlas V launch. Of those,
MMS will be the 12th NASA mission to be launched

10
00:00:44,980 --> 00:00:45,250
on an

11
00:00:45,250 --> 00:00:47,370
Atlas V rocket.

12
00:00:47,370 --> 00:00:54,010
MMS will advance the story of space weather
or physics, and the phenomenon known as magnetic

13
00:00:54,010 --> 00:01:00,050
reconnection. MMS will be the first mission
to observe magnetic reconnection with instruments

14
00:01:00,050 --> 00:01:00,850
100

15
00:01:00,850 --> 00:01:05,650
times more sensitive than any instrument flown
previously.

16
00:01:05,650 --> 00:01:11,920
Four identical observatories will fly in pyramid
formation. Each of the four spacecraft are

17
00:01:11,920 --> 00:01:12,500
octagonally-

18
00:01:12,500 --> 00:01:18,340
shaped, is four feet tall and eleven feet
across once their instrument rooms are deployed.

19
00:01:18,340 --> 00:01:18,659
They will be

20
00:01:18,659 --> 00:01:24,840
placed in a highly-elliptical orbit which
ranges between 44,000 and 95,000 miles from

21
00:01:24,840 --> 00:01:25,759
Earth, nearly

22
00:01:25,759 --> 00:01:31,920
halfway to the moon. But yet the four observatories
will fly as close as 6 miles apart from each

23
00:01:31,920 --> 00:01:33,439
other.

24
00:01:33,439 --> 00:01:38,130
The mission will advance our knowledge of
space and solar physics, but yet has some

25
00:01:38,130 --> 00:01:38,549
practical

26
00:01:38,549 --> 00:01:44,420
applications such as an understanding of the
effect of what causes solar storms, and predicting

27
00:01:51,509 --> 00:01:44,509
the

28
00:01:51,810 --> 00:01:58,810
At this time we're not working any problems
in our launch countdown. And we'll remain

29
00:01:59,990 --> 00:02:00,899
on schedule for

30
00:02:00,899 --> 00:02:07,899
liftoff at 10:44 tonight.

31
00:02:08,479 --> 00:02:14,200
We're standing by now for our readiness poll
from our NASA Launch Manager Omar Baez coming

32
00:02:14,200 --> 00:02:14,590
up in

33
00:02:14,590 --> 00:02:21,590
just about a minute or so. And at that point
we will be preparing ourselves to pick up

34
00:02:28,250 --> 00:02:34,530
the countdown.

35
00:02:34,530 --> 00:02:41,530
Countdown will resume at 8:14 p.m. Eastern time this evening. Just prior to that, we'll

36
00:02:41,590 --> 00:02:42,650
have a readiness

37
00:02:42,650 --> 00:02:49,650
report before cryogenic tanking from our United Launch Alliance Atlas V launch team.

38
00:02:51,099 --> 00:03:01,779
And our Launch Conductor Doug Lego will brief the test team for the launch time on the proper

39
00:03:02,129 --> 00:03:08,989
procedure for continuing through the countdown tonight as far as all of the countdown protocol

40
00:03:08,989 --> 00:03:15,569
required in communications with the launch conductor.