1
00:00:00,450 --> 00:00:03,140
Mike Curie, NASA Launch Commentator: Live
from the Atlas Space Flight Operations Center

2
00:00:03,140 --> 00:00:04,140
at Cape

3
00:00:04,140 --> 00:00:09,599
Canaveral Air Force Station in Florida, you're
watching coverage of the launch of OSIRIS-REx,

4
00:00:09,599 --> 00:00:10,599
the Origins,

5
00:00:10,599 --> 00:00:18,020
Spectral Interpretation, Resource Identification,
Security-Regolith Explorer spacecraft.

6
00:00:18,020 --> 00:00:20,550
This is Atlas Launch Control.

7
00:00:20,550 --> 00:00:25,440
And we're just under T minus one hour, 20
minutes and counting.

8
00:00:25,440 --> 00:00:29,190
Liftoff is targeted for 7:05 p.m. Eastern
time.

9
00:00:29,190 --> 00:00:33,520
The opening of a one-hour, 55-minute launch
window.

10
00:00:33,520 --> 00:00:35,750
There are multiple launch opportunities.

11
00:00:35,750 --> 00:00:37,760
One at the beginning of the window, and then
others that are

12
00:00:37,760 --> 00:00:43,490
spaced five minutes apart throughout the launch window should they be needed.

13
00:00:43,490 --> 00:00:44,490
But everything,

14
00:00:44,490 --> 00:00:46,300
technically, is going well.

15
00:00:46,300 --> 00:00:49,440
Weather is now 90 percent go.

16
00:00:49,440 --> 00:00:52,920
There's a 90 percent chance of favorable weather for a launch, with just

17
00:00:52,920 --> 00:00:56,780
a slight chance of violating the cumulus cloud rule.

18
00:00:56,780 --> 00:01:03,829
OSIRIS-REx is going to be boosted atop this United Launch Alliance Atlas V rocket, in

19
00:01:03,829 --> 00:01:04,829
the 411

20
00:01:04,829 --> 00:01:05,829
configuration.

21
00:01:05,829 --> 00:01:10,490
And, that is a unique configuration in that the Atlas booster and the Centaur upper stage

22
00:01:10,490 --> 00:01:15,920
are joined by one strap-on solid rocket booster to provide the additional thrust needed to

23
00:01:15,920 --> 00:01:17,390
boost the

24
00:01:17,390 --> 00:01:22,560
rocket and place the spacecraft in the proper
vicinity in space.

25
00:01:22,560 --> 00:01:26,810
The launch team here at the Atlas Space Flight
Operations Center has been on console since

26
00:01:26,810 --> 00:01:27,810
about 3

27
00:01:27,810 --> 00:01:30,310
o'clock Eastern time.

28
00:01:30,310 --> 00:01:34,080
Operations began about 30 minutes ago to fill
the Atlas booster and the Centaur

29
00:01:34,080 --> 00:01:36,659
upper stage with liquid oxygen.

30
00:01:36,659 --> 00:01:40,819
The tanks are expected to reach flight-level
at about T minus five

31
00:01:40,819 --> 00:01:45,380
minutes, which is about a minute before entering
our planned 15-minute

32
00:01:45,380 --> 00:01:49,200
built-in hold at T minus four minutes.

33
00:01:49,200 --> 00:01:54,679
Liquid hydrogen will be loaded into the Centaur
tank at about T minus 16 minutes.

34
00:01:54,679 --> 00:02:00,950
The Atlas previously was fueled with RP-1,
a rocket grade kerosene.

35
00:02:00,950 --> 00:02:02,840
And all fueling operations have been

36
00:02:02,840 --> 00:02:05,899
proceeding normally.

37
00:02:05,899 --> 00:02:11,220
Today begins NASA's first mission to take
a sample from an asteroid and return it to

38
00:02:11,220 --> 00:02:12,640
the Earth.

39
00:02:12,640 --> 00:02:17,819
The mission will help scientists investigate
how planets formed, and how life began.

40
00:02:17,819 --> 00:02:18,819
As well as improve

41
00:02:18,819 --> 00:02:24,140
our understanding of asteroids that someday
could impact the Earth.

42
00:02:24,140 --> 00:02:30,239
The OSIRIS-REx spacecraft will travel to the
near-Earth asteroid Bennu and bring a sample

43
00:02:30,239 --> 00:02:31,239
back to Earth

44
00:02:31,239 --> 00:02:37,730
for intensive study as part of NASA's quest
to study our solar system and beyond.

45
00:02:37,730 --> 00:02:38,730
To better understand

46
00:02:38,730 --> 00:02:42,370
the universe and our place in it.

47
00:02:42,370 --> 00:02:48,130
And this launch vehicle you're looking at
right now provided by United Launch Alliance.

48
00:02:48,130 --> 00:02:55,140
All that work culminates today with a planned
liftoff of Atlas and OSIRIS-REx a little bit

49
00:02:55,140 --> 00:02:56,140
more than an