



**HD**  
High Definition

**Space Launch Complex 41**  
Cape Canaveral Air Force Station, Fla.



1

00:00:01,270 --> 00:00:03,840

Tracy Young/NASA Launch Commentator: From the Atlas Spaceflight Operations Center

2

00:00:03,840 --> 00:00:06,100

at Cape Canaveral Air Force Station,

3

00:00:06,100 --> 00:00:11,350

this is Atlas Launch Control at T-minus two hours and holding.

4

00:00:11,350 --> 00:00:16,950

The countdown for this morning's launch attempt of an Atlas V rocket is proceeding as planned.

5

00:00:16,950 --> 00:00:23,760

Weather is favorable with a 70 percent chance of acceptable conditions at launch time.

6

00:00:23,760 --> 00:00:31,190

The temperature expected at launch time is 78 degrees and visibility will be about 7 miles.

7

00:00:31,190 --> 00:00:41,920

Our launch window extends for 20 minutes with liftoff targeted for the opening of the window at 4:05 a.m. Eastern

8

00:00:41,920 --> 00:00:52,020

Launching aboard a United Launch Alliance Atlas V rocket are the Radiation Belt Storm Probes, or RBSP spacecraft

9

00:00:52,020 --> 00:00:57,910

The identical twin spacecraft equipped with the suite of five science instruments will travel

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00:00:57,910 --> 00:01:04,030

in and out of Earth's Van Allen Belts to enable scientist to further understand the sun's

11

00:01:04,030 --> 00:01:09,900

influence on Earth and how space weather can affect our daily lives.

12

00:01:09,900 --> 00:01:18,370

The mission is part of NASA'S ?Living With A Star Program? managed by Goddard Spaceflight Center in Greenbelt, Maryland

13

00:01:18,370 --> 00:01:27,450

The spacecraft were built by the Applied Physics Laboratory of John Hopkins University in Laurel Maryland.

14

00:01:27,450 --> 00:01:34,910

The launch vehicle that will carry RBSP onto space consists of a single Atlas V first stage

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00:01:34,910 --> 00:01:43,060

and Centaur upper stage and the two-piece payload fairing encasing the spacecraft onboard.

16

00:01:43,060 --> 00:01:51,730

The Atlas V first stage is fueled by RP-1, a refined kerosene mixed with supercold liquid oxygen.

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00:01:51,730 --> 00:01:59,130

The temperature of the liquid oxygen is about 297 degrees below F zero.

18

00:01:59,130 --> 00:02:07,580

The RP-1 was loaded shortly after rollout on Wednesday, Aug. 28, at Space Launch Complex-41.

19

00:02:07,580 --> 00:02:14,760

The Centaur upper stage uses liquid hydrogen oxygen mixed with liquid hydrogen for fuel.

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00:02:14,760 --> 00:02:20,620

In a few minutes the ULA Launch Conductor, Larry Crass, will perform a pre-task briefing to

21

00:02:20,620 --> 00:02:26,100

verify the readiness of the launch team to continue with the count.

22

00:02:26,100 --> 00:02:31,230

Following the briefing you will hear ULA Launch Director Lou Maguire conduct a poll to