



1
00:00:01,880 --> 00:00:07,310
Music

2
00:00:07,310 --> 00:00:13,710
The Radiation Belt Storm Probes mission will see NASA send a pair of identical spacecraft to soar through the

3
00:00:13,710 --> 00:00:19,950
bands of radiation that surround the Earth to find out more about their behavior.

4
00:00:19,950 --> 00:00:26,030
Before the probes could make that big leap into orbit, though, they had to make a less demanding but equally i

5
00:00:26,030 --> 00:00:28,040
jaunt to Florida.

6
00:00:28,040 --> 00:00:33,390
There they were assembled and connected to the rocket that will loft them into orbit.

7
00:00:33,390 --> 00:00:39,510
Built by the Applied Physics Laboratory in coordination with NASA's Goddard Space Flight Center in Maryland,

8
00:00:39,510 --> 00:00:46,210
the probes arrived in canisters inside a cargo aircraft at Kennedy Space Center in Florida in May.

9
00:00:46,210 --> 00:00:51,870
They were taken to Astrotech where they could be processed inside a clean room for launch.

10
00:00:51,870 --> 00:00:58,750
Technicians bolted solar panels and accompanying instrument booms to the bodies of both probes during their

11
00:00:58,750 --> 00:01:03,910
Those attachments were tested and the satellites were also spun on a special table to make sure they

12
00:01:03,910 --> 00:01:06,160
would be stable in space.

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00:01:06,160 --> 00:01:14,420

Satisfied with the testing, technicians next stacked the dual spacecraft and placed a payload fairing around the

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00:01:14,420 --> 00:01:21,420

During the early part of launch, the fairing protects the spacecraft from aerodynamic heating and other stresses

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00:01:21,420 --> 00:01:26,620

While the two spacecraft moved through processing, technicians with United Launch Alliance readied an

16

00:01:26,620 --> 00:01:32,700

Atlas V to deliver the two RBSP satellites into space.

17

00:01:32,700 --> 00:01:38,750

The Centaur upper stage arrived first, coming to Cape Canaveral in May aboard the Delta Mariner ship

18

00:01:38,750 --> 00:01:43,810

and being taken to a processing hangar for launch preparations.

19

00:01:43,810 --> 00:01:51,080

The Atlas V first stage with its RD-180 engines attached came next, arriving at Port Canaveral in June

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00:01:51,080 --> 00:01:54,330

and heading to a hangar for processing.

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00:01:54,330 --> 00:02:00,500

In July, workers hoisted the first stage onto the launch platform at Space Launch Complex 41 at

22

00:02:00,500 --> 00:02:03,530

Cape Canaveral Air Force Station.

23

00:02:03,530 --> 00:02:08,920

The Centaur, a rocket stage with a long history of successfully deploying probes to the farthest reaches

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00:02:08,920 --> 00:02:13,410

of the solar system, was lifted and attached next.

25

00:02:13,410 --> 00:02:16,630

The RBSP spacecraft came next.

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00:02:16,630 --> 00:02:23,390

Still tucked inside their payload fairing, a convoy rolled the probes through Kennedy and to the launch pad.

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00:02:23,390 --> 00:02:28,680

As the sun rose, workers lifted the fairing onto the top of the rocket.

28

00:02:28,680 --> 00:02:33,880

Technicians locked the fairing into place, setting the stage for launch.

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00:02:33,880 --> 00:02:40,260

The two RBSP spacecraft will remain inside the protective nosecone until they pass into the upper reaches of t

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00:02:40,260 --> 00:02:47,790

atmosphere. As they achieve orbit, the top RBSP spacecraft will separate from its twin.