



NASA
ULA
DELTA



GRAIL

In memory of
our colleague
and friend
Ed Ather
The ULA team

1

00:00:00,750 --> 00:00:04,410

George Diller/ NASA Commentator: This is Delta
Launch Control at T-minus 134

2

00:00:04,410 --> 00:00:08,900

minutes, 37 seconds and counting.

3

00:00:08,900 --> 00:00:13,950

The countdown picked up on schedule this morning
for the launch of the Delta II rocket

4

00:00:13,950 --> 00:00:16,470

with GRAIL.

5

00:00:16,470 --> 00:00:23,660

Right now in the countdown, the helium tanks
aboard the first stage are being pressurized

6

00:00:23,660 --> 00:00:28,840

in preparation for loading the RP-1 fuel onboard
the first stage which is scheduled to

7

00:00:28,840 --> 00:00:30,859

begin in about five minutes.

8

00:00:30,859 --> 00:00:39,710

The RP-1 is a highly refined kerosene fuel
and that will be followed by loading the liquid

9

00:00:39,710 --> 00:00:42,290

oxygen onboard.

10

00:00:42,290 --> 00:00:50,399

Right ahead of that we will have a weather
briefing for this morning.

11

00:00:50,399 --> 00:01:00,719

And at this time everything is proceeding
on schedule for liftoff at 8:29 a.m.

12
00:01:00,719 --> 00:01:09,130
To be precise we'll be just 45 seconds pass
the 8:29-mark at 8:29:45 for ignition of the

13
00:01:09,130 --> 00:01:11,380
main engine on the Delta rocket.

14
00:01:11,380 --> 00:01:20,630
The GRAIL spacecraft reports that they are
"go" for this morning's launch and right

15
00:01:20,630 --> 00:01:21,630
now

16
00:01:21,630 --> 00:01:34,610
in the countdown the spacecraft test team
is on station.

17
00:01:34,610 --> 00:01:40,009
We do have a second opportunity this morning
once again at 9:08,

18
00:01:40,009 --> 00:01:45,790
should that be necessary.

19
00:01:45,790 --> 00:01:52,130
At this time we are planning for 8:29 and
no indication at this point in time

20
00:01:52,130 --> 00:01:58,170
that we will be needing to target that second
opportunity at 9:08.

21
00:01:58,170 --> 00:02:05,369
Weather appears to be generally favorable.
And right now the balloons are being

22
00:02:05,369 --> 00:02:10,360

released to assess the upper level winds.

23
00:02:10,360 --> 00:02:14,379
And in about another hour we'll have our launch director Tim Dunn come over and give

24
00:02:14,379 --> 00:02:18,080
us a status.

25
00:02:18,080 --> 00:02:24,849
So now we will join the launch team and hear the preparations for loading RP-1 one fuel

26
00:02:24,849 --> 00:02:27,980
aboard the Delta first stage.