



TIME OF LAUNCH
14:22:00.1 A

L-TIME
01:06:08

T-TIME
01:06:08

UTC / GMT
03:15:28 09

TIME UNTIL RESTART
00:00:00

WINDOW REMAINING
00:00:00



Technical equipment rack containing multiple monitors and control panels. One monitor displays a video feed of a vehicle. A water bottle and a plate are on the desk in front of the equipment.

Computer monitor displaying a green circular radar or tracking interface with various data points and labels.

Computer monitor displaying a complex data dashboard with multiple columns of text, numbers, and small graphs.

Computer monitor displaying a data dashboard with several green bar charts and numerical readouts.

Computer monitor displaying a data dashboard with green bar charts and numerical readouts.

Computer monitor displaying a data dashboard with text and numerical information.

Computer monitor displaying a data dashboard with text and numerical information.

1

00:00:01,130 --> 00:00:02,920

George Diller/NASA Launch Commentator: This is Delta launch Control. We're now

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00:00:02,920 --> 00:00:09,790

one hour, three minutes, 58 seconds into flight of Delta II with the SMAP spacecraft.

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00:00:09,790 --> 00:00:16,109

And at this time, we are joined by Tim Dunn, who is our NASA launch manager in

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00:00:16,109 --> 00:00:20,300

today's countdown and the flight of the Delta II.

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00:00:20,300 --> 00:00:25,710

And Tim, first of all take us right from the top, what have we just seen as far as the

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00:00:25,710 --> 00:00:29,079

spacecraft and the vehicle . . . and what do we look like?

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00:00:29,079 --> 00:00:33,610

Tim Dunn/NASA Launch Manager: We look great, George. I guess most people saw

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00:00:33,610 --> 00:00:38,750

that wonderful spacecraft separation video that we had transmitted back to us from our

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00:00:38,750 --> 00:00:39,700

African ground station.

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00:00:39,700 --> 00:00:40,520

George Diller/NASA Launch Commentator: Clear as a bell, clear as a bell.

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00:00:40,520 --> 00:00:43,830

Tim Dunn/NASA Launch Manager: It was spectacular.
So you saw a clean spacecraft

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00:00:43,830 --> 00:00:49,570

separation from the Delta II second stage.
And then a few, about 30 seconds later or

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00:00:49,570 --> 00:00:49,569

so,

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00:00:49,570 --> 00:00:54,470

you saw the solar arrays begin to deploy.
So we've got good telemetry from the

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00:00:54,470 --> 00:00:59,390

spacecraft so we're in contact with SMAP.
Everything looks good right now. The initial

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00:00:59,390 --> 00:01:04,670

sequence of deployment of solar arrays is
underway. And we just couldn't be happier.

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00:01:04,670 --> 00:01:08,969

George Diller/NASA Launch Commentator: And
Delta II, from liftoff to the second

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00:01:08,969 --> 00:01:10,140

stage, how did that perform?

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00:01:10,140 --> 00:01:15,310

Tim Dunn/NASA Launch Manager: Delta II, it's
a workhorse. That's what we call it.

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00:01:15,310 --> 00:01:21,130

And it's performed yet again. Had a beautiful
performance during first-stage flight. We

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00:01:21,130 --> 00:01:26,380

had an initial burn of the second stage to

put us into our insertion orbit. And then

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00:01:26,380 --> 00:01:26,630

we

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00:01:26,630 --> 00:01:33,109

coasted for roughly 40 minutes or so prior to an adjustment burn of the second stage

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00:01:33,109 --> 00:01:35,389

and then proceeded into spacecraft separation.

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00:01:35,389 --> 00:01:39,630

George Diller/NASA Launch Commentator: Well, the countdown was certainly like

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00:01:39,630 --> 00:01:43,700

our first attempt. And I mean all the way down to the last couple of minutes.

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00:01:43,700 --> 00:01:48,439

Tim Dunn/NASA Launch Manager: It was very similar, very similar. I just can't say

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00:01:48,439 --> 00:01:55,219

enough about the team that we have. We had zero launch vehicle problems on Delta II.

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00:01:55,219 --> 00:02:02,099

We had zero spacecraft problems. The 30th Space Wing continues to provide rock-solid

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00:02:02,099 --> 00:02:09,099

support. Not a single range, piece of instrumentation went down. Absolutely spectacular

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00:02:09,640 --> 00:02:14,110

performance from all of the agencies contributing to the SMAP mission.

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00:02:14,110 --> 00:02:17,940
George Diller/NASA Launch Commentator: And
who all is involved in that last

33
00:02:17,940 --> 00:02:22,370
discussion about the upper-level winds and
know we actually had a 'go' condition?

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00:02:22,370 --> 00:02:26,640
Tim Dunn/NASA Launch Manager: So obviously
we were 'red' throughout the

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00:02:26,640 --> 00:02:30,720
countdown, like we were on our first attempt
for upper-level winds. We had four

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00:02:30,720 --> 00:02:36,970
balloons that were released. All were returning
'red' data. Indicating that we just could

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00:02:36,970 --> 00:02:43,070
not find the correct trajectory and flight
path to get through that maximum dynamic

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00:02:43,070 --> 00:02:45,120
pressure region of flight.

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00:02:45,120 --> 00:02:49,650
However, on that fourth balloon, we begin
to see a little bit of improvement, although

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00:02:55,740 --> 00:02:49,930
the

41
00:02:55,740 --> 00:02:55,969
that

42
00:02:55,970 --> 00:03:01,730
we could then get the appropriate curve-fits

in and find our way. So we had indications

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00:03:01,730 --> 00:03:08,260

10 minutes prior to launch. We went ahead and adjusted the T-0 almost two minutes to

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00:03:08,260 --> 00:03:11,810

the right to give us just a little more time to do that processing.

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00:03:11,810 --> 00:03:15,980

But that's a combined team of balloons being released here at Vandenberg Air Force

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00:03:15,980 --> 00:03:21,740

Base by the 30th Space Wing weather folks. And then that data is being collected here

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00:03:21,740 --> 00:03:28,740

locally, transmitted to the ULA Denver winds team in Denver, Colorado. They're

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00:03:29,060 --> 00:03:35,320

crunching the numbers and finding us a way forward. So roughly at about L-10 minutes,

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00:03:35,320 --> 00:03:41,150

L-8 minutes, we saw that we were going to get some green data. And you immediately

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00:03:41,150 --> 00:03:47,900

saw us be able to tell that to the launch team and begin processing toward our T-0.

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00:03:47,900 --> 00:03:51,520

George Diller/NASA Launch Commentator: So it was a very coordinated effort there

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00:03:51,520 --> 00:03:56,830

in the last 10 minutes or so to get us to

that last point where we knew we were ■go.■

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00:03:56,830 --> 00:04:01,230

Tim Dunn/NASA Launch Manager: It was coordinated and it was even practiced. We

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00:04:01,230 --> 00:04:07,430

actually went through the same methodical techniques with the ULA Denver winds team

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00:04:07,430 --> 00:04:14,430

and the LSP winds analyst, working side by side evaluating that data. We did that on

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00:04:16,910 --> 00:04:22,560

the first attempt, but that last push that we made on that ■remained ■red■ ■ today

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00:04:22,560 --> 00:04:22,840

was a

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00:04:22,840 --> 00:04:27,100

totally different story we were able to go green with that upper-level wind data and

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00:04:27,100 --> 00:04:27,279

it

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00:04:27,280 --> 00:04:29,950

resulted in us being able to have a successful launch.

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00:04:29,950 --> 00:04:33,760

George Diller/NASA Launch Commentator: Well Tim, it■s good that we■ve had

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00:04:33,760 --> 00:04:40,530

practically back-to-back successful Delta II launches. And we have a little gap here

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00:04:40,530 --> 00:04:40,689

now.

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00:04:40,690 --> 00:04:42,300

And then we got a couple of more I believe.

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00:04:42,300 --> 00:04:46,600

Tim Dunn/NASA Launch Manager: We do. On the heels the OCO-2 success last

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00:04:46,600 --> 00:04:51,520

summer here at Vandenberg, we now have SMAP, we have two remaining Delta II

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00:04:51,520 --> 00:04:57,470

NASA missions that are manifested. The first is a weather satellite called JPSS-1.

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00:04:57,470 --> 00:05:03,870

Currently we're targeting November of 2016 here from Vandenberg, at SLC-2. And then

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00:05:03,870 --> 00:05:10,870

about six months to eight months after JPSS we have a mission called ICESat-2 that

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00:05:10,900 --> 00:05:12,330

we're going to launch on Delta II.

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00:05:12,330 --> 00:05:15,900

George Diller/NASA Launch Commentator: Well Tim, thank you very much and

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00:05:15,900 --> 00:05:22,110

congratulations to you and the LSP team and we're looking forward to seeing you back

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00:05:22,110 --> 00:05:22,339

at the Cape.

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00:05:22,340 --> 00:05:24,240

Tim Dunn/NASA Launch Manager: Oh great George,
thank you so much.

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00:05:24,240 --> 00:05:28,690

George Diller/NASA Launch Commentator: Thank
you. And we're now at T-plus one