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00:00:01,430 --> 00:00:03,819

George Diller/NASA Launch Commentator: This is Atlas Launch Control one hour,

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00:00:03,819 --> 00:00:11,980

50 minutes, 47 seconds into the mission of the TDRS-L, and joining us now here on

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00:00:11,980 --> 00:00:17,790

console is Tim Dunn, who is our NASA Launch Director for this flight and the launch

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00:00:17,790 --> 00:00:23,490

manager during the countdown and Tim I wonder first of all, give us a snapshot of

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00:00:23,490 --> 00:00:25,510

how this looks like it's all turned out.

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00:00:25,510 --> 00:00:28,520

Tim Dunn/NASA Launch Director: Well thanks George, thanks for having me,

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00:00:28,520 --> 00:00:33,840

and obviously we've shown some shots in the Launch Control Room and we're all

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00:00:33,840 --> 00:00:37,800

thrilled successful spacecraft separation, and most importantly,

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00:00:37,800 --> 00:00:41,500

a successful acquisition by our ground telemetry.

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00:00:41,500 --> 00:00:47,120

So, we've confirmed that we've got a healthy spacecraft so far, so the launch team is

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00:00:47,120 --> 00:00:51,440

thrilled and as you can imagine, the TDRS-L spacecraft team is even more thrilled.

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00:00:51,440 --> 00:00:54,899  
George Diller/NASA Launch Commentator: Well, take us back to the beginning of the

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00:00:54,899 --> 00:00:58,530  
count and how did the countdown go and then how did the flight look.

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00:00:58,530 --> 00:01:01,020  
Tim Dunn/NASA Launch Director: Well, it was just gorgeous weather on the space

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00:01:01,020 --> 00:01:05,780  
coast today, so it would have been a shame not to have gotten a launch off today.

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00:01:05,780 --> 00:01:08,930  
So we were blessed with tremendous weather.

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00:01:08,930 --> 00:01:10,750  
We have a wonderful rocket.

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00:01:10,750 --> 00:01:15,700  
We did not work any hardware anomalies on the Atlas V launch vehicle.

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00:01:15,700 --> 00:01:22,450  
Our spacecraft, the TDRS-L spacecraft was rock solid had zero problems with that.

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00:01:22,450 --> 00:01:27,060  
We were working, as we came into the count today, one lingering concern that popped

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00:01:27,060 --> 00:01:32,020  
up on the range yesterday with one range instrumentation site, and that being a radar

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00:01:32,020 --> 00:01:37,640

that is needed to track the rocket as it flies out over the Atlantic.

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00:01:37,640 --> 00:01:44,540

So the range team worked overnight and all through today to get us ready to enter our

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00:01:44,540 --> 00:01:50,840

countdown and was able to bring that asset back on line during the count for us to have

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00:01:50,840 --> 00:01:53,190

and it enabled us to launch today.

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00:01:53,190 --> 00:02:00,450

George Diller/NASA Launch Commentator: And any further background on the short

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00:02:00,450 --> 00:02:01,700

recycle that we had?

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00:02:01,700 --> 00:02:05,890

Tim Dunn/NASA Launch Director: Oh yeah, that uhÖso we get through the radar issue

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00:02:05,890 --> 00:02:06,890

that we had.

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00:02:06,890 --> 00:02:09,609

We had a nominal vehicle.

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00:02:09,609 --> 00:02:10,609

Everything looked great.

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00:02:10,609 --> 00:02:16,610

We're about ready to enter that final terminal count at T-minus four and counting and we

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00:02:16,610 --> 00:02:21,870

began to notice just about a minute prior to that that we're getting a little bit of

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00:02:21,870 --> 00:02:23,299

noisy data

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00:02:23,299 --> 00:02:28,480

coming back from our open loop spacecraft telemetry at the time.

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00:02:28,480 --> 00:02:31,209

And turns out we were getting a few spacecraft dropouts.

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00:02:31,209 --> 00:02:34,590

The spacecraft team needed a little bit more time.

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00:02:34,590 --> 00:02:39,269

We decided to remain in the T-minus four minute hold til we better understood that.

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00:02:39,269 --> 00:02:45,549

Turned out it was the uh, a situation with multipathing with the open loop RF

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00:02:45,549 --> 00:02:51,999

transmissions between the antenna located at TEL-4 and the Atlas V vehicle.

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00:02:51,999 --> 00:02:58,810

And so once that situation was well understood, we did discuss that on our anomaly net,

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00:02:58,810 --> 00:03:04,470

per our process, and we decided that we would, instead of staying open loop for the

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00:03:04,470 --> 00:03:10,010

next attempt, we would stay on our ground line telemetry, a hard line.

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00:03:10,010 --> 00:03:14,889

Obviously that was very clean data and we made the switch to the open loop RF at T-

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00:03:14,889 --> 00:03:16,379

zero, or at liftoff.

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00:03:16,379 --> 00:03:20,499

So, that was a great plan that the team came up with and we executed

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00:03:20,499 --> 00:03:28,409

that plan and got back in to the countdown, established a new T-zero at 33 minutes past

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00:03:28,409 --> 00:03:31,669

the hour and were able to execute that and had a beautiful liftoff.

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00:03:31,669 --> 00:03:36,839

George Diller/NASA Launch Commentator: Well Tim this is just the start of a very busy

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00:03:36,839 --> 00:03:38,769

year for Launch Services Program.

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00:03:38,769 --> 00:03:41,729

So outline some of the missions we've got still

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00:03:41,729 --> 00:03:42,729

coming up.

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00:03:42,729 --> 00:03:46,219

I know Vern mentioned some of them, but it's

uh we've got a lot of

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00:03:46,219 --> 00:03:47,219

missions coming.

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00:03:47,219 --> 00:03:49,849

Tim Dunn/NASA Launch Director: Well, it is an exciting year for Launch Services

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00:03:49,849 --> 00:03:50,849

Program.

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00:03:50,849 --> 00:03:56,019

This being our first, we look to go to the West coast for a couple of Delta II

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00:03:56,019 --> 00:03:57,349

missions this year.

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00:03:57,349 --> 00:04:00,729

We have the OCO-2 mission that's going to launch on a Delta II from

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00:04:00,729 --> 00:04:04,680

Vandenberg Air Force Base Space Launch Complex-2.

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00:04:04,680 --> 00:04:08,109

That happens this summer in July.

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00:04:08,109 --> 00:04:11,089

And then in the Fall, in November, we go back out to

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00:04:11,089 --> 00:04:14,569

Vandenberg for another Delta II mission, the SMAP mission.

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00:04:14,569 --> 00:04:18,820

And so we're excited to launch on a Delta

II again, and it'll be about two-and-a-half

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00:04:18,820 --> 00:04:21,650

years since our last Delta II launch.

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00:04:21,650 --> 00:04:23,949

We also have another Atlas V mission that's

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00:04:23,949 --> 00:04:29,590

currently manifested for later in the year,  
the M-M-S mission on the East coast.

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00:04:29,590 --> 00:04:35,750

So, we've got a full slate of science missions  
ahead of us, and everyone in L-S-P is just

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00:04:35,750 --> 00:04:37,389

thrilled with the TDRS-L launch today.

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00:04:37,389 --> 00:04:42,730

George Diller/NASA Launch Commentator: Well,  
Tim thanks very much and this has

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00:04:42,730 --> 00:04:46,819

certainly been a happy moment for the TDRS  
team because they're now a hundred

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00:04:46,819 --> 00:04:54,129

percent on the two they've got now on orbit  
for uhÖfor their program and maybe

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00:04:54,129 --> 00:04:56,710

another one coming downstream a ways.

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00:04:56,710 --> 00:04:58,550

But the two that they wanted right now they've

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00:04:58,550 --> 00:04:59,550

got right now.

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00:04:59,550 --> 00:05:00,550  
Tim Dunn/NASA Launch Director: Very good.

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00:05:00,550 --> 00:05:02,759  
If I could George, I know you mentioned it

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00:05:02,759 --> 00:05:06,860  
during the countdown, but this launch was  
dedicated to Skip Mackey.

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00:05:06,860 --> 00:05:08,870  
A memorial launch.

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00:05:08,870 --> 00:05:12,150  
Skip was a dear friend and colleague of ours  
and NASA.

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00:05:12,150 --> 00:05:15,759  
And he was the voice of NASA commentary for  
years and years.

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00:05:15,759 --> 00:05:20,860  
So, for Skip's family and his friends and  
all of his colleagues at NASA, we were very

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00:05:20,860 --> 00:05:25,150  
proud along with U-L-A to dedicate this launch,  
this successful launch of

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00:05:25,150 --> 00:05:26,150  
TDRS-L to Skip.

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00:05:26,150 --> 00:05:27,939  
George Diller/NASA Launch Commentator: Well  
it's very appropriate that it was a

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00:05:27,939 --> 00:05:33,940  
tracking and data relay satellite, which is

the kind of thing that, you know, was part

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00:05:33,940 --> 00:05:34,940

of

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00:05:34,940 --> 00:05:35,940

what he did.

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00:05:35,940 --> 00:05:36,940

Yes, tracking and data.

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00:05:36,940 --> 00:05:44,310

Well, on that event, I think we're pretty  
much we're going to wrap up our, our launch

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00:05:44,310 --> 00:05:45,919

and flight commentary here.

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00:05:45,919 --> 00:05:47,990

We've had a very successful mission.

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00:05:47,990 --> 00:05:48,990

TDRS-L is on its

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00:05:48,990 --> 00:05:49,990

own.

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00:05:49,990 --> 00:05:52,849

We're in contact with it on the ground.

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00:05:52,849 --> 00:05:55,009

And by all accounts this has been a very

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00:05:55,009 --> 00:05:57,630

successful launch and a flight today.

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00:05:57,630 --> 00:06:01,319

Tim, thanks very much and we'll see you at

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00:06:01,319 --> 00:06:02,319

Vandenberg.

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00:06:02,319 --> 00:06:03,319

Tim Dunn/NASA Launch Director: Sounds good

George.

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00:06:03,319 --> 00:06:06,310

George Diller/NASA Launch Commentator: And  
we're at one hour, 56 minutes,