1
00:00:01,780 --> 00:00:03,660
\h George Diller/NASA Launch Commentator: We're joined now at the Public Affairs

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00:00:03,660 --> 00:00:10,330
\h Console in the Mission Director's Center by Bruce Reid. He is the mission manager for the Landsat

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00:00:10,330 --> 00:00:15,320
\h Data Continuity Mission spacecraft for NASA's Launch Services Program.

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00:00:15,320 --> 00:00:20,240
\h And Bruce will be walking through some of
the things that we've been doing to get the

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00:00:20,240 --> 00:00:25,850
\h Atlas V and the
LDCM satellite ready for our launch today.

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00:00:25,850 --> 00:00:30,310
\h Bruce, first of all, tell us a little bit, have there been any unique

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00:00:30,310 --> 00:00:36,120
\h requirements we've had to do to prepare for LDCM?

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00:00:36,120 --> 00:00:42,640
\h Bruce Reid/ NASA Mission Manager: Well George, the LDCM spacecraft is unique as are all the NASA

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00:00:42,640 --> 00:00:48,840
\h And so, it's always a challenge on every mission to meet those particular requirements.

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00:00:48,840 --> 00:00:55,730
\h For instance the LDCM spacecraft needs to have 60 minutes of continuous sunlight after separation.

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00:00:55,730 --> 00:00:59,380
\h So we've designed the trajectory such that that will occur.

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00:00:59,380 --> 00:01:03,040
\h And also they have very stringent tipoff rate requirements,

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00:01:03,040 --> 00:01:09,200
\h so the launch vehicle with do a compensation maneuver just before separation.

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00:01:09,200 --> 00:01:14,540
\h So, ah, every NASA mission is unique in its own way and we work

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00:01:14,540 --> 00:01:18,000
\h out those requirements to make sure everything is met.

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00:01:18,000 --> 00:01:20,310
\h George Diller/NASA Launch Commentator: Well Bruce, we have some video now if you'd tell us

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00:01:20,310 --> 00:01:26,990
\h a little bit as we go along some of the things that are happening here.

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00:01:26,990 --> 00:01:30,780
\h Bruce Reid/ NASA Mission Manager: This is the Atlas V booster rolling out to the pad.

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00:01:30,780 --> 00:01:34,830
\h This is all the way back in October. And you can see the booster's

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00:01:34,830 --> 00:01:38,940
\h pretty large . . . about 100 feet long.

21
00:01:38,940 --> 00:01:43,390
\h And it looks like they've got the front end of it attached to the 60-ton crane.

22
00:01:43,390 --> 00:01:49,980
\h It's a mobile service tower. And we have a break-over fixture at the rear of

23
00:01:49,980 --> 00:01:54,820
\h the booster to allow it to go into the vertical position.

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00:01:54,820 --> 00:01:59,850
\h And you see a good shot there of the RD-180 engine and the twin nozzles.

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00:01:59,850 --> 00:02:04,120

\h So the booster is positioned over the fixed launch platform and it's

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00:02:04,120 --> 00:02:07,640
\h aligned and lowered down on to the launch heads.

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00:02:07,640 --> 00:02:13,390
\h So this is the Centaur stage. You can see the RL-10 engines there built by Pratt & Whitney Rocketdyne

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00:02:13,390 --> 00:02:17,730
\h
This is a cryogenic stage -- liquid oxygen and liquid hydrogen and

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00:02:17,730 --> 00:02:24,330
\h it will be hoisted atop the interstage adapter which is on the booster.

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00:02:24,330 --> 00:02:28,980
\h This is the fully encapsulated LDCM spacecraft.

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00:02:28,980 --> 00:02:34,510
\h Encapsulation occurred at the Astrotech facility on Vandenberg Air Force Base.

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00:02:34,510 --> 00:02:41,440
\h And then it's set up on top of the transport trailer and moved out to Space launch Complex-3.

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00:02:41,440 --> 00:02:48,730
\h This was on January 25. And you can see we have air going into the payload fairing.

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00:02:48,730 --> 00:02:56,530
\h This is the environmental control system to
keep the payload cool and to meet the
humidity requirements.

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00:02:56,530 --> 00:03:04,010
\h And they're going to go ahead and attach the encapsulated assembly and hoist up into the tower.

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00:03:04,010 --> 00:03:08,880
\h And you saw a good shot there of the LDCM logo.

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00:03:08,880 --> 00:03:14,700
\h And the black portion at the bottom of the
payload fairing is the isolation diaphragm
which maintains

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00:03:14,700 --> 00:03:21,030
\h those environments throughout the entire transport and hoist operation.

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00:03:21,030 --> 00:03:30,850
\h And they'll go ahead and put this through some doors that open and center it on top of the Centaur.

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00:03:30,850 --> 00:03:34,940
\h And then we'll lower down carefully. I think you'll get a good shot here of the

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00:03:34,940 --> 00:03:39,680
\h Centaur equipment module as it's being carefully lowered down and

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00:03:39,680 --> 00:03:43,390
\h then they'll go ahead and install all the bolts. Ready for launch.

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00:03:43,390 --> 00:03:44,490
\h George Diller/NASA Launch Commentator: Bruce, thanks very much.

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00:03:44,490 --> 00:03:50,400
\h And uh, best of luck to you, and uh, the Goddard Team, the Orbital Sciences Team,

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00:03:50,400 --> 00:03:54,720
\h and uh, the entire NASA Launch Services Program that's here,

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00:03:54,720 --> 00:04:00,470
\h they're working on this for quite some time for today for a launch

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00:04:00,470 --> 00:04:04,680
\h that has held its schedule here at the end pretty well.