



1
00:00:02,690 --> 00:00:08,790

Before every space shuttle launch, astronauts and ground crews prepare for liftoff with training and a full launch

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00:00:08,790 --> 00:00:12,040

rehearsal at NASA's Kennedy Space Center in Florida.

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00:00:12,040 --> 00:00:18,140

For more than 27 years, Travis Tod Thompson, Closeout Crew lead with United Space Alliance, has been part

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00:00:18,140 --> 00:00:23,580

Terminal Countdown Demonstration Test, or TCDT, training activities at Kennedy.

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00:00:23,580 --> 00:00:30,870

"TCDT is a great time for us to get to know the crew and for them to get to know us. We go through this dry co

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00:00:30,870 --> 00:00:38,600

it's like a dress rehearsal. We get to know what their comfort level is, what they're going to need on launch day

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00:00:38,600 --> 00:00:43,140

it helps launch day to go smoother when we get to do this."

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00:00:43,140 --> 00:00:52,250

TCDT gives the flight crew a chance to become familiar with the spacecraft, check the fit of their space suits,

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00:00:52,250 --> 00:00:57,780

practice slide wire evacuation procedures at the launch pad, and check out their mission's cargo in the shuttle

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00:00:57,780 --> 00:01:02,720

The slidewire baskets have been part of the pad's emergency egress system since STS-1

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00:01:02,720 --> 00:01:05,470

but have never been used for an emergency.

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00:01:05,470 --> 00:01:10,740

Training for the unexpected on the launch pad is nevertheless a staple during TCDT.

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00:01:10,740 --> 00:01:17,940

"This is the primary egress route, if we had to evacuate the White Room in a hurry we would egress down this

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00:01:17,940 --> 00:01:25,620

here. There's Fire-X nozzles that spray heavy amounts of water on us and the flight crew as we'd be egressing

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00:01:25,620 --> 00:01:31,890

So, the reason this pad is painted yellow with black chevrons is to --

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00:01:31,890 --> 00:01:36,060

because with all the water coming into your face you can only really see your feet.

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00:01:36,060 --> 00:01:39,680

So we follow this, we call it the 'yellow brick road' and it will take us straight

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00:01:39,680 --> 00:01:43,840

to the egress to the slidewire baskets."

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00:01:43,840 --> 00:01:48,430

The astronauts also receive instruction on driving the M-113 armored personnel carriers as

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00:01:48,430 --> 00:01:54,360

part of their emergency pad escape training. Every crew member gets a chance to drive the M-113

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00:01:54,360 --> 00:01:59,610

instructed by Kennedy's fire chief. Thompson also is there to lend a hand.

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00:01:59,610 --> 00:02:04,870

"This gives me a good time to get to know the crew a little bit on a comfortable basis --

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00:02:04,870 --> 00:02:09,420

before we really have to do a lot of work. And it's fun for them and they like it."

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00:02:09,420 --> 00:02:14,460

In addition to pad and field training, the commander and pilot practice touch-and-go landings

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00:02:14,460 --> 00:02:19,640

in NASA's Shuttle Training Aircraft -- Gulfstream jets that have been modified to simulate the orbiter's

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00:02:19,640 --> 00:02:24,320

unpowered, high-speed glide at Kennedy's Shuttle Landing Facility.

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00:02:24,320 --> 00:02:30,470

TCDT wraps up with a full launch dress rehearsal where the astronauts climb into their orange launch

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00:02:30,470 --> 00:02:35,400

and entry suits and helmets and step into NASA's Astrovan for a short trip to the launch pad's White Room on t

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00:02:35,400 --> 00:02:37,090

195-foot level.

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00:02:37,090 --> 00:02:41,840

There, Thompson and his team are waiting to help the crew members board the shuttle.

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00:02:41,840 --> 00:02:46,570

Once on board, the astronauts go through the launch sequence, stopping just before the main engines start.

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00:02:46,570 --> 00:02:52,640

At that point training is over and in just a couple of weeks they'll return to do the real thing.