



1
00:00:00,000 --> 00:00:00,270

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2
00:00:00,730 --> 00:00:03,153

Mike Curie/STS-133 Launch Commentator: This is Shuttle Launch Control at T-3 hours and holding,

3
00:00:04,640 --> 00:00:09,640

with about one hour, 22 minutes and 50 seconds remaining in our hold today.

4
00:00:10,500 --> 00:00:11,366

Space shuttle Discovery -- the venerable veteran of America's human spaceflight fleet -- proudly resting atop

5
00:00:16,900 --> 00:00:21,033

Launch Pad 39A here at NASA's Kennedy Space Center in Florida,

6
00:00:21,730 --> 00:00:26,930

her wings outstretched and ready to soar to space for the 39th and final time.

7
00:00:29,160 --> 00:00:32,160

Discovery's odometer reads 142,917,535 miles.

8
00:00:38,280 --> 00:00:39,083

And Discovery is going to add about another 4 1/2 million miles to that total on this 11-day

9
00:00:43,610 --> 00:00:47,143

mission when it roars off the launch pad at 4:50 p.m.

10
00:00:47,440 --> 00:00:51,906

EST today and races to 17,500 miles an hour in about 8 1/2 minutes.

11
00:00:53,340 --> 00:00:54,913

Right after the launch tower is cleared today, Discovery will perform a roll maneuver,

12
00:00:57,500 --> 00:00:58,100

which points it precisely on the proper 51.6 degree trajectory to catch up to the

13

00:01:02,300 --> 00:01:05,566

International Space Station, our target in orbit.

14

00:01:05,840 --> 00:01:05,930

At the time of liftoff, the space station will be about 220 miles above the South Pacific.

15

00:01:11,750 --> 00:01:18,483

And as the shuttle rockets to the northeast it will climb to 17,500 miles an hour to begin the chase.

16

00:01:19,890 --> 00:01:22,823

STS-133 is an 11-day mission to the station.

17

00:01:23,630 --> 00:01:23,843

It will deliver the Permanent Multipurpose Module,

18

00:01:26,750 --> 00:01:34,950

or the PMM, which was converted from the Leonardo multi-purpose logistics module, to withstand the harsh environment of space.

19

00:01:35,670 --> 00:01:36,686

The PMM will provide additional storage for the station and experiments that may also be conducted inside of it.

20

00:01:42,120 --> 00:01:46,586

such as fluid physics, material science, biology and biotechnology.

21

00:01:49,180 --> 00:01:49,880

Discovery also will carry critical space components to the station and Express Logistics Carrier 4,

22

00:01:55,080 --> 00:02:03,613

or ELC 4, which is an external platform that holds large equipment to be transported using the unique capability of the shuttle.

23

00:02:03,730 --> 00:02:09,930

Also, Robonaut 2, or R2, will become the first human-like robot in space when it flies inside the station.

24

00:02:10,180 --> 00:02:13,780

the PMM to become a permanent resident of the station.

25

00:02:14,630 --> 00:02:15,550

The STS-133 mission will feature two

spacewalks, conducted by (Steve) Bowen

26

00:02:18,710 --> 00:02:24,176

and (Alvin) Drew to do maintenance work and install new components on the station.

27

00:02:24,850 --> 00:02:25,550

Here inside the Launch Control Center, the countdown for Discovery's launch is continuing on schedule.

28

00:02:30,950 --> 00:02:39,550

The window opens at 4:45 p.m. today and our preferred and planned launch time is five minutes later at 4:50:27 p.m. Eastern time.