George Diller/NASA Launch Commentator: This Atlas Launch Control. We are now just under two and a half hours away from the launch of the Mars Science Laboratory and the Curiosity rover atop a United Launch Alliance Atlas V rocket from Launch Complex 41 at Cape Canaveral.

The launch window today extends from 10:02 a.m. to 11:45 a.m. A duration of one hour and 43 minutes.

The Curiosity rover will gather the soil and rock samples for the onboard laboratory equipment to attempt to detect chemical building blocks that provide clues about life processes on Mars.

With the liftoff today, the Mars Science Laboratory begins an eight-and-a-half month journey to Mars, arriving in 2012 on Aug. 6.

The landing will occur at 3 p.m. local time at Gale Crater on Mars.

At that point, the radio signals will take 13 minutes and 42 seconds to cover the 154 million-miles distance between Mars and Earth.

About 10 minutes ago the launch pad was cleared of all personnel to begin preparations for loading cryogenic liquid hydrogen and liquid oxygen.

Liquid oxygen will be loaded into the Atlas booster stage, the first stage, and will be followed by loading liquid
oxygen and liquid hydrogen into the Centaur upper stage, or the second stage.

We've just had a weather briefing by our Launch Weather Officer Clay Finn.

And we remain 70 percent ?go,? 30 percent ?no-go? as far as our launch weather criteria.

At launch time, the temperature will be approximately 73 to 74 degrees.

We'll have easterly winds 18 to 21 knots occasionally gusting to 24.

Relative humidity of 70 percent. Visibility of seven to 10 miles.

And we'll have scattered clouds for the most part occasionally.

There is a chance for a variable broken layer to appear and as that occurs should the ceilings become a launch constraint then we will just simply wait that out as they pass over,

which they are expected to do and go into the next pane of the launch window occurs every five minutes.

At T-minus two hours and holding, this is Atlas Launch Control.