A two-stage United Launch Alliance Delta II rocket is set to carry the Aquarius/SAC-D satellite to space -- its mission, to map the salinity at the ocean surface and provide new insights into how the massive natural exchange of freshwater between the ocean, atmosphere and sea ice influences ocean circulation, weather and climate.

At Vandenberg Air Force Base in California the first stage of the Delta II rocket arrived and was lifted into the mobile service tower at Space Launch Complex-2, March 1, 2011.

Within 3 weeks the three solid rocket boosters were attached and the second stage hoisted atop the first stage.

Meanwhile, the Aquarius/SAC-D spacecraft arrived from South America aboard an Air Force C-17 cargo aircraft on March 30 where it was offloaded and transported to the Spaceport Systems International payload processing facility on Vandenberg.

The Aquarius/SAC-D mission is a collaboration between NASA and Argentina's space agency with participation by Brazil, Canada, France and Italy.

Once in its processing cell, the spacecraft was hoisted onto the handling dolly and inspection of the solar arrays and testing of the vehicle's propulsion subsystem began.
Later the satellite was rotated to a vertical position for further testing.

By the beginning of May the solar arrays were attached and deployment and illumination testing was conducted.

Back at Space Launch Complex 2, the Delta II first stage was loaded with liquid oxygen and a simulated countdown test followed.

The Aquarius/SAC-D spacecraft was then installed into its transportation canister, moved from the payload processing facility at Vandenberg and hoisted atop the Delta II rocket.

An integrated electrical test to ensure the Delta II "communicated" with the Aquarius/SAC-D spacecraft was successfully completed and the protective fairing then was installed around the satellite.

With these prelaunch milestones complete, Aquarius/SAC-D and the Delta II are ready for launch on June 10,

beginning a three-year mission to circle the Earth shedding light on the links between salt and climate.

From Vandenberg Air Force Base in California, I'm George Diller