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Salinity and water cycl:; Aquarius/SAC-D satellite mission early results

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The Aquarius/SAC-D satellite mission measures sea surface salinity (SSS) and other parameters to address the links between circulation, the global water cycle, and climate change. The satellite is due to launch in June 2011. This poster will show early results of the salinity retrievals, and validation with surface oceanographic observations. The primary mission objective is to measure SSS over the global ice-free ocean for at least three years with 0.2 pss uncertainty, 150 km resolution, on a monthly average. Pre-launch simulations indicate that the actual measurement errors will be smaller, especially in the tropical and mid latitudes. Aquarius/SAC-D will resolve the mean SSS field, especially in remote regions where in situ data are sparse, and measure seasonal and interannual SSS variations. Other measurements on this international space observatory include ocean winds, precipitation, sea ice, surface temperatures, soil moisture, nighttime imaging, GPS occultation and space environment.