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The Current Status and Future Prospects for the GRACE Mission

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The twin satellites of the Gravity Recovery and Climate Experiment (GRACE) were launched on March 17, 2002 and have operated for over 13 years. The mission objectives are to sense the spatial and temporal variations of the Earth's mass through its e[U+FB00]ects on the gravity [U+FB01]eld at the GRACE satellite altitude. The major cause of the time varying mass is water motion and the GRACE mission has provided a continuous decade long measurement sequences which characterizes the seasonal cycle of mass transport between the oceans, land, cryosphere and atmosphere; its inter-annual variability; and the climate driven secular, or long period, mass transport signals. In 2012, the RLO5 solution, based on a complete reanalysis of the mission data, data release, was initiated. The monthly solutions from this e[U+FB00]ort were released in mid-2013 with the mean [U+FB01]elds following in 2014 and 2015. The mission is entering the [U+FB01]nal phases of operations. The current mission operations strategy emphasizes extending the mission lifetime to achieve mission overlap with the GRACE Follow On Mission. This presentation will review the mission status and the projections for mission lifetime, summarize plans for the RL 06 data re-analysis, describe the issues that in[U+FB02]uence the operations philosophy and discuss the impact the operations may have on the scienti[U+FB01]c data products.