The Genesis Mission: Mission Design
and Operations

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The Genesis mission was successfully launched on August 8, 2001 on its journey to the Sun-Earth $L_1$ libration point. The objective of the Genesis mission is to collect solar wind samples in a large amplitude Lissajous for approximately 2.5 years and then safely return them to Earth for analysis. This talk will explain the processes used to generate the Genesis trajectory and the design changes required to accommodate spacecraft capabilities and constraints, as well as the redesign for the launch slip from February to August 2001. The operational aspects of the mission will also be discussed, including redesigning the stationkeeping biases to simplify operations, planning for contingencies, and the upcoming tasks necessary to return the spacecraft safely back to a predefined landing area in Utah.