Mr. Aldo Bordano will be presenting details of some of the JSC flight mechanics involvement in the X-38 testing program. Focus shall be on the parafoil system with regards its testing, performance analysis, and GN&C. An excellent example of a recent flight test at Dryden Flight Research Center shall be shown which portrays the system characteristics, sequencing, performance, and testing techniques. The intent is to inform the scientific and engineering communities about the developments in the X-38 parafoil program, as well as invite feedback on potential improvements in testing or systems.