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Gravity Probe B Relativity Mission

Low Temperature SM Gyroscope Commissioning Tests

GP-B P0275 Rev -A

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Low Temperature SM Gyroscope Commissioning Tests

Conditions:

Temperature 4.2 K
Ultra Low Field, < 2 μGauss
3 axis support with the "R" half up
DDC suspension system
SM Readout loop connected to SQUID
3 axis Helmholtz readout connected to dc SQUIDs
Gyroscope Commissioning Probe (referred to hereafter as G.C.P.)

Cleanliness precautions: As per specifications for individual tests.

ESD precautions: As per specifications for individual tests

Preparation: Completion of P0296, P0272 and P0277.

Procedure: Successful completion of the following tests and procedures constitute satisfy the low temperature portion of the gyroscope commissioning process:

Test/Procedure	***Description***
P0204	Procedure for the Installation of Gyroscopes in the G.C.P.
P0273	G.C.P. Insertion Procedure
P0308	Post Insertion Electrical Checklist
P0297	Functionality and Calibration of the SM Thermometer and Heater (optional)
P0203*	UV Charge Control Commissioning Procedure for SM Gyroscopes
P0274	Procedure for Verifying dc Coupling of the SM Readout Loop
P0299*	Procedure for SM Gyroscope Levitation with the DDC Suspension System
P0298*	Additional Information on Gyroscope Geometry (optional)
P0307	Confirmation of No Charging of the Gyroscope During Levitation
P0276	Procedure for Flux Flushing the Gyroscope in the G.C.P.
P0311	Performance Testing Procedures
P0314	Procedure for Spin-Up Parameter Measurement

* Also may have been performed in P0272, Room Temperature Testing.