Procedure for Verification of dc Coupling of SM Gyroscopes

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Procedure for Verification of dc Coupling of SM Gyroscopes

This procedure is to be performed only by persons listed as certified operators of the gyroscope acceptance facilities.

Equipment: Gyroscope Commissioning Probe
Quantum Design dc SQUID Controller
BTI dc Current Source, Model CCS

Preparation: Gyroscope not levitated.

Procedure:

I. Connect BTI current source to the small calibration loop. Turn on the device and set its output to zero.

II. Set the SQUID which reads the parting plane loop to range 500 with gain of 1. Reset to zero the SQUID output. Record the SQUID output in **Lt-Op #5**.

III. Record the following values in **Lt-Op #5**; date, time, SQUID settings (channel #, range, gain, filtering).

IV. Apply 10 milliamps to the small calibration loop. Record the SQUID output in **Lt-Op #5**.

V. Record the SQUID output (3) times at 5 minute intervals.

VI. Reduce the current to zero and hold here for 2 minutes. Record the SQUID output in **Lt-Op #5**. Reverse the polarity of the current.

VII. Apply 10 millamps to the small calibration loop. Record the SQUID output in **Lt-Op #5**.

VIII. Record the SQUID output (3) times at 5 minute intervals.

IX. Reduce the current to zero, record the SQUID output in **Lt-Op #5** and disconnect the current supply from the small calibration loop.

X. Record result in section III. of F.G.T. #3

* In the case where flux jumps occur you may repeat the measurement. If this should be necessary record new observations in the next section of **Lt-Op #5**.