

GRAVITY PROBE-B

FLIGHT PAYLOAD

PROCEDURE

**(PTP)VERIFICATION FDAS CABLE I1
PROBE OUTPUT**

P0589

September 17, 1999

Originator
D. Murray

Approvals:

_ Date _____

_ Date _____

Mike Taber
Test Director

Dave Murray
Test Director

Dorrene Ross
Quality Engineer

Sasha Buchman
Hardware Manager

_____ Date

A SCOPE

This procedure describes the steps to effect the verification of the GP-B FDAS (Facility Data Acquisition System) output for Probe Cable I1.

B REFERENCE DOCUMENTS

B.1 Procedures:

Procedure No. Title

None

B.2 Drawings

LMSC Drawing No. _____ Title _____

None

B.3 Figures

None

B.4 Supporting documentation

- a) GP-B Magnetic Control Plan, LMMS-5835031
- b) SMD Safety Compliance Assessment, LMMS GPB-100153C
- d) SM Dewar FMECA, LMMS GPB-100333
- e) FIST Emergency Procedures SU/GP-B P0141
- f) Probe/Dewar Hardware Kit List, SU/GP-B P0144
- g) SMD Final Assembly, LMMS 5833500

C SAFETY

C.1 In case of any injuries obtain medical treatment: at:

LMMS Call 117 Stanford University Call 9-911

C.2 Safety

The GP-B (FIST) Safety Plan, LMSC-F314447, discusses safety design, operating and maintenance requirements which the R&DD program office has adhered to. These requirements should be reviewed for applicability at any facility outside of R&DD (e.g. Stanford University) where FIST hardware is operated.

C.3 Hazards Analysis

The GP-B (FIST) Preliminary Hazards Analysis, LMSC-F314446, discusses hazards inherent in R&DD-developed FIST hardware in greater detail.

D PERSONNEL

The personnel certified to set up and perform this procedure are:

Dave Murray	Stanford University
Mike Taber	Stanford University

The persons authorized to create and sign-off on redline modifications of the procedure as it is performed are the test directors, M. Taber and D. Murray. The redlines will be reviewed and approved by the RQE during or after the performance of the redline.

E Quality Assurance

Quality Assurance engineering shall be notified at least 24 hours prior to the start of this procedure. All failures or discrepancies during the execution of this procedure shall be reviewed by Quality Assurance representative and approve their disposition. Discrepancies will be recorded in a D-log and/or as a DR per Quality Plan P-108. Any redlines made to this procedure shall be initialed by a program RQE prior to his/her final sign off. Quality representative will concur to the completion of the procedure by signing in the designated place.

Operations Number
Date Initiated
Time Initiated

F CONFIGURATION REQUIREMENTS:

- a) SMD integrated with Probe. Liquid helium temperatures established in Probe.

G HARDWARE REQUIRED:

- a) FIST FDAS (Facility Data Acquisition System)

H OPERATIONS:

1 Prepare FDAS for data collection:

- 1.1 Verify Cable I-1 has been certified by simulated GRT/SDT/Heater inputs to FDAS per Operations Order 1169 .
- 1.2 Verify the FDAS is operational.
- 1.3 Set up scan list to acquire the following data set:
Record FDAS program file name _____ .
Record data file name _____ .
- 1.4 Verify connected, Cable I1 to FDAS BI1
- 1.5 Connect other end of Cable I1 to Probe at Connector J1.

2 Data Scanning:

- 2.1 Using AMonitor Data≅ function key verify output of FDAS, one channel at a time, is consistent with the data of Table 1.

NOTE:

Heater voltage input is manually input from Power Supply Distribution Box.

- 2.2 Verify temperature output of FDAS is consistent with other recorded temperatures (e.g., Cable I6 sensors).
- 2.3 Verify power output to heaters is consistent with precalculated values.

				TEMP.	SENSORS			
				DAS Temp	Expected Temp Max/Min			
1	QB Aft nr spider	{T05Q}	105					
2	QB forwd nr tele SDT	{T06Q}	172					
3	QB Flange	[T17Q]	110					
4	Gyro #1 S-half	[T01Q]	101					
5	Gyro #2 S-half	[T21P]	102					
6	Gyro #3 S-half	[T22P]	103					
7	Gyro #4 S-half	[T23P]	104					

3 Facility DAS Data Set:

- 3.1 Using configuration for Cable I7 on FDAS collect one set of data (with raw data) and attach to this procedure.

4 Procedure completed.

Completed by:
Witnessed by:
Date:
Time: