



W. W. Hansen Experimental Physics Laboratory  
STANFORD UNIVERSITY  
STANFORD, CALIFORNIA 94305 - 4085

**Probe Closure and Functional Testing Integration and Test Readiness Review  
Completion Certificate**

**P0496 Rev. –  
May 21 1999**

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Prepared by: S Chun  
Systems Engineer

Date

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Approved by: R. Brumley  
Gyroscope REE

Date

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Approved by: R. Schultz  
Chief Systems Engineer

Date

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Approved by: D. Ross  
Quality Assurance

Date

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Approved by: S. Buchman  
Hardware Manager

Date

## **Probe Closure and Functional Testing Integration and Test Readiness Review**

Date & Time: May 21, 1999, 1:00 to 3:00 P.M.

Location: GP-B Mission Control Conference Room

### **Purpose:**

To ensure that the flight hardware, integration and test facility, test equipment, and integration and test procedures are ready for integration and testing.

### **Scope:**

The Probe Closure and Functional Testing Integration and Test Readiness Review covers the installation of vacuum can and vatterfly valves, the evacuation of Probe and leak test, and the room temperature gyroscope spinup test.

### **Agenda:**

- Procedure Status
- QA and Safety Plan
- Integration and Test Personnel Status
- Test Resources Status

### **Review Team:**

Sasha Buchman	Hardware Manager
Doron Bardas	Payload Integration Manager
Bob Schultz	Chief Systems Engineer
Dorrene Ross	Quality Assurance
John Janicki	Safety
Sei Chun	Systems Engineer

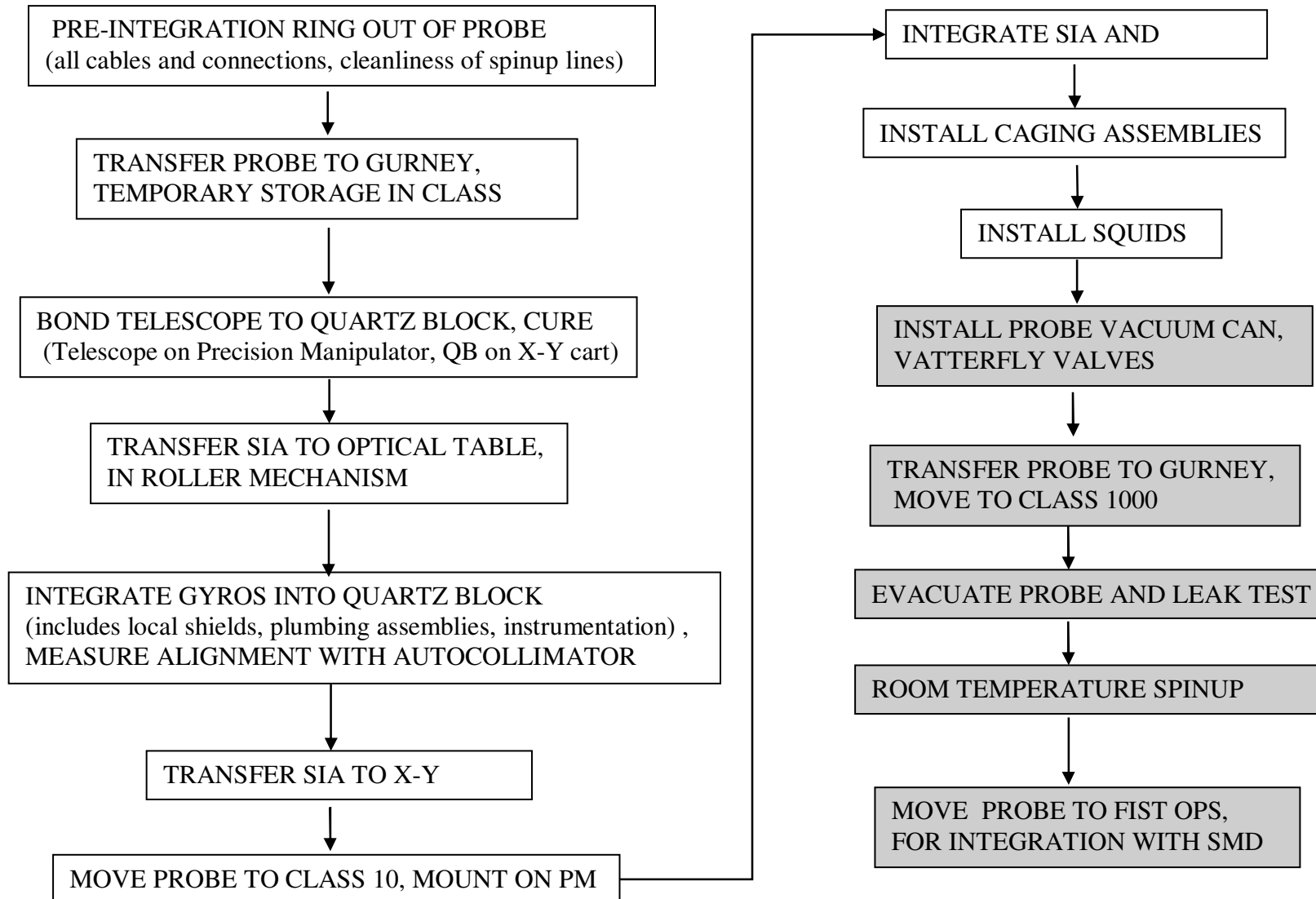
### **I & TRR check list:**

- Confirm that all integration and test procedures approved.
- Confirm that sufficient and detailed resources are allocated to the test effort.

### **Attachments:**

- A. Integration and Test Flow diagram
- B. Document Status Checklist
- C. QA and Safety Plan
- D. Test Personnel Status Checklist
- E. Test Resources and Test Support Software Checklist
- F. Action Item Closure Status

## A. Integration Roadmap



## B. Procedure Status

Document	Revision Date	Author	Title	Written	Approval Status
P0410	6/7/99	D Bardas	Attach Vacuum System and Leak Check Probe C	4	Approved
P0433	4/27/99	D Bardas	Hook-Up and Post Integration Instrumentation Checkout	4	Approved
P0435	6/17/99	B Clarke	Verification of Fiber Optic Light Transmission to Gyroscope	4	Approved
P0481	6/4/99	R Brumley	Levitation of Gyroscopes in Probe C	4	Approved
P0536	6/7/99	R Brumley	Verification of Caging Functionality in RT Checkout of Probe C	4	Approved
P0178	6/27/99	R Brumley	Room Temperature Spinup Test	4	Approved

## C. QA and Safety Plan

- All operations to be conducted to released procedures. Computer will be in cleanroom for "as built" procedure.
- Redline authority clearly stated in each procedure.
- Russ Leese will be QA representative to witness procedures, enter redlines and results in "as built" electronic procedure, and document discrepancies in procedures.
- QA Engineer, Dorrene Ross or Russ Leese, will review any Discrepancies and document DRs, if necessary.
- Upon completion of each procedure, QA engineer will certify concurrence of completion and sign approval line.
- Safety, John Janicki, will be notified prior to all movement of Probe or SIA

## **D. Integration and Test personnel Status**

- Doron Bardas, Integration Test Director
- Gideon Asher, SIA/Probe Integration
- Efrain Alcorta, SIA/Probe Integration
- Rob Brumley, Gyro Testing
- Chris Gray, Gyro Testing
- Bruce Clarke, UV Integration
- Dorrene Ross, QA representative
- Russ Leese, QA representative
- John Janicki, QA and Safety
- All activity in Class 1000 HEPL Cleanroom

## **E. Test Resources and Test Support Software Checklist**

- Pumping System
- Computer Interface
- Gyro Levitation
  - DDC Rev B
- Optical Readout System
  - UV Verification GSE System
- Caging Test
  - Standard GSE Box

**F. Action Items from the Probe Closure and Testing Integration and Test Readiness Review meeting (5/21/99)**

<b>Action Items</b>	<b>Assignee</b>	<b>Originator</b>	<b><u>ECD</u></b>	<b>Closure Information</b>
1. Move P0436 and UV staking procedure to Probe Integration section and P0435 to Probe Closure and Testing section.	Sei Chun	Sasha Buchman,	Closed	Completed.
2. Check if P0440 exists, and if it doesn't, notify Sasha.	Sei Chun	Sasha Buchman,	Closed	P0440 has not been written. Notified sasha by e-mail on 24 may99. P0509 replaced P0440.
3. Verify the pumping system is compatible with the Probe.	Rob Brumley	Rob Brumley	Closed	Verification completed.
4. Rob Brumley to discuss the test flow in the travel sheet with Dorrene Ross and Ed Ingraham.	Rob Brumley	Ed Ingraham,	Closed	Rob discussed with Dorrene and Ed, but traveler is written.
5. Provide test resource and test support software information to Sei Chun.	Rob Brumley	Sei Chun,	Closed	S0385 summarizes test resource and test support software information.
6. Verify GSE safety.	Rob Brumley		Closed	GSE Safety is verified and documented in S385.