

LASER INTERFEROMETER GRAVITATIONAL WAVE OBSERVATORY
- LIGO -
CALIFORNIA INSTITUTE OF TECHNOLOGY
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This is an internal working note
of the LIGO Project.

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P960024-A PRINCIPLES OF CALCULATING ALIGNMENT SIGNALS IN COMPLEX RESONANT OPTICAL INTERFEROMETERS
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- E950108-00 LIGO Configuration Change to Nd:YAG Lasers: Impact on Facilities Chiller Requirements
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- E950083-B Science Requirements for the LIGO Beam Tube Baffles
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 E960037-A COMPONENT SPECIFICATION: MECHANICAL FABRICATION OF BEAM TUBE BAFFLES
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 E970167-A COMPONENT SPECIFICATION: Cryopump for Beam Tube Bakeout
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2.2.4. Testing, Measurements and Analysis

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- T970111-00 Data from Beam Tube Pump Down II
- L970429-00 Technical Board Meeting to Review Beam Tube HX2 Vacuum Test Results

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- E950106-00 LIGO Requirements and Options for Facilities Monitoring and Control System (FMCS)

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- E960050-A LIGO Vacuum Compatible Materials List
- T950065-A Guidelines for Design Requirement Documents
- L970196-00 Part Numbers and Serialization of Detector Hardware
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- T960083-A Derivation of CDS Rack Acoustic Noise Specifications
- E960108-A Recommendation of parameter choices in 2 km interferometer design.
- T960019-00 Frequency, Intensity and Oscillator Noise in the LIGO
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- T970068-00 Recycling Cavity and Mode Cleaner Cavity Baseline Dimensions
- D970002-00 Recycling Cavity Dimensional Range
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- T960128-00 Radiation Pressure Noise in LIGO
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- T970077-00 Gravitational Deflection of LIGO Optics in a 9-Point Hindle Mount
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L960596-00	Cross-coupling in the suspension controllers
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T960126-01	Magnet size considerations; interference and coil power dissipation
T960137-00	Note on Electrostatics in the LIGO suspensions
T970149-00	Influence of the stray magnetic field generated by the Faraday isolator on SOS mirror actuators

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M970082-01	FIRST ARTICLE FABRICATION READINESS REVIEW Seismic Isolation System (SEI): In Vacuo Hardware
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 T960134-00 Alignment Sensing/Control Conceptual Design
 T970060-00 Alignment Sensing/Control Preliminary Design
 T952013-00 Alignment Design Interfaces
 T960103-00 ASC: Environmental Input to Alignment noise
 T950049-00 ASC Centering Subsystem Description
 T950069-00 Naming and Interface Definition for ASC Wavefront/Centering
 T950073-00 Interferometer Requirement Flowdown To ASC
 T950074-00 Naming and Interface Definition for ASC Initial Alignment
 T970063-00 Response to Alignment Sensing and Control DRR2 Action Items
 T970061-00 ASC CDS Design Requirements Document
 T970062-00 ASC CDS Conceptual Design
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 T970056-01 Experimental Test of an Alignment Sensing Scheme for a Gravitational-wave Interferometer
 T970151-01 ASC Initial Alignment Procedures
 G980071-00 ISC Initial Alignment Subsystem (IAS) Final Design Review

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 T950112-00 ASC Optical Lever Specification and Design Document
 T950070-00 Naming Convention and Interface Definition for Optical Lever

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 T960113-00 Modal Model Update 1: Interferometer Operators
 T960114-B Modal Model Update 2: GW-Sensitivity to Angular Misalignments
 T960115-A Modal Model Update 3: Small Angle Regime
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 T970139-00 LSC CDS Conceptual Design
 T970122-00 Length Sensing and Control Subsystem Preliminary Design
 T952109-01 LIGO Length Sensing System: Design considerations for a tabletop prototype interferometer
 T960067-00 Length Control RMS Deviations from Resonance
 T960139-00 Shot noise sensitivity of the length control error signals
 T970084-00 Frequency Response of the LIGO Interferometer
 T970101-A Strain Calibration in LIGO
 G970192-00 Length Sensing and Control Subsystem Preliminary Design Review
 G980022-00 Photodiodes for Initial and Advanced LIGO
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 T960009-A LIGO Data Acquisition System Design Requirements
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 T970172-A Global Diagnostics System Preliminary Design
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 M980089-00 LIGO Detector Subsystem Review Report - PRELIMINARY DESIGN REVIEW of Global Diagnostics Subsystem
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T960024-A Vacuum Control and Monitoring System (VCMS) Design Requirements
 T960037-00 Vacuum Control and Monitoring System (VCMS) Design
 T970001-00 Vacuum Control and Monitoring System (VCMS) Final Design
 E970158-00 Hanford EPICS Vacuum Controls Vacuum Gauge Pair (Pirani and Cold Cathode) Test Specifications

E970159-00	Hanford EPICS Vacuum Controls Electric Gate Valve Test Specifications
E970160-00	Hanford EPICS Vacuum Controls Pneumatic Gate Valve Test Specifications
E970161-00	Hanford EPICS Vacuum Controls Cryogenic Pump Test Specifications
E970162-00	Hanford EPICS Vacuum Controls 2500l/s Ion Pump Test Specifications
E970163-00	Hanford EPICS Vacuum Controls 75 l/s Ion Pump Test Specifications
E970001-00	DCN for VCMS Drawings
T970179-00	How to Build the Hanford Left End Station EPICS Vacuum Controls System
T970180-00	How to Build the Hanford Left Mid Station EPICS Vacuum Controls System
T970181-00	How to Build the Hanford Left LVEA-Y Station EPICS Vacuum Controls System
T970182-00	How to Build the Hanford Right LVEA-X Station EPICS Vacuum Controls System
T970183-00	How to Build the Hanford Mechanical Room Station EPICS Vacuum Controls System
T970184-00	How to Build the Hanford Right Mid Station EPICS Vacuum Controls System
T970185-00	How to Build the Hanford Right End Station EPICS Vacuum Controls System
T960014-00	Vacuum Feedthrough and Cabling Conceptual Design
T960177-00	LIGO Cable Numbering and Marking Standard
T970076-00	LIGO CDS VME Mainframe Specification
T960083-A	Derivation of CDS Rack Acoustic Noise Specifications
D970595-00	8KHz Instrumentation Amplifier/Filter
D970596-00	500Hz Instrumentation Amplifier/Filter

3.6. Physical Environment Monitor

T960127-02	Physical Environmental Monitor Design Requirements Document
T960145-00	Physical Environmental Monitor Conceptual Design
T970086-00	Physical Environmental Monitor Preliminary Design Document
G970026-00	Physics Environment Monitoring Preliminary Design Review
L970028-00	DESIGN REQUIREMENTS REVIEW Physics Environment Monitoring (PEM) Action Item Responses
M970137-01	PRELIMINARY DESIGN REVIEW Physics Environment Monitoring (PEM)
T970112-00	Physics Environment Monitoring Final Design Document
D970532-00	Hanford PEM Data Acquisition System Preliminary System Layout
T970165-00	PEM Data Acquisition Preliminary Design
T970213-A	PHYSICS ENVIRONMENT MONITORING SYSTEM RELIABILITY PREDICTION REPORT

4 R&D DOCUMENTATION

D961304-06	OPTICAL LAYOUT - 40m RECYCLING
G960172-00	THE FMI ALIGNMENT EFFORT
G970152-01	LIGO@ MIT: Transition to Operations and Advanced Detector R& D
M960114-00	Statement of Work: Replacement of Vertex Masses at 40m
M960115-00	Statement of Work: Installation of Side Chamber and Reconfiguration of Associated Optics at the 40m
M970013-02	A Proposal for the First Experiment for Validation of the 40m End-to-End Model
T950035-01	Measurement of the Ground Drift at the 40-m Lab
T950137-00	Description of the Electronics for the FMI Wavefront Experiment
T960013-02	Calculation of the Modulation Frequency for the 40m Power Recycling Interferometer
T960015-03	Calculation of Optical Parameters for the 40m Power Recycling Interferometer
T960072-00	Beam Splitter and Recycling Mirror Suspension Controller Design Requirements
T960073-00	40 Meter Recycling Electronics Design Requirements
T960162-02	Specifications of the 40m Test Mass Suspension Prototype
T960186-00	Procedure for Attaching the Fins and Hanging the PNI Mirrors
T970085-02	Correlation Function and Power Spectrum of Non-Stationary Shot Noise
T970090-00	Proposal for a table-top prototype resonant sideband extraction interferometer
T970099-00	Statement of Work: Change of Modulation Frequency at the 40m
T970102-00	40 Meter BS and RCM Suspension Controller Test Plan
T970103-00	BS and RCM Suspension Electronics Operator's Manual
T970126-02	40m Data Acquisition System Quick Reference
T970186-01	Overview of the 40m End-to-End Model

LIGO CONFIGURATION DOCUMENTATION



