

6 Month Report to the LSC - March 16, 2000

Outline

Agenda

Highlights

LIGO Scientific Collaboration Lasers and Optics Working Group

LIGO-G000059-00-D

Thursday Afternoon Schedule

Milestones and Requirement for LIGO II	Gustafson	Start
Milestones for the Lasers and Optics Working Group	Gary Sanders	14:00
Laser and PSL Requirements	Jim Mason	14:35
Core Optics and Coatings Requirements	Jordan Camp	15:10
Phase Modulators and Isolators Requirements	David Reitze	15:30
Break		15:55
Mode Cleaners and Telescopes Requirements	David Tanner	16:15
Adaptive Core Optics Control Requirements	Mike Zucker	16:35
Photodiode Requirements	Mike Zucker	17:00
Discussion		17:25

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Friday Schedule

Lasers and PSL	Jordan Camp	Start
ACIGA Injection Locked Unstable Resonator Laser	Peter Veitch	9:00
GEO Laser and Crosscoupling Measurements	Benno Willke	9:35
Break		10:10
Update on the LIGO I PSL	Rick Savage	10:45
Master Oscillator Power Amplifier	Todd Rutherford	11:20
Lunch		11:55
Noise in Quantum Optics	David McCelland	13:30

Core Optics	Jordan Camp	Start
Review of the sapphire program	Jordan Camp	14:05
Wavefront Characterization of Large Optics	Alexander Serge	14:25
Status of Anelastic Measurements and Prospects	Steve Penn	15:00
Break		15:35
Acoustic Loss Caused by Mirror Coatings	Gregg Harry	16:15
Optical absorption measurements in Sapphire	Roger Route	16:50
Thermoelastic noise in test masses	Kip Thorne	17:25

Saturday Morning Schedule

Adaptive Core Optics, Modeling and Photodiodes	Zucker	Start
MELODY	Ray Beausoleil	8:30
Active Core Optics Compensation	Mike Zucker	9:05
Photodiode Development	David Jackrel	9:30
BENCH	Sam Finn	9:55
Break		10:20
Phase Modulators and Isolators	Reitze	
Modulators and Isolators: Lessons from LIGO I	Sany Yoshida	10:45
A Mach-Zender Modulation Scheme for LIGO II	David Reitze	11:20
Lunch		

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Request for a Letter of Intent from Laser Manufacturers

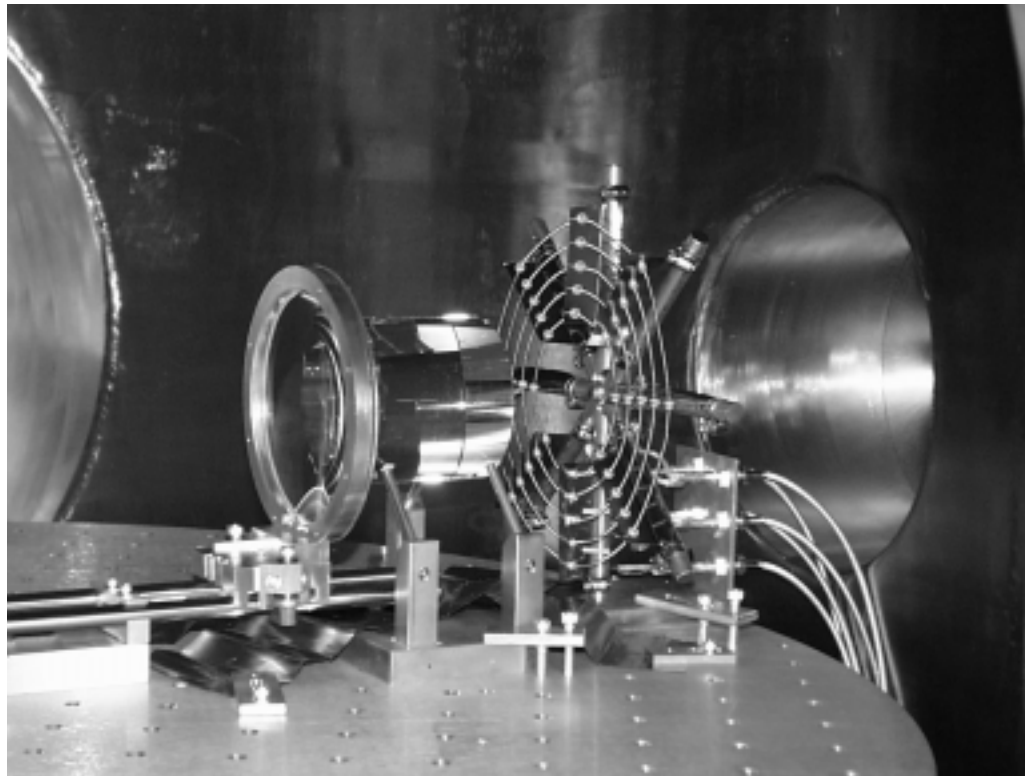
Core Optics - Sapphire Program Initiated

Measurements of Mirror Distortion

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Measurements of Mirror Distortion

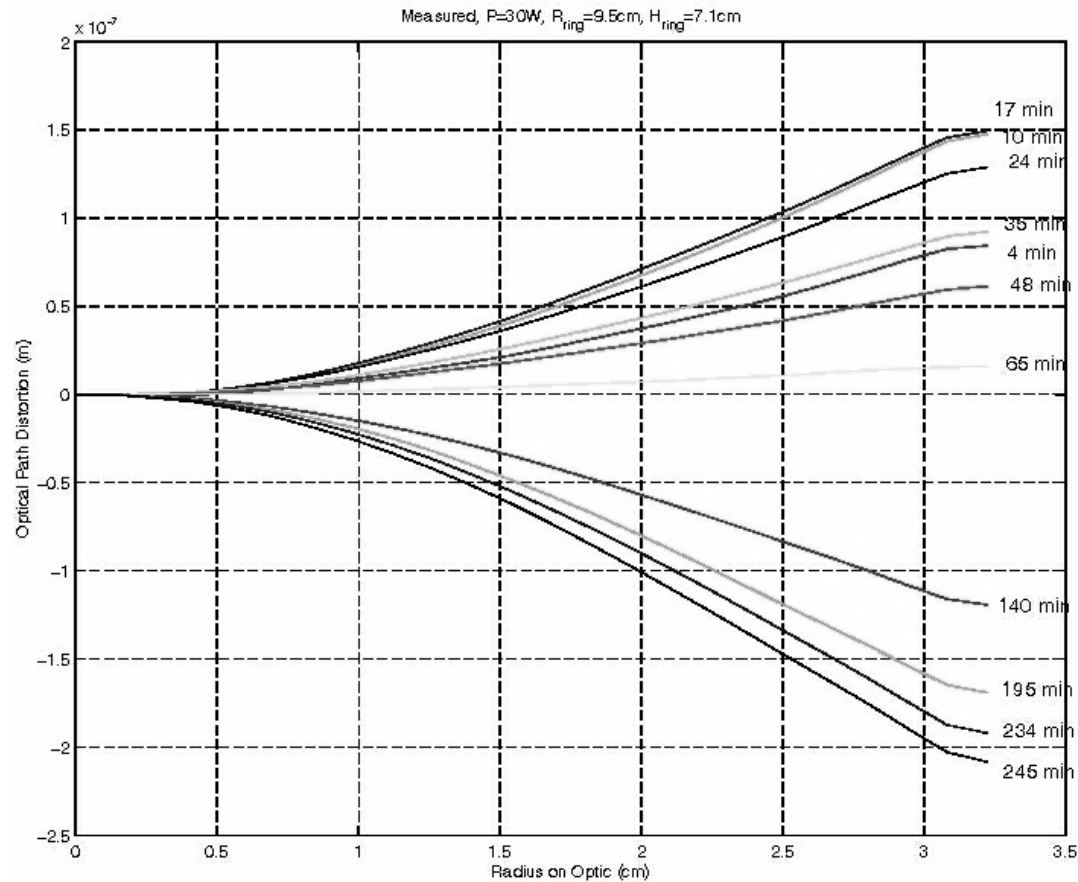
Adaptive Core Optic Control Experiment



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Measurements of Mirror Distortion

Adaptive Core Optic Control Experiment



Calculation of Mirror Distortion

