

LSC Six-Month Progress Report

Organization University of Michigan Gravity Wave Group (MGWG)

Report Date August 15, 2002

Attachment A / LIGO I

- a) Gustafson has continued work on systemic noise reduction.
- b) Gustafson has assembled and tested the components of an AM-based servo control for the recycling cavity.
- c) Gustafson has devised a monitor of parasitic interferometers resulting from reflection of light back onto the mode cleaner.
- d) Gustafson has contributed as a resident scientist at Hanford to ongoing commissioning work.
- e) Riles has continued chairing the LSC Detector Characterization Group, devoting much time to coordinating data monitor tool software development and organizing LSC participation in engineering runs.
- f) Chin has enhanced and delivered DMT software for defining and using operational state conditions, monitoring interferometer lock transitions, and monitoring servo instabilities. Chin has provided detailed lock segment information to the LSC on the E6 and E7 engineering runs.
- g) Chin, Gustafson and Riles have all manned several scientific monitoring shifts during engineering runs E6 and/or E7.
- h) Marsano has continued to refine pulsar search code as part of an analysis of fall 1999 40-meter data. Draft reports on the data cleaning and search code algorithms have been written. Monte Carlo studies of detection efficiency are underway.
- i) Chin, Riles and Gustafson have continued work in the periodic sources Upper limits working group.