

**Attachment OPT to the  
Memorandum of Understanding (LIGO-M050348-00-M)  
between the  
Goddard Gravitational Wave Astrophysics Group (GGWAG)  
and the  
Laser Interferometer Gravitational Wave Observatory (LIGO)  
August 15, 2005**

This Attachment OPT to the Memorandum of Understanding LIGO-M050348-00-M defines the role of the Goddard Gravitational Wave Astrophysics Group (GGWAG) as a Member of the LIGO Scientific Collaboration (LSC) and a member of the Optics Development Group (ODG). The period of performance for the activities in this Attachment is from August 15, 2005 to August 15, 2006.

1. Optics Development Group – The Optics Development Group (ODG) is the scientific collaboration for defining and developing improvements in optics for use in advanced subsystems for the initial LIGO interferometers or in entirely new advanced interferometers. MOU Attachments define the roles and responsibilities of groups in this development group.
2. During the period August 15, 2005 to August 15, 2006, the members of GGWAG Group will participate in ODG in the following area:

*Gingin High Power Test Facility* – Jordan Camp will serve as chairman of the advisory committee of the Gingin High Power Test Facility. The advisory committee advises the LIGO laboratory and the LSC on management and technical issues related to the Gingin research program.
3. Resource Sharing: The LIGO Laboratory will contribute resources including allocation of appropriate scientific and engineering personnel, research facilities and funding in support of the effort in Item No. 2, as indicated below.
  - a) Research accommodations for GGWAG group members while on LIGO research assignment at any LIGO Laboratory site,
  - b) Access to LIGO data in support through established LSC channels in support of this work.
4. Coordination and Reporting – GGWAG Group will perform this research within the structures established by the LIGO Laboratory and the LSC where appropriate. In particular activities described in Item 2 will be carried out within the Optics Development Working Group of the LSC. Coordination will include keeping the Group leaders informed of activities and plans, reporting to the group at meetings and telecons, and through technical documents submitted to the LIGO Document Control Center.

In addition, an annual report will be submitted with the update to this Attachment, giving a summary status on research by topic as indicated in Item No. 2, including progress against the milestones if any, significant accomplishments such as new insights/discoveries or publications, issues of concern if any, and an indication of invested time. This Attachment will be updated at least annually with a plan of activities for the succeeding on-year period. These documents will be due one month before the close of the period of performance under this Attachment.

Approved:

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Barry Barish  
LIGO Laboratory Director

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Jordan Camp  
GGWAG Principal Investigator

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Peter Saulson  
LSC Spokesperson

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David Reitze  
ODG Leader