

Attachment LAS to the
Memorandum of Understanding (LIGO-M050280-00-M)
between the
Australian Consortium for Interferometric Gravitational Astronomy
(ACIGA)
and the
Laser Interferometer Gravitational Wave Observatory (LIGO)
August 15, 2005

This Attachment LAS to the Memorandum of Understanding LIGO-M050280-00-M defines the role of the Australian Consortium for Interferometric Gravitational Astronomy (ACIGA) as a Member of the LIGO Scientific Collaboration (LSC) and a member of the Lasers Development Group (LDG). The period of performance for the activities in this Attachment is from August 15, 2005 to August 15, 2006.

1. Lasers Development Group - The Lasers Development Group (LDG) is the scientific collaboration for defining and developing future high power lasers 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 ACIGA Group will participate in LDG in the following areas:

Laser development –

- Install improved injection-locking servo electronics for 10W laser at Gingin.
 - Complete development of auto-locker and install at Gingin.
 - Increase output power of high power laser to > 100W.
 - Injection lock high power laser.
 - Develop injection-locked high power laser for Gingin, using laser diode stacks and ceramic YAG gain medium.
 - Install high power laser at Gingin.
 - Measure intensity and frequency noise of injection-locked high power laser.
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 ACIGA group members while on LIGO research assignment at any LIGO Laboratory site,
 - b) Access to LIGO data through established LSC channels in support of this work.

4. Coordination and Reporting – ACIGA 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 Lasers 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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LIGO Laboratory Director

David McClelland
ACIGA Principal Investigator

Peter Saulson
LSC Spokesperson

Benno Wilke
LDG Leader