Abstract Submitted for the SES08 Meeting of The American Physical Society

Enhanced LIGO Update KATHERINE DOOLEY, University of Florida, LIGO COLLABORATION — A series of upgrades on the Initial LIGO (Laser Interferometer Gravitational-Wave Observatory) detectors is almost complete and will result in an improved configuration called Enhanced LIGO with a two to three time increase in sensitivity above 100Hz. Changes include increased laser power, new Input Optics (Faraday Isolator and Electro-optic modulators), DC readout, an Output Mode Cleaner, in-vacuum readout hardware, a new Thermal Compensation System, and an advanced seismic isolation table. It is expected that Enhanced LIGO will be operational by spring 2009, marking the commencement of a sixth science run which will last until the interferometers are decommissioned for building the Advanced LIGO system. I will briefly describe the improvements and present the status of the upgrade.

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Date submitted: 15 Aug 2008

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