

LIGO Chronology - LIGO-L1400164-v2

LIGO Chronology

1970s – 1980s

- 1970s** Feasibility studies and early work on laser interferometer gravitational-wave detectors
- 1979** National Science Foundation (NSF) funds Caltech and MIT for laser interferometer R&D
- 1984** [Development of multiple pendulum Advanced LIGO Concept](#)
- 1988** [Development of signal recycling Advanced LIGO Concept](#)
- 1989** December Construction proposal for LIGO submitted to the NSF

1990s

- 1990** May National Science Board approves LIGO construction proposal
- 1991** Fall Congress approves first year funding for LIGO
- 1992** February NSF selects LIGO sites: Hanford, Wash., and Livingston, La.
- 1994** July Groundbreaking at Hanford site
- 1998** [JILA Demonstration of active-platform seismic isolation Advanced LIGO Concept](#)
- 1999** [LIGO Scientific Collaboration White Paper on a Advanced LIGO interferometer concept](#)
- 1999** November LIGO Inauguration Ceremony

2000s

- 2000** October Achieved “first lock” on Hanford 2-km interferometer in power-recycled configuration
- 2000** [Development of monolithic fused-silica suspension Advanced LIGO Concept](#)
- 2002** August First scientific operation of all three interferometers in S1 run
- 2003** [Proposal for Advanced LIGO to the NSF](#)
- 2004** [Advanced LIGO Hydraulic pre-isolator installed at Livingston](#)
- 2004** October Approval by NSB of Advanced LIGO
- 2005** [Demonstration of Advanced LIGO laser power](#)
- 2005** [Advanced LIGO thermal compensation system installed in initial LIGO interferometers](#)
- 2005** March Design sensitivity reached
- 2005** [Advanced LIGO appears in President’s budget as informational for 2008 start](#)
- 2005** November Start of initial LIGO Science run, S5
- 2006** May [NSF Baseline Review of Advanced LIGO](#)
- 2007** October Science run of one year integrated quality data at design sensitivity completed (“S5”)
- 2008** April [Advanced LIGO Project start](#)
- 2008** July [First scientific paper using S5 data published](#)
- 2009** July [Science run \(“S6”\) starts with enhanced initial detectors](#)

2010s

- 2010** October [Science run S6 ends](#)
- 2010** [Advanced LIGO installation of first interferometer starts](#)
- 2012** [Advanced LIGO first locking of single 4km arm, first locking of central interferometer](#)

2013		Advanced LIGO first locking of central interferometer
2014	April	Advanced LIGO Livingston installation complete
2014	May	Advanced LIGO Livingston first two-hour lock
2014	July	Advanced LIGO Livingston sensitivity surpasses Initial LIGO
2014	October	Advanced LIGO Hanford Installation complete
2015	February	Advanced LIGO Hanford first two-hour lock
2015	March	Advanced LIGO all interferometers accepted
2015	May	Both aLIGO instruments exceed 50 Mpc NS-NS reach