

LIGO1 Installation and Commissioning Status

- **Washington 2 km Interferometer**

- ›› Laser installed, frequency and intensity stabilization operational
- ›› Seismic Isolation installation essentially complete
- ›› All corner station suspended optics installed and aligned, suspension electronics functioning, but need tuning
- ›› Laser locked to Modecleaner and performance testing in progress
- ›› Test of single 2 km arm cavity about to begin

- **Louisiana 4 km Interferometer**

- ›› Laser installed on optical table; frequency and intensity stabilization loops being tested and debugged
- ›› Seismic isolation installation approximately 60% complete

- **Washington 4 km Interferometer**

- ›› Seismic isolation installation just beginning



Plan for Summer 2000

- **Washington 2 km Interferometer**

- ›› All suspended optics installed, aligned and operational
- ›› **Laser/Modecleaner testing complete**
- ›› **Single arm cavity test completed**
- ›› Full interferometer control system nearing completion

- **Louisiana 4 km Interferometer**

- ›› Laser installed, frequency and intensity stabilization operational
- ›› Seismic isolation installation complete
- ›› Most suspended optics installed, aligned, damped
- ›› Laser locked to Modecleaner and performance testing in progress

- **Washington 4 km Interferometer**

- ›› Seismic isolation installation complete
- ›› Laser installed, stabilization servos underway
- ›› Some suspended optics installed, aligned, damped

Plan for Summer 2001

- **Washington 2 km Interferometer**

- ›› **Full interferometer locked, extended lock durations possible**
- ›› **Performance characterization in progress; sensitivity $\sim 10^{-20}$**

- **Louisiana 4 km Interferometer**

- ›› **All suspended optics installed, aligned, controlled**
- ›› **Laser/Modecleaner testing complete**
- ›› **Full interferometer locked for brief periods of time; investigations to extend lock duration ongoing**

- **Washington 4 km Interferometer**

- ›› **Laser installed, frequency and intensity stabilization operational**
- ›› **All suspended optics installed, aligned, controlled**
- ›› **Laser locked to Modecleaner and performance tuning in progress**