



NSF Management and Oversight of LIGO

Victor Cook Program Manager for LIGO

Outline

- **Program Manager for LIGO**
- **LIGO Coordinating Group**
- **Management/Oversight Procedures**
- **Some Management/Oversight Issues
Past and Present**



Program Manager for LIGO

- NSF created the position **Program Manager for LIGO** (1993) following **Panel Review** (1992) that concluded:

“Communication between LIGO management and the NSF must be both easy and intense.”

“LIGO will need active NSF support at many junctures.”

“NSF must always be well enough informed to respond quickly and intelligently to inquiries and requests from the congressional and executive branches of government.”

“Toward this end, we believe that a slot should be created within the NSF for an individual who will have something approaching a full-time LIGO liaison responsibility”.



LIGO Coordinating Group (LCG)

- **David Berley**, first Program Manager for LIGO, formed NSF **LIGO Coordinating Group** (1993) including
 - Office of Budget and Finance Award Management (**BFA**)
 - Division of Grants and Agreements (**DGA**)
 - Office of the General Counsel (**OGC**)
 - Office of Legislative and Public Affairs (**OLPA**)
 - Mathematical and Physical Sciences Directorate (**MPS**).
- **LCG** met (at least) weekly during facility construction project (1993-1998); now meets approximately monthly.
- **Current membership:** John Chester (OGC), Victor Cook (PHY), Patricia Crumley (BFA), Joseph Dehmer (PHY), Richard Isaacson (PHY), Amber Jones (OLPA), Carol Langguth (DGA), John Lightbody (PHY), Mavis Sinkular (DGA), David Stonner (OLPA).



Management/Oversight Procedures

- **Cooperative Agreement** establishes responsibilities of **Caltech/MIT** and **NSF**.
- **LCG** worked with **LIGO** and **Caltech** staff to produce the agreement.
- **LIGO Management Plan** was reviewed and approved by **LCG**.

These two documents form the framework for NSF management and oversight.

- **Semi-Annual Oversight Review by external experts, with long-term continuity.**
- **Special topic reviews by external experts.** (1-2 per year)
- **Site visits** by **LIGO Program Manager**, often with other members of **LCG**, some with members of **NSB**; 12-16 per year during facility construction; 9 during past year.
- Consultation/meetings with **LIGO staff** at **NSF**: 3 to 6 times per year.
- Identification of issues and procedures for handling them developed by **LCG**, in particular **David Berley (PHY)**, **Richard Isaacson (PHY)**, **Aaron Asrael**, **Carol Langguth**, and **Jesse Lasken**; **they represent a significant NSF resource.**



Some Management/Oversight Issues- Past and Present

- Replacement of **LIGO Management** (1994) by Caltech/MIT in response to NSF concerns about transition from development to construction; these concerns also expressed by NSF **Special Emphasis Review Panel**; action concurred in by **LCG**.
- Revised cost estimate by new LIGO management reviewed (1994) by **Kirk Panel** which recommended **larger contingency**, an important risk management strategy.
- **LCG** negotiated lease agreements with LSU for use of Livingston, LA site and with **DOE** for use of Hanford, WA site (1994-5).
- **McDaniel Panel** recommended formation of **LIGO Scientific Collaboration (LSC)** (1996), supporting NSF plan to make LIGO a national facility.
- **Current activities of LCG:** Develop new **Cooperative Agreement** between NSF and Caltech; Review/Approve new **LIGO Management Plan (Charter)** for LIGO operations phase, **LIGO sub-contracts** and **Memorandum of Understanding** with VIRGO (France/Italy).