

# The NGST Science and Operations Center (S&OC) @ STScI

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NGST

A NASA  
Origins  
Mission

# The S&OC Responsibilities 2002–2010 (based on RFP)

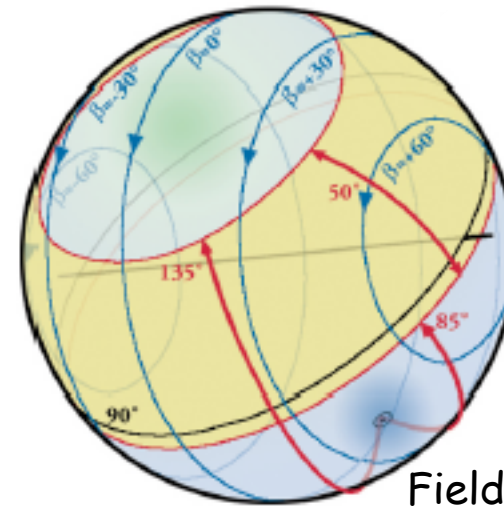
- **Manage the NGST Science Mission**
  - Solicit proposals
  - Scientific Peer Review
  - Assign NGST resources (time and, for US GOs, \$)
- **Operate the NGST Observatory beginning at launch.**
  - Planning and scheduling → Data distribution
  - Flight Operations
- **Develop the NGST Ground System**
- **Support the development of the NGST Observatory, including science instruments**
- **Lead the Education and Public Outreach effort**

# Operations Concept

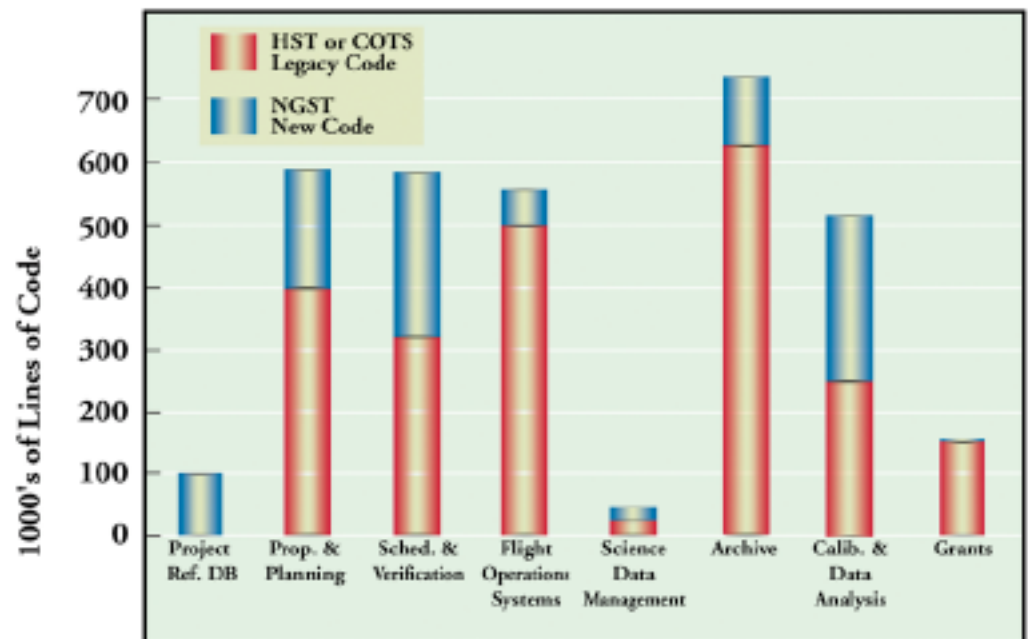
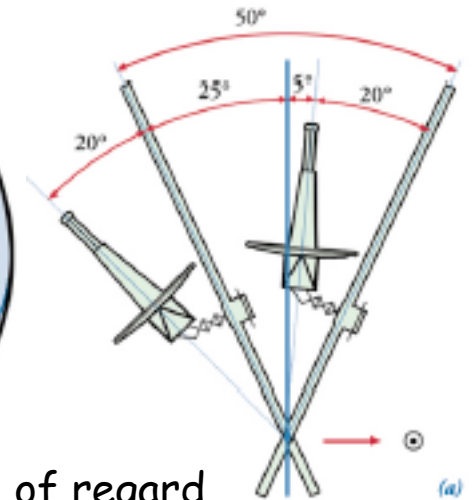
- **Proposal Solicitation similar to HST**
  - Single, international peer review
  - “Legacy” or “Treasury” programs
  - Grant process like HST’s
- **Integrated Phase 1 & 2 submission available (but not mandatory)**
  - Faster turnaround for imaging and small programs (can save 6 months).
  - Sets goal for integrated tools
- **Observations placed in 1–2 week bins in long-range plan. Most (> 90%) will execute successfully in planned interval.**
- **Data handled by Multi-mission Archive @ ST (MAST)**
  - Archive compressed, uncalibrated data
  - On-the-Fly calibrations upon demand
- **Data Analysis & Calibration software available for most platforms.**

# Ground System Development

- Operating NGST is simpler than operating HST.
  - Activity-based, not time-based
  - High-level commanding to spacecraft
- HST heritage code and systems for most tools
- Flight Operations System & Comm. to be procured



Field of regard



# Observatory Development 2002–2009

- The STScI will provide technical support (scientists, engineers, and operations staff).
  - Mission Design
  - Science Working Group
  - Systems Engineering Board
  - Technology development
  - Science Instrument design and I&T
  - Optics, fine guidance system, and spacecraft design and I&T.
- *S&OC ground system will be deployed to all contractors for development and pre-launch testing.*