Chapter 19
STIS Overview

In This Chapter...

Instrument Capabilities and Design / 19-1
Basic Instrument Operations / 19-4

This chapter provides an overview of the capabilities and design of STIS and describes the basic instrument operations. The material presented here is excerpted from the more complete information provided in the *STIS Instrument Handbook*, and we refer you there for more complete information about the properties of STIS as an instrument.

19.1 Instrument Capabilities and Design

The Space Telescope Imaging Spectrograph (STIS) was built by Ball Aerospace Corporation for the Goddard Space Flight Center (GSFC) Laboratory for Astronomy and Solar Physics, under the direction of Bruce Woodgate (GSFC), the Principal Investigator (PI). STIS has been performing very well since its installation during the second HST servicing mission in February 1997. A basic description of the instrument, and of its on-orbit performance through the Servicing Mission Orbital Verification (SMOV) program is provided by Kimble, et al. (1998, *ApJL*, 492, L83). We encourage all STIS users to reference this paper, and to review the related papers in this special *ApJ Letters* which describe the Early Release Observations, and demonstrate the realized scientific capabilities of STIS. Long-slit and slitless image spectroscopy of galactic nuclei and SN1987A are described in Bower et al. (1998), Hutchings et al. (1998), and Sonneborn et al. (1998); medium- and high-resolution UV echelle spectroscopy of stars and the interstellar medium are described by Heap et al. (1998), Jenkins et al. (1998), and Walborn et al. (1998); Schultz et al. (1998) describe visible and near-IR spectroscopy of a brown dwarf near a much brighter companion; Pian et al. (1998) and Sahu et al. (1998) describe deep CCD imaging of a Gamma Ray Burst transient and of gravitational lens arclets, respectively; and Gardner et al. (1998)