

## Chapter 14

# NICMOS Instrument Overview

### In This Chapter...

Instrument Overview / 13-1  
Detector Readout Modes / 13-2

This chapter presents a brief overview of the Near Infrared Camera and Multi-Object Spectrometer (NICMOS) instrument capabilities, its readout modes, and data products.

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## 14.1 Instrument Overview

NICMOS was built by Ball Aerospace Corporation for the University of Arizona, under the direction of Rodger I. Thompson, the Principal Investigator. A basic description of the instrument and its on-orbit performance through the Servicing Mission Orbital Verification program is provided by Thompson et. al (1998).<sup>1</sup> We encourage all NICMOS users to reference this paper and to review the related papers in the special *ApJ Letters* which describe the Early Release Observations and demonstrate the scientific capabilities of NICMOS.

NICMOS provides imaging capabilities in broad, medium, and narrow band filters, broad-band imaging polarimetry, coronagraphic imaging, and slitless grism spectroscopy, in the wavelength range 0.8–2.5  $\mu\text{m}$ . NICMOS is an axial instrument and has three adjacent but not contiguous cameras, designed to operate independently and simultaneously. Each camera has a different magnification scale, and is equipped with a dedicated 256 x 256 HgCdTe Rockwell array. The pixel size and field of view are 0".043 and 11"x11" in Camera 1 (referred to as

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1. Thompson, R.I., M. Rieke, G. Schneider, D.C. Hines, and M.R. Corbin, 1998, *ApJL*, 492, L95.