DAIC and PICA Mutation

After many years of faithful service the two HP1000/F's (aka DAIC and PICA) used for data acquisition and instrument control have been retired as of December 1, 1989. Their functions have now been replaced by the new HP9000 systems running Unix.

The retirement of the DAIC and PICA will only affect observers bringing their own instruments and observers who regularly observe in the "back room". We will no longer offer access to an HP1000/F system for visiting instruments nor will we offer access to CAMAC for visiting instruments.

There will be no access to the bonnettes from the "back room" for first semester 1990. The telescope operators regularly control both the bonnettes and televisions and have proven to be very proficient at this task.

The DAIC and PICA will retire from data acquisition service but will remain on site to serve as spares for the TCS system which is still HP1000 based.

Their pseudonyms will not be vacant for long — the two HP9000 series 800's will become known as DAIC and PICA immediately.

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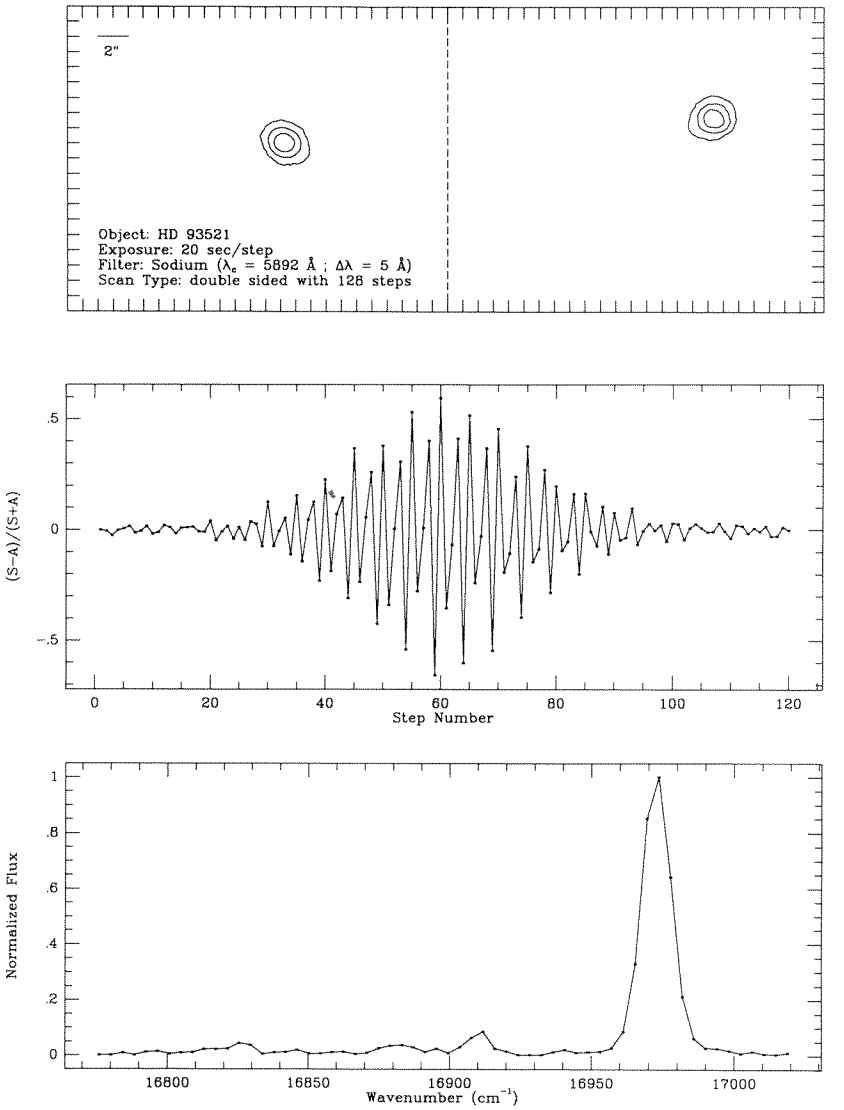

Figure 11

First 2D Spectroscopy Tests in the IR with a CCD and the FTS

Introduction

The FTS has been successfully coupled to the Institute for Astronomy's 800x800 optical CCD, in an effort to make a Fourier imaging spectrometer. The primary goal of the FTS-CCD interface project has been to create an instrument that is capable of making both high spatial and spectral resolution observations of a variety of objects. Possible applications include *very* efficient velocity dispersion mapping of galaxies and star clusters, as well as high resolution imaging/spectroscopy of complex line emission fields.

Basic Design

The system is based upon an optical interface that reimages the telescope's focal plane onto the 800x800 CCD through the FTS optical train. With this technique a pair of complimentary images are formed at the CCD focal plane through each of the FTS's output beams. The 1:1 magnification of the interface optics provides a maximum field of view of ~20" with a plate scale of 0.2 arcsec pixel^{-1}. As the FTS steps through different mirror positions, images are recorded by the CCD and written to magnetic tape. In order to maximize the system's efficiency no more than 100 rows are actually clocked out of the CCD at the end of each integration, depending on the selected field of view. The FTS mirror steps and CCD integrations are synchronized through an electronic interface between the already existing FTS and CCD support electronics. Since the electronic interface was designed to be essentially "transparent" to the FTS and CCD control systems, only minor modifications to the FTS and CCD were needed to electronically link the entire system.

Preliminary Results

The system was characterized during a pair of two-night observing runs during 1989. Though both runs were significantly hampered by poor weather, enough data were acquired to determine the basic viability of the system. During the first run, several stars and a globular cluster were ob-