



# INFORMATION BULLETIN

CANADA-FRANCE-HAWAII TELESCOPE

BULLETIN NO. 7

JUNE, 1982

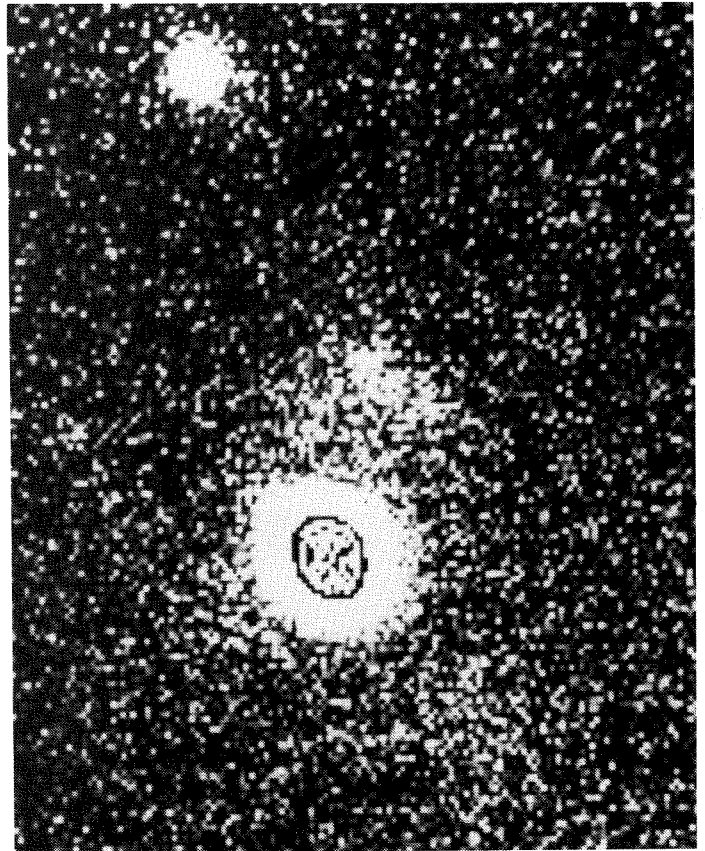
## First observing run at F/8 Cassegrain

The engineering of the F/8 Cassegrain focus at CFHT was followed by A. Stockton's exciting observing run with the Galileo/IFA CCD mounted at the "nominal" focus. The first science done at the F/8 was accomplished with a CCD camera fabricated at the Institute for Astronomy, which contains a Texas Instruments 500 x 500, 3 phase, buried channel CCD developed by JPL for the Galileo project team. Largely through the efforts of R. Hlivak, J. Howell, and C. Pilcher of the IFA, this detector has proven to be a scientifically productive and reliable instrument for the UH 2.2 m telescope on Mauna Kea.

The observers A. Stockton and J. MacKenty obtained CCD frames through a system of intermediate band filters, designed by Stockton, to investigate the morphology of "fuzz" in the vicinity of QSO's. An accompanying photograph, shows the appearance of the fuzz surrounding the QSO 4C 37.43. The raw data was treated with a first order processing procedure for "quick look" purposes only, during the observing run. The observers reported that sky noise limited exposures could be obtained in 30 minutes.

During observing sessions, IFA observers using this CCD camera routinely made "seeing movies" as a part of the focussing procedure. These are frames containing multiple 1 second exposures of a bright star taken in rapid succession. At one point in their run, Stockton and MacKenty reported images as small as 0.5 arc seconds FWHM.

The observing run was considered an unqualified scientific and technical success by all involved. For the most part the observers were able to work comfortably from the 4th floor observing room, using the Cassegrain guiding head guide probe for field acquisition and guiding. Credit goes to both the IFA and CFHT staff who worked diligently to make the run a success, and to the observers



*Red CCD image of quasar 4C 37.43 obtained at f/8 Cassegrain focus by A. Stockton. This frame shows nebulosity near the QSO, as well as a compact galaxy 11 arc seconds away with the same redshift (0.37). Original scale was 0.11 arc seconds per pixel.*

who were eventually rewarded for their patience.