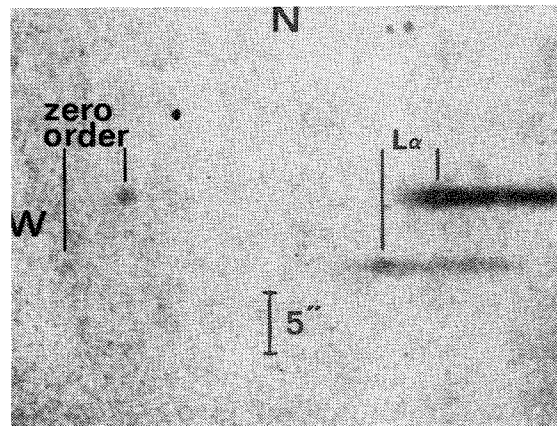


R. Foy and D. Bonneau used a fast shutter mechanism (5ms) in their own interferometric speckle camera at the prime focus. The shuttering is used to cancel the rapid turbulence which is specific to the site, which they discovered during a previous run. They also pioneered use of the newly remodeled control room.

On March 15, again the observatory was recommissioned for prime focus observers following another storm. J.L. Nieto and C. Veillet undertook a vigorous session taking multiple short and long exposures for their respective programs to study galaxies of high resolution and satellite systems of Saturn and Uranus. Following their run, E. Hardy and E. Borra returned to CFHT on 21-23 March to continue their search for high z QSO's. Unfortunately these observers have maintained their legendary observing record: most of their time was clouded out. Although they only obtained two plates, Eduardo and Ermano should take heart, as the weather also was adverse for R. Cayrel on 20-23 March. The former director was able to obtain only a few plates for his program researching the galactic halo.

After a two month interruption in prime focus observations, P. and M. Veron enjoyed a successful run with the new



*Discovery grens spectra of third gravitationally lensed quasar (2345+007) obtained by D. Weedman. MMT spectra of the two objects reveal redshifts of 2.152 and 2.147, with uncertainties of 0.005. For further details, see Weedman et.al., Ap.J. Letts., 255, L5.*

prime focus unit with its finally adjusted optics. This May, the Verons used the green grens with both the direct camera and the ITT tube to continue their identification of radio sources and QSO's to complete this semester's prime focus observing.

## Infrared Observing and Stormy Weather

Observations in the infrared during the past semester were carried out with three instruments: the InSb photometer, the Fourier Transform Spectrometer, and a visiting instrument, a heterodyne spectrometer. Unfortunately all runs were affected by poor weather.

The first run of J.P. Maillard was with the FTS at the coudé focus, the only one since the first attempt in May 1981. After the instrument and the coudé train were aligned, low resolution spectra of bright stars were recorded for testing purposes. Just as all was ready to start a longer series for a program of determining isotopic oxygen ratios in giant stars, the sky became cloudy, announcing the next storm which wiped out the rest of the run.

R. McLaren and A. Betz used the same optical configuration to feed their heterodyne spectrometer. But all the efforts to set up this nice experiment were completely lost because of the weather condition. They had proposed to detect NH<sub>3</sub> lines at 10.6 microns in cool giant and Mira stars.

The first test of the FTS at the f/35 focus had been scheduled for April 2 to 5. The two nights before had been reserved to carry out further tests on the infrared chopping secondary mirror and a

new viewing system for the Cassegrain bonnette. None of these tests were possible, and for the FTS just after, only technical tests were performed, essential anyway. Outside the blizzard was at its maximum. The three main tests performed at the Cassegrain focus were: importance of the mechanical flexures of the structure, stability of the optical alignment at the temperature of the observing floor, and immunity of the critical signals to pick-up noise on long transmission lines. All of these tests were successful, but similar tests must now be done now with a direct stellar signal on the detectors.

The following runs by R. McLaren, C. McAlary and R. McGonegal were the first with the InSb photometer. They had hoped to do infrared spectrophotometry of Seyfert galaxies and photometry of Cepheids. But the weather was again bad and when it cleared the sky was never photometric. In addition the telescope was out of commission at the beginning of the run because of technical problems with the handling of the infrared upper end.

This first semester in infrared was not very satisfactory, essentially because of the bad weather. However, we have gained valuable experience with the instruments, and are hoping for the best for the next semester.