4 %. The slicer acts similarly to a thick parallel plate, in which the first slice of the input spot is transmitted directly and the remainder of the spot is transmitted in translated slices of which the nth undergoes 2 (n-1) internal reflections. Experience has shown that this image-slicer is relatively easy to install, particularly since the fibre output end is immobile and can be conveniently fed with a white calibration source for daytime alignment of the slicer.

Photometric Comparison of the CAT with the 3.6 m Telescope + Fibre Link

Despite many foreseen difficulties involved in the photometric comparison of spectra obtained via the CAT with those derived by means of the fibre link, such measurements were nevertheless attempted during the first part of the recent test period. Since an effective slit width of 350 μm was imposed by the nature of the image-slicer, the CAT was used with a slit setting of the same value in order to achieve an identical resolution in both sets of observations. Spectra were thus recorded, sequentially, from the CAT and then from each of the two fibres, at ten different wavelengths using the bright stars δ^2 Vel, α Vir, and S Car. These stars were selected for their essentially smooth continuous spectrum at the chosen wavelengths and, in addition, in the case of S Car, for reasons of astronomical interest.

The read-out noise corrected, raw spectra obtained from both telescopes were reduced together in the same way; the relative gain γ (λ) of the fibre link + 3,6 m over the CAT is defined as the ratio of these reduced spectra. These values are plotted in Fig. 2, together with a curve (solid line) representing the theoretical gain if the fibre alone were to contribute to the system losses. The effective efficiency (righthand ordinate) corresponding to these curves is determined simply by dividing the gain (given by the lefthand ordinate) by the ratio of the collecting areas of the two telescopes (taking into account the reflection efficiencies of 0.90 and 0.98 for the two additional mirrors present in the CAT coudé train, and allowing for the central obstructions of respectively 1.58 m and 0.47 m for the 3.6 m and 1.4 m (CAT) telescopes). This factor is equal to 6.82 (2.1 magnitudes).

Tentative Time-table of Council Sessions and Committee Meetings in 1984

October 8	Scientific Technical Committee, Chile
November 13–14	Finance Committee
November 27–28	Observing Programmes Committee
November 28	Committee of Council
November 29–30	Council

All meetings will take place at ESO in Garching unless stated otherwise.

The Influence of Seeing

Although the above figure was used to calibrate the efficiency ordinate in Fig. 2, it should be remembered that this

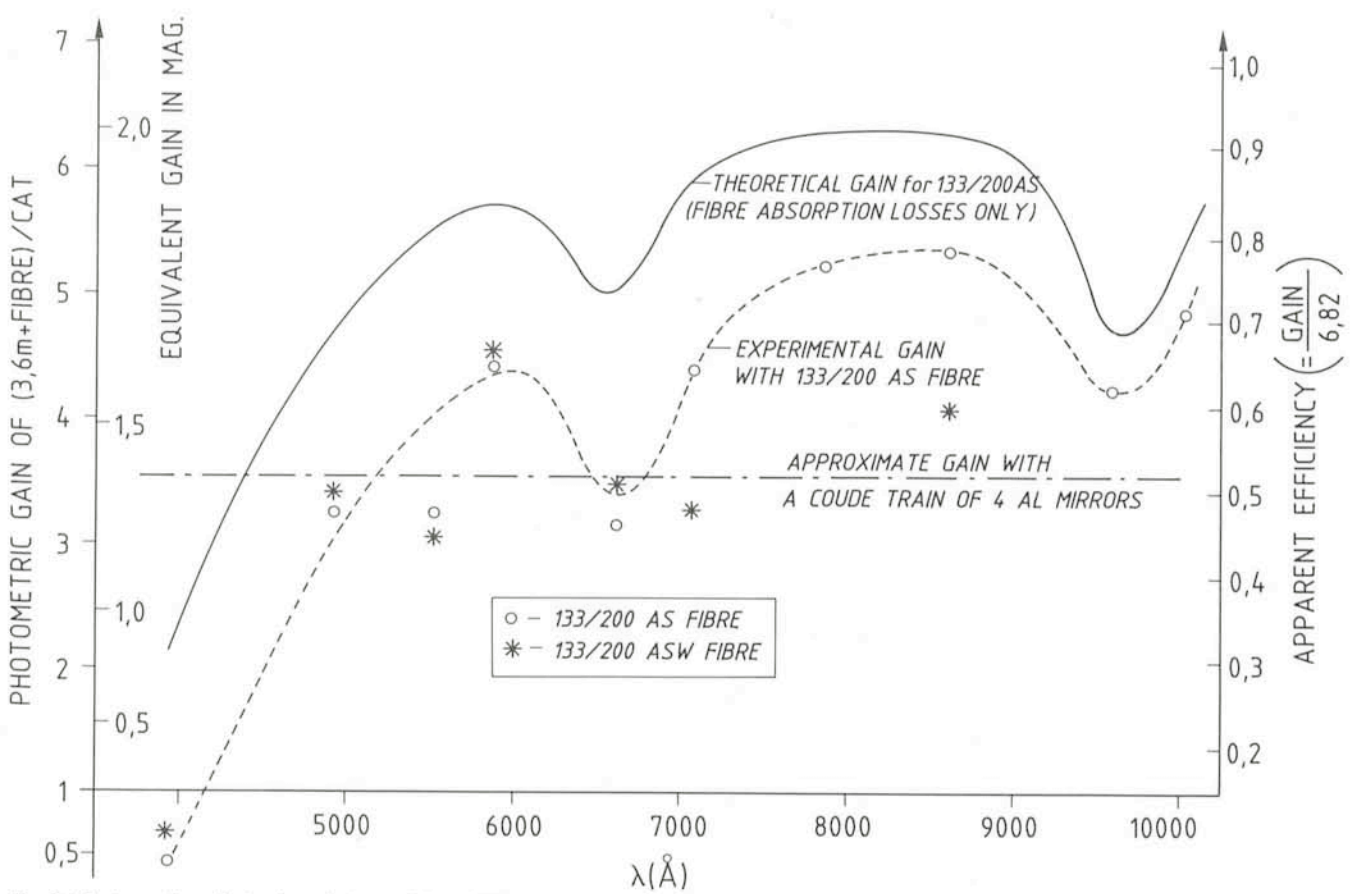

Fig. 2: *Photometric gain (and equivalent efficiency) for the 3.6 m telescope + optical fibre link, when compared with the CAT. The experimental points (including a dotted-line interpolation for the AS fibre) are compared with the theoretical transmission efficiency of the AS fibre alone. The difference between the two curves is accountable mainly from the combined efficiencies of the optical beam transfer elements (Fig. 3), equal to around 71 %. The gain to be expected from a conventional coudé mirror train is also indicated.*