strument and EG & G Reticon in the USA.

While many of these devices show excellent properties, they hardly fulfil the desiderata of astronomers either in term of size (they are just too small!) and of other working parameters. In one of many initiatives to foster the development of better devices for astronomy, ESO joined INSU of France in 1988 to support the production of 1024 pixels, front-illuminated CCDs by Thomson CSF.

Three devices of this type (TH 31156) were delivered to ESO during 1989 and they were intensively tested in the ESO detector laboratory. One was installed on the EFOSC2 focal reducer at the NTT in December 1989. It had been previously coated at ESO with laser dyes to enhance the UV-blue quantum efficiency. Figure 2 shows the final efficiency curve. The other characteristics of this CCD, now designated as ESO # 17, can be summarized as follows: r.o.n = 6 e^- pixel, dark current at 140 °K 30 e^-/pix/hr, high charge transfer efficiency, linearity over a dynamic range of 10^5, cosmic events rate 1.5 events/cm^2/min, saturation level of one pixel 1.6 10^5 e^-, absence of any major blemish. These properties make the TH 31156 CCDs a good choice for a wide range of observing programmes and explains why devices of this type have now also been introduced at the AAT 150-inch and the Tololo 4-m telescopes.

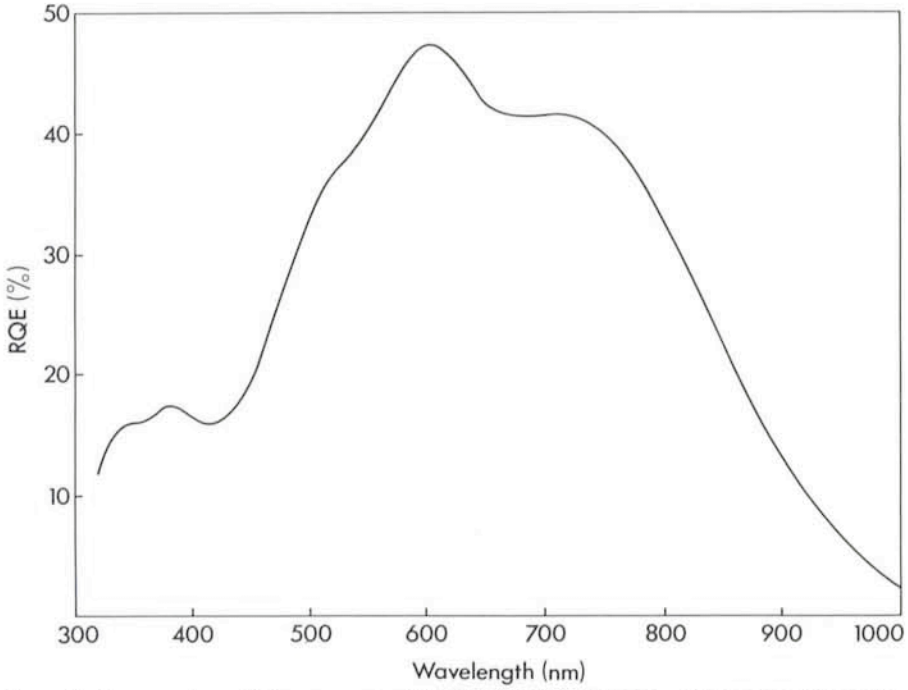

Figure 2: *The quantum efficiency curve of the TH 31156 CCD (ESO # 17) after coating in the ESO laboratory.*

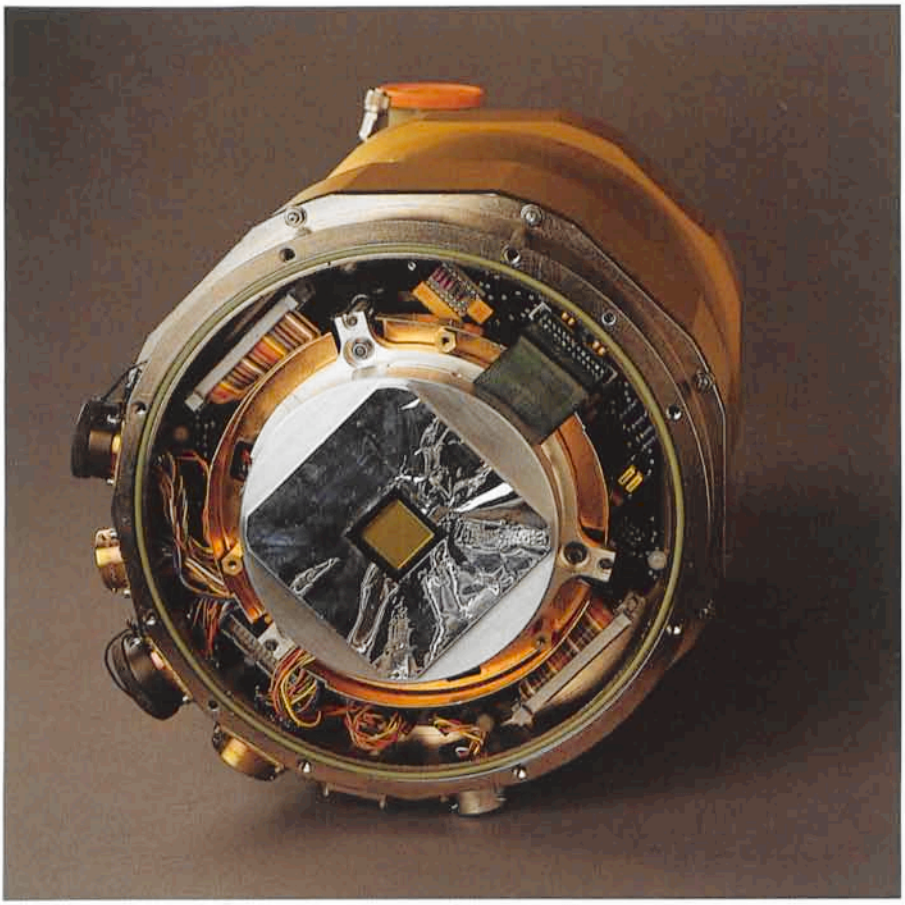

Figure 3: *A view of the TH 31156, 1024^2 pixels CCD on the new mounting designed and realized at ESO. With a 2.3-l liquid nitrogen tank, the dewar can operate the CCD at the required temperature of 140 °K for periods longer than 24 hours without refilling.*

The December 1989 commissioning run at the NTT represented also the culmination of two other important developments carried out at ESO in the field of optical detectors. The CCD was installed with a new, versatile control camera based on commercially available VME-bus boards and on custom-made boards interfacing the CCD to the VME-bus. The camera (Reiss et al. 1989, SPIE Vol. 1170) was developed in the ESO electronics lab in the last three years and finds a wide range of applications in present and future ESO instruments.

The CCD was installed in the dewar on a new front-end also designed at ESO for use with CCDs as large as 6 × 6 cm (Fig. 3). Other novel features of the new mounting are the location of the pre-amplifier board close to the chip to minimize the system noise and various artifices adopted to maximize the thermal insulation and to facilitate a precise spatial adjustment of the chips.

First Announcement

HIGH-RESOLUTION IMAGING BY INTERFEROMETRY. II

From 15 to 18 October 1991

European Southern Observatory
Garching bei München, F.R. Germany

Chair: **J.M. Beckers and F. Merkle.** For further information contact "Interferometry 91", c/o Christina Stoffer at ESO, Karl-Schwarzschild-Strasse 2, D-8046 Garching bei München, F.R. Germany.