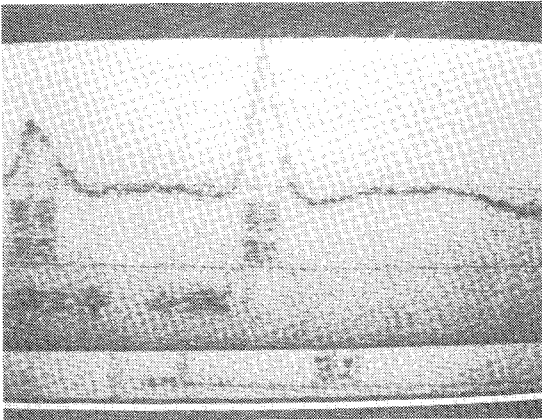
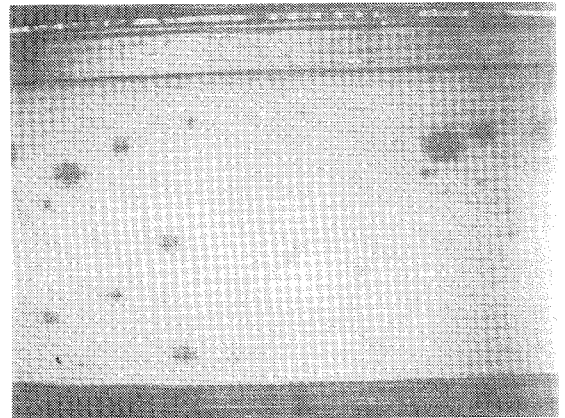


# TV LINK BETWEEN MAUNA KEA AND MEUDON

During a run with the coude Spectrograph, in September 1983, Paul Felenbok and his team (Jean Czarny, Claude Catala) tried the first transmission of TV images from the CFHT dome to Meudon Observatory. They transmitted the images of the guiding camera and hard-copies of Reticon stellar spectra just after they were displayed at the end of the exposure. In December, the same system was used for a prime focus run to transmit images of the field of the object Geminga (see Scientific News). The participants, situated in Meudon, were able to identify unambiguously the objects on the transmitted image by comparison with the original one.



*An interesting portion of the spectrum of a Herzbig Ae/Be star displayed on the hard-copy just after the end of the exposure, as it was received 6 seconds later at Meudon Observatory through the telephone line. The observers had drawn a straight line on the original spectrum representing the continuum of the star.*



*The TV image of the field of the X-ray object Geminga was transmitted to the co-investigators of this observation before starting the exposure.*

The instrumentation used is a prototype of a slow scanning television transmitter-receiver using a telephone line to carry video signal. TEVELEX, the trade name of this equipment, is built by the French company Thompson-CSF. It allows the transmission of a TV image of 625 or 525 lines in 6 sec at a resolution of 128 x 128 pixels. A resolution of 256 x 256, with 64 grades of density, is possible at a rate of 24 sec per image. Four video cameras can be connected to the same transmitter and can use the same standard telephone line.

This is an interesting experiment of exchange of observational data in real-time between observers and their co-investigators staying in their home institution. It would be a way of saving the time and the money of long travels to come to observe very far away.

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## THE DATA REDUCTION FACILITY

The new VAX 11/750 data reduction computer arrived in mid-October and is running very smoothly. However, due to problems with delivery from DEC, a few components did not arrive until late January. The final configuration includes the VAX (3 MB memory), two 456 MB Winchester disks, one 1600 BPI streaming tape drive, two tri-density (800, 1600, 6250) tape drives, 24 terminal ports, a 600 LPM printer/plotter, and a four pen plotter. The VAX is currently running VAX/VMS 3.4 and has FORTRAN and C compilers available.

The Image Processor (I<sup>2</sup>S Model 75) has also arrived with the monitor being located in the "PDS alcove" in the

computer room. The Model 75 is International Imaging Systems replacement for the Model 70 which is currently in use at many astronomical sites. Our I<sup>2</sup>S is configured with 8 512x512x8-bit image planes, 8 graphic planes and a video digitizer which will accept input from camera or tape.

The last major item to arrive was the Array Processor (FPS 5310), which made it on the last day of January. The AP will add a large number crunching capability (30 million floating point operations/second) to the system and will speed up the processing of data produced by the FTS, the CCD chip.