radiation. Once the glass has cooled down to about 800 – 900 C, the mold is brought into the annealing furnace (Fig. 2) where it will stay for several months.

There will be one more casting, the goal for SCHOTT being to manufacture a total of 6 blanks, four of which will be delivered to ESO and the two others will wait for potential customers. At the latest in July the melting tank which has been in continuous operation since 1990 will be shut down.

Glass making is a very specialized field, which combines tradition, dedicated experience and modern technologies. Making 8-m-class blanks is a fascinating achievement. Moreover, other fascinating achievements are still to come, with the work of the polishing tools.

Seeing at Paranal: Mapping the VLT Observatory

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Modifying the shape of a summit after it was chosen for its outstanding qualities in optical turbulence raised justified concerns in the community about possible perturbations of the local flow pattern and their possible negative effect on the astronomical seeing. Numerical simulations had been performed at RISOE, Denmark, for various input wind conditions predicting neglectable effects at the northern and southern edge of the new 25,000 square metre telescope area. It was nevertheless not without some apprehension that we pushed the "start" key of the seeing monitor, now located on the newly formed VLT platform, on November 29, 1992.

The VLT observatory was greeting its first pieces of optics with the impressive sight of perfect flatness only broken by four huge holes giving the scale of the future observatory (Fig. 1). The Differential Image Motion seeing monitor which was used that night (DIMM1) was incidentally the same as the one started in April 1987, on the same summit, then 28 m higher when the seeing survey was initiated. During this survey, the 35-cm diameter Cassegrain telescopes were operated on concrete platforms at 5 m above ground. This was considered a lower height limit for the position of the primary mirror of modern telescopes.

Because of manpower shortage, it was unfortunately impossible for the VLT civil engineering department to design, for the new measurements, a tower which could be easily removed during the VLT erection phase. The DIMM1 telescope was thus installed on a 1 m high platform convenient to protect the optics from local dust. This was however not high enough to escape thermal turbulence in the surface layer,

Figure 1: *Location of the seeing monitoring stations in the new VLT telescope area.*

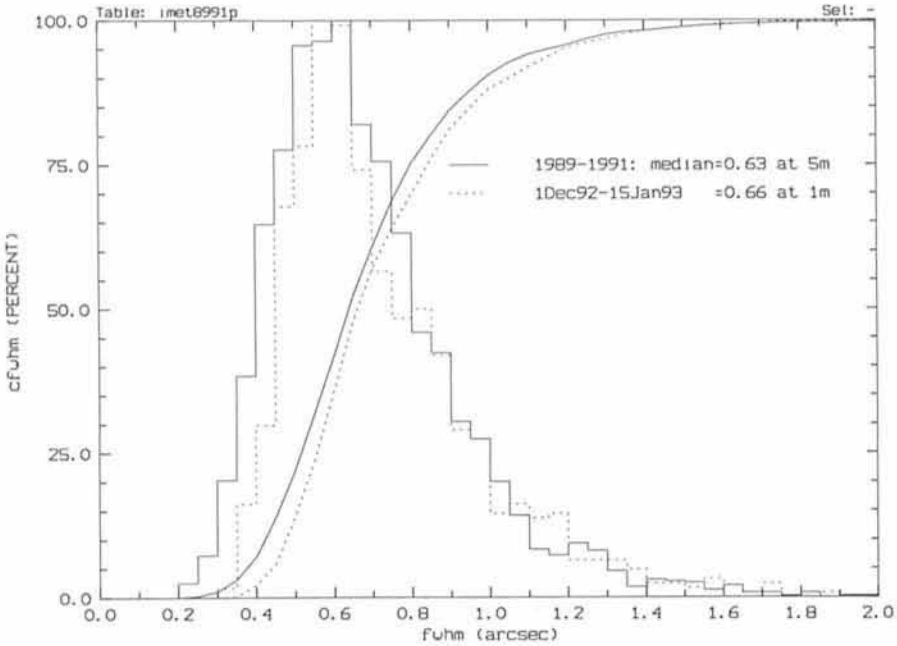

Figure 2: *Statistics of seeing measurements before and after summit levelling. Seeing is computed for equivalent 20-min exposures obtained at 0.5 μm at zenith with a perfect large telescope.*

inducing an artificial increase of local seeing particularly sensitive in extremely good overall conditions.

Such local effects are illustrated in Figure 2, comparing one and a half month of measurements at the northern edge of the telescope area with the statistics available for the Paranal peak until the disruption of measurements in July 1991. While the upper tail of the probability distribution (seeing is computed for equivalent 20-min exposures at 0.5 μm at zenith) is virtually unchanged, the five percentile increases from 0.37 arcsec at 5 m above ground to 0.44 arcsec at 1 m above ground.

Another identical system (DIMM3) was used in the same conditions as DIMM1 to monitor the southern edge of the telescope area. One month of common data summarized in Figure 3 did not permit to detect any permanent differential effect related to the position with respect to the incident wind flow. The spread of the regression is however linked to a sporadic increase of local turbulence at either location, the strongest events taking place at low (< 2 m/s) wind speed.

With a median seeing of 0.66 arcsec at 1 m above ground, Paranal has clearly survived the blasting. More seeing observations will be made at 5 m height on a tower currently under design at the Observatory of Capodimonte, Italy. Strange as it appears, the next threat for site quality will be the VLT itself. This is why great care is taken in the design of the observatory to avoid heat and cold sources both inside and outside the enclosures.

We thank the VLT Site and Buildings Group for providing the infrastructure at Paranal. The monitors are operated by the Paranal Meteorology team composed of F. Gomez, D. Mazat and A. Vargas.

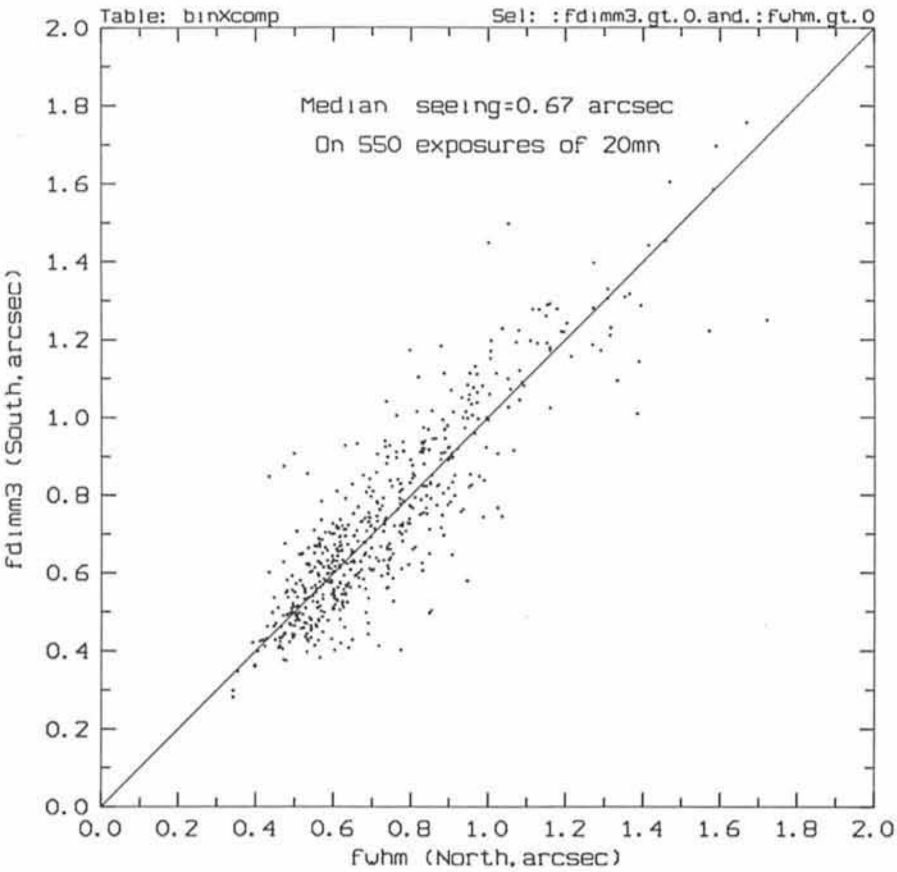

Figure 3: *Comparison of seeing measurements made at the southern and northern edges of the telescope area.*

Tentative Time-table of Council Sessions and Committee Meetings in 1993

March 30	Finance Committee
April 1	Council
May 3–4	Users Committee
May 6–7	Scientific Technical Committee
May 10–11	Finance Committee
May 27–28	Observing Programmes Committee, Copenhagen
June 1–2	Council
November 4–5	Scientific Technical Committee
November 8–9	Finance Committee
November 25–26	Observing Programmes Committee
December 1–2	Council

All meetings will take place in Garching, unless stated otherwise.