

High Quality Power Supply at the ESRF,
J.F. BOUTEILLE, ESRF - After three trimesters of operation the system has proved to be very efficient in recovering from mains drops. These frequent drops are mainly caused by thunder storms, which the Grenoble region is very well known for, and the problem is further intensified due to the numerous very high voltage aerial lines (225 and 400 kV) in the area. Despite some teething problems, during this last winter the diesel engines were also used during peak electricity days to reduce the energy bills. The solution of redundancy, adapted directly onto the 20 kV line of this 10 MVA power source, is a new way of supplying electricity to all the sensitive equipment of the ESRF Storage Ring. The reliability and availability of the equipment connected downstream has greatly improved due to the reduced stress induced on the equipment.