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Preserving analogue seismograms of regional networks. The case of the Institut Cartogràfic i Geològic de Catalunya (ICGC)

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On the seventies of the 20th Century, after the deployment of the WWSSN, regional seismic networks became common. Small short period seismometers, progress in electromagnetic recording, electronics and telemetry simplified the cost of installation and maintenance of seismic stations and facilitated the deployment of such networks. Up to the late eighties analogue recording in different supports (paper, microfilm, tape) was the most common data acquisition system.

This is the case of the Catalan seismic network. Started in 1985, most of the seismograms obtained up to year 2000 were recorded on thermal paper support. At ICGC we keep at present around 40000 record sheet s from the period 1985-2000. Such kind of support is unstable and records become whitened after few years. Thus, even we are dealing with post WWSSN era records, actions to preserve them are needed urgently and the posed problems and needs are similar to those of the WWSSN and earlier records.

To save these records for the future, a campaign to scan them as images has been undertaken. They show some specific features when compared with WWSSN or older records (ex. The high frequency content of the signal obliges to use higher density scanning -1200 dpi). As this experience can be useful to preserve records of other regional networks, we present here the adopted strategies for scanning and classification and preliminary results from their analysis.