

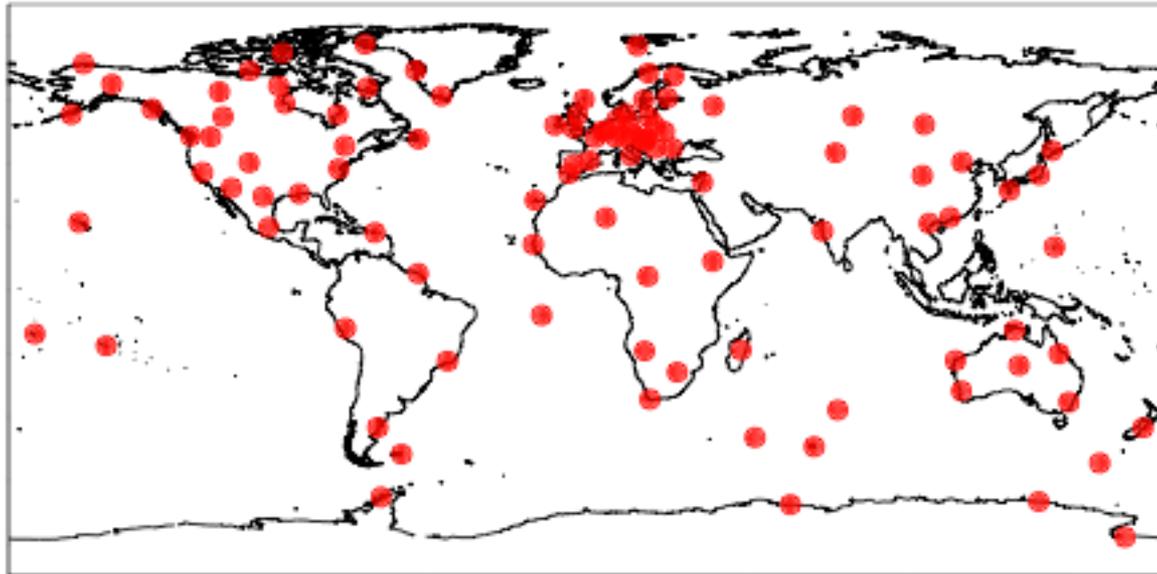
# Proposed 1-s data standards for Intermagnet

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Intermagnet: International consortium of magnetic-observatory institutes dedicated to producing digital ground-based magnetometer data that are (1) accurate, (2) encompass a wide range of timescales, (3) and that are useful for a wide variety of scientific purposes. In the past, the focus within Intermagnet has been on 1-min data, but 1-sec data are now being produced by many member institutes, and, therefore, some standardization of the 1-sec product is sought.

Intermagnet Observatories 2008



Proposed 1-sec standards should be sufficient to serve the widest possible user community, both now and into the foreseeable future. At the same time, the standards should be reasonably attainable. These are, obviously, somewhat orthogonal goals.

Intermagnet staff have assembled a draft discussion document:

1. Data resolution (noise, not reported resolution): 0.01 nT/sqrt(Hz) at 0.1 Hz.
2. Time-stamp accuracy (after accounting for acquisition system): 0.01 sec, center on UT second.
3. Mix of analog and digital filters designed to minimize noise and allow 1-sec data construction with reasonable trade-off between amplitude and phase distortion. Details given in discussion document.

We invite discussion on these standards.

Please send comments to Jeffrey J. Love ([jlove@usgs.gov](mailto:jlove@usgs.gov)).