Using the same MIMDAS equipment as in IP surveying, it is also possible to remove telluric noise from TEM surveys. The end results are profiles of coherent decays out of almost any nominated time. Below are separated TX-RX loop responses using induction coils collected at a prospect in WA (see Figure 4).

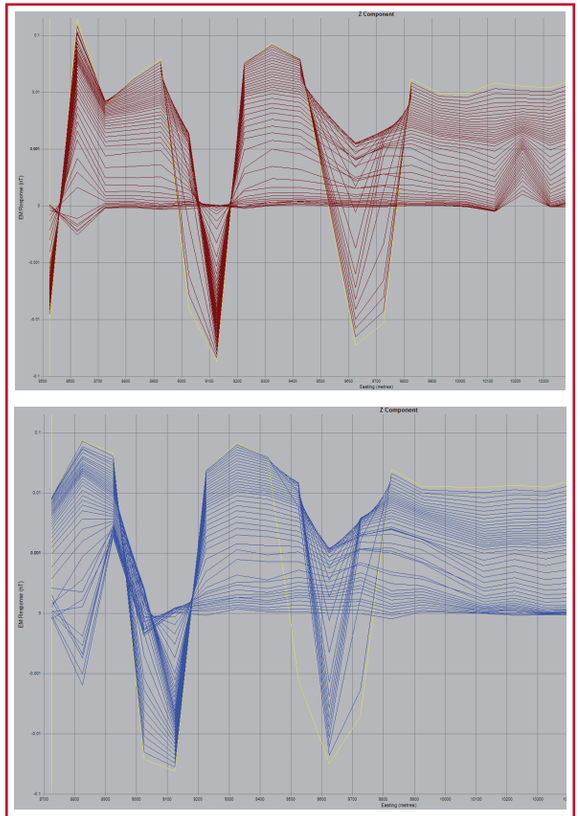

Figure 4: Profiles of reparated TX-RX TEM responses. TX to the left (top) and TX to the right (bottom).

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MIMDAS

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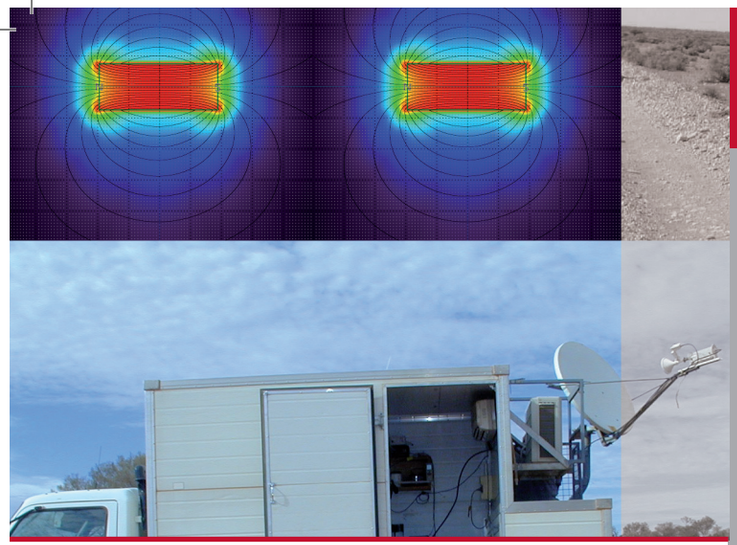

Time Domain Electromagnetics

All the benefits of Time Series recording (see Time Series flyer) and Distributed Acquisition are utilised in Time Domain Electromagnetic (TDEM) surveys. Having the option of as many receivers per transmitter loop as required means that both in-loop and out-of-loop data can be recorded simultaneously (see Figure 1). Any unexpected effects, such as IP effects, can then be recognized and not compromise the survey.

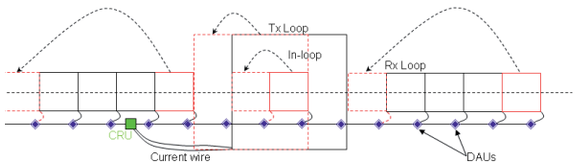

Figure 1: Example survey layout, using both in-loop and out-of-loop wire receivers.

Both in-loop and out-of-loop data can be recorded simultaneously.

Any unexpected effects, such as IP effects, can be recognized and not compromise the survey.

Telluric noise can be removed from TEM surveys.

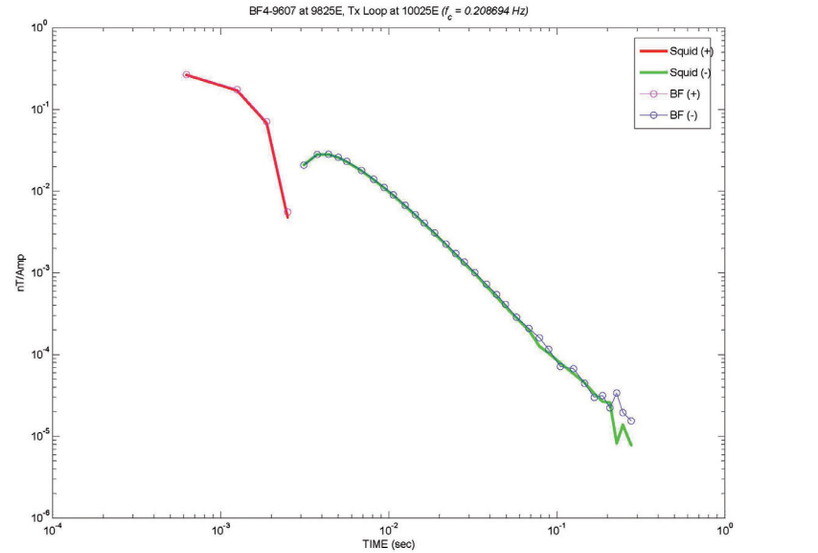

Figure 2: Squid and Induction Coil Responses.

Magnetic field receivers can be employed if available, but if not, the conventional loop receivers may be integrated to form the equivalent response. Shown here are results of tests involving a loop receiver as well as induction coils and a squid magnetometer (see Figures 2 & 3). Because the full waveform of both transmitter and receiver are recorded the integration can be performed and any irregularity in the waveform accounted for.

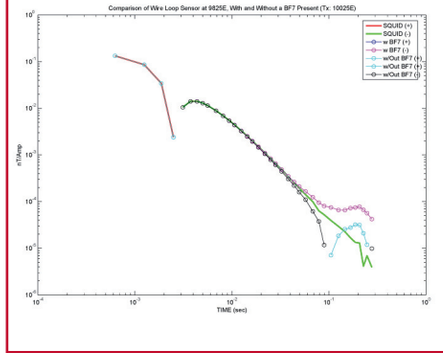

Figure 3: Squid and Integrated Loop Responses