

## Seismic window



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### The age of multi-client seismic

Under the Australian work programme bidding system, seismic data (and well completion reports) become 'open file' after 2–3 years. This means that seismic surveys are available to anyone and, as a result of this openness, the exploration industry has benefitted. Established companies and new entrants have been able to compile regional databases to help develop ideas and concepts. This is an excellent system but it's not all perfect. Often the most recent or best version of the processed data is not submitted. I recall a story from long ago when seismic lines were plotted on films, before the requirement to submit digital versions of the data, one company would provide films that were produced slightly out of focus so that competitors didn't get too much advantage.

The open file system applies to data acquired by exploration companies by

virtue of permits awarded under the work programme bidding system. There is another system. The multi-client seismic model. Under this system seismic surveys are acquired by seismic acquisition companies over large areas that may straddle several permits and open acreage. These surveys were originally called 'speculative' surveys because they were acquired by acquisition companies over areas they thought would be popular with buyers and were recorded without much pre-commitment to buy any data. Early 'spec' surveys had the same rules as all other data and became open file after a few years but this was not economically attractive and successful lobbying led to more attractive terms. Nowadays seismic companies require some degree of underwriting before they commence recording and the legislation has been changed to allow the data to be owned exclusively by the acquisition company for 15 years so they can recoup their costs (and make an honest living).

Is this fair and equitable? Exploration companies pay full price for a survey on their acreage and have to make it publically available three years later, but a multi-client survey over the same area is held for 15 years while the 'owner' sells it to interested parties for a fraction of the acquisition cost. Perhaps the permit holders should acquire their data using the multi-client model so they too can recoup the costs by selling copies to interested parties rather than giving it away after three years.

Disadvantages of multi-client surveys include the complicated licensing fees and uplifts that at times require a degree in cryptography to understand, and the lack of control over acquisition and processing parameters that is often frustrating to interpreters. But the multi-client model is not all bad. For instance, as areas become more mature and permit sizes shrink the multi-client surveys are more efficient than proprietary surveys and cost less per square kilometre to acquire. And a large multi-client 3D survey can give insights into the regional geology that are not possible with a patchwork of small surveys of varying age and quality. In addition, there is sometimes an accompanying interpretation report or set of key seismic horizons produced by the

vendor as either a separate product or part of the overall package.

There are many examples where multi-client data has helped the Australian industry – for instance the Onnia 3D in the Vulcan sub-basin and Panneus 3D in the Carnarvon Basin are still being used decades after the initial

acquisition. More recently, the Capriolus 3D was used successfully to aid in the Phoenix South-2 and Roc-1 & 2 discoveries. Looking back, perhaps these wells would not have been drilled if only open file 2D seismic was available or the permit holders had to fully fund a large 3D seismic survey.

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