On 14 August 2006, the Prime Minister announced $134 million in additional funding for Geoscience Australia as part of the Australian Government’s Energy Security Initiative. This new funding, which will extend from 2007 until 2011, includes $75 million to continue Geoscience Australia’s offshore frontier basin program to identify a new oil province. The program will support the annual offshore acreage releases for the next five years by providing precompetitive information, acquiring new geophysical (such as 2D seismic) and geological data, and improving data access for the exploration industry.

“Meetings with national and international companies will take place over the next few months.”

The initiative builds on the $61 million 2003–07 Big New Oil Program, but at an accelerated pace. In contrast to the 2003–07 program, which included $10 million for remastering of existing seismic data and $15 million for new data acquisition, the new program allocates over $60 million for new data acquisition, reprocessing, interpretation and access. Staffing levels will increase so that project teams can run concurrently in an expanded program.

Geoscience Australia has prepared a portfolio of potential offshore frontier areas for discussion with industry (figure 1). Likely areas for inclusion in the new program are deepwater frontier areas, such as the Mentelle Basin and offshore northern Perth Basin, off southwestern Australia; the Capel, Faust, Fairway, Gower and Moore Basins of the southern Coral Sea; and the Sorell Basin / South Tasman Rise region off western Tasmania. Options for data acquisition in older, more complex basins in shallow waters of western and northern Australia are also being considered.

Industry consultation began with a presentation of the proposed portfolio to the Australian Petroleum Production and Exploration Association (APPEA) Technical Committee in Perth on 10 November 2006. Meetings with national and international companies will take place over the next few months, and planning should be finalised by the end of March 2007.
“The new 2007–11 program will use and expand this tool kit to elucidate the petroleum geology of frontier basins.”

Acquisition of new regional 2D seismic data in frontier basins has been the cornerstone of the 2003–07 program, augmented by reprocessing of previously acquired seismic data, geological sampling and natural hydrocarbon seep detection. Technologies employed to sample and image the water column, seafloor and shallow subsurface, include coring and dredging, sub-bottom profiling, swath-mapping and side-scan sonar (figure 2). Remote sensing data—synthetic aperture radar, Landsat and hyperspectral—have been collected to detect evidence of seepage on the sea surface, while the deep subsurface has been imaged with reflection and refraction seismic and gravity and magnetic data.

The new 2007–11 program will use and expand this tool kit to elucidate the petroleum geology of frontier basins. Geoscience Australia will improve access to precompetitive information by providing workstation-ready seismic data packages covering new acreage release areas, and by developing online or near-online access to seismic data held by the organisation.

For more information

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