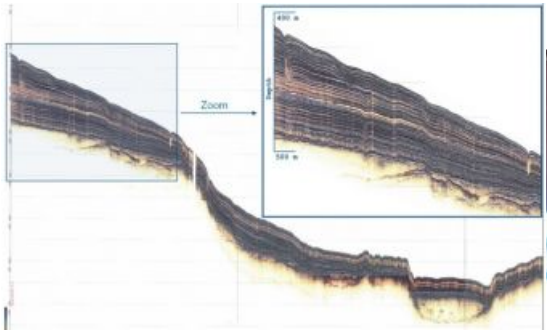
Two ParaSound P70 Sub-bottom Profilers for Chinese Research Institutes



Guangzhou Marine Geological Survey (GMGS) and Qingdao Institute of Marine Geology (QIMG) have awarded Teledyne RESON contracts to supply a full ocean depth sub-bottom profiler system for their new-build survey vessels.

Both research institutions belong to China Geological Survey and work in the field of marine resources and geology. GMGS is one of the most experienced users of Teledyne RESON deep water sonar in East Asia. Its R/V *Hai Yang 4* is equipped with a HydroSweep MD/30 deep water multibeam echosounder, and installation of a ParaSound full ocean depth sub-bottom profiler will be finished after the Chinese New Year celebrations. Another GMGS research vessel, *Hai Yang 6*, is using a ParaSound P70 since 2010 and surveyed a total track line of more than 50,000km. In depth of 3,800m in the South China Sea more than 200m penetration has been recorded. The new ParaSound system will be installed on GMGS' new survey vessel. The delivery is scheduled for the second half of 2016.

High-resolution Sub-bottom Profiler

The ParaSound will be installed on QIMG's new seismic vessel as the parametric sub-bottom profiler can provide a higher resolution of the upper sediment layers compared with most seismic systems.

The ParaSound P70 is the high-end version of Teledyne RESON's full ocean depth sub-bottom profilers. It is a vessel hull-mounted system with an approximately 1m by 1m acoustic transducer array and utilises the parametric effect to generate high resolution, low frequency signals to penetrate and map the sub-bottom of the world's oceans. Since introduction of the ParaSound in 1986 as the very first parametric sub-bottom profiler, it has been the leading-edge high-resolution tool for geophysical and geological research.