Preliminary results of marine core analyses off Southwestern Taiwan: R/V Ocean Researcher 5 Cruises

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The establishment of Taiwan Ocean Research Institute (TORI) had been officially approved by the National Science Council since 2008. For better facility and service on marine sedimentary cores for Taiwanese oceanographic community, TORI began the development of a national Marine Core Repository and Laboratory. Long coring (>10 m) has been technically difficult since about mid-1980s on Taiwanese R/Vs. Yet the need for high quality long cores did not diminish. By participating IMAGES (International Marine Past Global Change Study) program, Taiwanese scientists have used successfully the great capabilities of long coring system such as that on French R/V Marion Dufresne in the last decade by collecting very long cores (>40 m) in many important locations. Today archives several thousand meters of high quality marine sedimentary cores are retrieved from the seas around Taiwan and the western Pacific. In 2013 a new 2700 ton R/V OR 5 of TORI, designed to accommodate new core handling system with significant strengthening of the deck, begins operation. The capacity to recover giant sediment cores is essential to reconstructions of climate/ocean change. Therefore, we are designing a long coring system (~20m) that expects to be installed on the OR 5 and served to science community by June 2013. Here we introduce coring system at R/V OR 5 and report a newly preliminary result of marine sedimentary cores around the southwest Taiwan.