



# Acoustic Survey in Area of Setnet Fishing Ground Rayong bay, Thailand



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At present, quantitative hydro-acoustic methods are known to represent a powerful tool for fisheries (Theparoonrat, Seakow and Seurungreong, 1999). Fishermen could interpret information of echograms of echo sounder for fishing and researchers could observe the numbers of fish per unit area and the catch per unit of effort of a fishing vessel. It could be useful for several propose (Johannesson and Mitson, 1983).

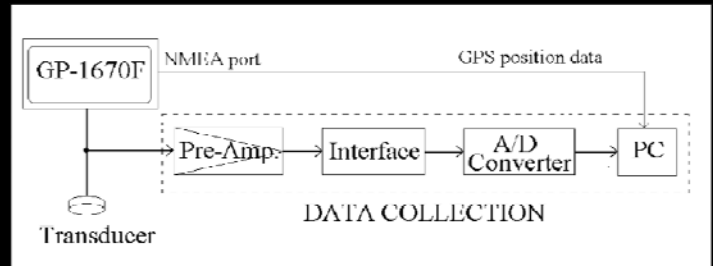


Figure 1 Acoustic survey data collection system block diagram

## MATERIALS AND METHODS

The acoustic equipment was applied for fishery resource survey in coastal area. The hardware and software system for data collection were developed at Tokyo University of Marine Science and Technology, Tokyo, Japan. The acoustic equipment was conducted by using FURUNO GPS Plotter model GP-1670F. It is equipped with GPS receiver and chart plotter system. It is also equipped with echosounder with operated on 50 kHz and 200 kHz simultaneously. The returned echo signal of 50 kHz imported to acoustic data collection system was amplify, filled, display and recorded on PC. The echograms of standard target ball could be clearly detected and record on PC data collector. The testing of acoustic equipment and system for shallow area were conducted at in area of setnet fishing ground, Rayong bay, Thailand.

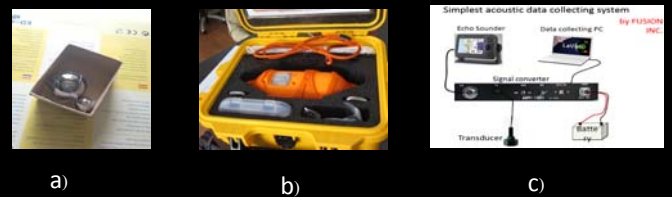


Figure 2 a) Acoustic equipment calibration by using standard b) Target ball and c) CTD measurement

## Collecting data specification

Sampling rate = 0.0512 msec = 3.84 cm  
Depth range = sampling rate x 800 samplings = 40.96 ms  
Maximum depth = 40.96 x 0.75 = 30.72 m

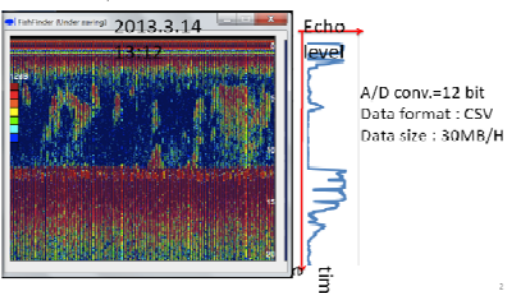


Figure 3 Collecting data specification

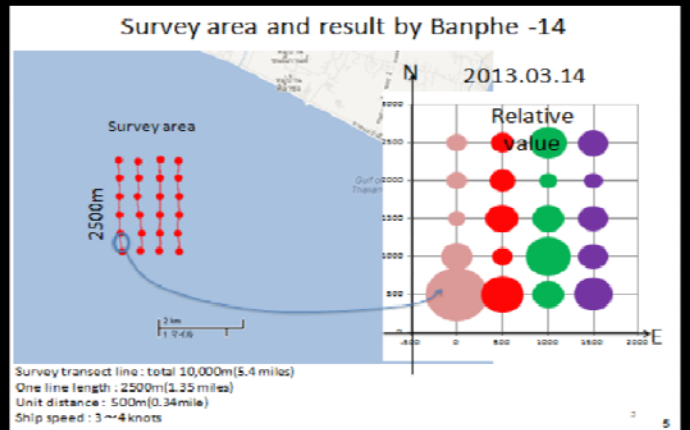


Figure 4 The survey track line and relative fisheries resources value in Rayong Bay, Thailand, on 14 March 2013

## CONCLUSION

The newly modify acoustic data collection system is promising effective for conducting the fisheries resources survey in the shallow coastal area in Rayong bay with less equipment cost. It could be the tool for the resources survey in shallow water areas.

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