

**D-16 : SOME NEAR SURFACE CURRENT VARIATIONS DURING THE
NORTH-EAST MONSOON IN THE MAJOR SUBMARINE CANYONS OF
THE WESTERN AND SOUTHERN CONTINENTAL SHELF
OF SRI LANKA**

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Current profiles in the submarine canyons of Colombo, Panadura and Dondra were measured during December and January 1990 (North- East monsoon). The shipboard Acoustic Doppler Current Profiler (ADCP) avails in the German Research Vessel "Sonne" was used for this exercise. The following submarine canyon profiles were observed.

Profile I. Colombo Canyon: $79^{\circ}48'25''$ east & $6^{\circ}55' 30''$ north: Bearing 283 degree north; length 18 km.

Profile II. Panadura Canyon: $79^{\circ}44'30''$ east and $6^{\circ}40'$ north bearing 90 degree; length 14 km.

Profile III. Dondra Canyon : $80^{\circ}29'$ east and $5^{\circ}55' 20''$ north; bearing 120 degree north; length 11 km.

The currents were measured along the axis of the canyons up to a depth of 70 m. The measurements were taken in each canyon for about two hours. The analysis of the data revealed that the currents measured in the submarine canyons follow the Ekman Theory.