

## E1-26: Tidal oscillation west coast of Sri Lanka (Colombo Harbour)

E M S Wijeratne

(Oceanography Div, NARA, Colombo 15)

For 1 year at 1 hour intervals, tide data (May '91 - May '92) were collected in the Colombo harbour using an automatic tide gauge. Harmonic analysis (based on least square method) was done in an attempt to separate different components as astronomical etc.

Analyses of this data showed that Sri Lanka west coast tide is mixed semi diurnal and has 2 spring and 2 neap periods during a lunar month. Maximum tide difference observed was around 0.7m within the spring period and 0.3m during the neap period. M2 and S2 are the major diurnal components, K1 is the major semi diurnal component and Mf is the major long period astronomical component.

Harmonic analysis results showed that there are other major local oscillations: (a) due to the geometry of the harbour (b) due to the wind effect.

This study will be useful for future tide predictions in the west coast of Sri Lanka.