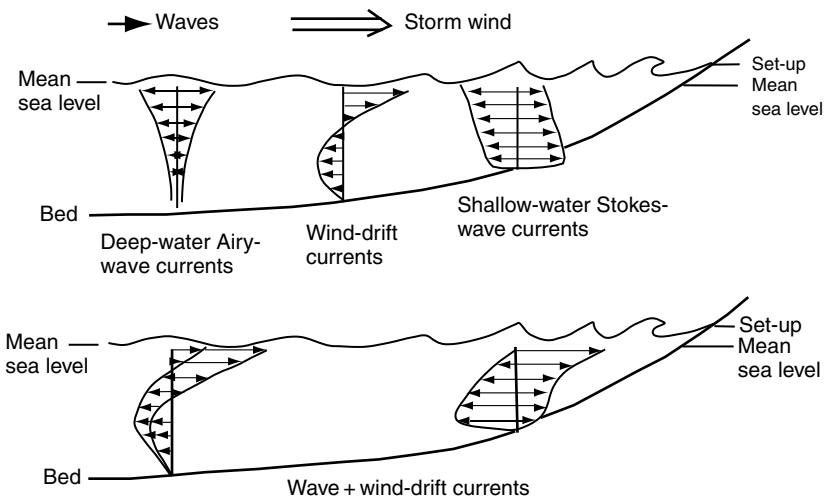


A

Cross section



Plan

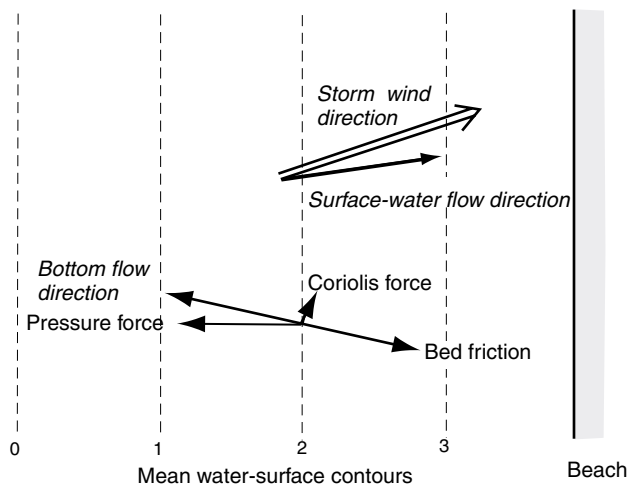


FIGURE 7.13. Idealized combined wave currents and wind-drift currents near a coastline in the northern hemisphere for (A) onshore wind, (B) offshore wind, and (C) alongshore wind. Cross-sections show wind-drift currents and the maximum horizontal component of wave-induced currents under wave troughs or crests, and combined currents. The length of arrows is proportional to the water velocity. Plans show water-surface contours and directions of wind-drift currents at various levels in the flow. The directions of wind-drift currents are determined by the direction and magnitude of the pressure (arising from the water-surface slope), friction, and Coriolis forces. Bottom currents are strongly influenced by bed friction.