

the seasonal change, interannual variability was also observed. For example, developed wind-waves were observed for more than one day at most areas in the Bohai and Laizhou bays at October 2003, whereas bays were calm during October and November 2004.

Seasonal and annual geomorphologic changes of mesotidal beach at Ba Dong, Mekong River delta, Vietnam

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The Mekong River delta, South Vietnam, is located in the tropical monsoon area with distinctive two seasons: wet season due to southwest monsoon from May to October; and dry season due to northeast monsoon from November to April. The modern coast of the Mekong River delta, facing the South China Sea, is a mesotidal beach. There are a few studies of seasonal and annual changes in such a mesotidal beach affected by monsoon. We thus carried out a repeat survey of the beach profile and sediment eight times between Nov 2005 and Feb 2008 at Ba Dong, located in the central part of the Mekong River delta coast. During the survey, we had the procedure as follows: (1) to set up six survey lines (A, C, BN, BT, D and E from the south to north) normal to the shoreline, (2) to measure beach profiles using auto-level, (3) to describe bedforms and surface sediment, (4) to sample surface sediments for grain-size analysis and percussive cores 1 m long, and (5) to monitor current directions and velocities using the flow velocimeter. Here, we focus on geomorphologic features, especially seasonal and annual change of beach topography and sedimentation on the beach.

The Beach sediment consists of fine to very fine sand and beach gradient is 1/301/100. The beach

is characterized by multiple bars which are asymmetrical and dip landward more steeper. Beach profiles of the southwestern part (lines A and C) and northeastern part (lines D and E) show erosional beach form (concave-upward), whereas the profiles of central part (lines BN, BT) show depositional beach form (convex-upward). The beach shows seasonal profile change which varies from place to place. Lines A and C showed erosional and depositional profile changes during wet and dry seasons, respectively. Sediment volume increased at lines BN and BT, and decreased at lines D and E consistently during the survey.

The spatial and seasonal variations of the beach profile suggest that beach sediment was mainly derived from Co Chien River, which discharges at the north of Ba Dong, due to strong northeast monsoon during the dry season. But there was negligible supply from this river. As a result, we could observe depositional tendency only in the central part and erosion tendency in the southern and the northern parts during the dry season. During the wet season, much sediment is considered to have been derived from the southern Hau Giang River, of which river mouth is located at the south of Ba Dong, due to southwest monsoon. Hence, we could observe depositional tendency in the southwestern part and the central part, but erosion tendency in the southern part. On the annual scale, the southern part showed a slight net erosional tendency, where the landward and seaward parts of the beach transect is erosional and depositional, respectively. The northeastern part also showed erosional tendency. But huge accumulation occurred about 1.5m (maximum) during last two years in the central part.

Distribution and assemblage of heavy minerals in the modern Yangtze River Delta and shelf of East China Sea

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Surface sediment samples were collected from the Yangtze River Delta (YRD) and shelf of the East China Sea (ECS). These samples were sieved, and sediments with mean grain size from 0.063 to 0.125mm were chosen for heavy mineral analysis.