

FORMATION OF THE SEDIMENTARY SEQUENCE ON THE CONTINENTAL SHELF OFF MIHO PENINSULA, CENTRAL JAPAN

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Formation of the sedimentary sequence and changes in the depositional environments on the continental shelf off Miho Peninsula, Central Japan, are studied in detail on the basis of the geomorphology, surface sediment distribution, and acoustic stratigraphy. The sequential analysis on seismic reflection records defines an acoustic stratigraphy of this region. Acoustic units consist of the para-sequences, A0, A1, A2, B and the acoustic basement in descending order. The boundaries of these units are marine flooding surface (Ref. L, K, J), maximum flooding surface (Ref. I) and major erosional surface. The major changes in sedimentary environment are indicated by internal sedimentary structure and sediment distribution pattern which are shown by construction of isopach maps of each acoustic unit. These isopach maps indicate northwestward migration of depositional centers of the shelf sediments. The migration of the depositional centers is appears to be largely influenced by the 1) direction of the coastal drift sediments and 2) the sea level changes which altered passages and shifted levels of the drift. Many submarine spit platforms were left on the seafloor and they were formed as a result of incomplete sediment. This study strongly shows changes in depositional environments and sedimentary regime are closely related with the sea-level fluctuations during last 18,000 years. Sea-level analysis on the basis of the published sea-level fluctuation curves for the Tokai and Kanto districts shows close correlation between acoustic stratigraphy and sea-level fluctuations. Reflector L is correlated with the sea level of 18,000yBP, Reflector K 10,000-9,000yBP, and Reflector I 7,500yBP.