

Patterns of surface sediment grain size distribution under the influence of varying wave conditions on a mixed sediment beach at Pevensy Bay, southeast England

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Summary. Surface sediment distributions, derived using a new DGPS based survey technique, are described from three sections of a mixed sediment beach (MSB) at Pevensy Bay, southeast England. Spatial patterns of the distribution and size composition are related to antecedent hydrodynamic conditions and beach topography. Results indicate that higher energy waves produce a beach surface with a relatively homogenous grain size distribution, whilst lower energy waves produce surfaces with a more mixed size distribution. Under storm conditions, a ‘type’ beach response was recorded, comprised of a fine upper beach face and coarse lower beach face. Management practices, especially beach renourishment, also influence beach surface sediment distribution patterns.