

Forecasting Wave Runup and Overtopping

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The Stockdon Parameterization has been extensively tested and is used to determine wave runup and setup levels on Sandy Beaches. We will discuss how this parameterization works, what type of data it can generate, and what kind of tools that are being tested to integrate it into forecast operations. Locations where this parameterization is being tested will be discussed. Janssen, de Waal and van der Meer have developed parameterizations to determine the overtopping volume on hardened structures such as seawalls and stone armored revetments. These parameterizations have been used and tested on structures in Europe. We will discuss how these parameterizations are being tested and validated at local sites. We will also discuss how these parameterizations are being supported by high resolution wave models. Focus will be on the different types of output needed from the wave models and the required resolution needed to obtain this data. Survey information needed to implement these parameterizations will be discussed. This will include both on site survey work and use of LIDAR Data.