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| CECW-EH<br><br>Engineer<br>Regulation<br>1110-2-1453 | Department of the Army<br>U.S. Army Corps of Engineers<br>Washington, DC 20314-1000                  | ER 1110-2-1453<br><br>20 March 1981 |
|  | Engineering and Design<br><br>CRITERIA FOR SPH AND PMH WIND FIELDS                                   |                                     |
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Regulation  
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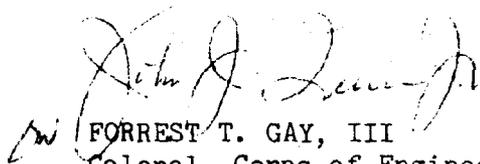
Engineering and Design  
CRITERIA FOR SPH AND PMH WIND FIELDS

1. Purpose. This regulation provides direction for the development of Standard Project Hurricane (SPH) and Probable Maximum Hurricane (PMH) wind fields along the gulf and east coasts of the United States.
2. Applicability. This regulation is applicable to all field operating activities having Civil Works coastal design responsibilities.
3. References.
  - a. ER 1105-2-111
  - b. NOAA Technical Report NWS 23. Available from: National Oceanic and Atmospheric Administration, National Weather Service, Water Management Information Division, 8060 13th Street, Silver Spring, Maryland 20910.
4. Background. Information on flood levels and the areal extent of flooding resulting from Standard Project and Probable Maximum Hurricanes is needed for the planning and design of flood protection and other coastal projects. In order to compute storm surges at a given coastal area, the wind fields associated with these hypothetical storms must be described. The description of SPH wind fields has been based on the 1959 National Hurricane Research Report, No. 33. The SPH criteria in that report were subsequently revised in 1972 and published by the National Weather Service (NWS) as Memorandum HUR 7-120. The National Weather Service publications HUR 7-59 and HUR 7-61 have been used for determining wind fields characteristic of PMH's for Narragasset Bay and the New Orleans area. Generalized PMH wind field criteria for the south and east coasts of the United States were published in 1968 by the NWS as HUR 7-97. Technical Report NWS 23 is a result of the consolidation of these publications and refinements based on longer periods of storm records and recent technological advancements.
5. Requirements. ER 1105-2-111 provides direction on the selection of the level of protection to be afforded by Corps flood damage prevention projects in urban areas. All field operating activities having Civil Works responsibilities are required to use the National Oceanic and

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Atmospheric Administration (NOAA) Technical Report NWS 23 for specifying meteorological criteria for SPH and PMH wind fields along gulf and east coasts of the United States.

FOR THE CHIEF OF ENGINEERS:



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