**Release Notes**

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| **Model** | Probabilistic Extra-Tropical Storm Surge (P-ETSS) |
| **Version** | V1.0 |
| **Implementation date/time** | 6/6/2017 |
| **Purpose** | The Probabilistic Extra-Tropical Storm Surge model is a modification of the ETSS model (which in turn is based on SLOSH) that uses 21 GFS ensemble members wind and pressure input to generate probabilistic storm surge products (exceedance height and probability of storm surge + tide) from large extra-tropical storms.  Initial implementation will   1. Run ETSS2.2 using 21 GFS ensemble members wind and pressure 2. Use equally weighted method to generate the probability |
| **Changes being made for this release** | Model:  First Release |
| **Developed by** | NOAA/NWS/OST/Meteorological Development Laboratory (MDL) |
| **Runs on** | The National Weather Service (NWS) Weather and Climate Operational Supercomputing System (WCOSS) |
| **Community software** | None |
| **Input** | Model: GRIB2 0.5 degree GEFS data |
| **Output and where to find it** | Gridded Products:  NCEP NOMADS  <http://nomads.ncep.noaa.gov/pub/data/nccf/com/petss/prod/petss.YYYYMMDD>   * Surge and tide height above NAVD-88/AGL exceeded by 10% of the storms, hourly to hour 102 * Surge and tide height above NAVD-88/AGL exceeded by 10% of storms for 0-102 hours * Surge and tide height above NAVD-88/AGL exceeded by 10% of storms in 6-hr incremental and cumulative groups to hour 102 (e.g. 0-6, 6-12, 12-18, ... 96-102 and 0-6, 0-12, ... 0-102) * Probability of surge and tide height greater than 1, 2, 3, 6, 9 feet above NAVD-88/AGL for 0-102 hours * Probability of surge and tide height greater than 1, 2, 3, 6, 9 feet above NAVD-88/AGL, hourly to hour 102 * Probability of surge and tide height greater than 1, 2, 3, 6, 9 feet above NAVD-88/AGL in 6-hr incremental and cumulative groups to hour 102 (e.g. 0-6, 6-12, 12-18, ... 6-102 and 0-6, 0-12, ... 0-102) * Ensemble mean, maximum and minimum of surge and tide height above NAVD-88/AGL hourly to hour 102 * Maximum over 0-102 hours of the ensemble (a) mean, (b) maximum and (c) minimum of surge and tide height above NAVD-88/AGL * Ensemble mean, maximum and minimum of surge and tide height above NAVD-88/AGL in 6-hr incremental and cumulative groups to hour 102 (e.g. 0-6, 6-12, 12-18, ... 6-102 and 0-6, 0-12, ... 0-102)   Text Products:  NCEP NOMADS  <http://nomads.ncep.noaa.gov/pub/data/nccf/com/petss/prod/petss.YYYYMMDD>   * Surge only and surge and tide height above NAVD-88 exceeded by 10% and 90% of the storms, hourly to hour 102 with model specific text file format for a set of stations * Ensemble mean, maximum and minimum of surge only and surge and tide height above NAVD-88, hourly to hour 102 with model specific text file format for a set of stations   Websites:  MDL anticipates providing a site in the future. |
| **Primary users** | NCEP's Ocean Prediction Center (OPC), NCEP’s National Hurricane Center (NHC), NWS’s Eastern, Alaska, Southern, and Western Regions (HQ, coastal RFCs and WFOs) |
| **In the future** |  |

For more information on this model, please contact [ncep.pmb.dataflow@noaa.gov](mailto:ncep.pmb.dataflow@noaa.gov) .