**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 GEFS ensemble member's wind and pressure input to generate probabilistic storm surge products (exceedance height and probability of storm surge + tide) for large extra-tropical storms.  Initial implementation will   1. Run ETSS2.2 using 21 GFS ensemble members wind and pressure 2. Generate the probability based on equally weighting the ensemble member results |
| **Changes being made for this release** | 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** | 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>   * Storm tide Above Ground Level (AGL) exceeded by 10%, 20%, 30%, 40%, 50% and 90% of the storms in 6 hourly cumulative and incremental grouping through 102 hours * Storm tide above NAVD-88 exceeded by 10%, 20%, 30%, 40%, 50% and 90% of the storms in 6 hourly cumulative groupings and 1 hourly incremental groupings through 102 hours * Ensemble mean, maximum and minimum storm tide AGL in 6 hourly cumulative and incremental groupings through 102 hours * Ensemble mean, maximum and minimum storm tide above NAVD-88 in 6 hourly cumulative and 1 hourly incremental groupings through 102 hours * Probability of storm tide greater than 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 13 and 16 feet AGL in 6 hourly cumulative and incremental groupings through 102 hours * Probability of storm tide greater than 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 13 and 16 feet above NAVD-88 in 6 hourly cumulative and 1 hourly incremental groupings through 102 hours   **Text Products**  **NCEP NOMADS**  <http://nomads.ncep.noaa.gov/pub/data/nccf/com/petss/prod/petss.YYYYMMDD>   * Surge only and surge plus tide height above NAVD-88 exceeded by 10% and 90% of the storms, hourly for 0-102 hours in a model specific text file format * Ensemble mean, maximum and minimum of surge only and surge plus tide height above NAVD-88, hourly for 0-102 hours in a model specific text file format   **Websites**  MDL provides an index to all NWS extra-tropical guidance product websites here:   * <http://slosh.nws.noaa.gov/etss/>   MDL provides a P-ETSS gridded guidance website here:   * <http://slosh.nws.noaa.gov/etss/station/petss1.0esri/> |
| **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) .