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# Assessment of a 3D unstructured-grid model for the Chesapeake Bay and adjacent shelf: Supplemental materials

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Data

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## Description of Data

Files include:

<i>File name</i>	<i>File description</i>
vertical_profiles.pdf	model-data comparison
DEM.zip*	DEM
Spatial_temporal_NDBC.pdf	related to model forcing

These files provide more details on model inputs and results in supplementing those presented in Ye et al. (2017; associated publication). A compressed DEM file (DEM.zip) is provided, which can be opened with

common zip/unzip software on unix/windows/mac (such as unzip, gzip, winzip, etc.). Once extracted, there is a README along with the actual data. The DEM used here is primarily based on the topo-bathymetric information from USGS ( [https://topotools.cr.usgs.gov/coned/chesapeake\\_bay.php](https://topotools.cr.usgs.gov/coned/chesapeake_bay.php); last accessed in Feb. 2017), supplemented by the latest navigation charts (especially around Baltimore harbor area), and coastal relief model (<https://www.ngdc.noaa.gov/mgg/coastal/crm.html>, last accessed in Jan 2017) for the coastal and shelf region. Also included in the supplemental materials is another zip file (vertical\_profile.zip) containing the salinity model-data comparisons on the vertical profiles at all available CTD casts. Lastly, the spatial/temporal coverage of NDBC buoys (for constructing the hybrid wind product) is illustrated in "Spatial\_temporal\_NDBC.pdf".

## **Keywords**

Bathymetry, cross-scale, SCHISM, estuarine circulation, Chesapeake Bay, USA

## **Associated Publications**

Ye, F., Zhang, Y. J., Wang, H. V., Friedrichs, M. A., Irby, I. D., Valle-Levinson, A., Shen, J., Wang, Z., Huang, H., Shen, and J., Du, J. (2017). Assessment of a 3D unstructured-grid model for the Chesapeake Bay and adjacent shelf. *Ocean Modelling* (submitted in May 2017).

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