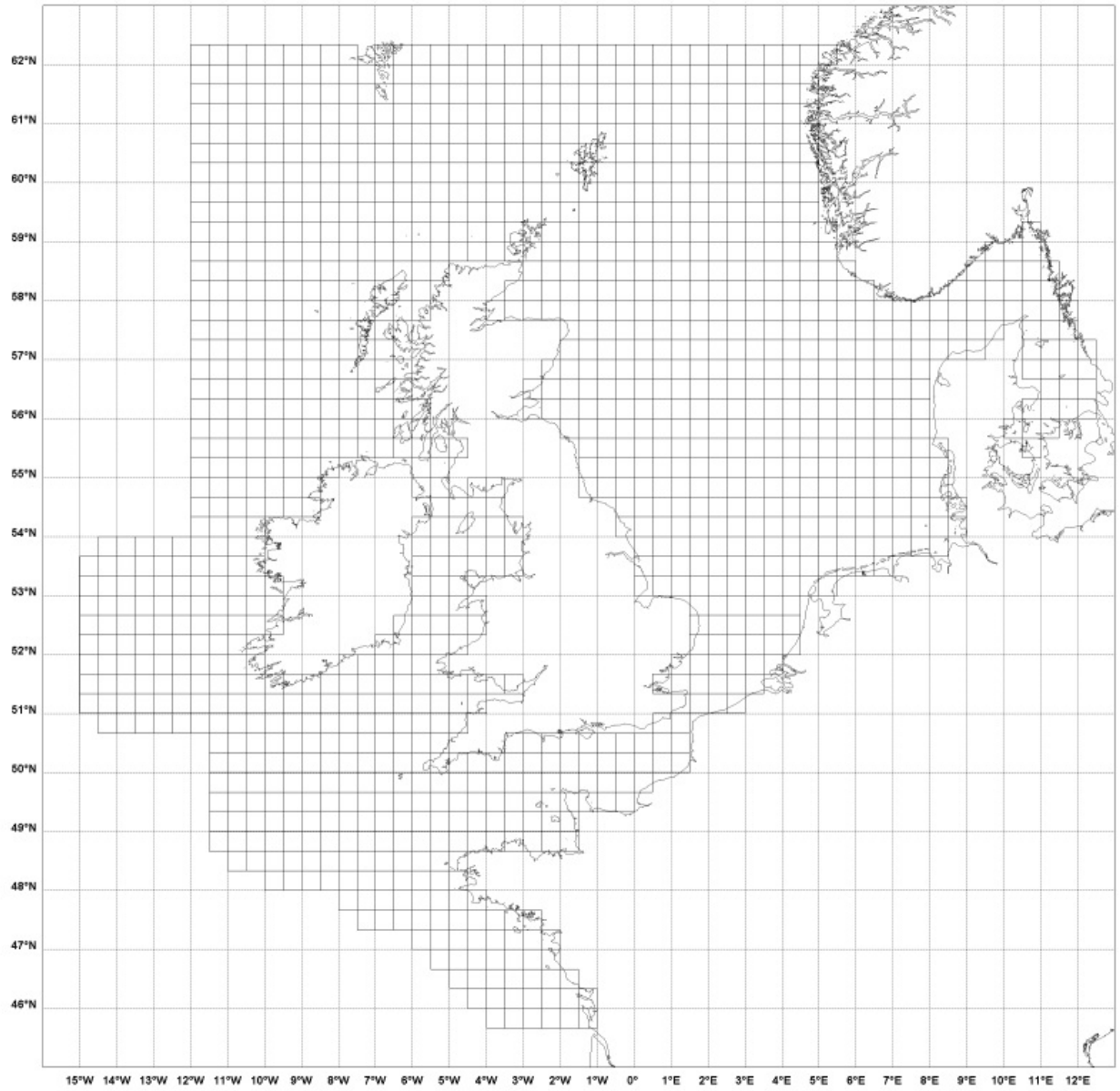
Continental Shelf Model – Coarse Grid (CSX)

Details

1/3° latitude by 1/2° longitude (resolution approximately 35km)

Area covered:45° 40' N to 62° 20' N, 14° 30' W to 12° 30' E

Model grid



References

Flather. R. A. (1976) A Tidal Model of the North-West European Continental Shelf. Memoires Societe Royale des Sciences de Liege, 6e serie, tome X, pp 141-164.

Flather, R. A. (1981) Practical Surge Prediction Using Numerical Models. in Floods due to High Winds and Tides. Edited by D.H. Peregrine. London: Academic Press for the Institute of Mathematics and its Applications.

Davies, A. M. and Flather, R. A. (1987) Computing Extreme Meteorologically Induced Currents, with Application to the North-West European Continental Shelf. Continental Shelf Research, Vol 7, No. 7, pp643-683.

Flather, R.A., J.A. Smith, J.D. Richards, C. Bell and D.L. Blackman (1998). Direct estimates of extreme storm surge elevations from a 40-year numerical model simulations and from observations. The Global Atmosphere and Ocean System, 6: 165-176.

Other data available from the CSX model

Hourly level and current simulations hindcast for the years 1955 onwards are available for total (tide + surge), Surge only and Tide only.

The model makes use of meteorological data supplied by the Norwegian Meteorological Institute. Note that the model does not include baroclinic effects.

Estimates of Extreme Surge Levels or Total Water Levels with Return Period 2, 5, 10, 20, 50, 100, 200, 500 and 1000 years

These estimates are derived from surge levels or total (tide+surge) water levels hindcast by the NOC CSX Continental Shelf Model for the 40 year period 1955-1994

Other data available from the CSM model

The CSM model is the forerunner to the CSX model. It has an identical resolution however it does not have the extra model grid cells to the west of 12°W.

Estimates of Extreme Tide / Surge and Total Still Water Levels and Depth-Mean Currents . Report on 50 year returns

This data set has estimates of extreme surge currents, albeit only the 50 year return period.