

Reviewer 2 – Charlotte A. J. Williams

Review of 'Drivers of summer oxygen depletion in the central North Sea': by B. Queste, L. Fernand, T. Jickells, K. Heywood, & A. Hind.

I am very pleased that the authors found my previous comments to be of use and was pleased to see that they have carefully responded and/or attended to all issues raised by the reviewers on reading the revised manuscript. I am very pleased with the authors' answers to my concerns/queries in their response. The figure provided of the optical backscatter and chlorophyll was particularly useful in explaining the chlorophyll relationship to POC that they use in the paper. The authors have now added a paragraph on how they define the BML, and explained why, which is satisfactory. I really like the schematic used in Figure 6 to describe the 'oxygen budget' in the study region, this is much clearer than the equation used previously.

I have very few comments to add on re-reading the paper, it reads nicely and the methods and results are much more coherent now. The use of autonomous systems makes the paper an exciting, interesting and valuable addition to Biogeosciences.

Minor/technical corrections

L224: 'Wind velocity and tidal currents' instead of wind and tidal currents?

L306: 'as per the Redfield ratio' – reference Redfield (1934).