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Trialling a seasonal climate service for UK transport stakeholders

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Major recent advances in the predictability of the winter North Atlantic Oscillation (NAO) index at seasonal timescales [1], using the Met Office Global Seasonal Forecasting System (GloSea5), present exciting opportunities for assessing the predictability of a variety of winter weather impacts on the UK.

We have explored these opportunities in a current study, jointly supported by the UK Government Department for Transport (DfT) and the EU FP7 EUPORIAS project. Our earlier work in this study has shown that there is scope for using the NAO predictability to develop prototype risk-based seasonal forecasts of various winter impacts on the UK transport system [2]. We have now developed a methodology for providing examples of such forecasts, and have trialled these during Winter 2015/16 as part of a service offered to UK transport stakeholders.

Stakeholder feedback has been sought regularly during the trial, and has influenced aspects of the service provided. Feedback has been broadly positive, with evidence that stakeholders are using the service to support their decision-making processes in various ways, depending on their role, and their priorities during the winter season.

[1] Scaife, A. A. and co-authors (2014) Skillful long-range prediction of European and North American winters. Geophys. Res. Lett., 41, 2514–2519.

[2] Palin, E.J., Scaife, A.A., Wallace, E., Pope, E.C.D., Arribas, A. and Brookshaw, A. (2016) Skillful seasonal forecasts of winter disruption to the U.K. transport system. J. Appl. Meteor. Climatol., 55, 325–344.