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On the impact of NUMB weather on science, society and operational forecasting centres

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NUMB (Neglected as Unimportant and Meteorologically Boring) weather may well offer the greatest economic return on investment for society. The potential for high-impact weather-forecasts of NUMB events is largely neglected, in part due to a wide spread fetish for severe weather events where mitigation is limited. The marginal value of medium range forecasts for such headline weather is limited, given the rarity of the events and the value of any low probability levels likely to be might be obtained in the medium range. On the other hand, medium range warning of a several days with only a few degrees warmer/colder than average (for example) can relieve significant socio-economic stress, probabilistic guidance from ensembles can reduce economic losses from "chasing the hi-res forecast", the in/ability of models to produce accountable probabilities can provide significant information on model error, and the economic value of such forecasts might justify increasing both government and commercial expenditure on forecasting.

The neglect of NUMB weather is discussed from a user's point of view. Economic value of ensemble forecast information contained in the ECMWF forecasts is illustrated using London Heathrow Temperatures and discussed in the wider context of probabilistic weather forecasts as used by numerate economic decision makers. Methods for exploiting probabilistic information, and for quantifying the time scales on which simulation-model based forecasts contain information beyond climatology, are discussed.