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Upgrade to GloSea4, the Met Office seasonal forecasting system: Improved resolution and assimilated sea-ice.

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GloSea4, the Met Office seasonal forecasting system 4, was introduced in September 2009. GloSea4 is a coupled ocean-atmosphere model, with a lagged initialisation approach (42 forecast members run over the preceding 3 weeks) and 14 years of hindcast members for bias correction and skill assessment. The model runs from Met Office NWP atmosphere and FOAM ocean initial states (forecast) and ERA Interim reanalyses (hindcast members). In October 2010, the system was upgraded to include higher vertical resolution in both atmosphere (85 levels) and ocean (75 levels), a higher lid (85km) and assimilated (rather than climatological) sea ice. The hindcast period was changed from 1989-2002 to 1996-2009 (reducing effects due to climate change trends and providing a more representative sample of ENSO states). In this presentation, we look at the impacts of these changes, particularly in producing a more realistic representation of the teleconnections between El Nino and late winter PMSL over northern Europe.