



## 10 years of the Flood Forecasting Centre (England and Wales). From flood risk assessment to verification.

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The Flood Forecasting Centre, set up following the extensive flooding in 2007, marked its 10 year anniversary this year. High impact events have been a feature of the first 10 years of the Flood Forecasting Centre. Indeed, this has been the case for all natural sources of flooding, fluvial, surface water, coastal and groundwater. This period of flooding at historical extremes has included the wettest UK summer and winter on record, the most significant coastal flooding for a generation and the highest ever recorded groundwater levels.

Each event has shaped the development of the centre. Operations has influenced new science, which has in turn improved flood forecasts. Collaboration and working between science and operations, and across disciplines is key to bridging and closing knowledge gaps. Ultimately improved flood forecasts have led to new capabilities being developed that reduce the misery of flooding for communities.

The challenges when assessing flood risk can be very different when considering each natural source of flooding. Each source carries its own meteorological uncertainty from small scale weather features to broadscale weather patterns and this feeds into the hydrological environment which has its own uncertainties. This presentation focuses on how the Flood Forecasting Centre specialise in working with these uncertainties and how different forecasting is for the different sources of flooding. This includes the use of meteorological and hydrological model output and observations, and how we link this to impact assessment to create the overall flood risk.

The presentation will also briefly introduce the communication of flood risk and how we verify flooding impacts. The communication of flood risk and the level of detail provided varies depending on the forecast lead time and who the audiences are. Verification of flood impacts involves the Flood Forecasting Centre using numerous sources of information to collect impact observations and assess all the evidence to conclude the overall flood impact, introducing the work by the Flood Forecasting Centre in using Twitter to assess the flood risk.

Whilst the Flood Forecasting Centre has evolved for the better over the last 10 years, we continue to advance forwards in how we communicate the flood risk in the short and long range forecast period.