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Reported flooding in the UK: 1884-2012

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Long term archives of reported flooding in the UK from 1884-2012 are used to build an indicator dataset of significant flooding at a national scale in England. The report describes the occurrence of significant flood events on a national scale based on the monthly UK Met Office weather reports and auxiliary sources. Unlike previous studies, which use flow gauging records, these data describe the occurrence of a flood event that affected people and property i.e. they are not flow station specific. The descriptions of reported flood events are classified in order of magnitude, extent and impact. Notable and significant reported flood events are analysed to determine long term temporal trends, changes in seasonality (summer/winter) and to detect any changes in spatial distribution and scale over the last 120 years.

The 19th century reports are less frequent, suggesting that flooding became much more common over the 20th century; however this may be due to an increase in rates of exposure to flood risk due to urban growth and as reporting technology became more sophisticated. The 20th century data shows a high variation with no clear trend of an increase in reported flooding over time. Reported events suggest that flooding occurs in clusters followed by periods of little or no flooding. This supports recent hypotheses regarding the flood-drought cycle of UK water resources. The data shows no tendency towards seasonal winter flooding, with an even distribution of flood events being reported in both summer and winter.