The 'Birmingham tornado' and the 'Boscastle rainstorm' are examples of small scale weather extremes that will be familiar to many. Less well known in the UK will be the ice storms of Portland, Oregon, aided by the close proximity of the Columbia Gorge, and the phenomenal local variations in snow depth seen for lake-effect snowstorms in the north-eastern US. Whilst such events are, reassuringly, relatively isolated, they can clearly cause massive disruption to infrastructure and can pose a major threat to life and property. Numerical weather prediction and computer power have now advanced to the stage where we are beginning to see some predictive potential for these alarming phenomena, and so it is timely to have a look in more detail. This meeting will start out by providing examples of many different types of small scale weather extremes, with an up to date run through of our understanding, and will end by
looking at how computer-generated forecasts can assist in warning of the potential for an imminent event.

Meeting Organiser: Mr Tim Hewson, ECMWF

2.00 Introduction
Chairman: Dr Richard Forbes, Chair of the Royal Meteorological Society Meetings Committee

2.10 Recent observations of the initiation and development of convective storms, Prof Alan Blyth, University of Leeds
2.40 Tornadoes in the UK, Mr Nigel Bolton, Operations Centre, Met Office, Exeter
3.10 Lake-effect snowstorms, Prof David Schultz, University of Helsinki, Finland

3.40 Tea

4.10 Topographic-induced extreme weather, Dr Simon Vosper, Met Office, Exeter
4.40 Freak waves - an example of a statistical method for predicting small scale extremes, Dr Peter Janssen, ECMWF

5.10 High-resolution modelling potential for small scale weather extremes, Peter Clark, Met Office, JCMM, Reading
5.40 Close

Programme:
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<tr>
<th>Time</th>
<th>No.</th>
<th>Presenting author</th>
<th>Title</th>
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</thead>
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<td>00:00</td>
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<td>Recent observations of the initiation and development of convective storms [4]</td>
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<td>Freak waves - an example of a statistical method for predicting small scale extremes [8]</td>
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<td>High-resolution modelling potential for small scale weather extremes [9]</td>
<td></td>
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Source URL: https://www.rmets.org/events/small-scale-weather-extremes#comment-0

Links
[1] https://www.rmets.org/event-type/national-meetings
[3] mailto:chiefexec@rmets.org
[5] https://www.rmets.org/events/tornadoes-uk-1