Storm attribute diagnostics in operational convective forecasting at the Bureau

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The Bureau delivers most of its convection-related services through the Thunderstorm and Heavy Rainfall (TSHR) team which, in effect, represents the organisational view on non-severe and severe convective storms from minutes out to almost a week. For the shorter forecast time range, out to about 1.5 days ahead, the Bureau's ACCESS-City models are very influential regarding the Thunderstorm and Severe Weather Outlook, a forecast that graphically summarises the expected distribution of convective storms and their associated hazards (large hail, damaging wind gusts, and heavy rainfall) in probabilistic form. Experience within TSHR over the past two warm seasons in particular has built up an appreciation of strengths and weaknesses of the ACCESS-City models for the prediction of severe convection and heavy rainfall. In this presentation we will share some of these impressions in their service context, and from it indicate the most desirable directions for model development from an operational benefit point of view.