Bureau of Meteorology prepares to cop flak for failing to forecast Geelong

Storm (www.watoday.com.au – see link below)

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Deborah Gough (Reporter for The Age)

The Bureau of Meteorology is bracing for criticism for not warning of a "super cell" storm that dumped 49 millimetres of rain in 20 minutes on Geelong late on Wednesday afternoon.

But senior forecaster Scott Williams said there was little the bureau could have done differently to warn of the "intense" storm, given its radar settings and the storm's "freakish" nature.

He described the storm as like a "cold, tropical storm", dumping three millimetres of rain a minute during the short burst.

The storm hit Geelong at 5.15pm causing flash flooding – delaying the NAB Challenge match at Simonds Stadium between St Kilda and the Western Bulldogs – and caused evacuations at a basketball and netball centre, an aquatic centre and the Little Creatures brewery.

The State Emergency Service had 68 calls for help in the Geelong area, mostly for flooding in homes through roofs and doors.

The Miner's Cottage, a provincial furniture store in the suburb of Newcomb, was one of the worst hit.

Co-owner Peter Miner said he was shocked the veranda on his 1920s-era shopfront collapsed under the weight of the rain, bringing down the facade.

Mr Williams said the thunderstorm developed quickly and well below its radar storm settings. These are set at between six and 10 kilometres into the earth's atmosphere, where most storms develop, he said.

Complicating the forecast was that the wind direction was also more like a northern hemisphere storm.

"What we would normally see when you have a thunderstorm, we didn't really get," Mr Williams said.

"The wind shear in this case went in the opposite direction to normal, travelling in a south-west direction on the ground and a north-west direction at height.

"In most thunderstorms it travels anti-clockwise and in this storm it was clockwise.

"It was a very, very unusual wind shear."

He described the effect of the wind and "squat" height of the storm – between two and six kilometres tall – as like "throwing a bucket of water into the air and letting it fall from six kilometres".

Mr Williams said radar readings were taken at six-minute intervals and just a hint of the storm was seen at the very bottom of the radar settings. By the time the second reading came, the storm was

already blasting Geelong.

He said the bureau usually waited for two readings before issuing a warning, because conditions could peter out to nothing and it did not want to give false warnings.

"Because it tracks six minutes apart we wait to see at least a second reading with the characteristics of a storm before we are confident about issuing a warning," he said.

"We were unable to give a warning because it developed in situ.

"I lay awake thinking about it last night ... I don't think we could done it any differently.

"Thunderstorms are tricky to diagnose even in a perfect situation."

He said the bureau – considered part of the emergency services – was under similar pressures to other services during the past four weeks of intense bushfires in Victoria. He said forecasters were working unusual shifts to provide more detailed analysis in fire zones, but he said that even without this pressure, he doubted the bureau could have predicted the storm given its unsual nature.

"We will get stick for it," he said.

Mr Williams said the storm was short in duration and petered out at Queenscliff an hour later.

He said the unusual nature of the storm would probably be investigated later.

Melbourne will struggle to get to 20 degrees on Thursday.

Mt Baw Baw Resort reports there is ice on cars but so far no snow flurries despite 49 millimetres of rain overnight.

Geelong's short, sharp storm

5.15-5.20pm: 5.8mm

5.20-5.25pm: 16mm

5.25-5.30pm: 17 mm

5.30-5.35pm: 10 mm

Total over 20 minutes: 48.8 mm

From http://www.watoday.com.au/environment/weather/bureau-of-meteorology-prepares-to-cop-flak-for-failing-to-forecast-geelong-storm-20140220-332dq.html#ixzz2uJColQvS