



21 February 2018

Widespread rain this weekend: 23 – 25 February 2018

Rainfall prospects are set to improve significantly over a number of our provinces this weekend. The combination of onshore flow along our southern and south-eastern coastline, together with a well-defined upper air system is expected to deliver significant rainfall over parts of the Western and Eastern Cape on Saturday and Sunday. In particular, the Eastern Cape appears at this stage to have a high likelihood of receiving heavy rain, especially during Sunday.

Taking into account that this numeric model-based prediction for heavy rain relates to a date a few days ahead in time, much could change in the interim. Further updates will therefore be issued by the South African Weather Service, as fresh information becomes available closer to the coming weekend.

At the current time, the circulation pattern is fairly benign and we can look forward to isolated to scattered showers and thundershowers, predominantly over the central and eastern parts of the country. It is only towards Friday, when a weak cold front arrives over Cape Town, when the prevailing weather pattern will begin to change significantly. Acknowledging that the south-western part of Western Cape is particularly drought-stricken, it bears mentioning that the particular rain system (which is expected to bring significant or heavy rain to many parts of the Cape provinces) is NOT EXPECTED to provide much relief for the Cape Peninsula and Boland regions. In fact, this system will barely deliver 10 to 15 mm of rain for the Cape Metropole.

By contrast, the rain prospects for other parts of the country are modelled to be far more encouraging and will be discussed in more detail (below) on a day by day basis. Apart from rainfall, there are also a number of other potentially hazardous extreme weather phenomena which are likely to be associated with this system, which will similarly be discussed in more detail.

At this stage, when considering the potential impacts of fairly widespread rain, it is critical to note that the occurrence of heavy rain is by no means the only rain-related hazardous weather issue. It can reasonably be

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expected that sustained rainfall over a large spatial area will inevitably surpass the infiltration capacity of the ground, thus leading to overland runoff. Such runoff feeds into stream and river systems and often leads to river-flooding scenarios. The public should therefore remain vigilant and aware of the danger of localised urban flooding, particularly in low-lying areas and especially where the environment is modified by tarred roads and brick or concrete paving. *Moreover, under such circumstances, the public are strongly discouraged from crossing low-water bridges, either on foot or in vehicles. In both cases there is the very real danger of being swept off the bridge, due to the extreme lateral force of floodwaters.*

Expected progression of events and main impacts:

Friday 23 February 2018

Not much of an indication of rainfall for Friday, with the upper trough feature still in the process of intensifying to the west of the country. Some light thunderstorms can be anticipated for the Highveld.

The cold front makes landfall over the western extremity of Western Cape, introducing some cooling as well as light rainfall for the Peninsula.

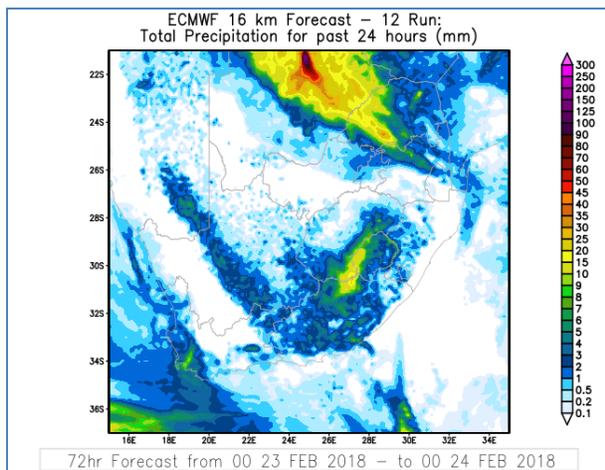


Figure 1: Predicted 24 hour rainfall in mm for Friday 23 February (ECMWF model)

Saturday 24 February 2018

Thundershowers are expected to the east of the upper air trough, whilst the cold front advances eastwards towards Port Elizabeth. Overcast, cold and rainy weather is expected to dominate the southern coastline and southern mountains of Western and Eastern Cape respectively. *Rainfall could be significant to heavy in places and localised flooding may be expected.*

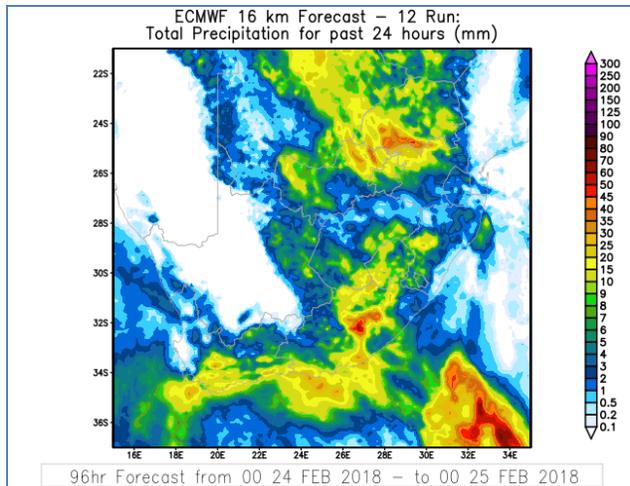


Figure 2: Predicted 24 hour rainfall in mm for Saturday 24 February (ECMWF model)

Sunday 25 February 2018

By Sunday (and continuing into Monday) the upper trough is expected to have intensified into an upper air cut-off low, positioned over the Eastern Cape interior. Strong surface ridging is expected to spread further east, ultimately affecting the entire Eastern Cape coastline. Sea conditions along the coast between Port Alfred and Richards Bay are expected to roughen significantly on Sunday and Monday, thus elevating the risk of storm surge along this coastal region. Strong to gale-force south-westerly winds may well exacerbate prevailing marine conditions along this coastline.

Whilst cold, wet conditions will dominate the interior of Western and Eastern Cape on this day, snowfalls are not expected from this particular weather system.

Over the interior, significant to heavy falls can be expected for the eastern parts of Western Cape, as well as all of Eastern Cape. Heavy downpours and/or severe storms could be encountered sporadically over the Free State, KwaZulu-Natal, Gauteng, Mpumalanga and Limpopo. Once again, the risk of localised flooding should be noted in areas affected by persistent rainfall.

Some of the thunderstorms over the Highveld, including eastern Free State, Gauteng and the Highveld of Mpumalanga MAY become severe and are likely to be associated with strong, damaging winds and/or large hail.

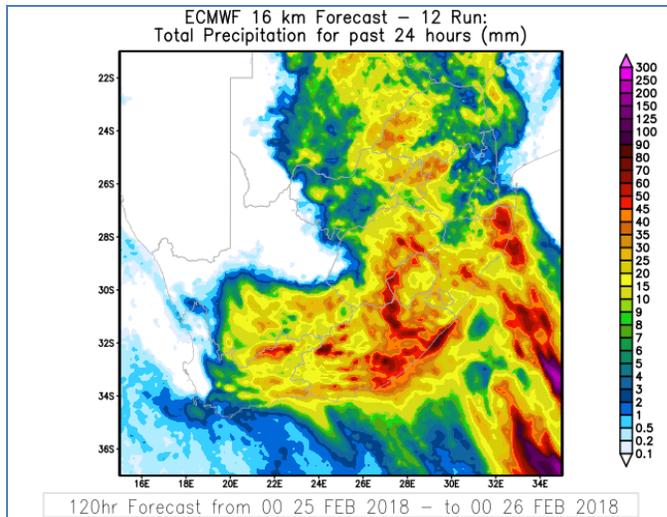


Figure 3: Predicted 24 hour rainfall in mm for Sunday 25 February (ECMWF model)

The rainfall over the coming days over the drought-stricken areas will surely be greatly valued and appreciated. Whilst this rainfall episode may result in some short-term relief, it will nevertheless have little impact in the longer term. Much more rainfall is still required in order to sustain the Western Cape and Eastern Cape through the coming months.

The South African Weather Service will continue to monitor any further developments relating to this weather system and will issue subsequent updates as required. Furthermore, the public are urged to regularly follow weather forecasts on television and radio.

Updated information can also be found at www.weathersa.co.za as well as via the SA Weather Service Twitter account **@SAWeatherServic**

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