

Severe Weather Advisory for Mozambique and wider southern Africa

Tropical Cyclone Dineo

Issued on Wednesday, 15 February 2017 at 08:15 local time.

Headline

Tropical Storm Dineo currently a Severe Tropical Storm across the Mozambique Channel is strengthening to become a Tropical Cyclone as it tracks WSW to make landfall across Mozambique later today.

Impacts

Localised Hurricane force winds close to landfall with a wider area of gales and severe Gales. Possible storm surge with large waves causing impacts along Mozambique coastline. Heavy rain also likely to lead to impacts across Mozambique and wider Southern African region through the remainder of the week.

Discussion

Severe Tropical Storm Dineo Mozambique Channel has developed across the Mozambique Channel in the last few days. At 15/06UTC the storm was centred around 22.9S, 37.1E (around 130 miles WNW of Inhambane, Mozambique) and was tracking W at 8mph. Dineo is forecast to continue to track WSW in the next few hours before veering to a more W'ly direction. At the same time intensify as it moves across warmer waters to become a Tropical Cyclone, before making landfall later today across Mozambique.

At this short lead time there is increasing confidence that Dineo will very likely make landfall north of Inhambane, Mozambique around 15/18Z today (Wednesday).

The most likely track based on combined information from Modelling centres looks to be close to the official track from the official RMSC La Reunion (Fig 1). This tracks Dineo close to north of the cities of Inhambane and Maxixe, making landfall around 1800UTC Wednesday. However there remains some uncertainty as to the exact track and timing of landfall. The most recent model run from the Met Office (15/00UTC) is consistent with its previous output and signals the possibility that the Tropical cyclone may make landfall further north (just south of Vilankulos) , plus make landfall some 3-6 hours faster across Mozambique than the official guidance. However this solution is on the northern edge of the "multi model" ensemble plume and is therefore only a very low risk.

The consensus of the deterministic and ensemble models supports the official track. This includes GFS which generates many of the products issued by NCEP GFS data (GDACS etc).

Destructive winds with maximum 10 minute mean winds may reach 80KT (with a low probability of >90KT) as the storm makes landfall. These peak winds will be in a fairly limited radius, close to the storm centre at landfall, although a much wider area likely to experience Tropical storm strength winds. The storm is also likely to cause a storm surge (guidance from the RMSC suggest localised peaks of 2m possible) and combined with large waves (20ft possible) may result in coastal inundation. Heavy rain is expected across the region through Wednesday and Thursday with forecasts suggesting 200-400mm possible in some locations, which would likely result in flash flooding (most likely on the coastal plain).

As the weakening storm moves inland through Thursday and the rest of the week, a wider area will be exposed to heavy rain. With soil moisture levels high at this time (following above average seasonal rainfall in recent months in places), further flash flooding and river flooding in basins such as Limpopo may be further developing hazards.

Sources

RSMC La Reunion (Meteo France), Met Office, ECMWF, NCEP, JTWC.

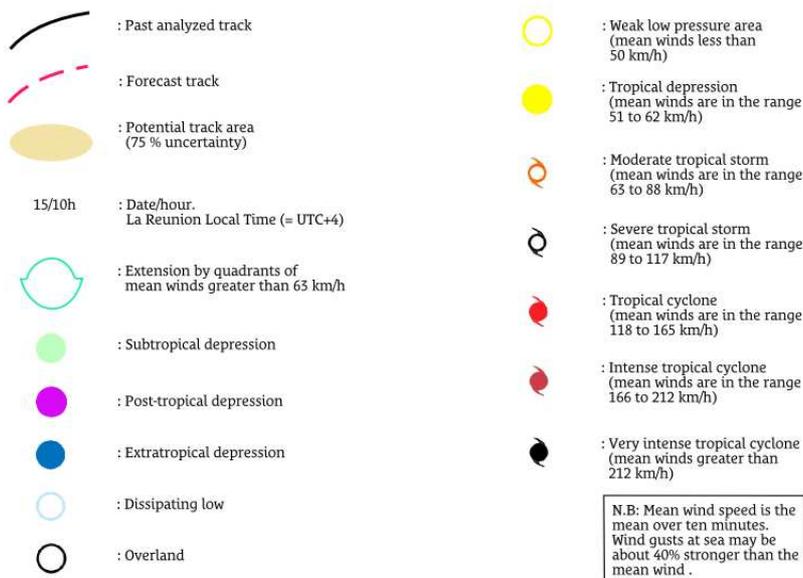
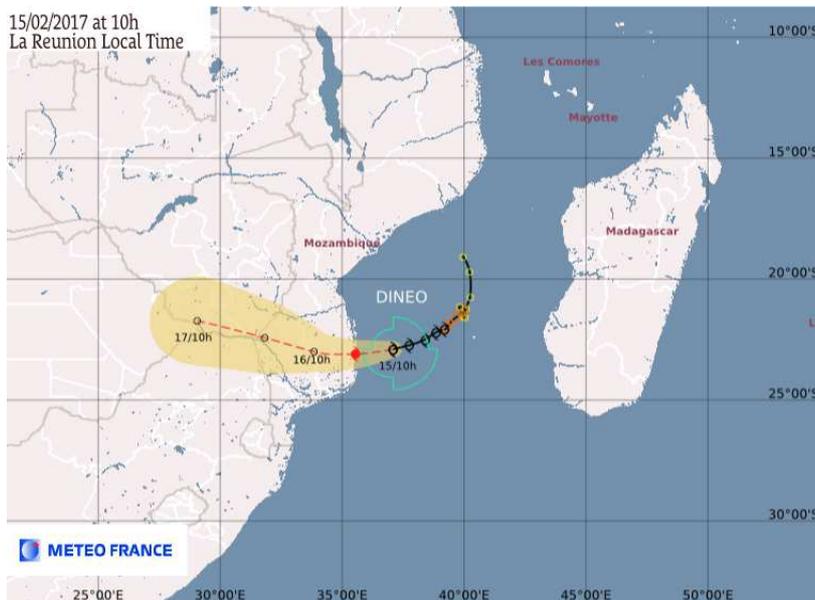
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Fig 1: Official Guidance from RMSC in La Reunion from 0600UTC Wednesday – Note times are La Reunion local time on graphic.



WARNING:

The potential track area depicts the track forecast uncertainty for days 1-5 of the forecast. It indicates that the entire 5-days path of the center of the tropical system for which the track forecast has been made will remain within the cone about 75% of the time.

Hence being situated outside of the uncertainty cone does not mean that there is no risk of being affected by the system, especially so since the uncertainty cone is for the storm's center and does not consider the more or less large extension of potential damaging winds or rain surrounding this center.

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