

Severe Weather Assessment for Fiji from Severe TC Winston

Issued on Sunday, 21 February 2016 at 09:40 local time.

Headlines:

- Winston moving away to the W of Fiji today, 50-100mm and very strong winds until 21/18Z in the W. E'ern parts in recovery.
- Very low probabilities of Winston affecting Vanuatu. More likely to head S towards N Island of New Zealand by midweek.

Summary

Severe Tropical Cyclone Winston – Severe Tropical Cyclone Winston was centred around 250 miles ENE of Suva at 0900Z this morning (Sunday), moving W-SW at around 7 knots. Winston remains a category 5 Cyclone with estimated 1 minute sustained winds of 125kt and gusts to 150kt.

Reports are still coming in regarding damage and loss of life, and it's estimated that 90% of the population are suffering a lack of power. However, there are reports of severe damage to villages and towns in the wake of landfall of this cyclone that is thought to be the strongest cyclone to make landfall in Fiji.

All models take Winston west towards Vanuatu as a category 5 Cyclone today (Sunday). However, an extending long wave upper trough is expected to deflect Winston southwards from Monday as a slowly weakening Cyclone encountering cooler waters and increased vertical wind shear.

There is increasing uncertainty in the track of Winston from midweek. The UK, EC and most ensemble output meander this cyclone south with a possible landfall on the North Island of New Zealand. However, a minority of ensemble output and several USA model runs take a weakened Winston west into the Coral Sea as it is steered round the south of a disrupting upper trough. However, this is seen as a low probability solution, with the UKGM/EC track is preferred, see Figure 1.

This forecast may be amended at any time

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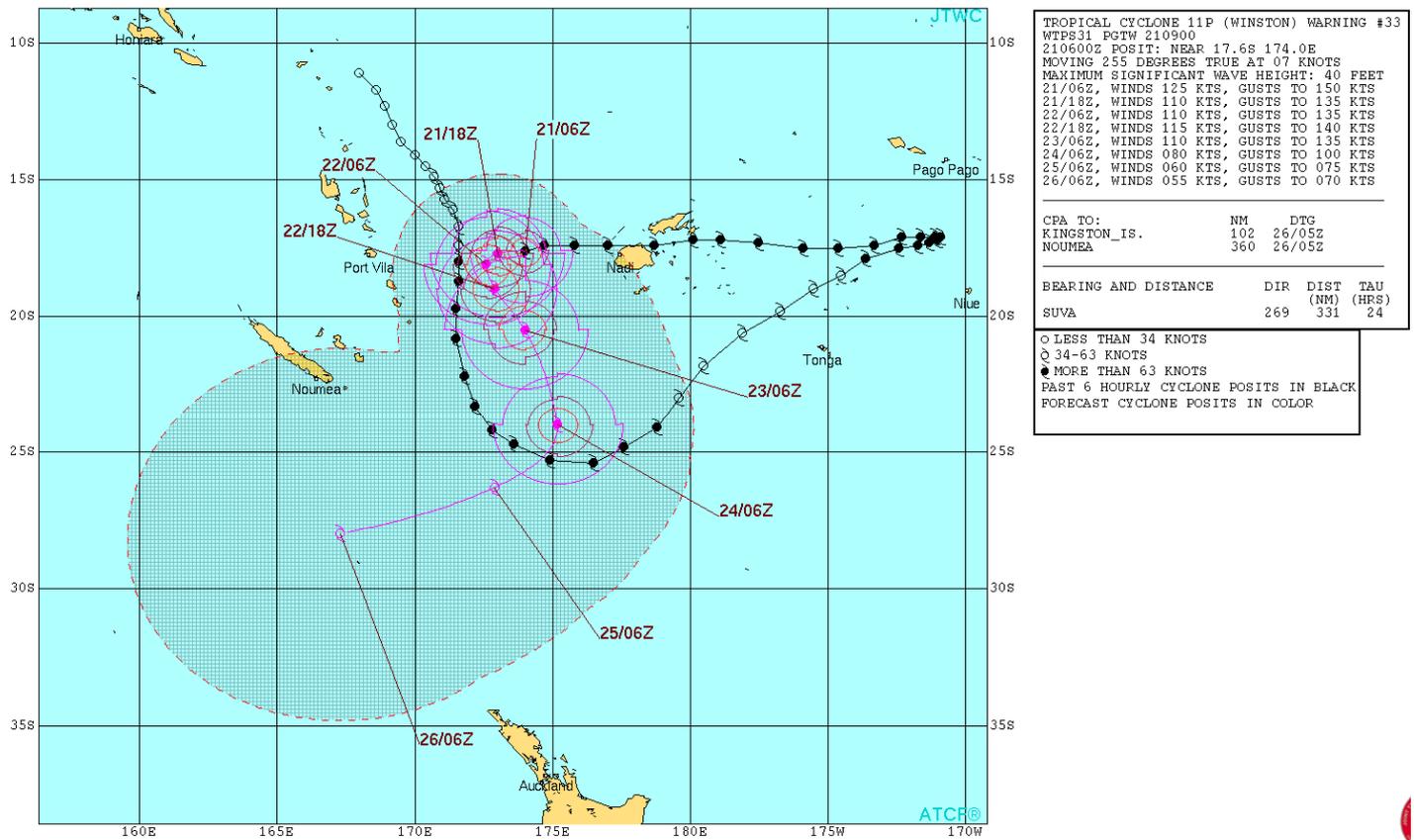


Figure 1: 21/09Z JTWC track of Winston.

Impacts

Up to 200mm of rain in 24 hours, see Figure 2, and gusts of 200mph have caused widespread damage to homes. With over 90% of the population without power and 1 fatality already reported, it is likely that the latter figure will increase significantly as more information is gathered. BBC News report:

<http://www.bbc.co.uk/news/world-asia-35623944>

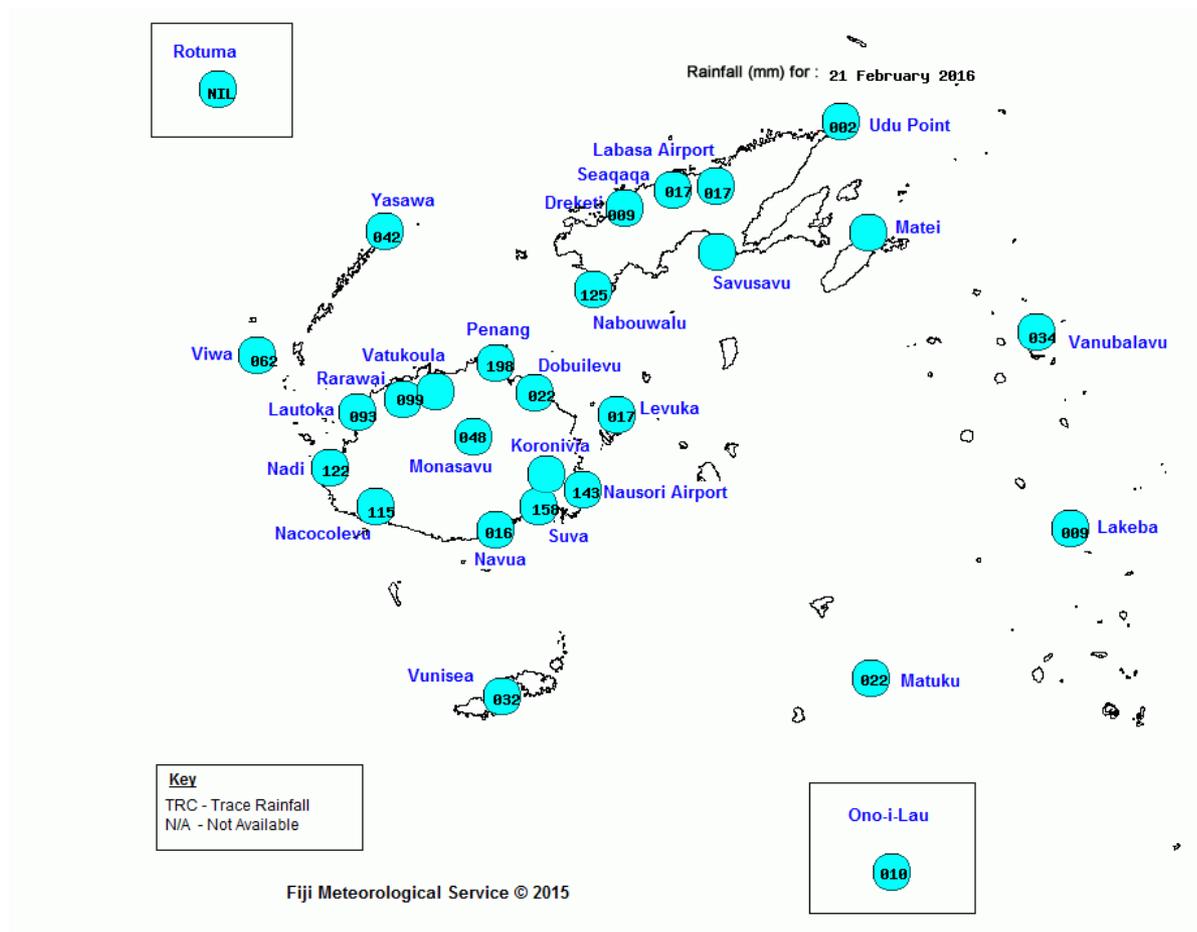
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Figure 2: 24 hour rainfall totals (mms) across Fiji for 21st Feb (Sunday) local time.



Model Performance

In general models have given, and continue to give good guidance for Winston. Only one ensemble member (~5% risk) has a track near to Vanuatu, and even this member is well to the South, see figure 3.

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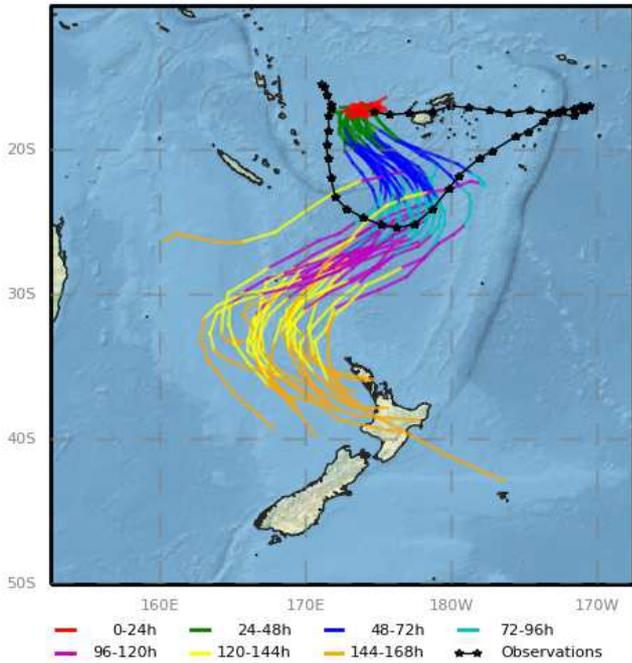
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MOGREPS-G: Forecast tropical storm tracks for WINSTON from 00UTC 21/02/2016



MOGREPS-G: Forecast tropical storm strike probability for WINSTON from 00UTC 21/02/2016

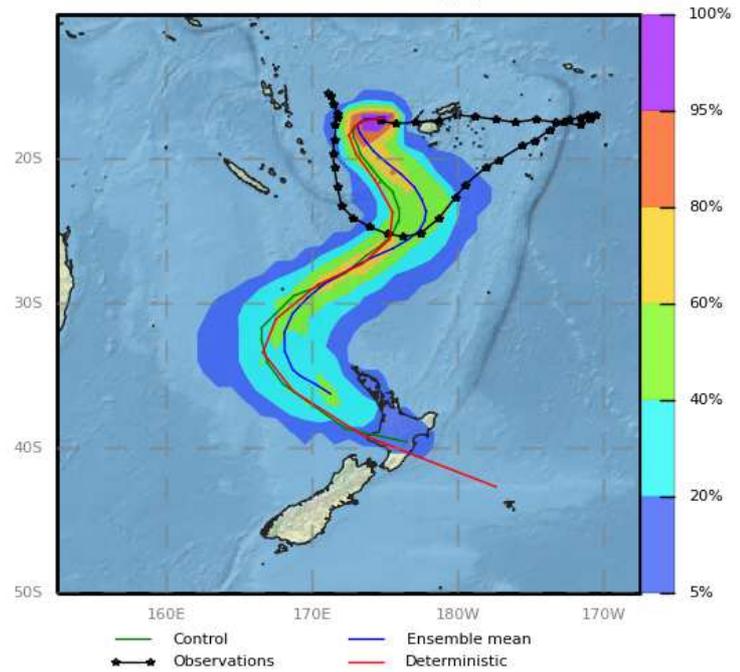


Figure 3: MOGREPS G ensemble track guidance for Winston.

Confidence

Medium to high for the track of Winston at first, low to medium for it reaching New Zealand as a significant feature.

Issued at: 210940Z

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