

Global Wind Hazard Final Run

TAOS[™] Real Time Operations System
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Abstract

TAOStm WX Global Analysis of wind hazards and economic impact estimates based the 20230925000000 GFS short term integrations, and is the recommended simulation for settlement purposes for impacts for this date. This analysis was run using proc:gfs TAOS Version 24.1:ROCKY9:GCC11:2023:249:1027, and includes wind hazards from tropical cyclones, winter storms, mid latitude cyclones, and other synoptic scale weather systems.

Report generated Tue Sep 26 08:51:49 AM UTC 2023 on cortex2 using GFS data downloaded on Mon Sep 25 09:34:30 PM UTC 2023.

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Chapter 1

Impact Summary for 2023-09-25

Table 1.1: Global Economic Impacts for 2023-09-25

<i>scenario</i>	<i>exposures</i>	<i>economic_impact</i>
hindcast_20230925	106148	4.92 Million USD

Table 1.2: Countries with over 100 thousand USD in impacts

<i>name</i>	<i>num_exposures</i>	<i>economic_impact</i>
South Africa	45315	4.55 Million USD

GFS Surface Winds for 2023-09-25 00:00.

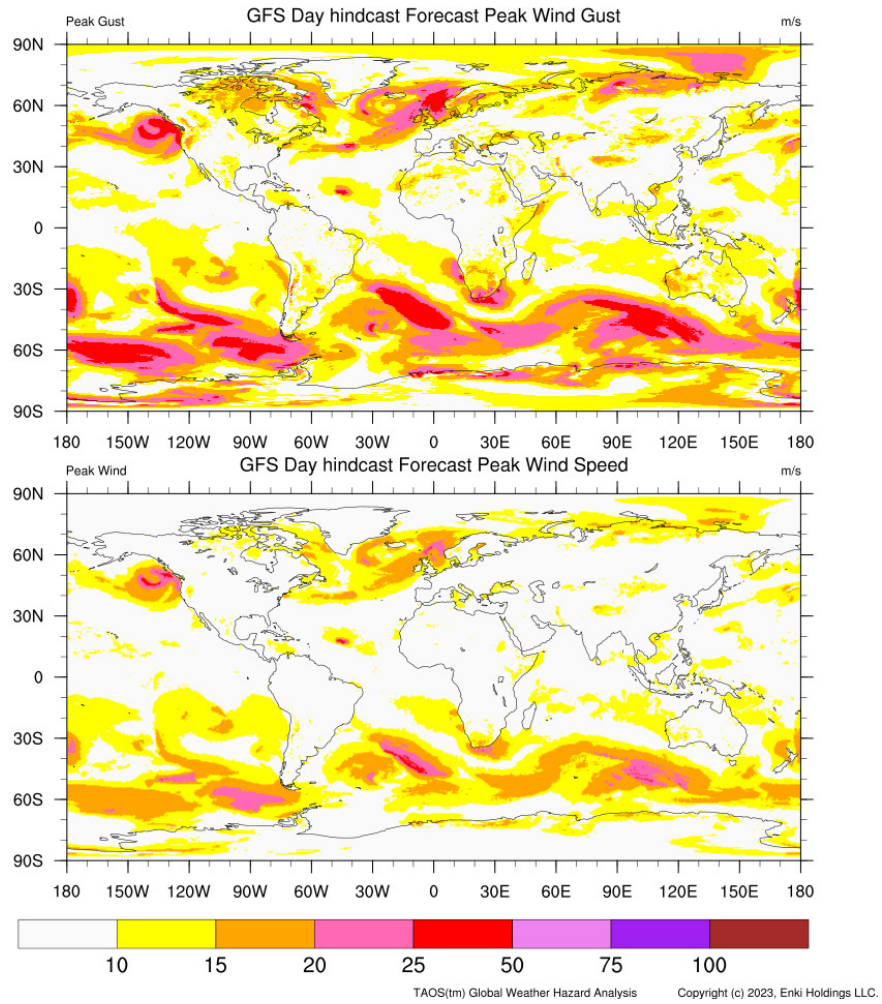


Figure 1.1: GFS Wind Hindcast

Chapter 2

South Africa impact summary for 2023-09-25

Table 2.1: Overall summary for South Africa

<i>name</i>	<i>num_exposures</i>	<i>economic_impact</i>
South Africa	45315	4.55 Million USD

Table 2.2: Summary by Level 1 Admin Area with loss over 1000 USD

<i>name</i>	<i>num_exposures</i>	<i>economic_impact</i>
Eastern Cape	7978	89,628.67 USD
Northern Cape	5501	15,745.53 USD
Western Cape	31820	4,445,900.20 USD

Chapter 3

Comparison of Forecast vs Hindcast Run

This tables shows what the forecast for 2023-09-25 was for the same day (00z forecast for the rest of the day) as well as the forecast from the simulation in each of the previous four days.

Table 3.1: Forecast Comparison with Hindcast Run

<i>scenario</i>	<i>economic_impact</i>
hindcast_20230925	4.92 Million USD
f001_20230925	5.52 Million USD
f002_20230924	8.60 Million USD
f003_20230923	3.18 Million USD
f004_20230922	3.41 Million USD
f005_20230921	15.14 Million USD

Chapter 4

Technical Notes

The TAOStm WX Global Analysis (TAOS/WX) is part of the TAOStm storm hazard modeling system. TAOS/WX ingests global or regional weather models and, using the same graphical processing systems, statistical methodologies, exposure, and damage models as the tropical cyclone (TAOS/TC) and earthquake (TAOS/EQ) packages, generates estimates of weather hazards and the economic impact of weather hazards on those exposures.