

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 20240520000000 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 25.01:ROCKY9:GCC11:2024:135:1547, and includes wind hazards from tropical cyclones, winter storms, mid latitude cyclones, and other synoptic scale weather systems.

Report generated Tue May 21 05:35:09 AM UTC 2024 on cortex2 using GFS data downloaded on Mon May 20 09:36:40 PM UTC 2024.

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Chapter 1

Impact Summary for 2024-05-20

Table 1.1: Global Economic Impacts for 2024-05-20

<i>scenario</i>	<i>exposures</i>	<i>economic_impact</i>
hindcast_20240520	139398	1.30 Million USD

Table 1.2: Countries with over 100 thousand USD in impacts

<i>name</i>	<i>num_exposures</i>	<i>economic_impact</i>
Libya	26340	.17 Million USD
Saudi Arabia	9729	.26 Million USD
United States	56306	.53 Million USD

GFS Surface Winds for 2024-05-20 00:00.

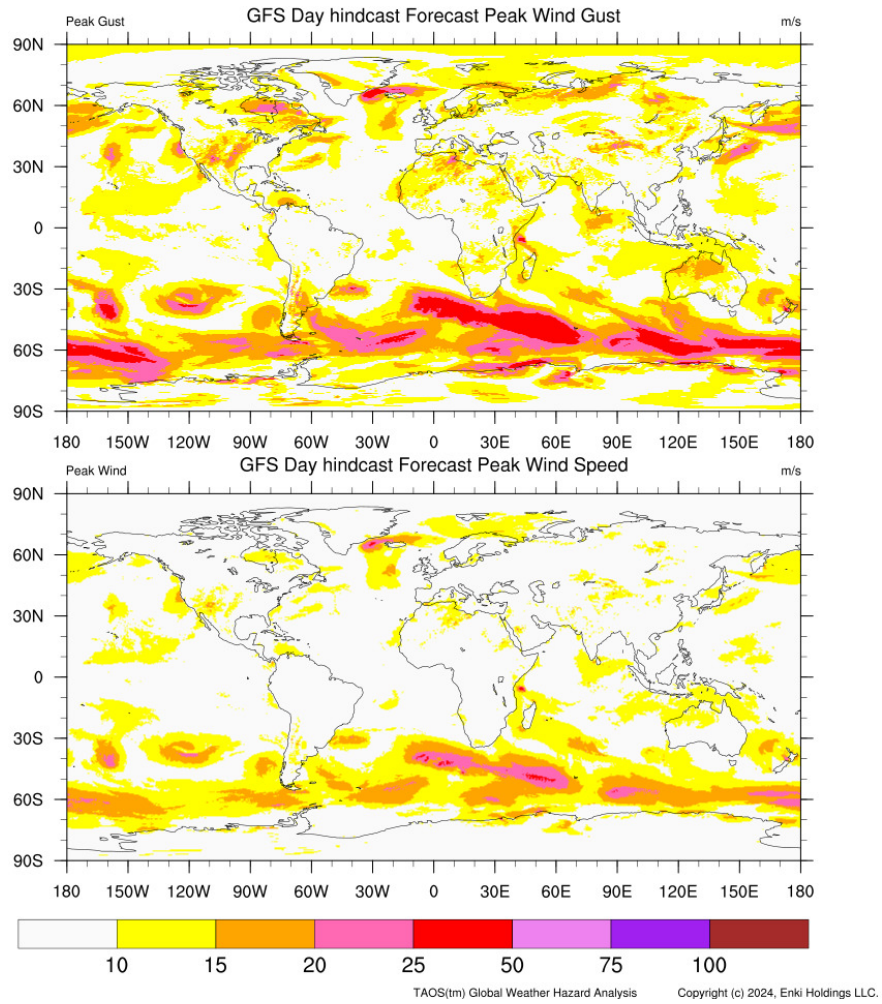


Figure 1.1: GFS Wind Hindcast

Chapter 2

Libya impact summary for 2024-05-20

Table 2.1: Overall summary for Libya

<i>name</i>	<i>num_exposures</i>	<i>economic_impact</i>
Libya	26340	.17 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>
Al Jufrah	4429	56,440.84 USD
Ghat	9526	38,838.82 USD
Nalut	900	10,736.46 USD
Surt	7571	55,380.98 USD
Wadi ash Shati'	3717	8,686.98 USD

Chapter 3

Saudi Arabia impact summary for 2024-05-20

Table 3.1: Overall summary for Saudi Arabia

<i>name</i>	<i>num_exposures</i>	<i>economic_impact</i>
Saudi Arabia	9729	.26 Million USD

Table 3.2: Summary by Level 1 Admin Area with loss over 1000 USD

<i>name</i>	<i>num_exposures</i>	<i>economic_impact</i>
Al Madinah	3689	39,404.70 USD
Makkah	6021	218,271.19 USD

Chapter 4

United States impact summary for 2024-05-20

Table 4.1: Overall summary for United States

<i>name</i>	<i>num_exposures</i>	<i>economic_impact</i>
United States	56306	.53 Million USD

Table 4.2: Summary by Level 1 Admin Area with loss over 1000 USD

<i>name</i>	<i>num_exposures</i>	<i>economic_impact</i>
Arizona	34311	367,570.10 USD
California	197	1,555.32 USD
Colorado	333	1,365.63 USD
Kansas	1621	11,768.68 USD
Nebraska	787	4,667.33 USD
New Mexico	18406	141,504.36 USD

Chapter 5

Comparison of Forecast vs Hindcast Run

This tables shows what the forecast for 2024-05-20 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 5.1: Forecast Comparison with Hindcast Run

<i>scenario</i>	<i>economic_impact</i>
hindcast_20240520	1.30 Million USD
f001_20240520	4.35 Million USD
f002_20240519	9.86 Million USD
f003_20240518	2.40 Million USD
f004_20240517	2.51 Million USD
f005_20240516	20.53 Million USD

Chapter 6

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.