

EMD-WRF South Africa Mesoscale Data



windPRO

EMD-WRF South Africa Mesoscale Data Set

windPRO includes a subscription service to download free time series from a high resolution mesoscale data set covering South Africa.

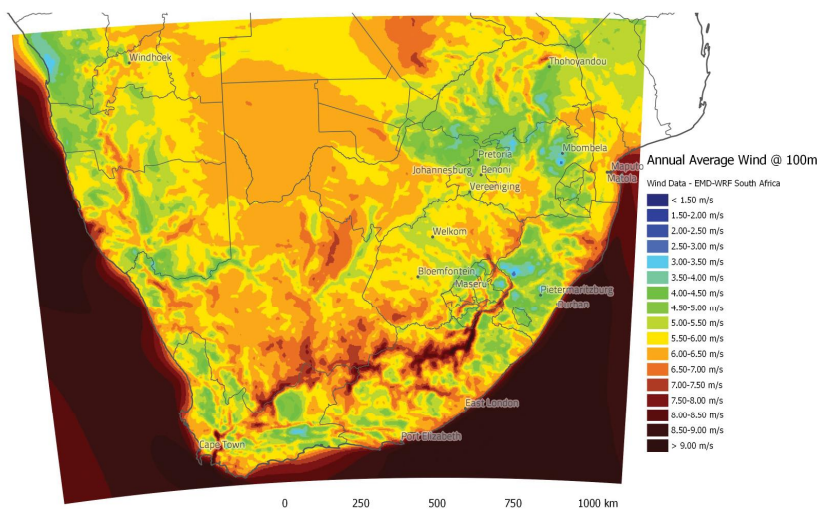
The data is modelled in-house on EMD's computer cluster using WRF.

The mesoscale model is run at a high spatial resolution of $0.03^{\circ} \times 0.03^{\circ}$, approximately 3×3 km, with hourly temporal resolution. ERA Interim data from ECMWF is the global boundary data set.

The data set covers the country of South Africa (see domain to the right).

The data set covers more than 20 years. Data is updated monthly with app. three months delay defined by ERA Interims availability.

Data access is directly via windPRO's user-friendly, on-line data interface – approximately 370,000 time series are available for instant download, thus no delivery time.



Access to the Mesoscale Data Set

To access the EMD-WRF South Africa mesoscale data set, the following are required:

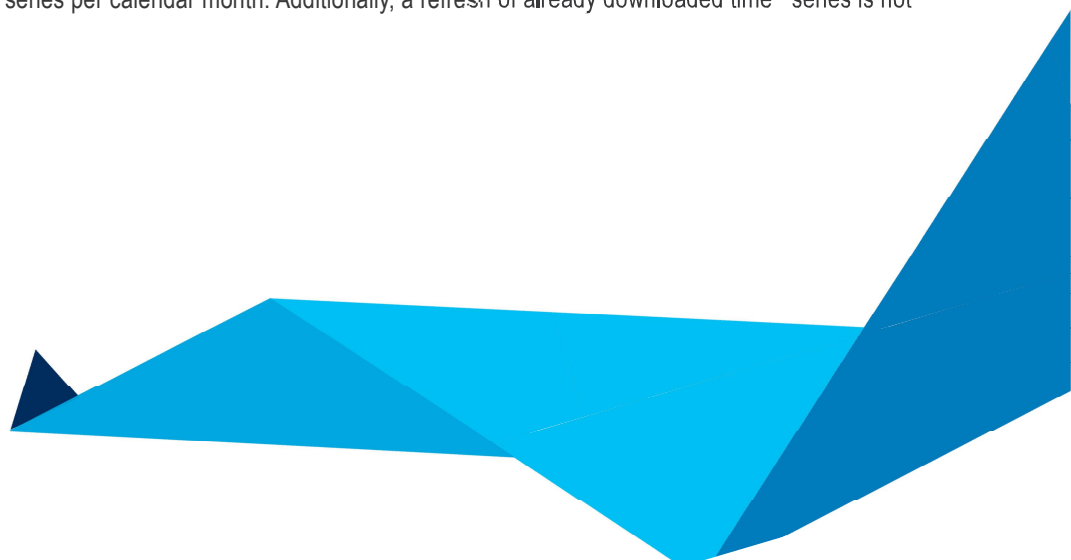
- windPRO BASIS module
- windPRO METEO or MCP module
- Subscription to EMD-WRF South Africa data set

Very Competitive Pricing

Access to the EMD-WRF South Africa mesoscale data set is offered at the following annual prices:

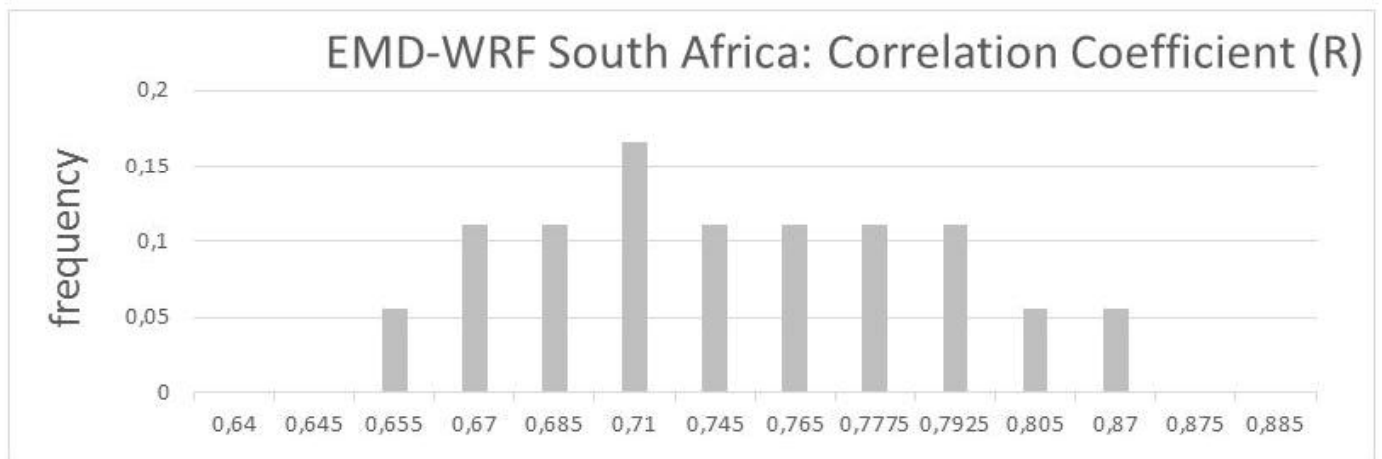
- Euro 1,000 for the first subscription
- Euro 300 (30%) for each additional subscription within the same company.

Subscribers may download up to 100 time series per calendar month. Additionally, a refresh of already downloaded time series is not counted as a new download



Validation

The histogram below shows correlation coefficients for several high quality masts across the domain.



The table below shows the correlation, both the mean and standard deviation in comparison to MERRA.

| | Mean | Std. Dev. |
|----------------------|------|-----------|
| MERRA | 0.68 | 0.06 |
| EMD-WRF South Africa | 0.74 | 0.05 |

