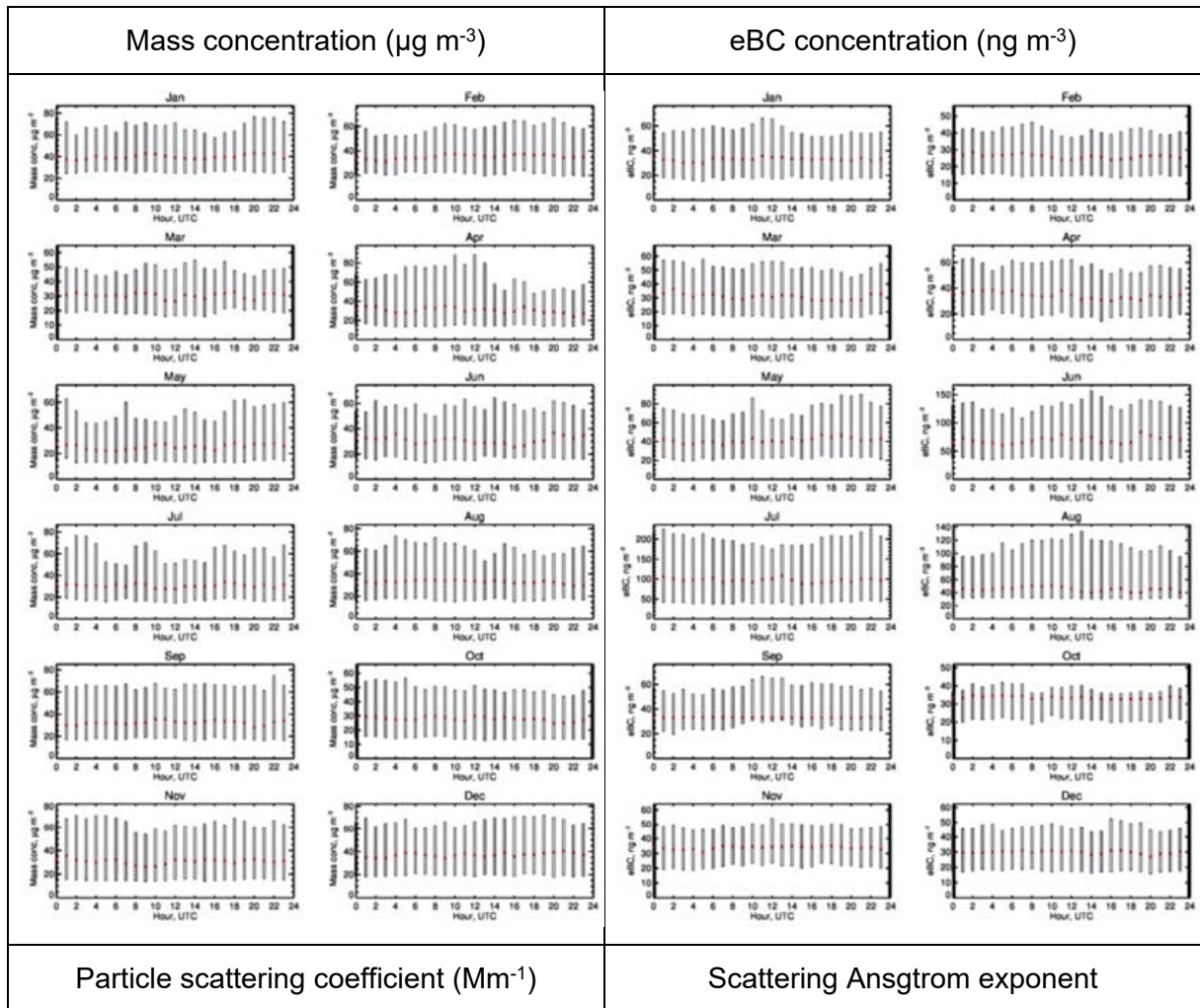


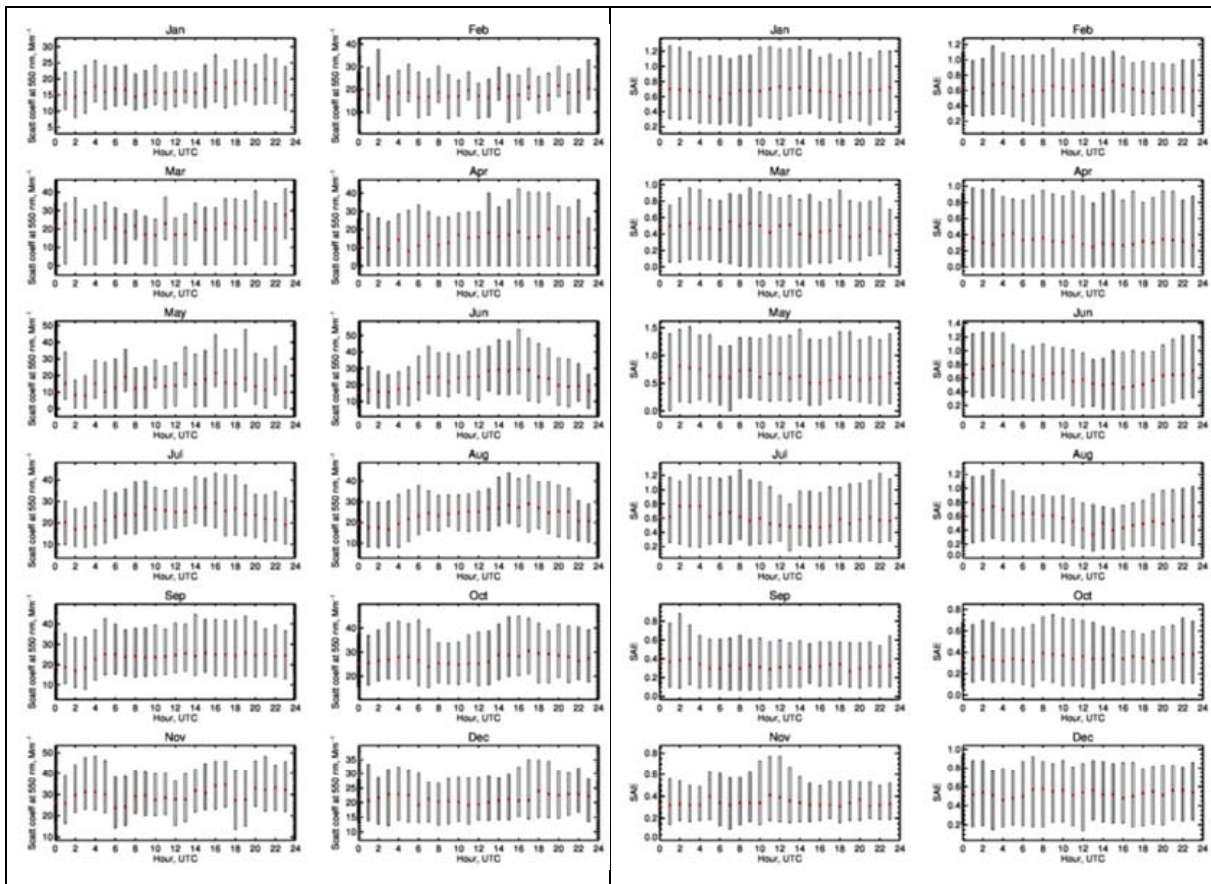
Supplementary

Table S1. Location and operating periods of the AERONET ground-based sunphotometer stations relevant to this paper.

Site name	Coordinates	Period
Lubango	15.0S, 13.4E	17/02/2016- 10/02/2023
Mongu	15.3S, 23.2E	27/06/1995- 05/02/2023
Maun Tower	19.9S, 23.6E	13/09/2000- 09/02/2023
Upington	28.4S, 21.2E	05/02/2016- 19/09/2023
Gobabeb	23.6S, 15.0E	11/11/2014- 22/11/2022
Windpoort	19.4S, 15.5E	10/02/2016- 09/02/2023
Simonstown	34.2S, 18.4E	30/05/2015- 01/07/2021
Ascension Island	8.0S, 14.3W	07/03/1996- 10/02/2023

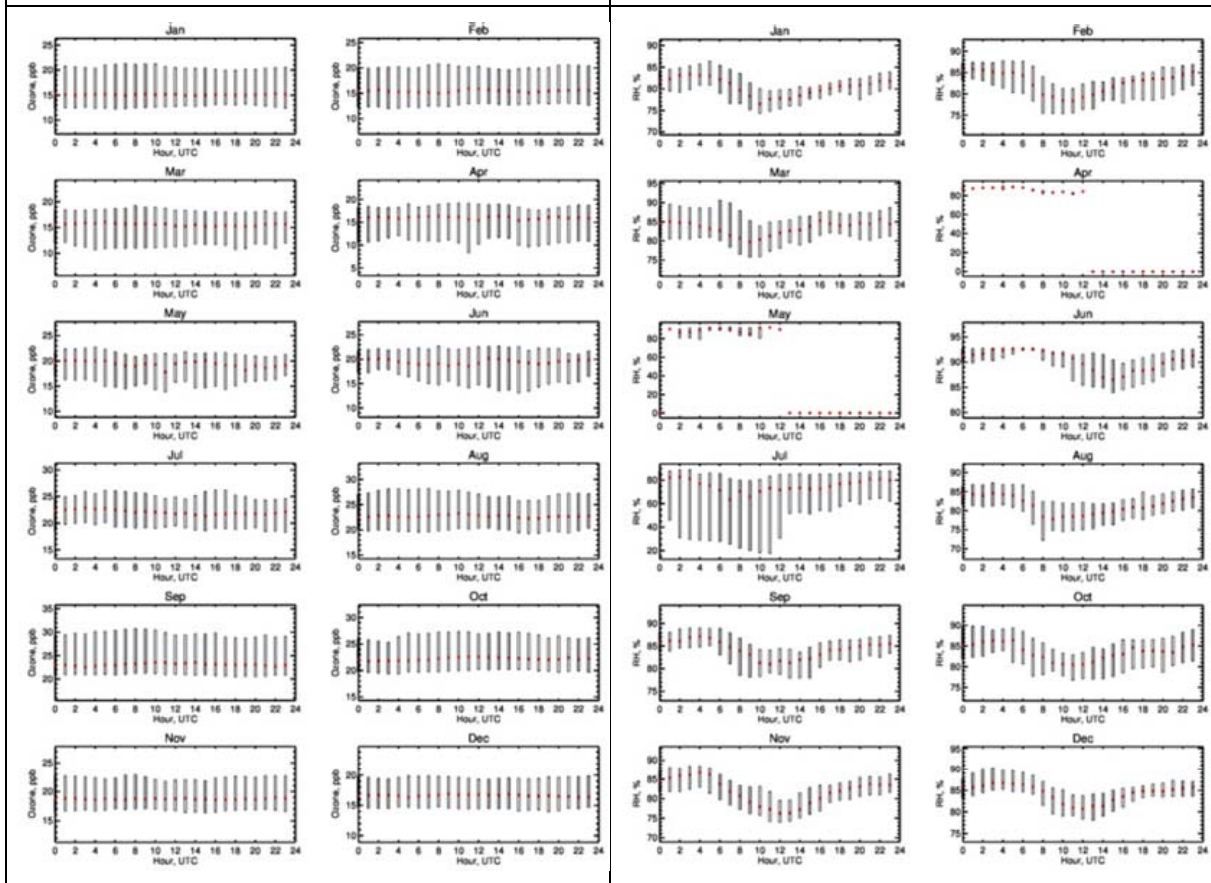
Figure S1. Monthly time series of the hourly 25th and 75th percentiles (black boxes) and median values (red line) for the variables measured at HBAO.





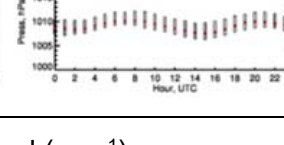
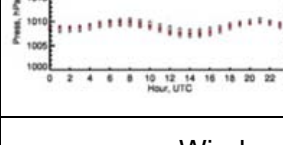
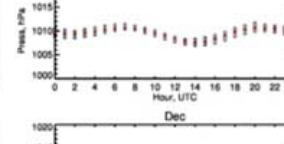
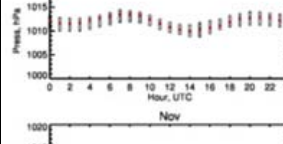
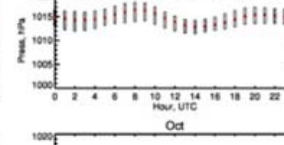
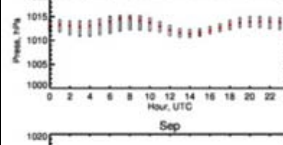
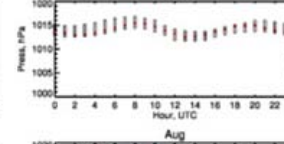
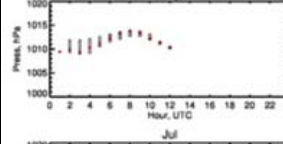
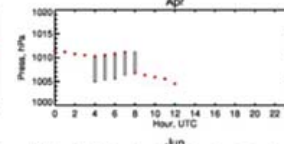
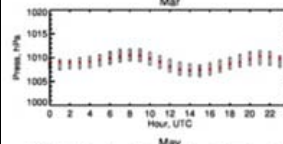
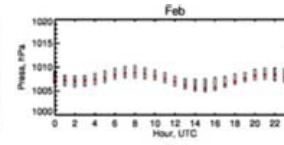
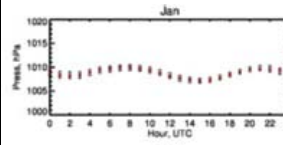
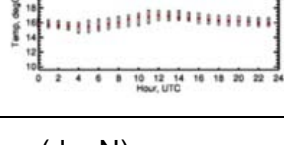
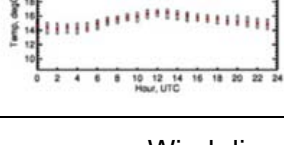
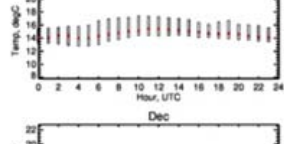
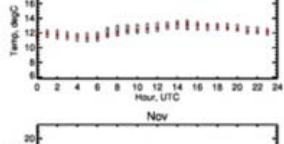
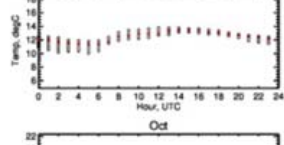
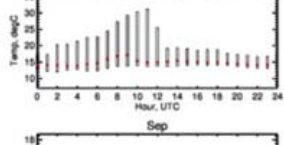
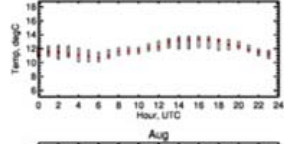
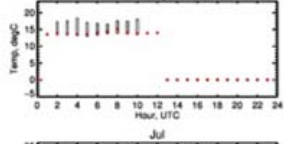
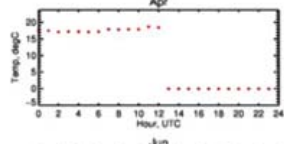
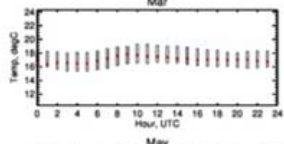
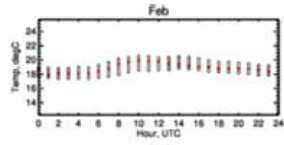
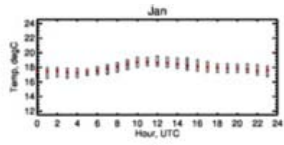
Ozone (ppb)

Relative humidity (%)



Air temperature (deg°C)

Air pressure (hPa)



Wind direction (degN)

Wind speed (m s⁻¹)

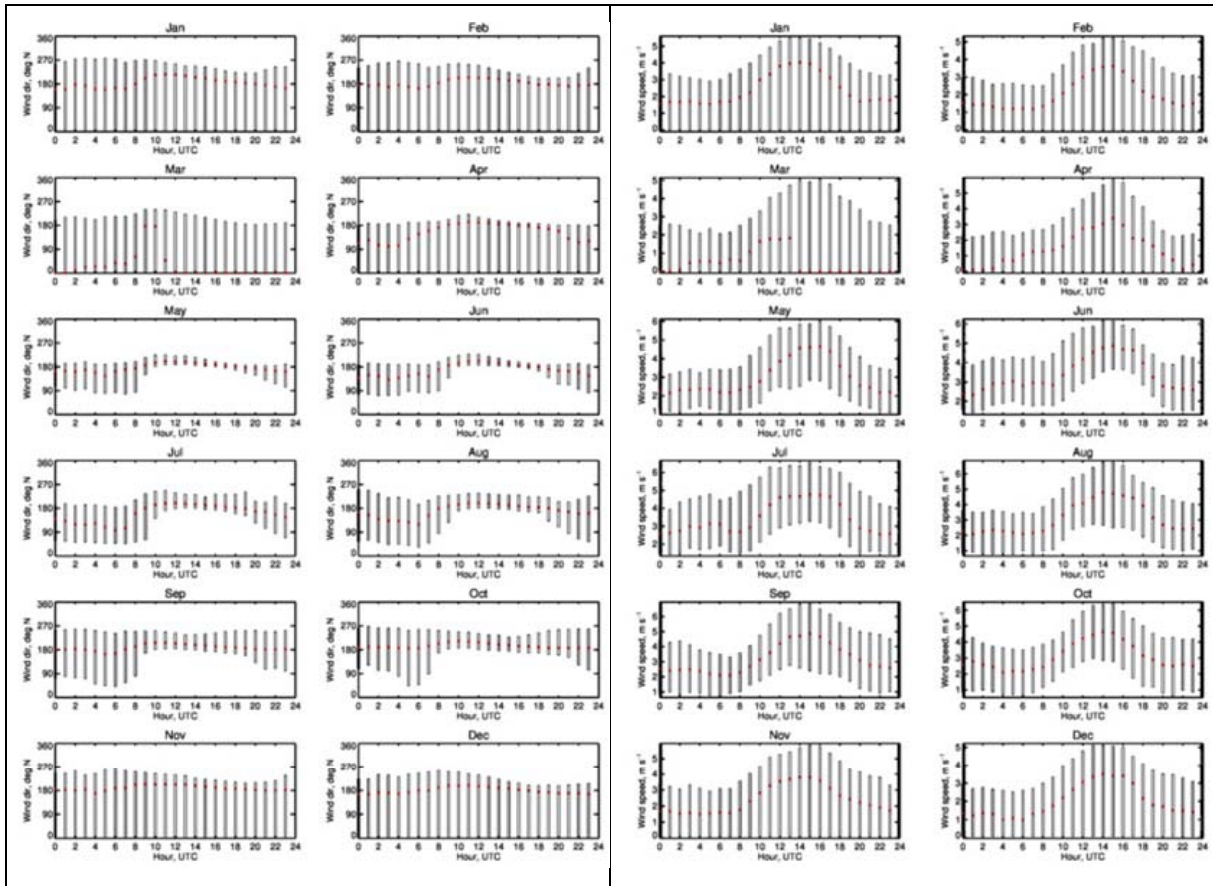
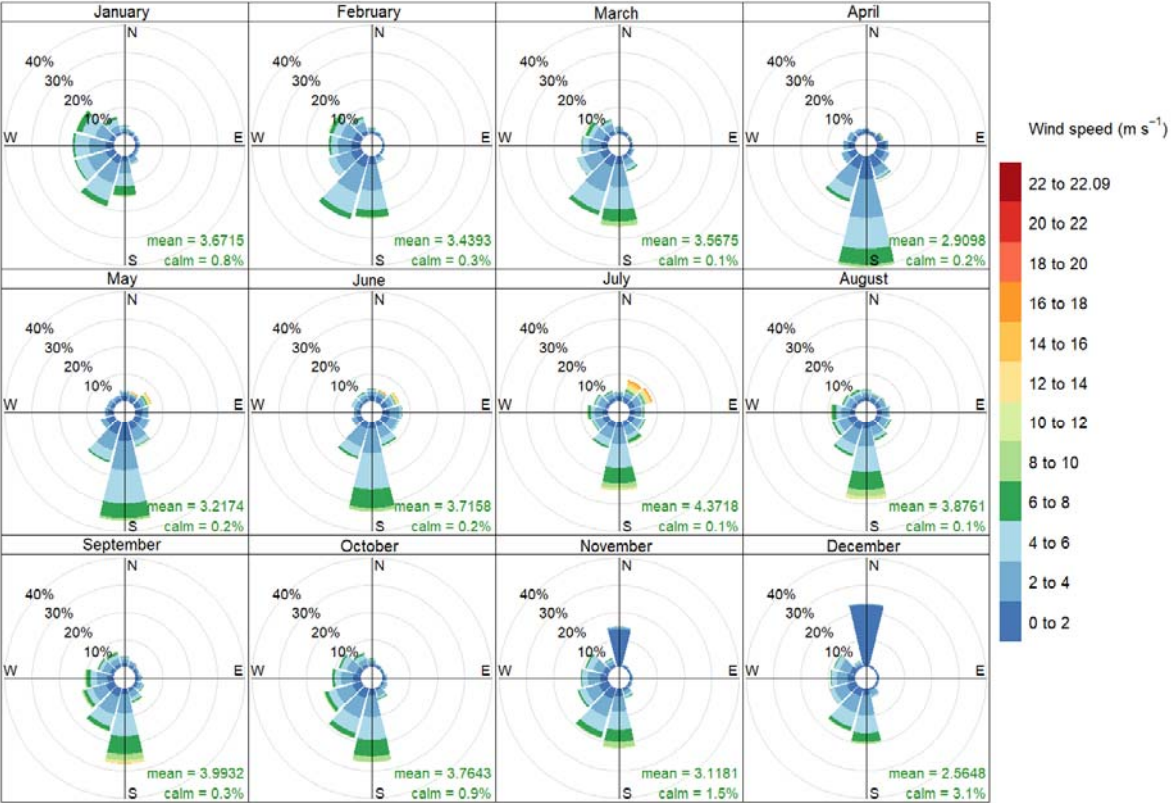


Figure S2. Monthly distribution of wind speed and direction at HBAO.



Frequency of counts by wind direction (%)

Figure S3. Hourly distribution of wind speed and direction at HBAO.

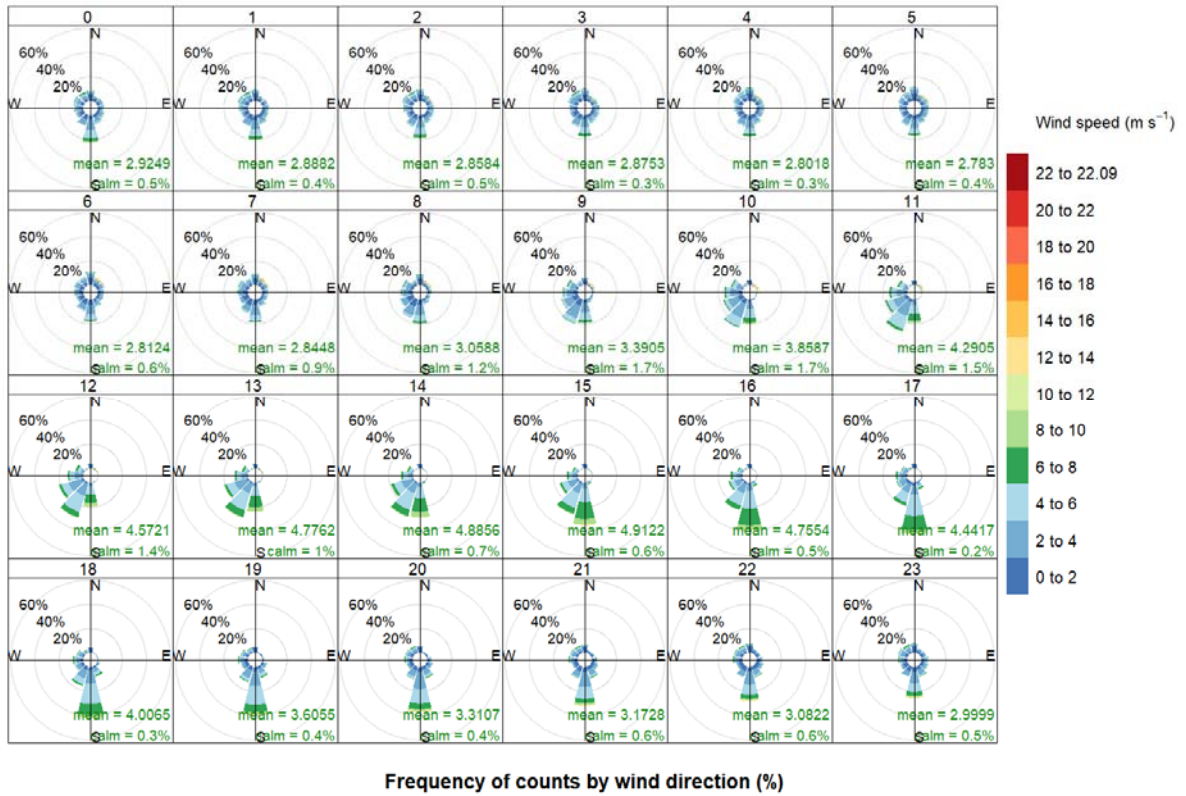


Figure S4. Comparison of scattering coefficient at 550 nm measured at HBAO, Ascension Island and Cape Point.

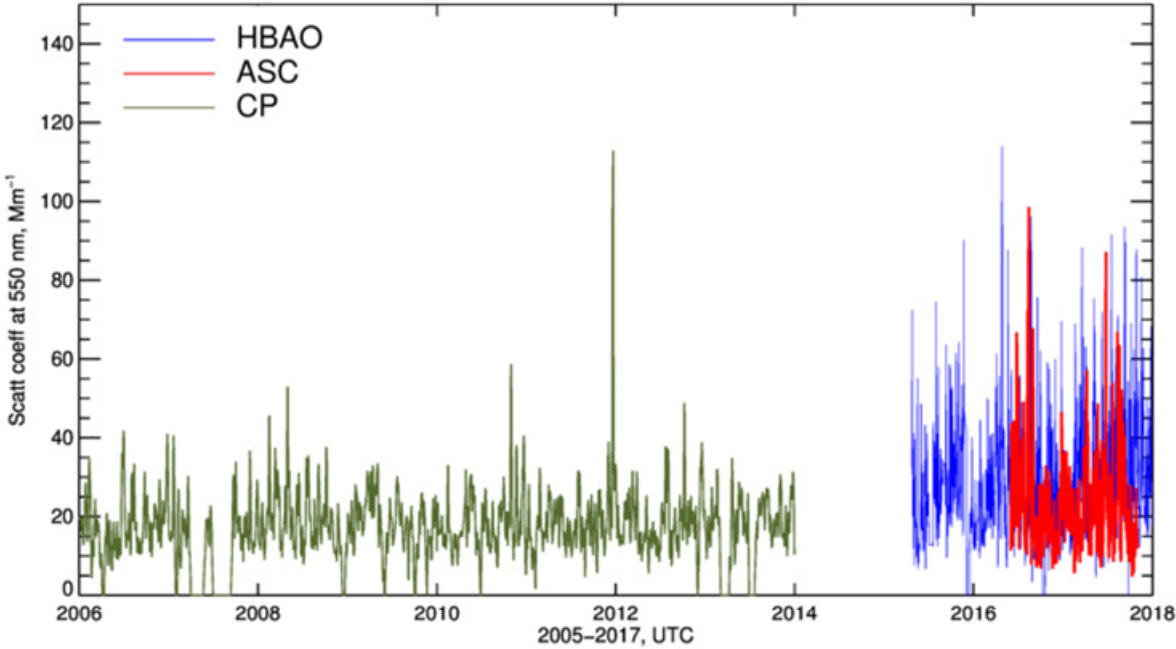


Figure S5. Comparison of scattering coefficient at 550 nm measured by the nephelometer with that calculated by a simple multi-linear model from the mass concentrations of sea salt, mineral dust and non-sea salt sulphate from filter sample analysis (Klopper et al., 2020). The measured scattering is averaged on the filter sampling duration. Each point represents the average and it is reported at the midpoint interval of the sampling

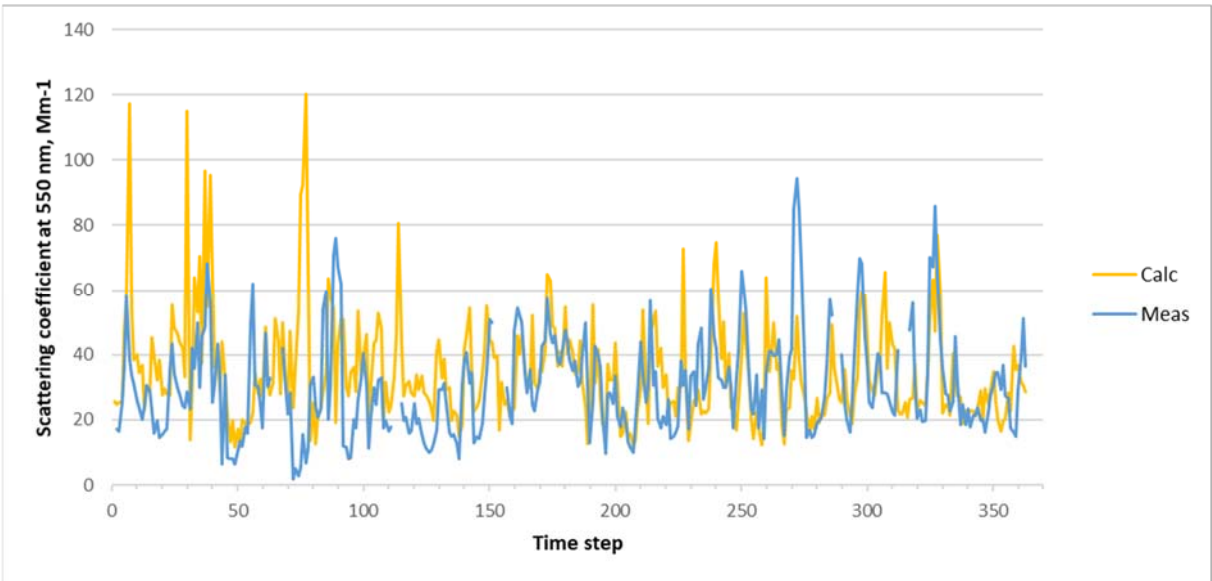


Figure S6. Comparison of the surface particle scattering coefficient at 550 nm measured by the nephelometer (blue line) and the AOD measured by AERONET/OHOTONS sunphotometer (red line, for sake of visibility values are multiplied by 100).

