This dataset, referred to as the Scatterometer Climatology of Ocean Winds (SCOW), contains global seasonal cycles of the wind and wind stress fields estimated from the 122-month record (September 1999 – October 2009) of wind measurements by the NASA QuikSCAT scatterometer.

SCOW consists of twelve variables, namely wind speed, wind speed squared, wind speed cubed, zonal and meridional wind components, wind curl (vorticity) and divergence, wind stress magnitude, zonal and meridional wind stress components and wind stress curl and divergence. Seasonal cycles for these variables were estimated using harmonic analysis where each multi-year time series of monthly means was fitted to a nine parameter regression model consisting of a constant plus four harmonics. While only monthly global maps (January – December), constructed from the annual and semiannual harmonics, for the twelve SCOW wind variables are available at the CISL Research Data Archive (RDA), the regression coefficients from which the monthly values were computed, can be downloaded from the web address given below. For researchers interested in more than just the annual and semiannual harmonics, these regression coefficients include the higher-order 3 and 4 cycles per year harmonics. The regression coefficients allow easy calculation (see the example code link at the web address given below) of the seasonal cycle at each grid location at an arbitrary time interval (i.e., not at just the 12 monthly times in the RDA archived data files). Users can choose the number of harmonics to be included in the seasonal cycle. The annual plus semiannual harmonics seem to be sufficient for much of the open ocean (see Risien and Chelton, 2008).

For further information, please refer to the web site and publication listed below.
http://cioss.coas.oregonstate.edu/scow