10.1071/MF11250_AC

Supplementary Material: Marine and Freshwater Research, 2012, 63, 528-544

Supplementary Material

Table S1. Mean, maximum (Max), minimum (Min) for magnitude, and *u* and *v* (velocity in m s^{-1}) to two decimal places for data between 2001 and 2005

See Table 1 for description of the sites

Site	Magnitude		*u*			*v*		
	Mean	Max	Mean	Max	Min	Mean	Max	Min
ORS	6.78	22.29	0.39	15.24	–14.16	0.54	20.47	–12.51
Re-analysis								
NRA-2	7.55	27.24	–0.05	21.53	–20.52	0.22	24.17	–19.6
BSW4	8.47	37.52	0.26	21.56	–26.36	0.42	31.69	–21.62
Over-land								
NH	4.17	13.33	0.16	12.53	–12.91	0.05	13.13	–8.96
SH	4.99	18.24	0.38	13.32	–12.74	0.37	14.53	–14.00
FD	3.76	12.98	0.35	10.23	–12.27	0.26	9.45	–8.40
SA	4.99	18.10	0.21	14.43	–10.72	0.32	16.76	–12.65
LB	4.67	17.50	0.18	9.6	–11.2	0.43	17.50	–11.62
KN	5.17	16.78	0.39	14.83	–12.48	0.28	15.05	–13.74

Table S2. Regression of Ocean Reference Site (ORS) wind speed, U_{Sea}, with speed at the other locations, U_{Land}, where $U_{Sea} = a + bU_{Land}$ and *R* is the correlation coefficient at 99% confidence level

P-values were zero to three decimal places. See Table 1 for description of sites

Site	a	b	$R_{99\%\ conf}$
Re-analysis			
NRA-2	4.66	0.28	0.28
BSW4	2.89	0.46	0.53
Over-land			
NH	1.73	1.21	0.83
SH	1.76	1	0.88
FD	2.48	1.14	0.72
SA	2.00	0.95	0.81
LB	1.78	1.07	0.86
KN	1.80	0.96	0.86

Table S3. Rotation angle from north, first (1st) and second (2nd) principal axes and ratios (1st axis : 2nd axis) for each dataset, calculated from 6-hourly wind stress data for 2001–2005

See Table 1 for description of the sites

Site	Rotation angle	1st axis	2nd axis	Ratio
ORS	14	0.12	0.06	2.0
Re-analysis				
NRA-2	53	0.14	0.11	1.3
BSW4	33	0.23	0.12	1.9
Over-land				
SH	26	0.07	0.04	1.8
SA	12	0.05	0.04	1.8
LB	11	0.06	0.03	2.0
KN	25	0.06	0.04	1.4

Table S4. Median, standard deviation (s.d.), skewness (Skew) and kurtosis (Kurt) for the magnitude of wind stress (N m^{-2}) to three decimal places for data between 2001 and 2005

See Table 1 for description of the sites

Site	Median	s.d.	Skew	Kurt
ORS	0.057	0.102	3.611	25.459
Re-analysis				
NRA-2	0.073	0.143	3.743	28.861
BSW4	0.096	0.215	9.807	177.730
Over-land				
SH	0.034	0.055	2.910	18.988
SA	0.032	0.060	3.068	19.784
LB	0.024	0.051	3.241	21.070
KN	0.035	0.061	2.555	13.427

Table S5. Median, standard deviation (s.d.), skewness (Skew) and kurtosis (Kurt) for τ_x and τ_y for wind stress (N m^{-2}) to three decimal places for data between 2001 and 2005

See Table 1 for description of the sites and the text for definition of τ_x and τ_y

Site	τ_x				τ_y			
	Median	Std	Skew	Kurt	Median	Std	Skew	Kurt
ORS	-0.001	0.069	1.416	13.502	0.001	0.113	2.642	18.073
Re-analysis								
NRA-2	-0.004	0.134	1.993	16.245	0.000	0.126	2.676	29.466
BSW4	-0.006	0.162	3.250	69.801	0.000	0.202	6.982	126.722
Over-land								
SH	0.001	0.043	1.391	17.083	0.003	0.061	0.671	11.424
SA	0.001	0.045	1.847	15.507	-0.002	0.065	1.715	14.858
LB	0.001	0.028	-0.195	12.599	-0.001	0.059	2.062	14.789
KN	0.001	0.052	2.033	16.021	-0.002	0.064	0.653	10.573

Fig. S1. The first and second principal axes for each dataset calculated from 6-hourly data for 2001–2005. The fine-dotted line shows the direct north–south and east–west directions.

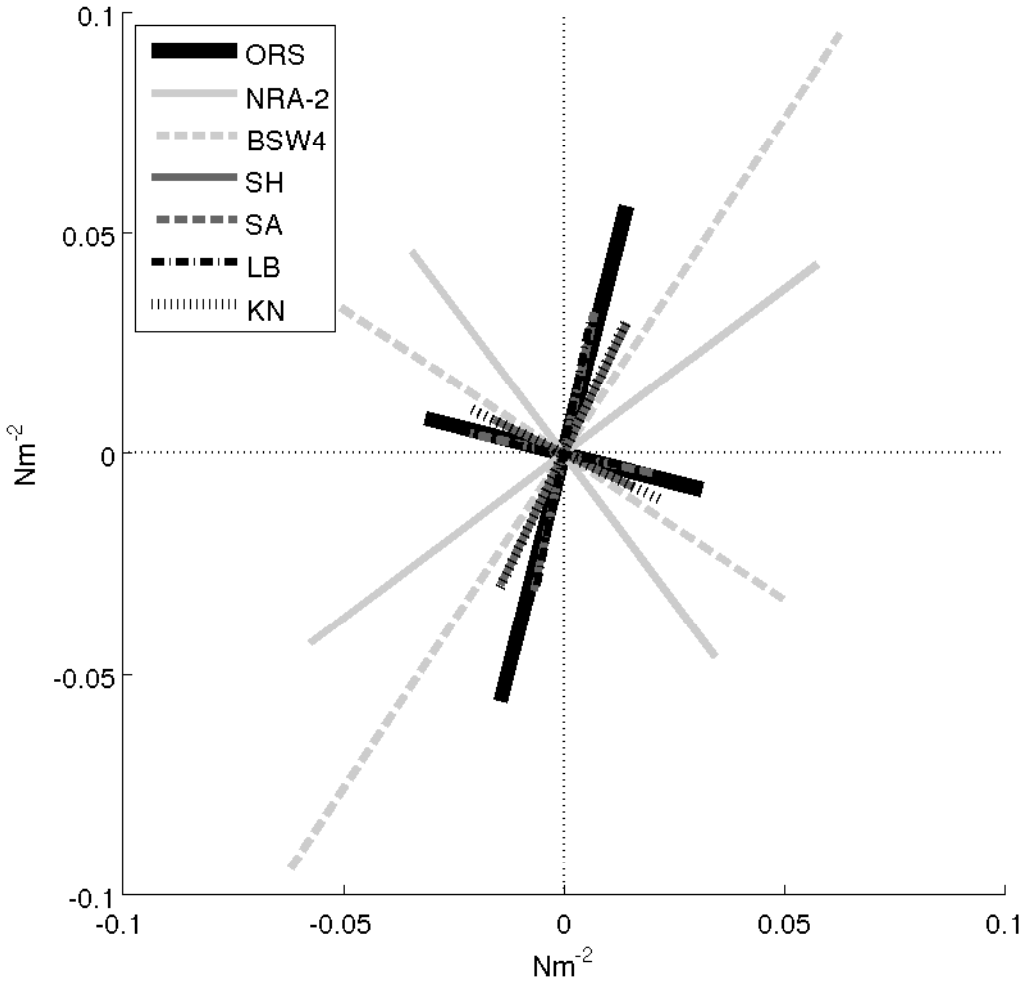

Fig. S2. Distribution of τ_y for each site. The asterisk (*) indicates the mean value for each site, with the line through 0 N m^{-2} shown.

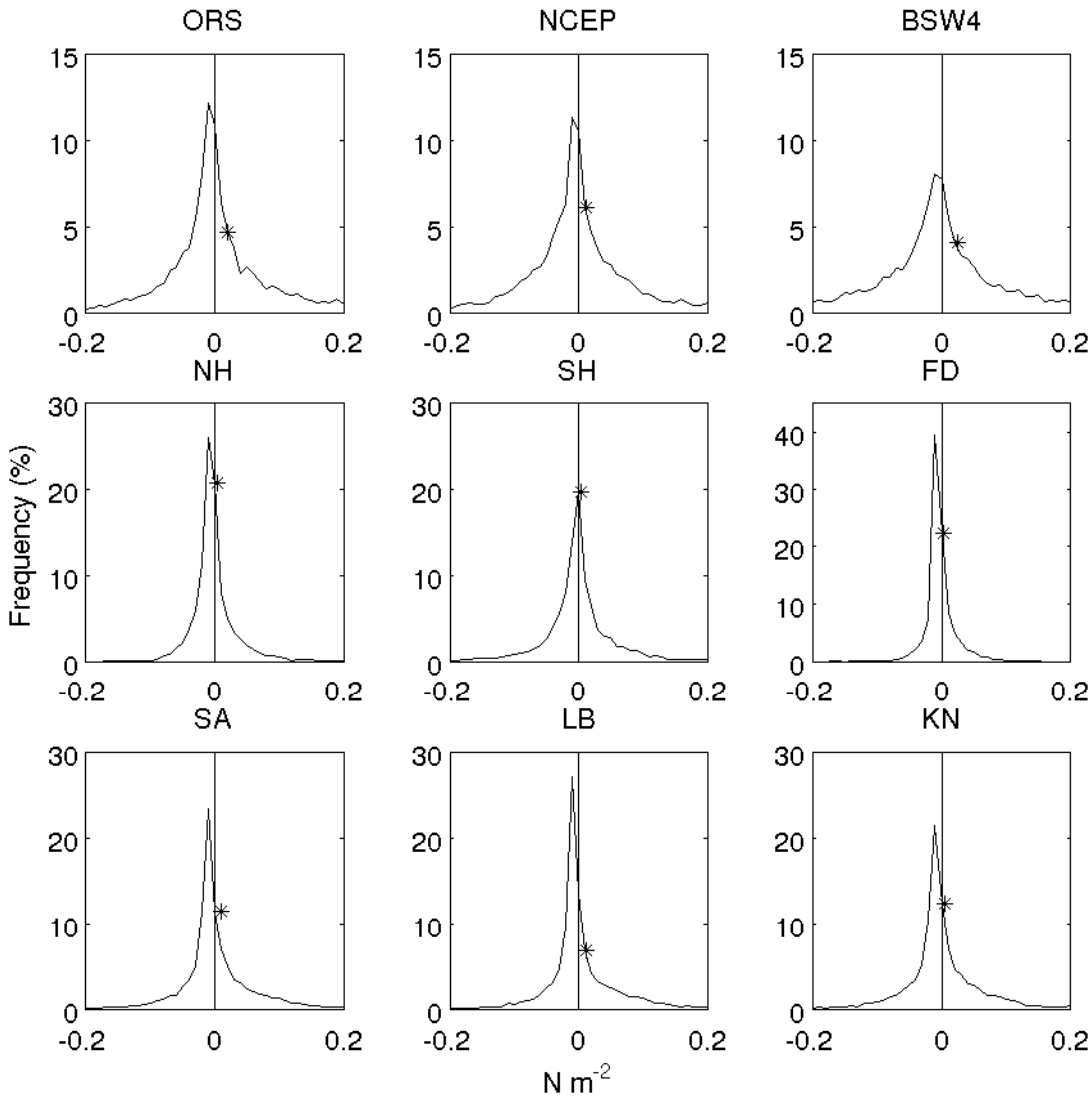

Fig. S3. Scatter plot of magnitude of the wind stress (N m^{-2}) obtained from the Ocean Reference Site (ORS) (on the vertical axis) and the re-analysis products and over-land sites (on the horizontal axis) for 2001–2005. Linear regression lines through the origin (dashed) and one-to-one correlation lines (solid) are superimposed on the plot.

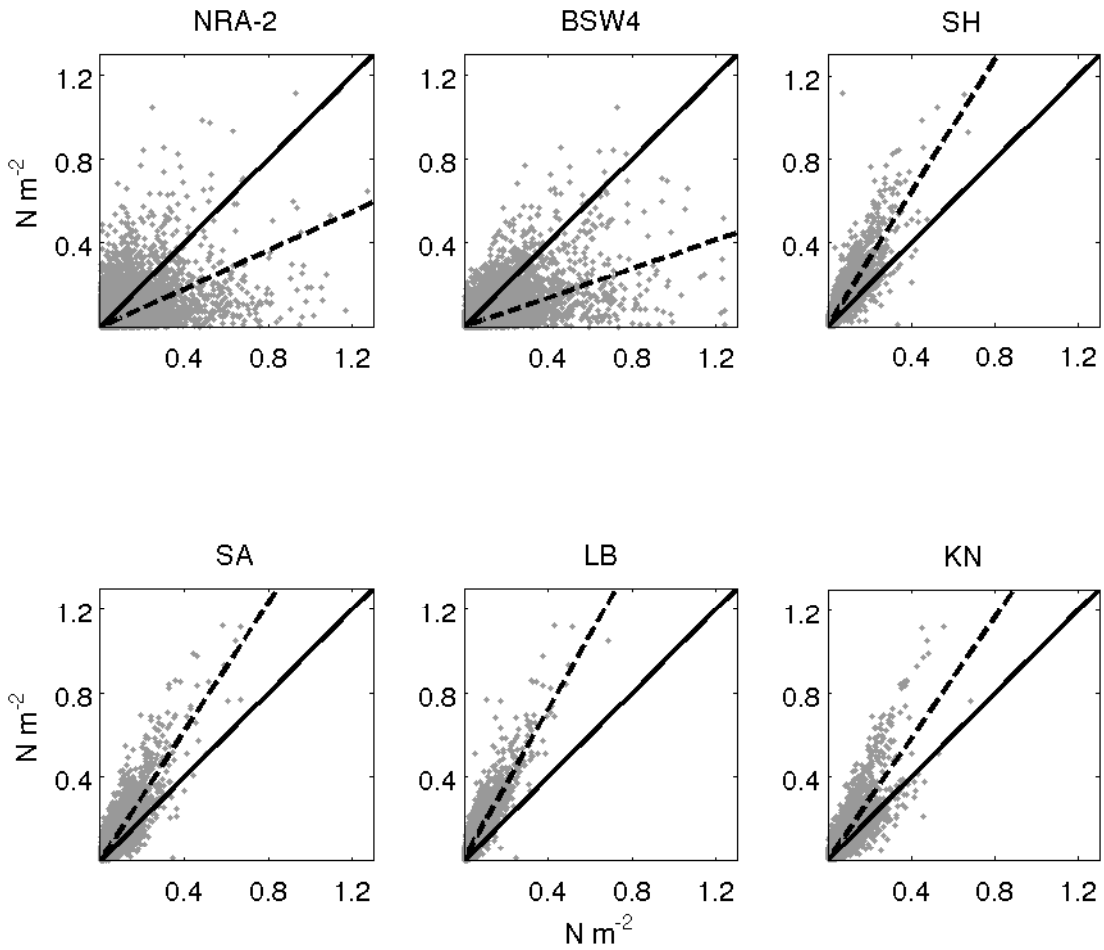

Fig. S4. Maximum correlations with lag for the over-land site, using half-hourly data for 2001–2005. The cross, circle and diamond indicate the highest correlation for SH, SA and KN respectively. Note the different vertical axis correlations for τ_x and τ_y.

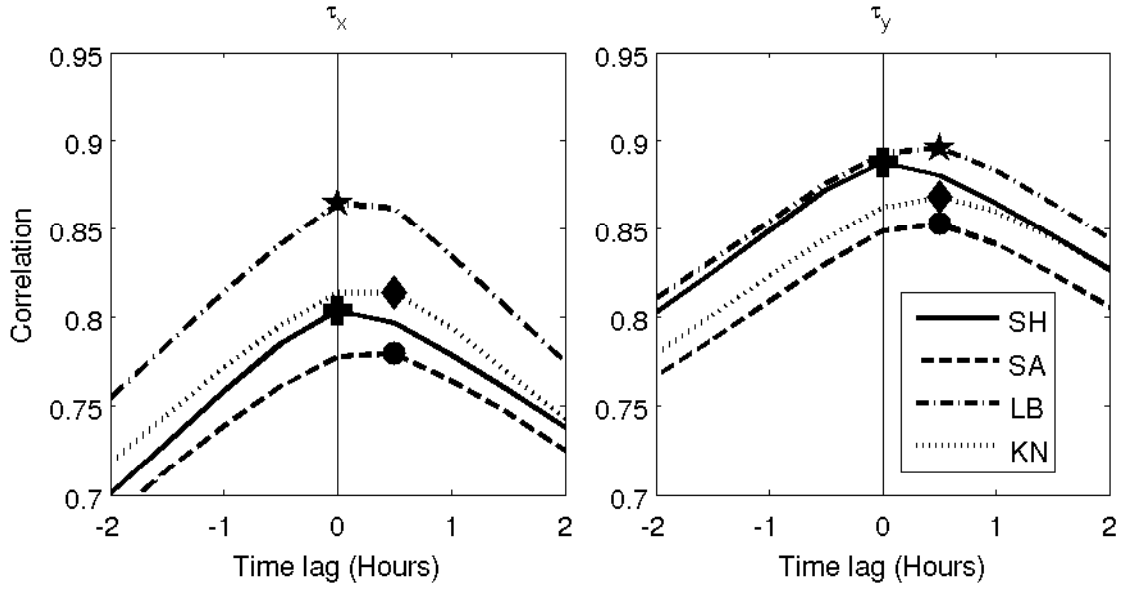

Fig. S5. Time series of magnitude of wind speed for the Ocean Reference Site (ORS) (black – same in each plot) plotted with the transformed time series (dashed grey) and the raw time series (solid grey) for each site, using the transformation in Table S5 for a 15-day period from the 14 January 2002.