**Table S1: Recovery levels of the extracted target ions and associated %RSD$_{rec}$ (n = 3). Procedural blank peak areas for each ion and average blank contribution to field samples over the entire sampling period are also shown.**

Ion	% Recovery	%RSD$_{rec}$ (n = 3)	Blank area / $\mu S\ min^{-1}$	Average % blank contribution
Cl^-	79.5	2.9	3.31×10^{-3}	2.7
NO_2^-	81.5	3.2	not detected	not detected
NO_3^-	78.8	5.3	6.19×10^{-3}	7.6
PO_4^{3-}	98.2	5.6	2.38×10^{-2}	52.0
SO_4^{2-}	80.4	7.9	1.31×10^{-2}	1.0
$CH_3SO_3^-$	74.5	2.8	not detected	not detected
$C_2O_4^{2-}$	82.5	2.9	not detected	not detected
Na^+	87.3	6.0	6.51×10^{-1}	53.8
NH_4^+	80.0	4.6	2.03×10^{-2}	4.9
K^+	78.3	5.3	1.31×10^{-2}	12.5
Mg^{2+}	83.3	4.8	3.76×10^{-2}	26.1
Ca^{2+}	123.3	7.6	5.21×10^{-2}	34.0

Table S2: Instrumental parameters and associated errors for the IC.

| Ion	RT range / min	LOD / ng	LOQ / ng	%RSD$_{ins}$ (n = 10)	%RSD$_{total}$
Cl^-	4.97 – 5.00	9.61	46.01	7.97	11.2
NO_2^-	5.86 – 5.89	5.47	25.25	22.36	6.38
NO_3^-	8.16 – 8.31	8.70	36.18	13.31	6.88
PO_4^{3-}	11.23 – 11.38	13.96	42.91	14.40	8.49
SO_4^{2-}	13.61 – 13.70	20.98	66.46	8.02	22.6
$CH_3SO_3^-$	4.50 – 4.53	6.16	29.47	10.26	13.9
$C_2O_4^{2-}$	15.72 – 15.85	9.99	144.18	13.58	15.4
Na^+	4.10 – 4.14	1.01	2.51	3.32	6.35
NH_4^+	4.64 – 4.68	0.77	2.96	4.38	9.26
K^+	5.71 – 5.77	1.65	2.79	3.55	6.72
Mg^{2+}	8.84 – 9.06	2.11	3.67	4.73	10.6
Ca^{2+}	10.99 – 11.28	0.47	6.14	5.32	14.3
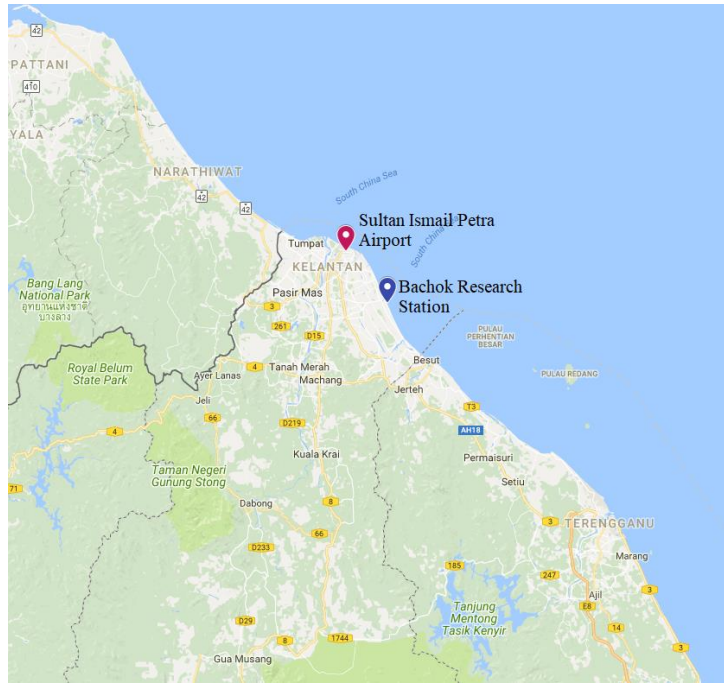
Figure S1: Map to show the location of the Sultan Ismail Petra airport, which is located 23 km away from the Bachok Research Station. Map created using google maps (google.com, 2017).
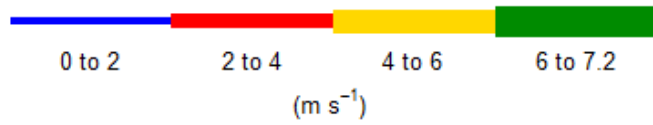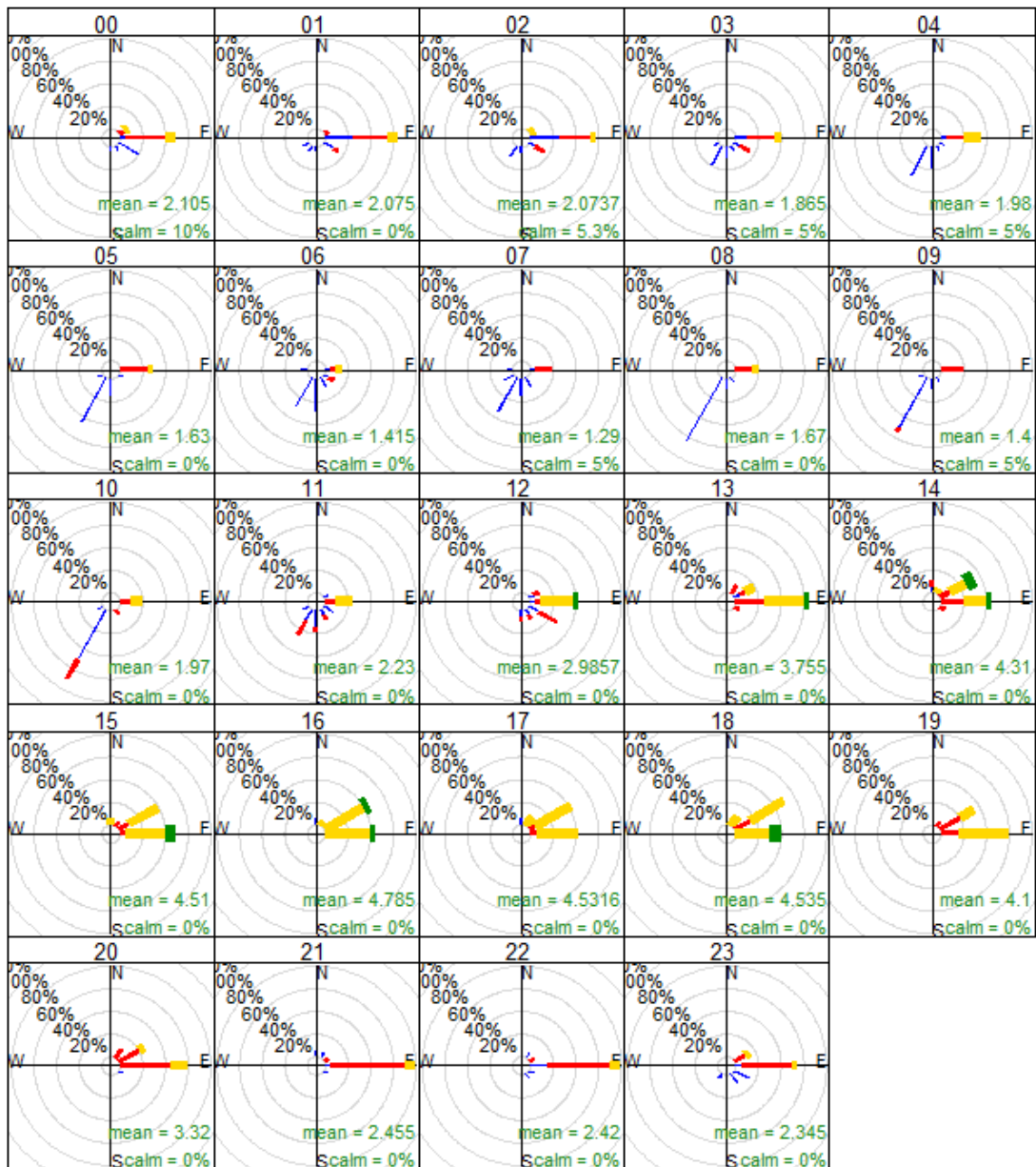
Figure S2: Wind rose plots to show hourly wind speed and wind direction averaged across the measurement campaign (18-01-2014 to 06-02-2014). Plot constructed using the openair package in RStudio (Carslaw and Ropkins, 2012; Carslaw, 2015).
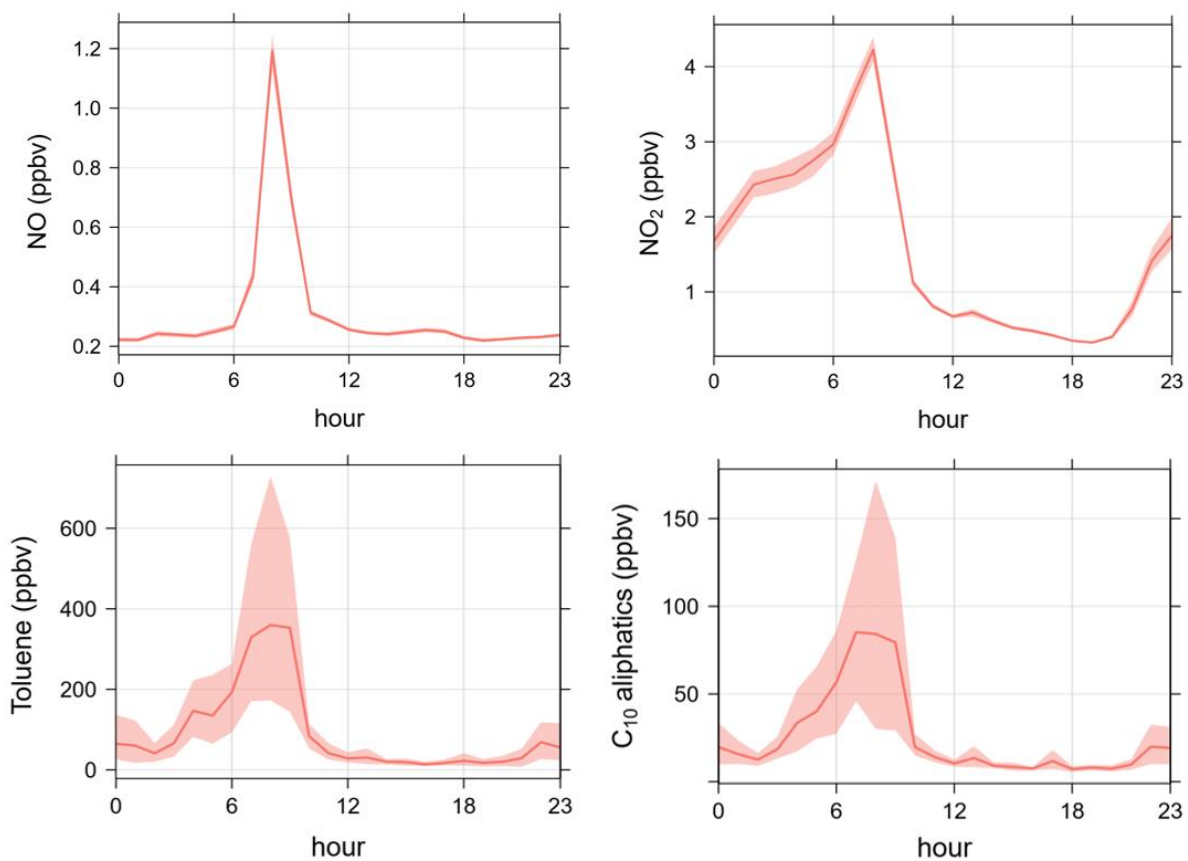
Figure S3: Diurnal profiles of NO, NO_2, toluene and C_{10} aliphatics measured using GC-GC×GC (Dunmore et al., 2016). The solid line represents the mean daily concentration and the shaded regions show the 95% confidence intervals surrounding the mean. Plot constructed using the openair package in RStudio (Carslaw and Ropkins, 2012; Carslaw, 2015).
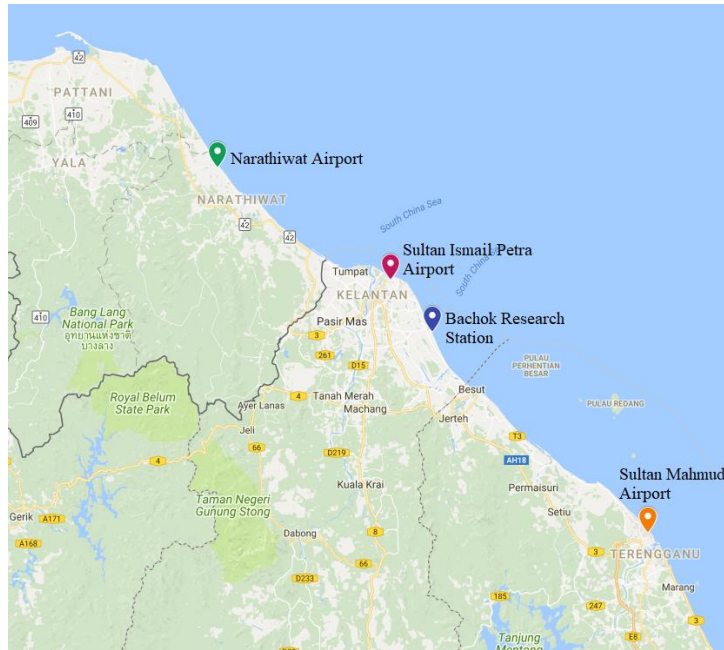
Figure S4: Map to show the location of Sultan Ismail Petra airport (23 km away), Narathiwat airport (102 km away) and Sultan Mahmud airport (103 km away) in relation to the Bachok Research Station. Map created using google maps (google.com, 2017).
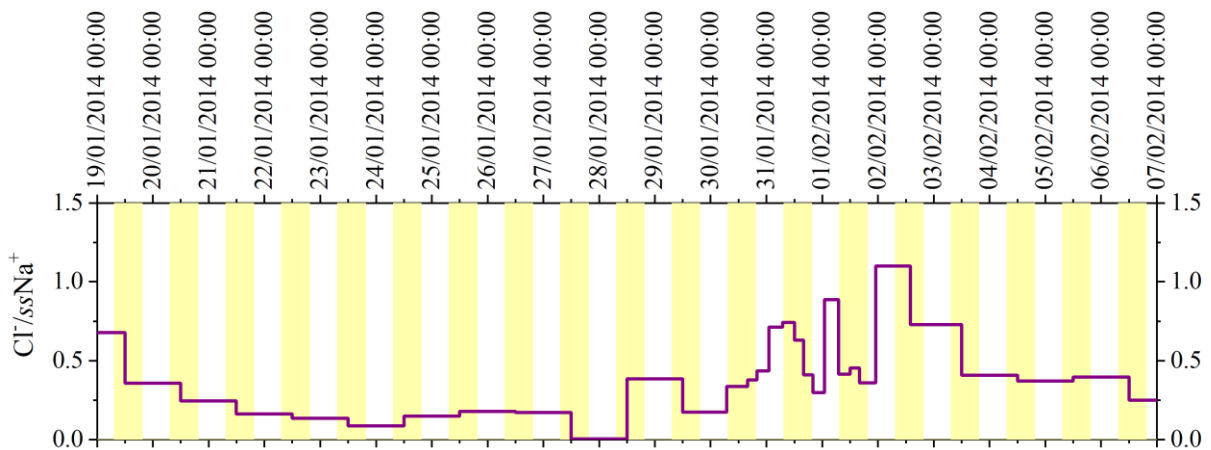
Figure S5: Time series of Cl$^-$/ssNa$^+$ molar ratio during the Bachok measurement campaign. Yellow shaded areas represent the time between sunrise and sunset (local).
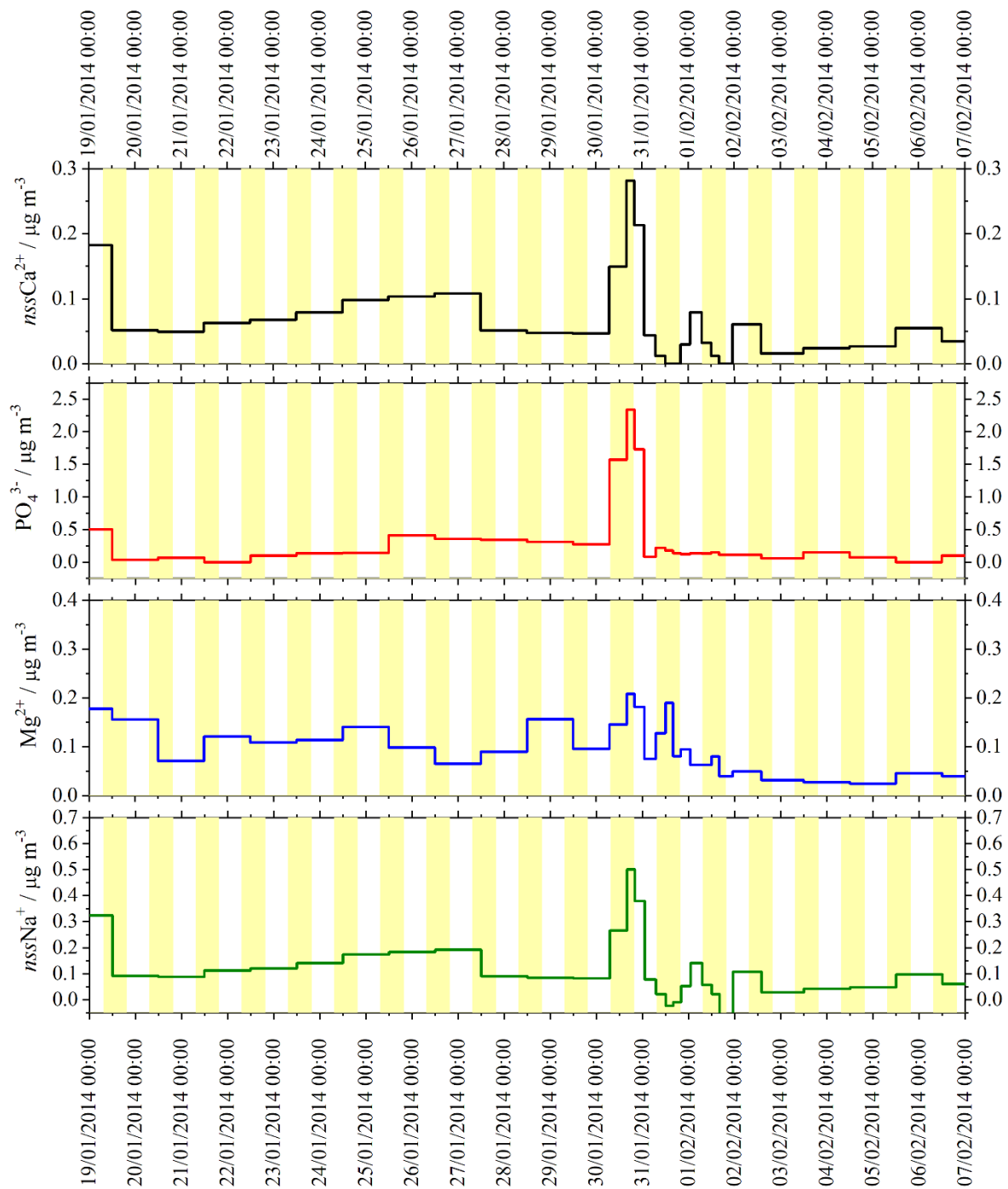
Figure S6: Time series of *nss*Ca²⁺, PO₄³⁻, Mg²⁺ and *nss*Na⁺ concentration (μg m⁻³) during the Bachok measurement period (18-01-2014 to 07-02-2014). Yellow shaded areas represent the time between sunrise and sunset (local).