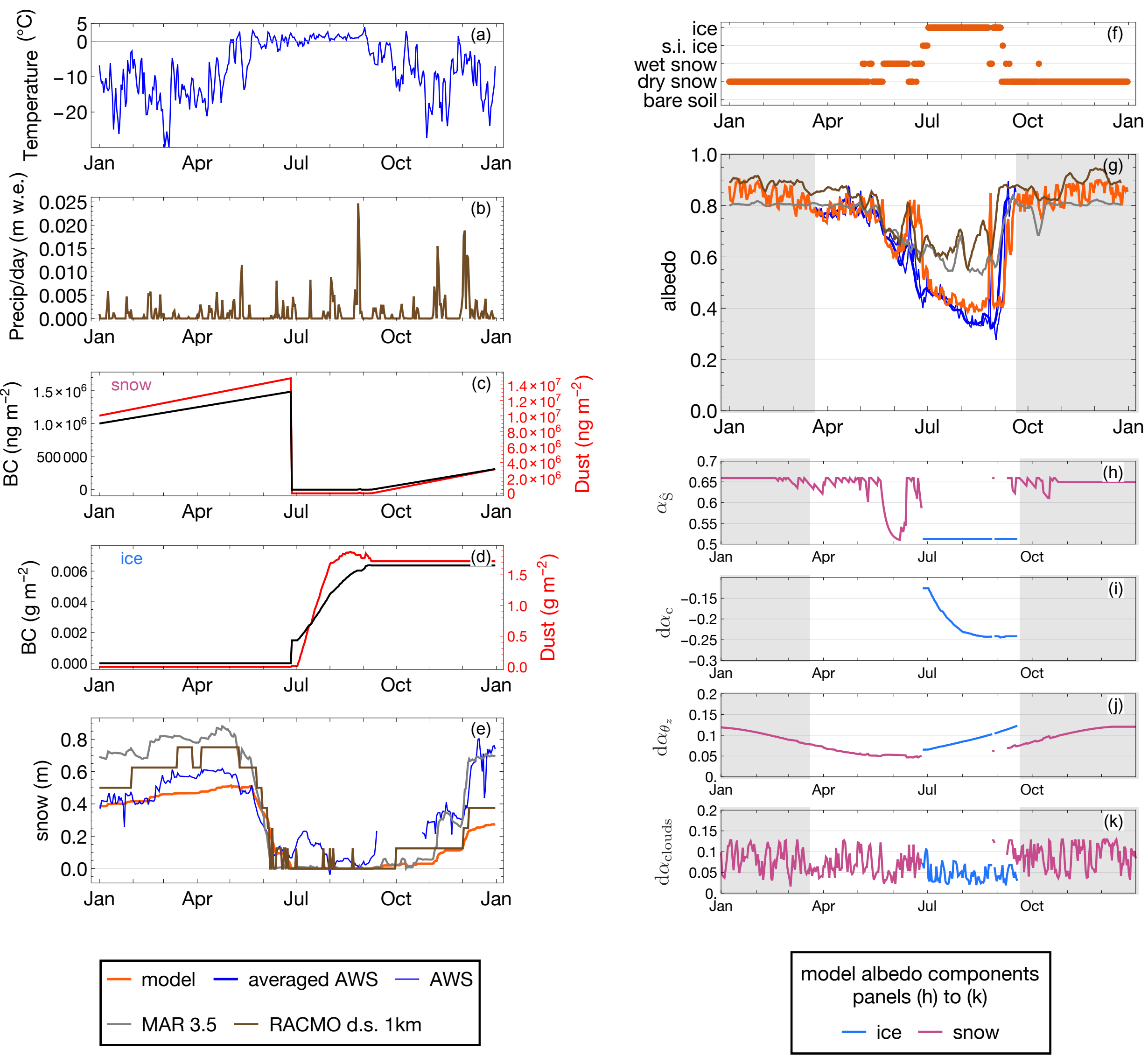
(a)
Temperature (°C)
5
0
−10
−20
Jan
Apr
Jul
Oct
Jan
(b)
Precip/day (m w.e.)
0.025
0.020
0.015
0.010
0.005
0.000
(c)
snow
BC (ng m^{-2})
1.5×10^6
1.0×10^6
500 000
0
Dust (ng m^{-2})
1.4×10^7
1.2×10^7
1.0×10^7
8.0×10^6
6.0×10^6
4.0×10^6
2.0×10^6
(d)
ice
BC (g m^{-2})
0.006
0.004
0.002
0.000
Dust (g m^{-2})
1.5
1.0
0.5
0.0
(e)
snow (m)
0.8
0.6
0.4
0.2
0.0
(f)
ice
s.i. ice
wet snow
dry snow
bare soil
(g)
albedo
1.0
0.8
0.6
0.4
0.2
0.0
(h)
α_S
0.7
0.65
0.6
0.55
0.5
(i)
$d\alpha_c$
−0.15
−0.2
−0.25
−0.3
(j)
$d\alpha_{\theta_z}$
0.2
0.15
0.1
0.05
0.
(k)
$d\alpha_{clouds}$
0.2
0.15
0.1
0.05
0.
model
averaged AWS
AWS
MAR 3.5
RACMO d.s. 1km
model albedo components
panels (h) to (k)
ice
snow