Col de Porte, France (2010-10 - 2011-05) TCZE\_OP3\_TSNB\_REF TCZE\_OP3\_TSNB\_OP1 TCZE\_OP3\_TSNB\_OP2 TCZE\_OP3\_TSNB\_OP3 TCZE\_OP3\_TSNB\_OP4 TCZE\_OP3\_TSNB\_OP5 -- TCZE\_REF\_TSNB\_REF Obs (auto) Obs (man) SD > 10 cm 8.0 (a) 0.1 Snow Depth [m] 0.6 0.05 0.4 0 0.2 -0.05 -0.1Snow Density [kg m<sup>-3</sup>] 800 -(c) 100 -(d) 50 0 -50 -100 20 Surface temperature [°C] (e) (f) 0 -0.5 -20 -0 Snow temperature [°C] (g) -5 Bottom snow temp [°C] 0 (i) (j) 1-0.5 -2 -0.5 Soil Temp at 10 cm [°C] 0.4 (k) 0.2 0 5--0.2 -0.4 15 **(m)** Soil Temp at 20 cm [°C] 0.5 0.25 0 Soil Temp at 50 cm [°C] (o) 0.4 (p) 0.2 -0.2 -0.42010-12-2011-02-2010-11 ME RMSE 2010-10 2011-01 2011-03 2011-04 2011-05 time