Col de Porte, France (2010-10 - 2011-05) TCZE\_OP2\_TSNB\_REF TCZE\_OP2\_TSNB\_OP1 TCZE\_OP2\_TSNB\_OP2 TCZE\_OP2\_TSNB\_OP3 TCZE\_OP2\_TSNB\_OP4 TCZE\_OP2\_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 -0.1 Snow Density [kg m<sup>-3</sup>] (c) (d) 100 -50 0 -50 -100 Surface temperature [°C] 20 (e) 10 0 -10 0.5 -20 Snow temperature [°C] 0 (g) (h) 2 -2.5 -5 -7.5 Bottom snow temp [°C] (i) (j) 0.5 0 -0.5 0.4 Soil Temp at 10 cm [°C] (k) 0.2 0 5 -0.2 -0.4 0.4 Soil Temp at 20 cm [°C] (m) 0.2 0 5 -0.2 -0.4 0.4 Soil Temp at 50 cm [°C] (o) (p) 0.2 0 -0.2 0 --0.4 2010-10<sub>7</sub> 2010-11-2010-12-2011-01 2011-02 2011-03 2011-04 2011-05 ME RMSE time