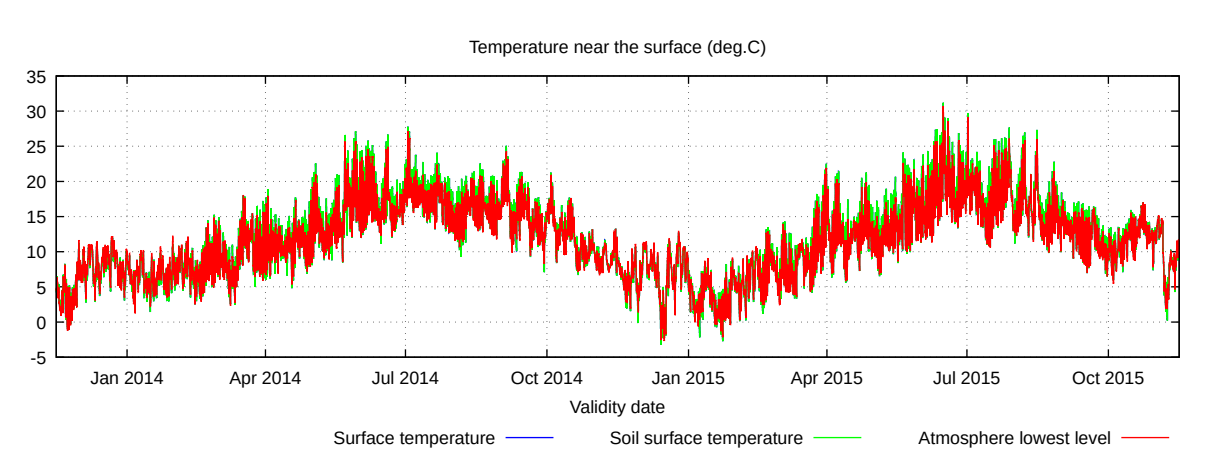
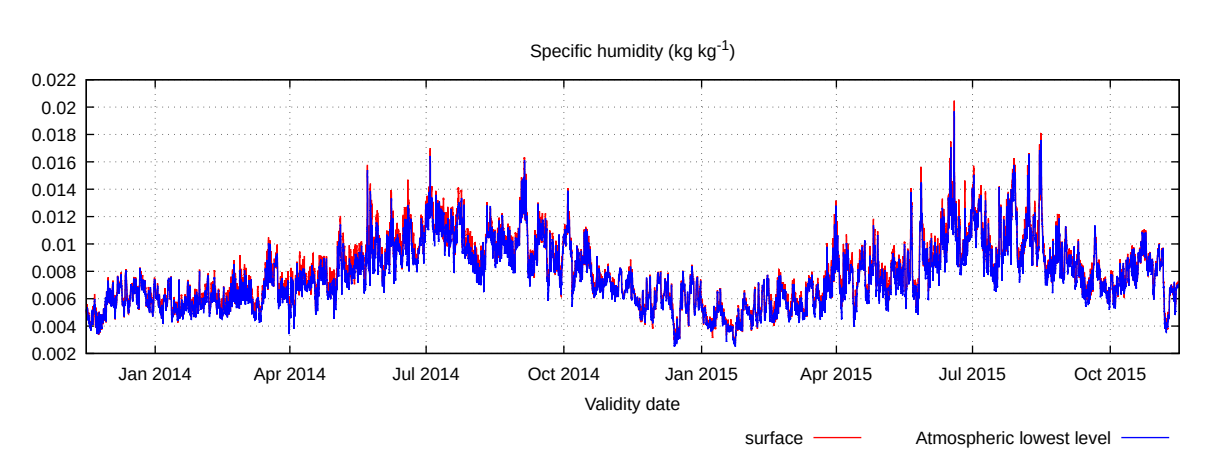
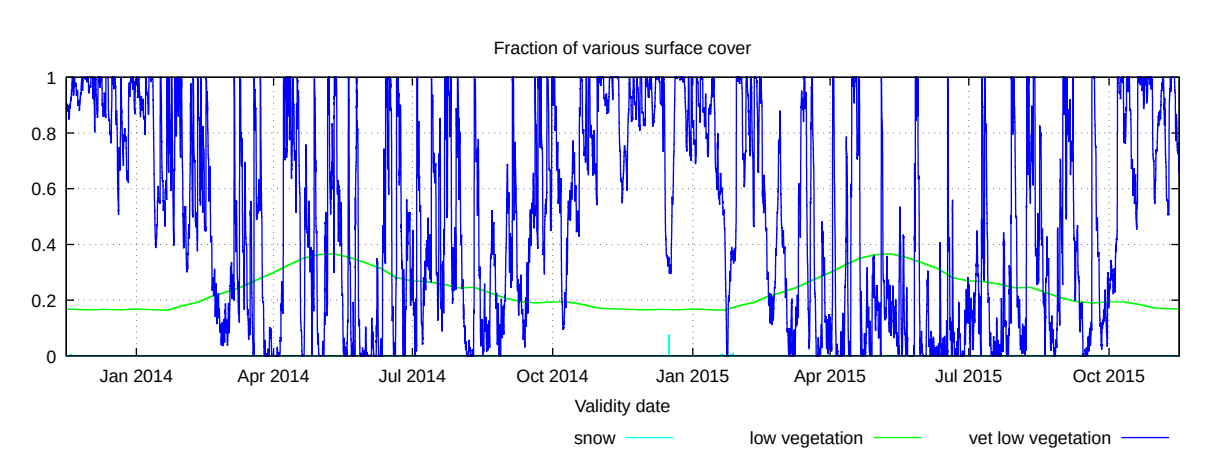
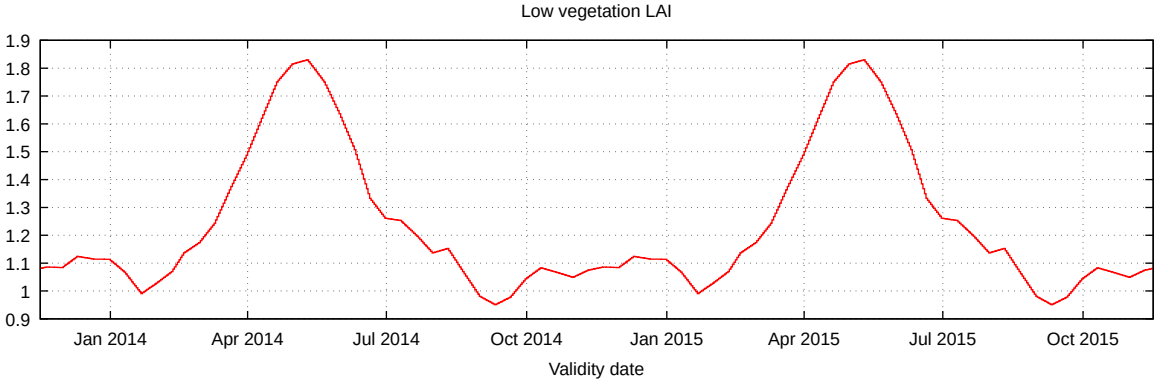
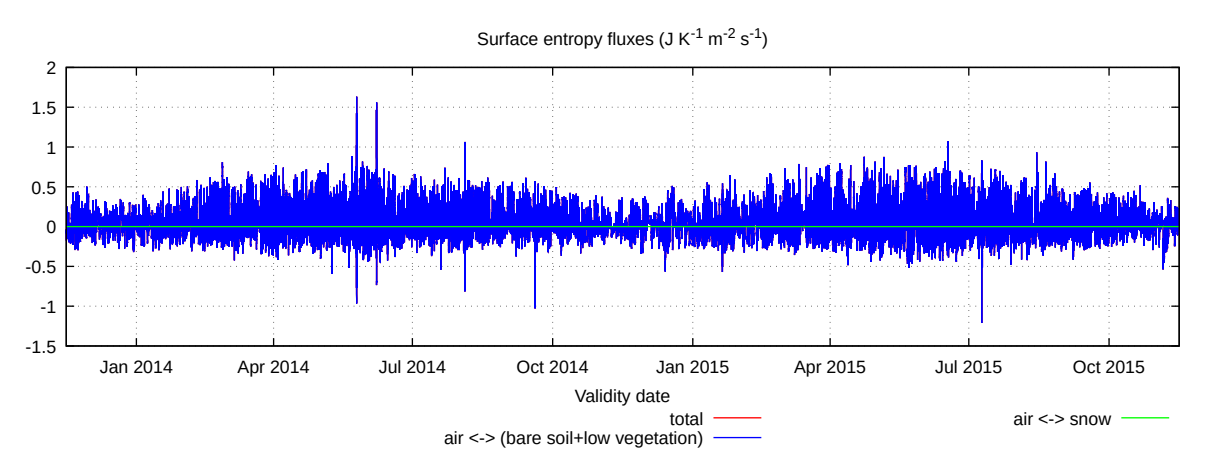
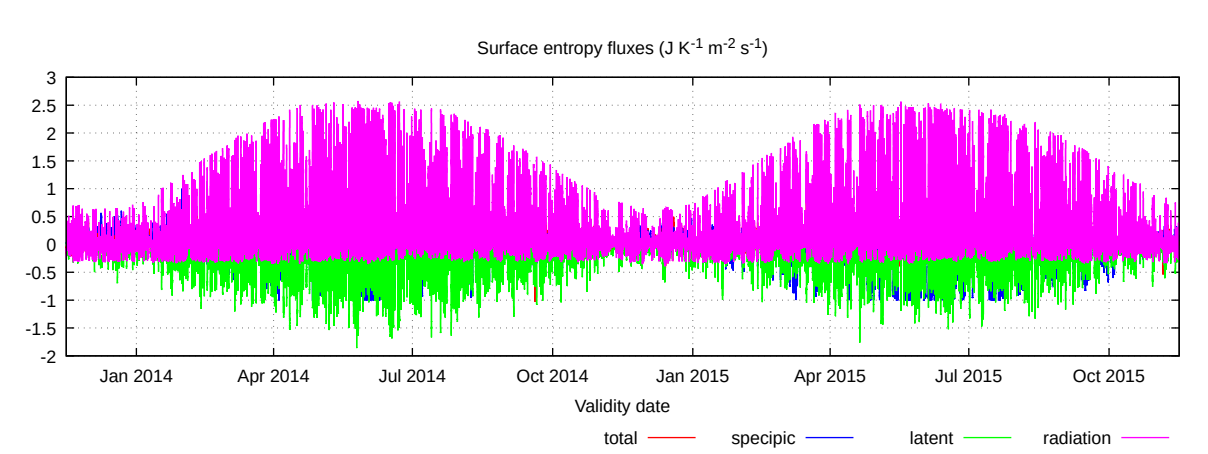

Temperature near the surface (deg.C)
35
30
25
20
15
10
5
0
-5
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date
Surface temperature
Soil surface temperature
Atmosphere lowest level

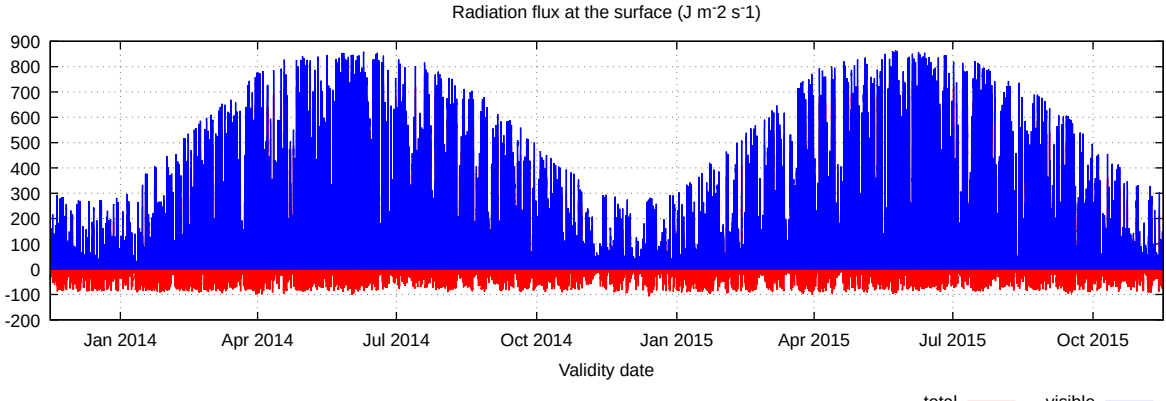

Specific humidity (kg kg-1)
0.022
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date
surface
Atmospheric lowest level

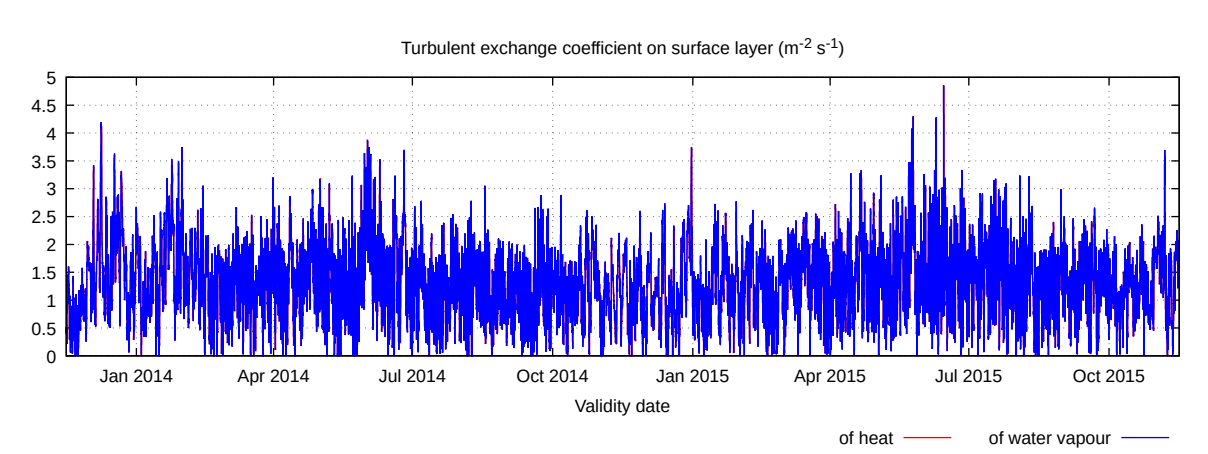

Fraction of various surface cover
1
0.8
0.6
0.4
0.2
0
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date
snow
low vegetation
vet low vegetation

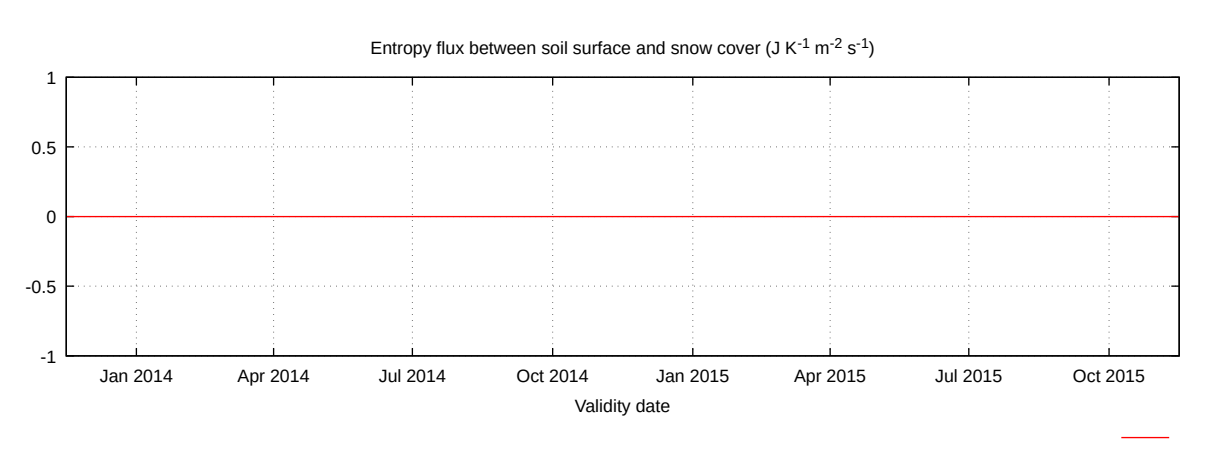

Low vegetation LAI
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1
0.9
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date

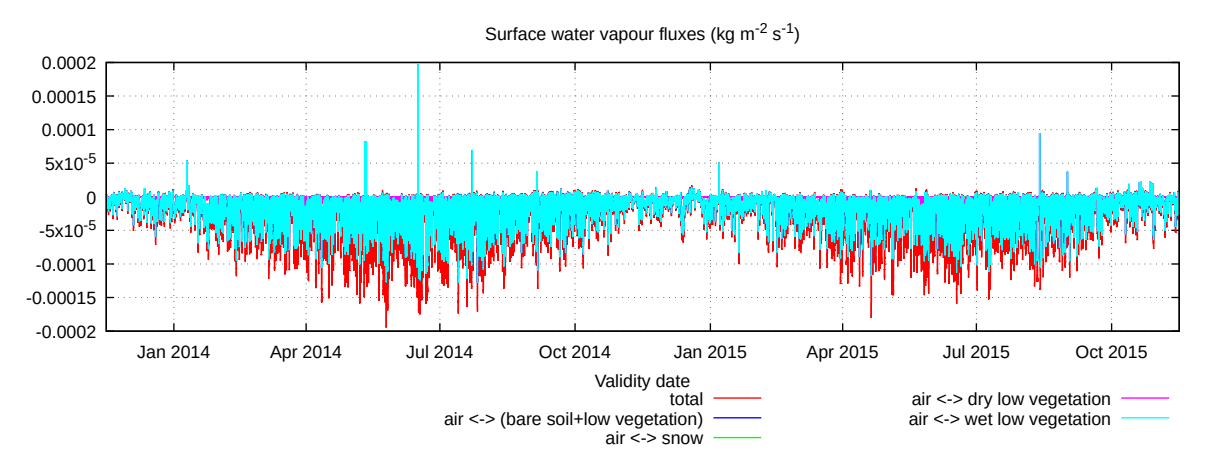

Surface entropy fluxes (J K-1 m-2 s-1)
2
1.5
1
0.5
0
-0.5
-1
-1.5
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date
total
air <-> (bare soil+low vegetation)
air <-> snow

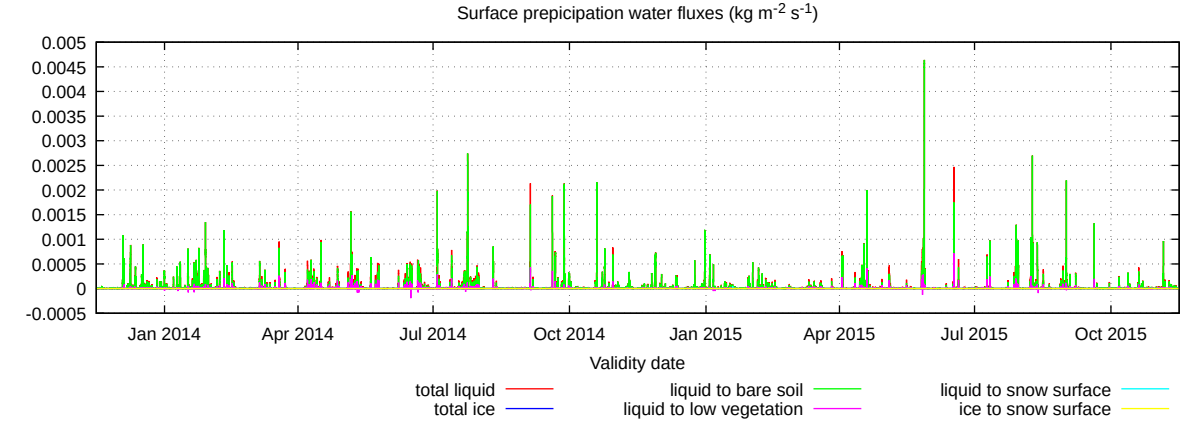

Surface entropy fluxes (J K-1 m-2 s-1)
3
2.5
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date
total
specipic
latent
radiation

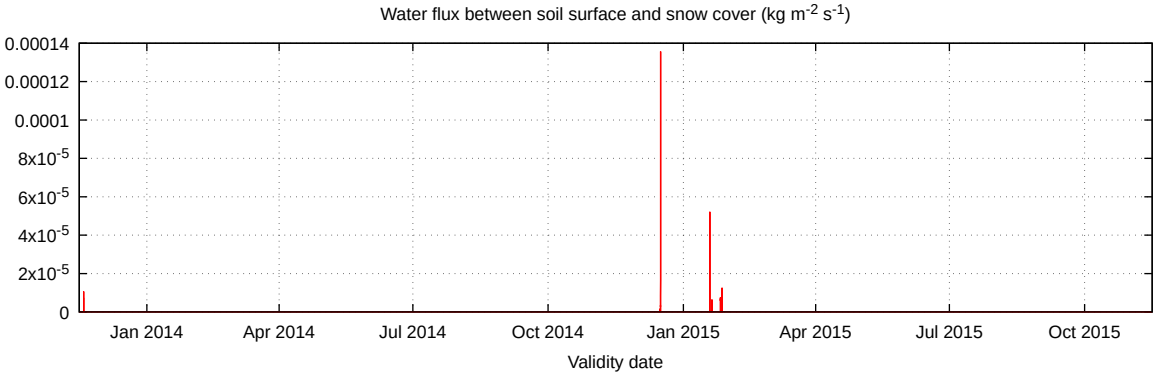

Radiation flux at the surface (J m-2 s-1)
900
800
700
600
500
400
300
200
100
0
-100
-200
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date
total
visible

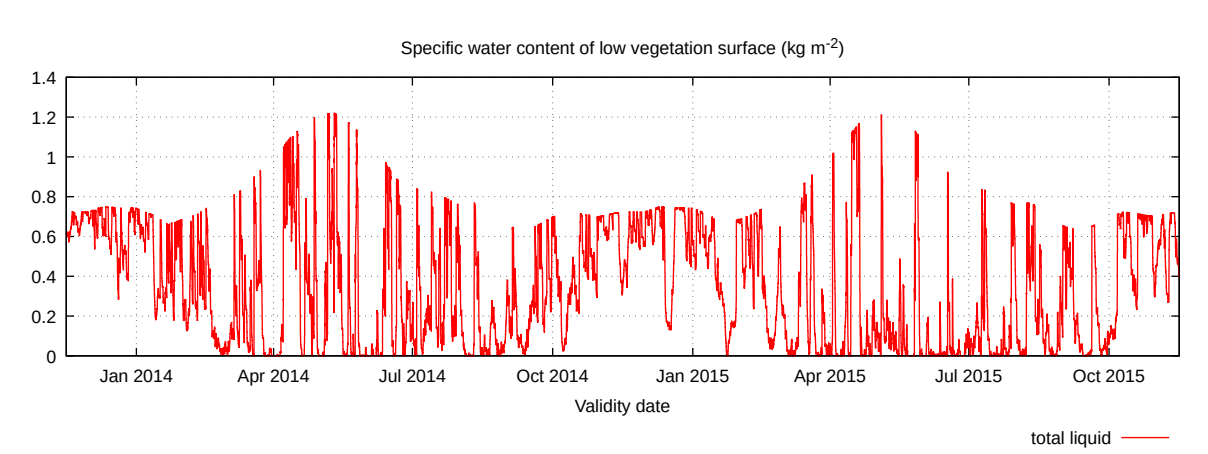

Turbulent exchange coefficient on surface layer (m-2 s-1)
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date
of heat
of water vapour

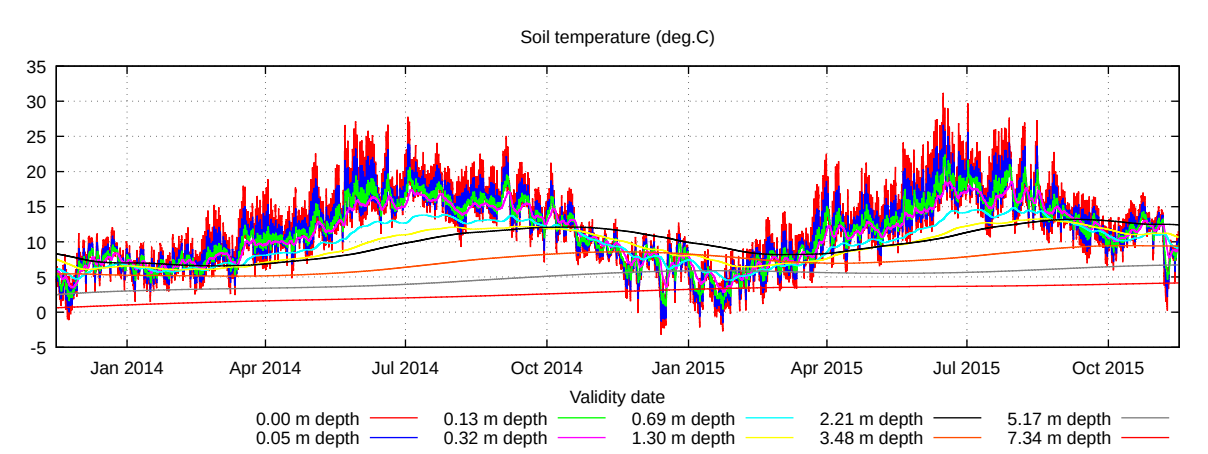

Entropy flux between soil surface and snow cover (J K-1 m-2 s-1)
1
0.5
0
-0.5
-1
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date

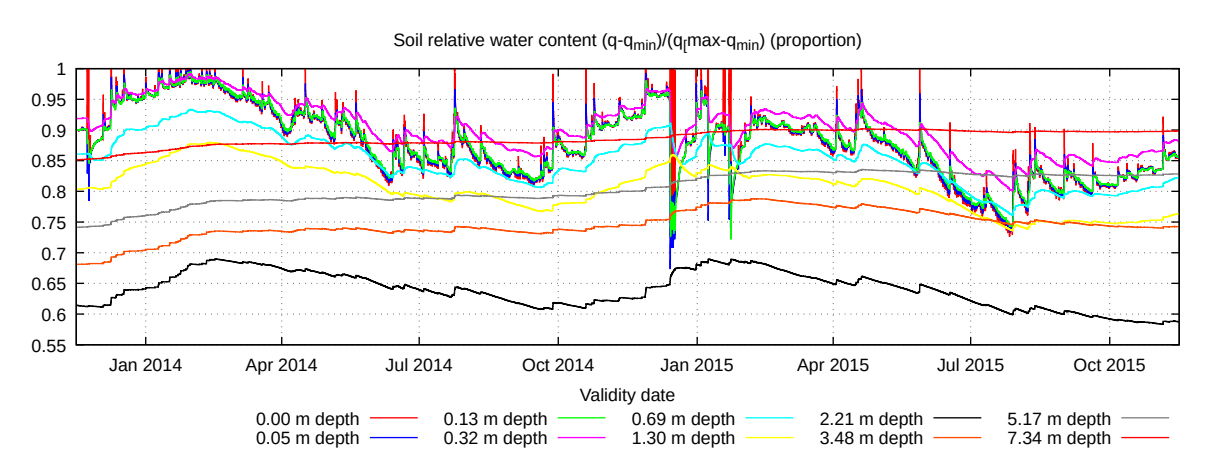

Surface water vapour fluxes (kg m-2 s-1)
0.0002
0.00015
0.0001
5x10-5
0
-5x10-5
-0.0001
-0.00015
-0.0002
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date
total
air <-> (bare soil+low vegetation)
air <-> snow
air <-> dry low vegetation
air <-> wet low vegetation

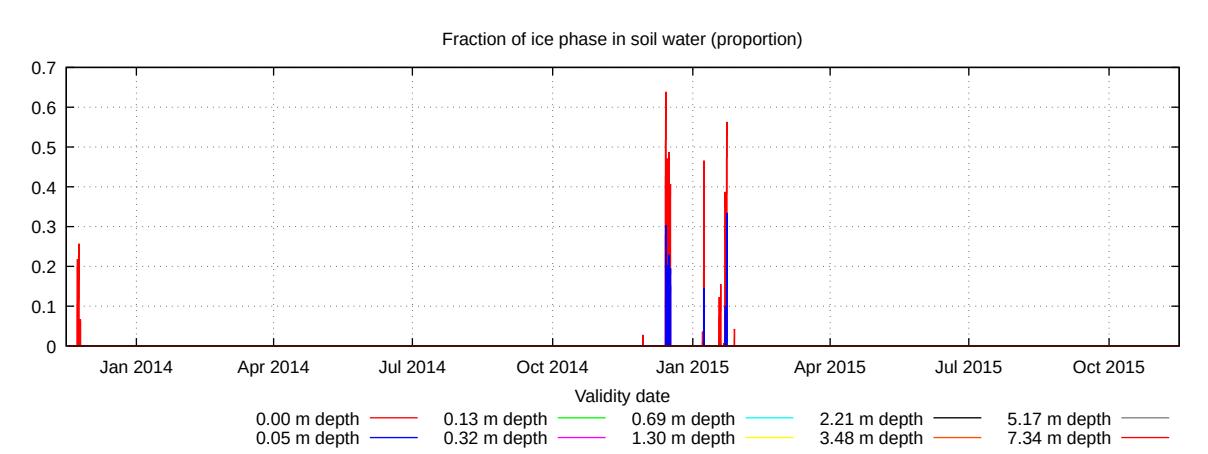

Surface prepicipation water fluxes (kg m-2 s-1)
0.005
0.0045
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
-0.0005
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date
total liquid
total ice
liquid to bare soil
liquid to low vegetation
liquid to snow surface
ice to snow surface

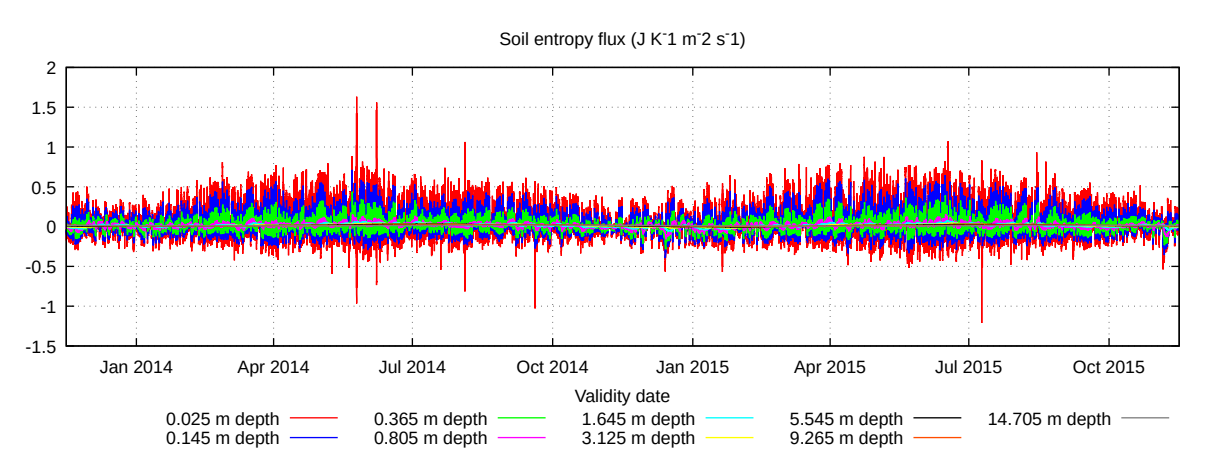

Water flux between soil surface and snow cover (kg m-2 s-1)
0.00014
0.00012
0.0001
8x10-5
6x10-5
4x10-5
2x10-5
0
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date
total liquid

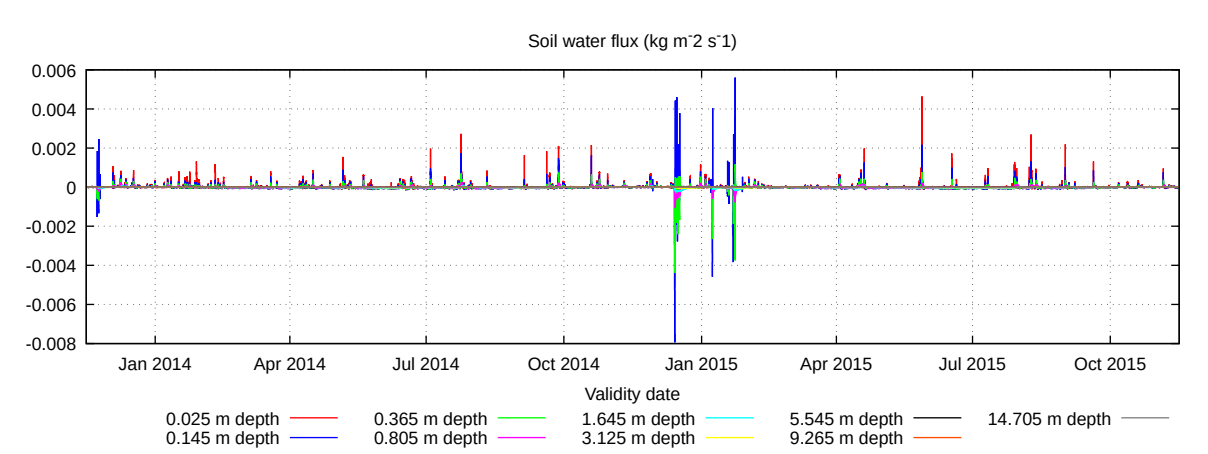

Specific water content of low vegetation surface (kg m-2)
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date
total liquid

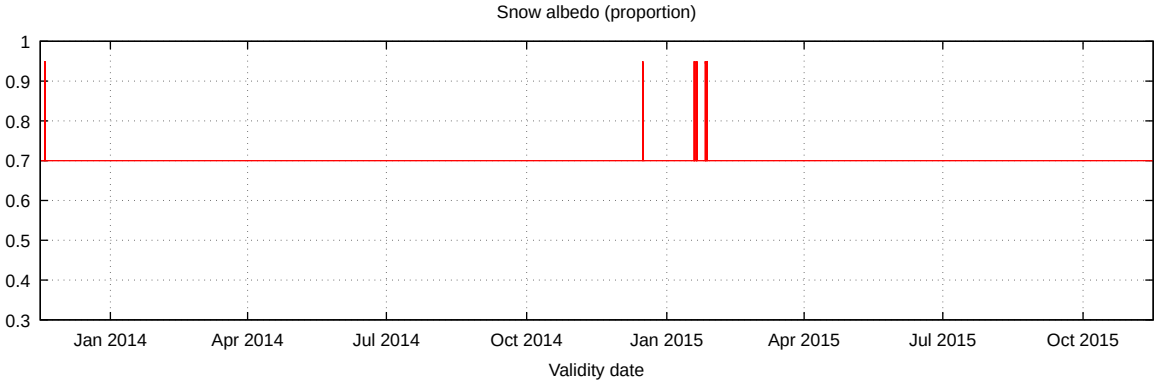

Soil temperature (deg.C)
35
30
25
20
15
10
5
0
-5
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date
0.00 m depth
0.05 m depth
0.13 m depth
0.32 m depth
0.69 m depth
1.30 m depth
2.21 m depth
3.48 m depth
5.17 m depth
7.34 m depth

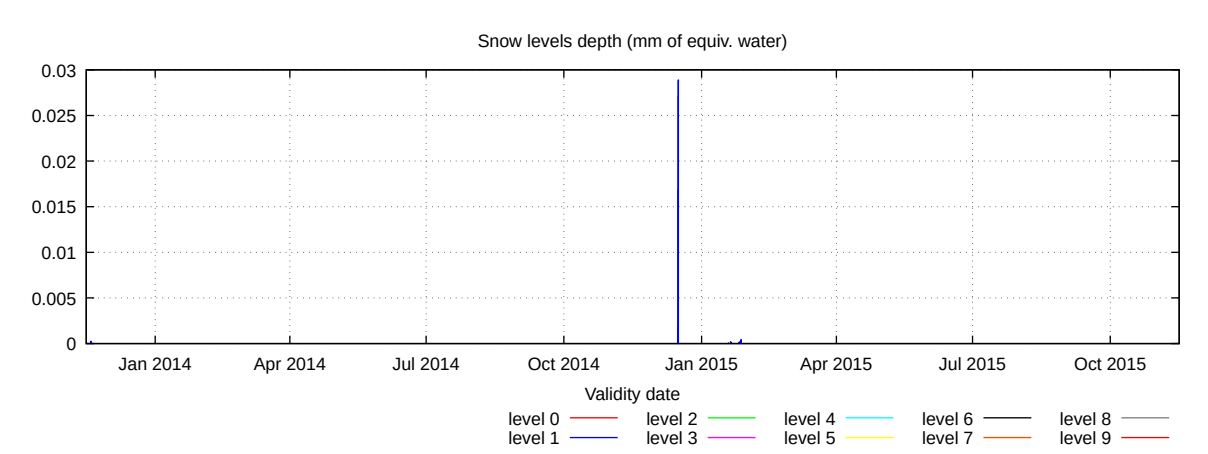

Soil relative water content (q-q[min])/(q[max-q[min]) (proportion)
1
0.95
0.9
0.85
0.8
0.75
0.7
0.65
0.6
0.55
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date
0.00 m depth
0.05 m depth
0.13 m depth
0.32 m depth
0.69 m depth
1.30 m depth
2.21 m depth
3.48 m depth
5.17 m depth
7.34 m depth

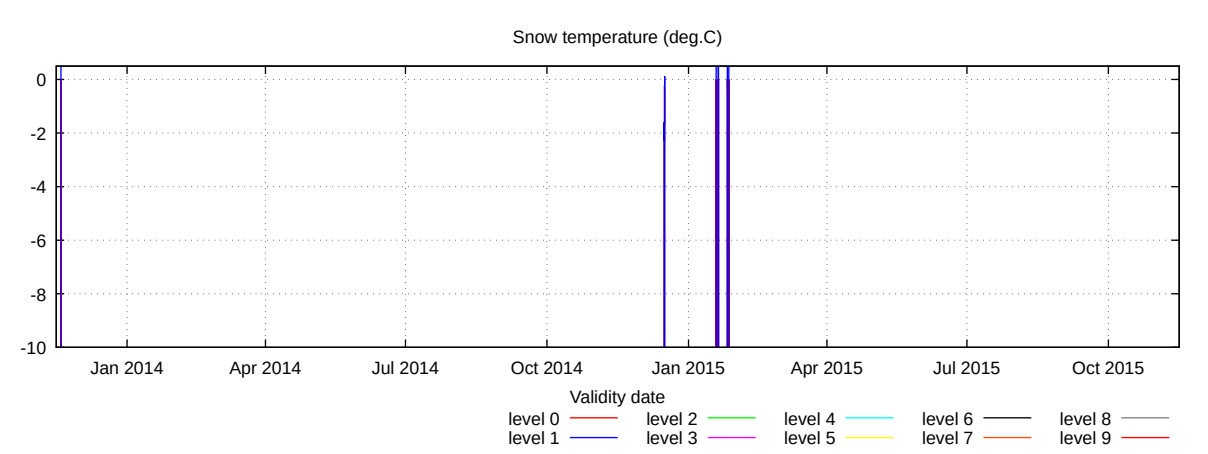

Fraction of ice phase in soil water (proportion)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date
0.00 m depth
0.05 m depth
0.13 m depth
0.32 m depth
0.69 m depth
1.30 m depth
2.21 m depth
3.48 m depth
5.17 m depth
7.34 m depth

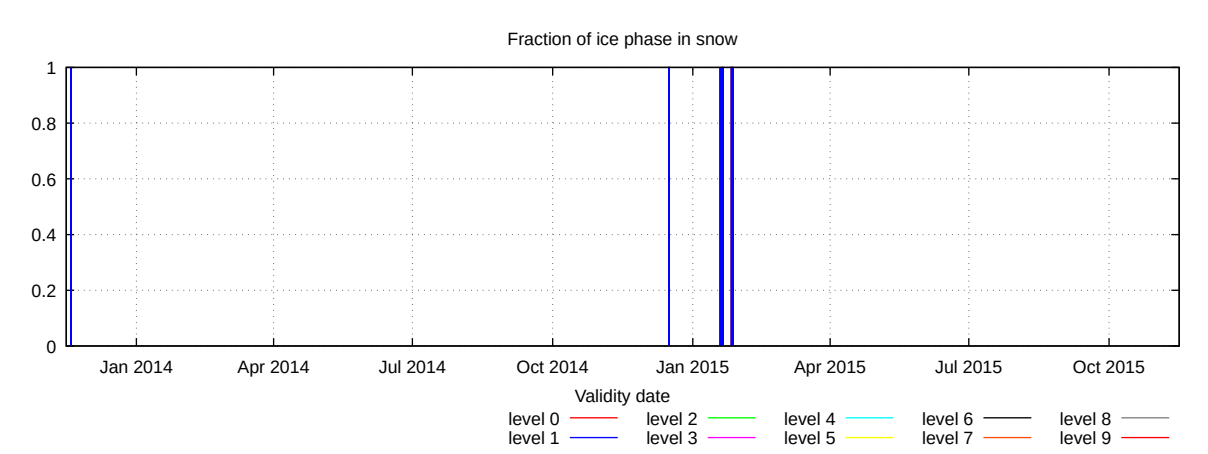

Soil entropy flux (J K^-1 m^-2 s^-1)
2
1.5
1
0.5
0
-0.5
-1
-1.5
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date
0.025 m depth
0.145 m depth
0.365 m depth
0.805 m depth
1.645 m depth
3.125 m depth
5.545 m depth
9.265 m depth
14.705 m depth

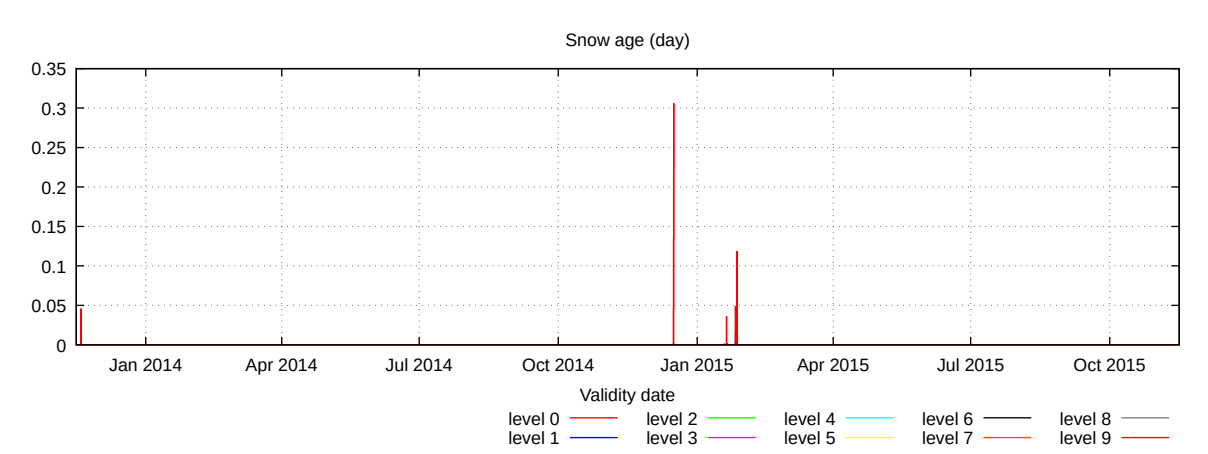

Soil water flux (kg m-2 s-1)
0.006
0.004
0.002
0
-0.002
-0.004
-0.006
-0.008
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date
0.025 m depth
0.145 m depth
0.365 m depth
0.805 m depth
1.645 m depth
3.125 m depth
5.545 m depth
9.265 m depth
14.705 m depth

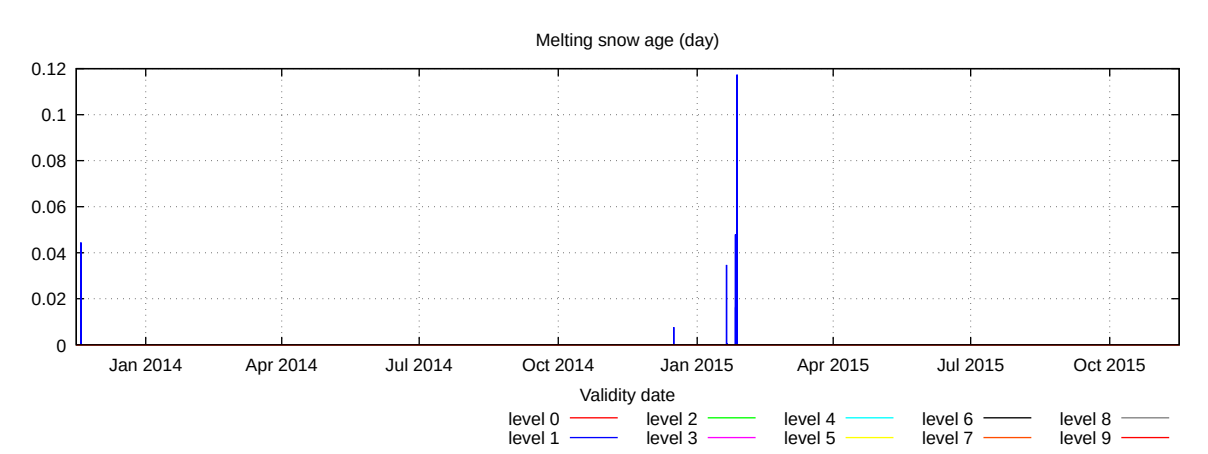

Snow albedo (proportion)
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date


Snow levels depth (mm of equiv. water)
0.03
0.025
0.02
0.015
0.01
0.005
0
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date
level 0
level 1
level 2
level 3
level 4
level 5
level 6
level 7
level 8
level 9


Snow temperature (deg.C)
0
-2
-4
-6
-8
-10
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date
level 0
level 1
level 2
level 3
level 4
level 5
level 6
level 7
level 8
level 9


Fraction of ice phase in snow
1
0.8
0.6
0.4
0.2
0
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date
level 0
level 1
level 2
level 3
level 4
level 5
level 6
level 7
level 8
level 9


Snow age (day)
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date
level 0
level 1
level 2
level 3
level 4
level 5
level 6
level 7
level 8
level 9


Melting snow age (day)
0.12
0.1
0.08
0.06
0.04
0.02
0
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Validity date
level 0
level 1
level 2
level 3
level 4
level 5
level 6
level 7
level 8
level 9