

Correction to “Correcting for forecast bias in soil moisture assimilation with the ensemble Kalman filter”

Gabriëlle J. M. De Lannoy, Rolf H. Reichle, Paul R. Houser, Valentijn R. N. Pauwels, and Niko E. C. Verhoest

Received 20 September 2007; published 19 October 2007.

Citation: De Lannoy, G. J. M., R. H. Reichle, P. R. Houser, V. R. N. Pauwels, and N. E. C. Verhoest (2007), Correction to “Correcting for forecast bias in soil moisture assimilation with the ensemble Kalman filter,” *Water Resour. Res.*, 43, W10799, doi:10.1029/2007WR006542.

[1] In the paper “Correcting for forecast bias in soil moisture assimilation with the ensemble Kalman filter” *Research*, 43, W09410, doi:10.1029/2006WR005449, 2007), various parts of Table 3 were transposed. The corrected table appears here.

Table 3. Area-Average States and Total Fluxes (2 October 2001 Through 30 April 2002) for 2-Weekly Assimilation of Complete Observed Profiles, Plus/Minus One (Spatial) Standard Deviation

	Units	EnCtrl, EnBKF_0 ^{a,b}	EnKF, EnBKF_1	EnBKF_2	EnBKF_3, EnBKF_3 ⁺ ^a
Profile average soil moisture	[vol%]	16.5 ± 2.8, 19.2 ± 5.1	17.9 ± 3.6, 19.7 ± 5.3	19.2 ± 4.8	18.2 ± 3.8, 20.0 ± 5.4
Evapotranspiration	[mm]	67 ± 11	67 ± 11	67 ± 11	67 ± 11
Ground evaporation	[mm]	42 ± 10	42 ± 10	42 ± 10	42 ± 10
Canopy evaporation	[mm]	0.2 ± 0.7	0.1 ± 0.7	0.1 ± 0.7	0.1 ± 0.7
Canopy transpiration	[mm]	25 ± 10	25 ± 10	25 ± 10	25 ± 10
Surface runoff	[mm]	38 ± 11	39 ± 11	37 ± 11	39 ± 11
Subsurface drainage	[mm]	109 ± 32	427 ± 393	149 ± 60	571 ± 526
Soil moisture <i>RMSE</i>	[vol%]	6.74 ± 3.47, 2.00 ± 0.70	4.98 ± 2.74, 1.94 ± 0.71	1.88 ± 0.70	4.82 ± 2.73, 2.08 ± 0.75
Average absolute increment ^c	[mm/event]	n/a, 65 ± 58	26 ± 29, 39 ± 40	51 ± 50	38 ± 39, 36 ± 41

^aPer column, the two listed algorithms yield the same output for all variables except where two values are given.

^bEnCtrl stands for the control, i.e. the ensemble mean run without filtering.

^cFor EnKF and EnBKF_3 there are 13 assimilation events. For EnBKF_0, EnBKF_1, EnBKF_2, and EnBKF_3⁺ there are 24*211 = 5,064 hourly increments (events) over the 211-day period.