



Figure 12. Model-simulated  $w$  ( $\text{m s}^{-1}$ , color, scales at bottom) and (a)  $\nabla^2 p'$  ( $10^{-6} \text{ Pa m}^{-2}$ , contours, dashed for negative values) computed from  $p'$  using the separation method and (b)  $\nabla^2 p'_b + \nabla^2 p'_a$  obtained by adding all the rhs terms in Eqs. (11) and (13) together, at 547 m at 06:30 UTC 8 August 2009. Contour levels are at  $\pm 2$ ,  $\pm 5$ ,  $\pm 10$ ,  $\pm 25$ ,  $\pm 50$ ,  $\pm 75$ , and  $\pm 100 \times 10^{-6} \text{ Pa m}^{-2}$ , respectively, and are the same in (a, b). The cells are labeled as in Fig. 8.