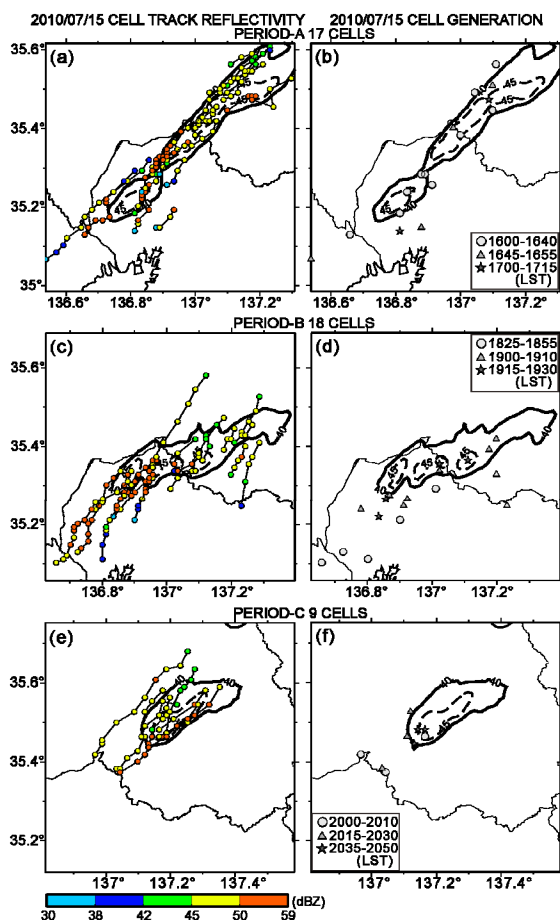
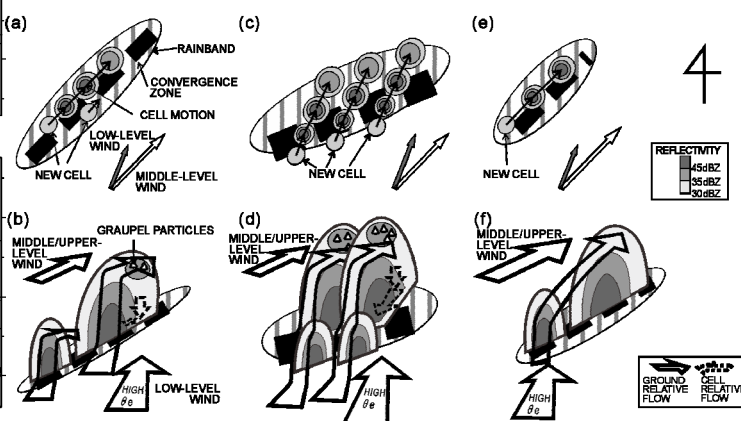


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← Figure 1. (a) Locations and tracks of convective cells during a period of 1645–1715 LST on 10 July 2013 and (b) locations where the convective cells formed. The position of the reflectivity (Z_h) peak within each convective cell every 5 minutes is indicated by circles in (a). Color scale represents Z_h . Contours represent Z_h at 2 km ASL averaged over the period. (c), (d) As for (a) and (b), respectively, but for 1900–1930 LST. (e), (f) As for (a) and (b), respectively, but for 2030–2100 LST.



↑ Figure 2. (a), (c), and (e) Horizontal and (b), (d), and (f) vertical schematic representations of the rainband in each of (a), (b) Period A; (c), (d) Period B; and (e), (f) Period C.

- Polarimetric Doppler radar analysis revealed organization processes of a stationary rainband, of which the orientation was initially southwest–northeast (Period A, Figures 1a and 1b), but changed to west-southwest to east-northeast (Period B, Figures 1c and 1d), before reverting to its original orientation (Period C, Figures 1e and 1f).
- The rainband orientations were determined by the travel directions of the convective cells and the positions of cell generation relative to the rainband (Figure 1), which in turn were governed by intensities of low-level inflow and cell-origin outflow (Figure 2).
- During Period A, convective cells formed over a wide area within the rainband and traveled northeastward by environmental southwesterly winds. During Period B, convective cells formed on the southern lateral side of the rainband and traveled north-northeastward with accompanying stronger south-southwesterly inflows and low-level outflows. During Period C, the outflows and south-southwesterly inflows then weakened, and convective cells formed successively on the southwestern edge of the rainband and moved to the northeast.