

Time Lapse Animation of a Low-Precipitation Supercell

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ABSTRACT

During a stormchasing vacation in the United States, a small Low-Precipitation (LP) supercell was encountered near Oshkosh in western Nebraska on June 2nd 2006. The storm lived for several hours and was almost stationary on the dryline. The situation was ideal for undertaking time lapse photography.

A Canon EOS 5D digital SLR camera was used with 20mm, 28mm and 50mm lenses. A casual approach to time lapse photography was taken with manual timing. The camera time was recorded in the images with the accuracy of seconds.

The time lapse sequences are presented for their esthetic value, mostly, but serve well to illustrate several important processes and transitions. Rotation and growth was evident in the updraft tower, while the laminar base displayed waves giving the appearance of rotation into the opposite direction as the tower. Photography shows a varying degree of tilt of the tower over time, and major expanding bubbles superposed on a steady updraft. Estimates of vertical and horizontal speeds will be given. As night fell, stabilisation of the boundary layer caused separation of the base into a main, higher part and a small wall cloud with laminar appearance and, briefly, Kelvin-Helmholz waves.

In addition, maps of convective parameters, sounding and hodograph, radar and satellite image sequences will be shown.

