# CARBONATE STORM-DOMINATED SEDIMENTATION: AN EXAMPLE FROM THE SARMATIAN OF NORTHEASTERN BULGARIA

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An example of the Sarmatian storm-wave dominated transgressive sequence from the Cape Kaliakra section (Northeastern Bulgaria) is shown in this study.

A part of the Cape Kaliacra section (with total thickness about 11.0 m) is composed of six storm beds (carbonate tempestites) alternating with micritic limestones. Each storm-generated bed commences with an erosional surface, which is overlain by a massive lag deposit (lime pebble conglomerate). The lag abruptly grades into sand-sized oolitic limestone (with hummocky cross-stratification). The storm bed is capped by parallel stratified micritic limestone.The erosional surfaces reflect periods of non-deposition during the transgressive episodes. The lag sediments were deposited during the peak storm flows and sand-sized materials during the final stage of the wining storms. The micritic limestones were formed during the fairweather periods in the conditions of a progradational transgression.Shoreline and proximal storm beds are recognized. Two shoreline tempestites are situated in the base of the section (1.3 and 1.0 m thick). The thickness of the rest storm beds considerably decreases upwards and they represent proximal tempestites (0.5-0.4 m thick). Contrary, the thickness of the micritic limestones significantly increases from the bottom to the top of the section (from 0.07 to 3.0 m).

These data prove a gradually deepening of the studied part of the basin. The tempestites are not traced in adjacent areas because of the complicated tectonics of the region.