

A Flash Flood Climatology (1975-2009) for the WFO Burlington, Vermont County
Warning Area
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Flash flooding is one of the most significant weather phenomenon that affects Burlington's county warning area (CWA), causing, on average, millions of dollars of damage per year. The steep slopes of the Adirondack Mountains in northern New York and Green Mountains of Vermont make the CWA highly prone to flash flooding, with at least one major flooding event reported in one of the WFO's 16 counties most years. This study seeks to help forecasters in preventing flash flood casualties and reducing property damage by improving understanding of the frequency, severity, and geographical distribution of flash flood events across the CWA. Thirty-four years of flash flood event data from National Climatic Data Center were examined and a total of 204 events were identified. The date, time, location, and amount of damage of each event was then used to develop a climatology of seasonal flash flooding in the Burlington CWA during the 34-year period. The climatology indicates that the majority of flash flooding events occur in the months of June and July, with a secondary peak in March, mostly due to snowmelt and ice jams. In addition, the climatology also indicated that flash flooding is most likely during the afternoon and evening hours. The study also shows that Essex County, New York, has experienced the most flash flooding events, followed closely by Washington County, Vermont. The results of the climatology will be presented in both tabular and graphical form.