**The 24 August 2020**

**Whitehall, New York Flash Flood**

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On 24 August 2020, an isolated severe weather and major flash flood event occurred across eastern New York (NY) into south-central Vermont (VT). This talk will focus on a detailed mesoscale and radar analysis of the flash flood event. Traditional base and derived WSR-88D radar products will be shown to illustrate the evolution of this event. The NYS Mesonet observations, including the site at Whitehall, as well as MRMS and FLASH products will demonstrate the development and progression of the flash flood producing rainfall. Some of the severe convection and flash flood applicable NYS Mesonet hourly products such as theta-e and wind analyses as well as surface convergence/divergence trends in the 30 and 60 minute data will be shown owing to the training and back building convection that produced the flash flooding.

Severe thunderstorms would develop over northern NY and the Adirondacks and pass northeast of Lake George and south of the Champlain Valley, impacting the area from northern Washington County NY east into VT during the late afternoon. The severe convection would begin to back build and train impacting the town of Whitehall between 2030 UTC and 2330 UTC with multiple severe thunderstorm and flash flood warnings. NWS Albany received 10 severe reports of wind damage (winds ≥ 50 knots) and 5 flash flood reports in Whitehall, NY. State route 22 was flooded by 4 to 5 feet of water with cars submerged, and the Whitehall Central Schools, as well as several community buildings and residential homes were flooded or significantly damaged. MRMS rainfall estimates indicated 4 to 6+ inches of rainfall occurred, with 5.85” (~14.86 cm) of rainfall recorded in 2 to 4 hours by the Whitehall Cooperative observer. A State of Emergency was declared for the Town of Whitehall due to the wind damage and major flash flooding. NWS at Albany only issued 7 flash flood warnings in 2020, which was well below the 10-yr average of about 22. The antecedent soil conditions were not wet before the event. 3-hr gridded flash flood values were 1.8-2.5 inches in the Whitehall township area. There was a tremendous localized impact with this severe and flash flood event for a town of less than 5,000 people.