Rapid Water Strikes

June 14, 1990 Shadyside, Ohio Flash Flood

Overview

If posed the question, "What kills more lives a year on average, flash floods or tornadoes?" what would someone answer? Most likely tornadoes because they receive so much publicity. While that may seem to be right, tornadoes is incorrect! Flash floods are the number one weather killer on average in the United States, and wreak just as much havoc as tornadoes. Shadyside, Ohio witnessed the power of flash floods first hand on the night of June 14, 1990. Located in the Appalachian Plateau with two creeks running through it, Shadyside is prone to flash flooding.

Above: A view of the carnage the flash floods had on homes. Courtesy of Belmont County Emergency Management Office

What Happened?

Heavy precipitation fell from slow moving thunderstorms the evening of June 14 and dumped over 4 inches of rain in the rugged terrain of Shadyside in less than 2 hours. It was this steep terrain, hard clay, and intense rainfall that helped the flash floods occur. Also, a very wet month of May allowed soil to remain saturated, making extreme runoff of rain into the Weegee and Pipe creeks in the area possible. This runoff caused trees, rocks, and other debris to fall fast downstream and create debris dams in the creeks. Eventually these dams busted from raging walls of water over 20 feet tall and proceeded to ravage the town.

Impacts

- Total damage estimates around $8 million!
- Over 500 National Guard members were called in to assist in the cleanup
- Over 80 homes were destroyed and close to 250 were damaged
- 26 people lost their lives

Above: Remains of a car that was washed away by the torrential flash floods. Courtesy of M. Wyatt

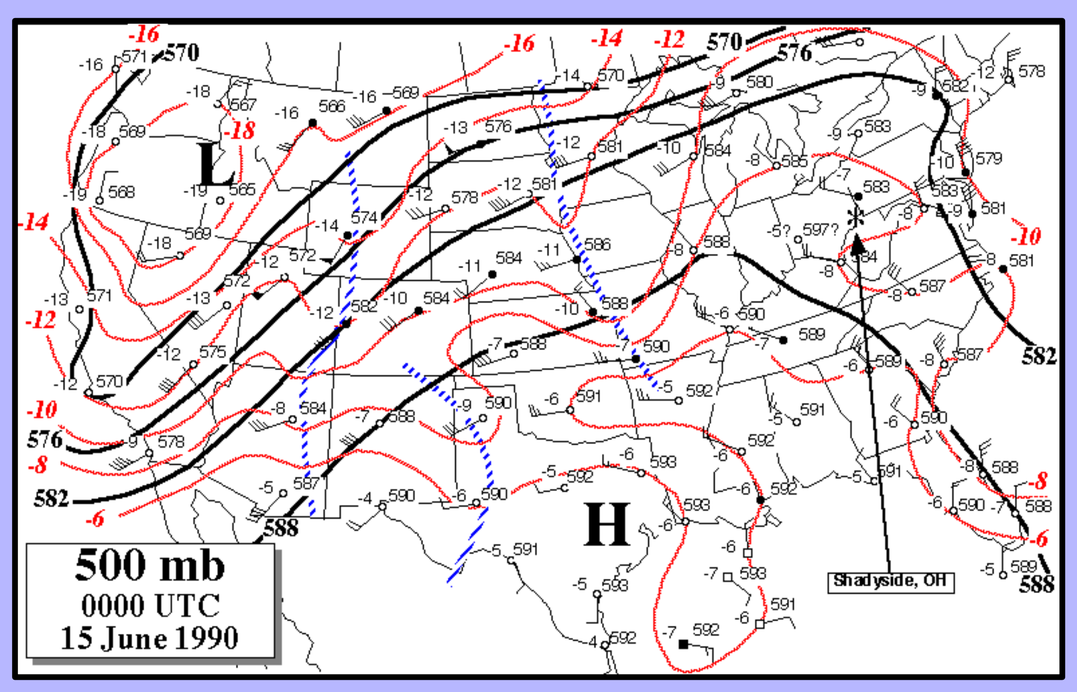
Below: National Guard members assist in cleanup and repair of damage to a bridge. Courtesy to M. Wyatt.

Above: A look at how the high water damaged homes. Courtesy of Belmont County Emergency Management Office

"When the lightning flashed I looked out the window and saw all these people in the treetops"
- Shadyside resident Robert Steele on the night of flash floods

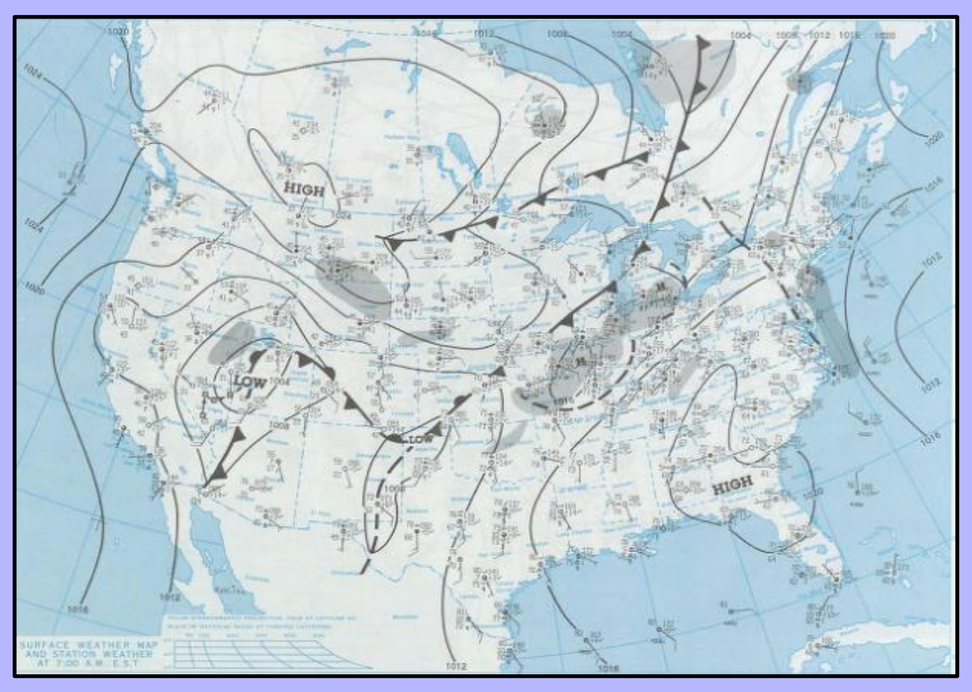
Above: A massive slab of land that eroded away due to the heavy rainfall. Courtesy of M. Wyatt

Below: The remains of a tractor and ravaged land post flash flood. Courtesy of M. Wyatt



Left: A look at 500 mb (18,000 ft) flow at 8pm, right before the flash flood event. There was very weak wind flow, which helped the very heavy precipitation move only slowly over Shadyside.

Right: A surface map on the morning of June 14. A cold front and rain were advancing toward Shadyside from the northwest.



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