What caused the Leamington tornado? UWO professor has a theory

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(PhysOrg.com) -- Weather experiments conducted by a University of Western Ontario professor and his research team may hold clues to what caused the violent winds that hit Leamington, Ontario earlier this week.

Western physics professor Wayne Hocking operates wind profiler radars in nearby Harrow and based on the information accumulated from Sunday (June 6), Hocking says it appears that when the tornado occurred, there was a strong jet stream overhead forcing its way to the ground.

“We think there is a relationship between this turbulence and the jet stream, which flows 10 kilometres above,” explains Hocking. “We saw the turbulence working its way down to the ground even 12 hours before. And when that turbulence hit the ground, it was just about the same time that the tornado occurred.”

Hocking utilizes Ontario-Quebec VHF wind profiler radars, which are used to measure wind speeds and other related parameters in the atmosphere. These are part of the Ontario-Quebec VHF wind profiler radar network, which includes a consortium of scientists and researchers from Western, York University and McGill University.

Although Hocking says he cannot prove the jet stream caused the tornado, he says it shows the potential of the unique wind profiler radar network to assemble useful information that is otherwise unmonitored. The data will allow researchers to examine the upper-level winds to

determine what conditions caused the event.

Provided by University of Western Ontario