

Abstract Submitted  
for the APR17 Meeting of  
The American Physical Society

**Final Results from A Pilot Project to Investigate Wake Vortex Patterns and Weather Patterns at the Atlantic City Airport by the Richard Stockton College of NJ and the FAA** JOSEPH TROUT, J. RUSSELL MANSON, DAVID KING, NICOLAS DECICCO, ALYSSA PRINCE, ALEXIS DI MERCURIO, Stockton University, MANUAL RIOS, FAA — Wake Vortex Turbulence is the turbulence generated by an aircraft in flight. This turbulence is created by vortices at the tips of the wing that may decay slowly and persist for several minutes after creation. These vortices and turbulence are hazardous to other aircraft in the vicinity. The strength, formation and lifetime of the turbulence and vortices are effected by many things including the weather. Here we present the final results of the pilot project to investigation of low level wind fields generated by the Weather Research and Forecasting Model and an analysis of historical data. The findings from the historical data and the data simulations were used as inputs for the computational fluid dynamics model (OpenFoam) to show that the vortices could be simulated using OpenFoam. Presented here are the updated results from a research grant, “A Pilot Project to Investigate Wake Vortex Patterns and Weather Patterns at the Atlantic City Airport by the Stockton University and the FAA”

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Date submitted: 30 Sep 2016

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