

Significance and impact of involvement with patents, Cooperative Research And Development Agreements (CRADAs) and other activities with industry, other sectors, etc.

Stepped Electric Field Detector Patent

Patent Number: US 7,709,787

Date of Patent: May 4, 2010

Inventors: Roger G. Carter, S.A. Beard, D.J. Lacroix, and R.C. Johnson

The Stepped Electric Field Detector was designed to be a low cost detector for trace levels of halogenated gases in the atmosphere. It was developed specifically for atmospheric tracers used for dispersion studies. It offers the potential for significantly reducing the cost of collecting atmospheric dispersion data required to verify the operation of widely used dispersion models. The cost of conducting dispersion field studies has been a significant problem in the verification of models. Reducing this cost is a major step in towards improving the dispersion models available to emergency responders, military personnel, and the many others that depend on them.

CRADA Between NOAA ARL/Duke Energy Generation Services, Inc.

Established April 22, 2010

Duration: 3 years

Deficiencies in low-level wind predictions have serious consequences for the wind energy industry. Working in partnership with Duke Energy, NOAA/ARL will take research-grade atmospheric measurements at a wind energy facility and then use these measurements to investigate issues with wind predictions to inform future improvements.

CRADA Between NOAA ARL/Catch The Wind, Inc.

Established October 4, 2010

Duration: 3 years

Working in partnership with Catch The Wind, ARL will evaluate the capabilities and assist development of laser anemometer measurement systems. The laser systems may be highly beneficial to issues related to renewable energy, dispersion within complex terrain, and urban emergency management.