I first became interested in infrasound in May 2013 after reading a paper by Carmen Krogh dealing with adverse health effects caused by Industrial Wind Turbines. Infrasound refers to sound waves below the range of human hearing. Infra sound comes from a number of man-made sources including HVAC systems, industrial machinery, moving vehicle cabins, and energy generation (wind turbines, gas plants).

I was surprised that very little study had been done on this subject and the effects on humans. What information has been published has largely been ignored by both governments and the wind industry. While low frequency noise and infra sound are believed to impact human health, there are currently no standards for infra sound exposure. In most cases, low frequency sound is simply ignored.

I began researching ways to record infrasound and in joint experiments with a colleague at Waterloo we developed a method of isolating infrasound from a single wind turbine and measuring it free from the “clutter” of other turbines, wind noise Etc.

Our work was presented at the INCE/EUROPE Wind Turbine Noise conference in Glasgow, Scotland, in April, 2015.

I have been fortunate to have recently received approval of seed funding from both the School of Computer Science and Office of Research such that I will be able to purchase the necessary equipment and hire student research assistants allowing this research to go forward.

The focus of my research is as follows.

1 Develop the best possible methods and systems for measurement of infrasound in general and specifically that generated by Industrial Wind Turbines.

2 Develop methods and standards for analysis of information gathered both in our lab and in conjunction with other interested researchers.

3 Create infra sound in a lab setting to a documented duplicate of that generated by wind turbines and other man made devices.

4 Enable future testing on humans, by others with appropriate medical training and ethics approval, with the goal of establishing safe exposure levels.

5 Share the results of this research with others in the scientific community.

The number of manmade sources of infrasound continues to grow among us and the health and safety of individuals presently appears to be secondary to profit in the proliferation of these products. It will be of great benefit to society if we can establish safe levels of infrasound exposure and evolve associated emissions standards.

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