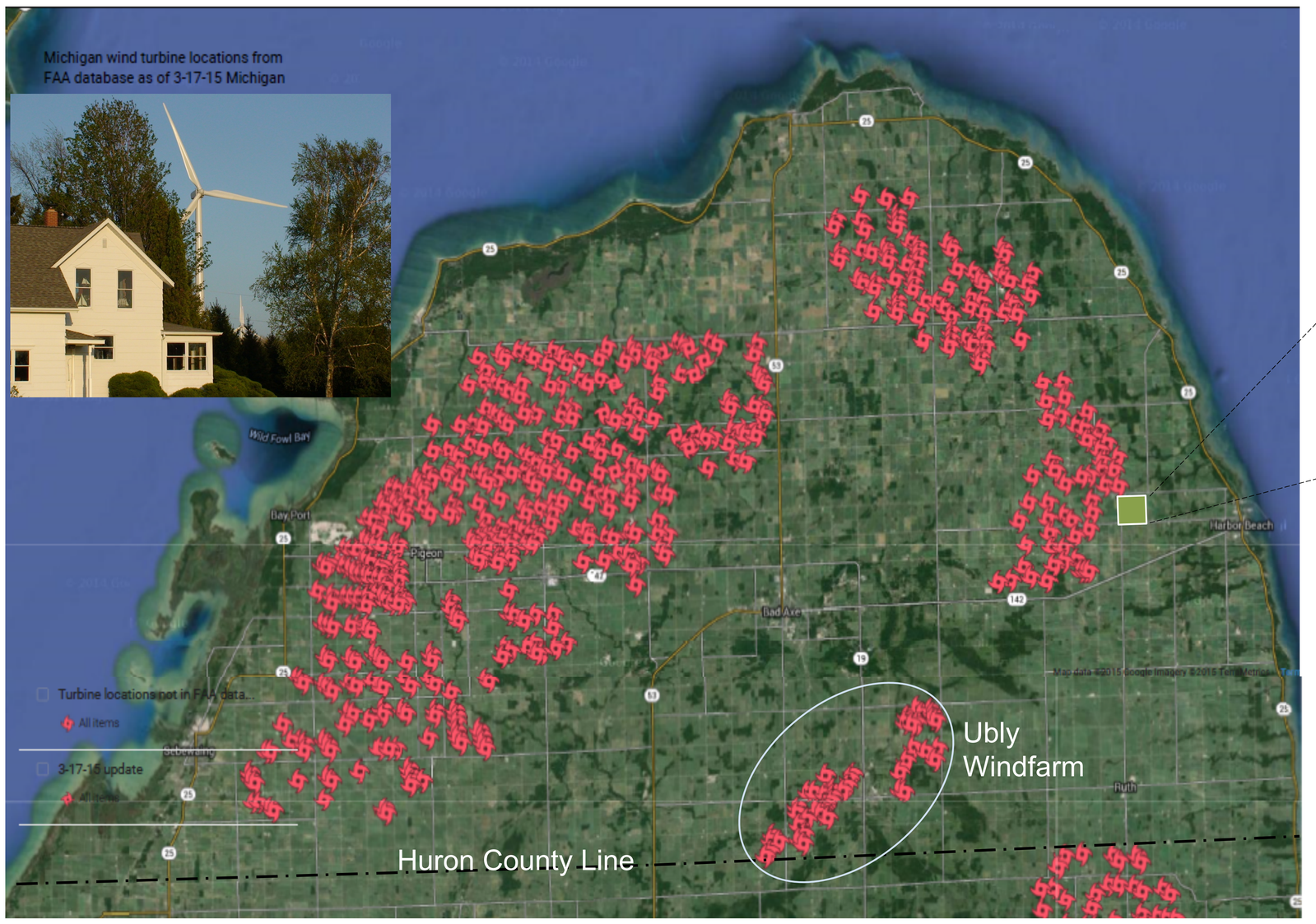
Wind Turbine 2015

Direct Experience of Low Frequency Noise and Infrasound within a Windfarm Community.

M.A.Swinbanks, MAS Research Ltd

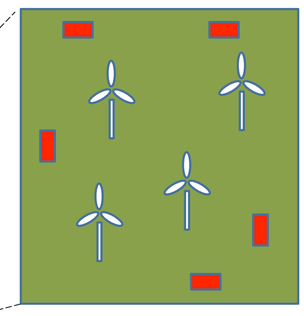
Huron County, Michigan Wind Turbine Locations

(328 Installed + ~ 150 in Immediate Pipeline)



County is Made-Up of 1-mile Square Sections, Bounded by Roads on all Sides

Typical 1-mile Square Section



4 - 6 Residences

3 - 4 Wind-Turbines, 100m - 114m Diameter

(7-9 Turbines in Several Sections)

Ordinance Setbacks 1320ft (400m)

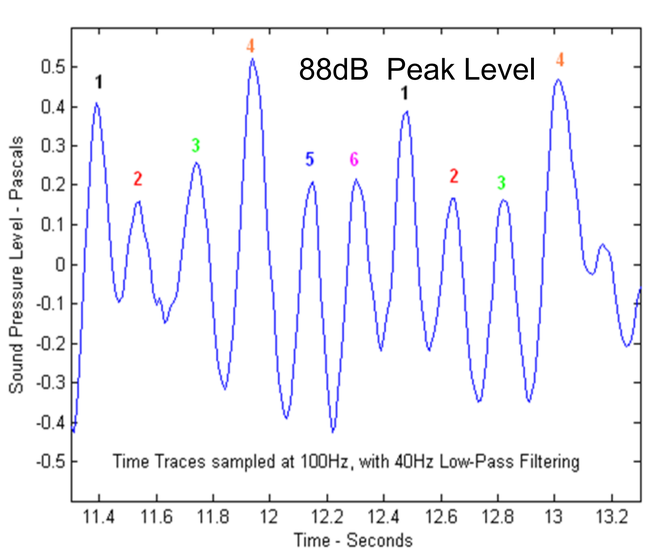
Setbacks chosen to meet Wind-Developer Requirements, given Limitations of 1-mile Sections

Ubly Windfarm (46, 77m Turbines) designed 2005 by <u>same</u> developer as Dr N. Pierpont opposed in 2005. All effects that she warned have been manifest at this Windfarm.

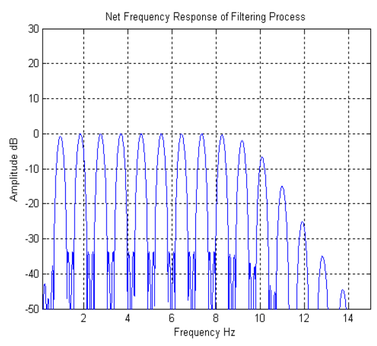
(1) Sleep Disturbance (~ 45 - 50dBA)

(2) Infrasonic & LF Pulsations

(3) Nausea, Dizziness, Loss of Concentration & Coordination

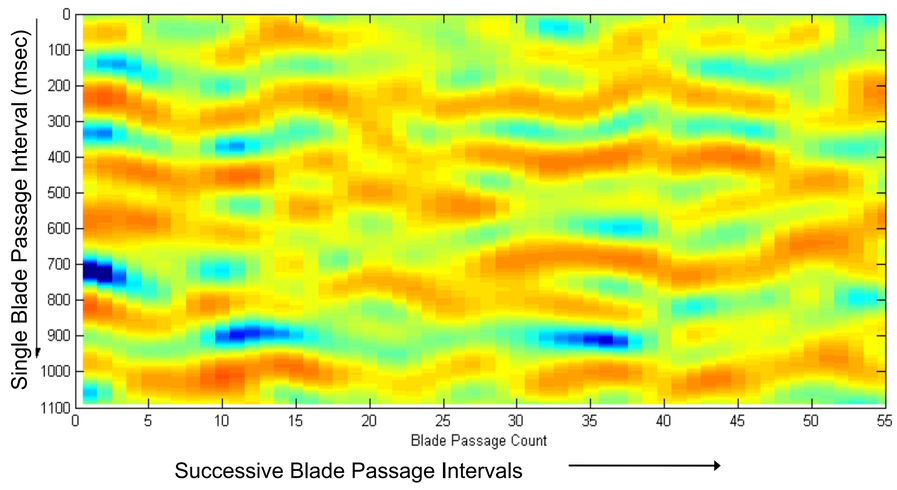


Multiple Impulses Downwind of 6 Turbines



Frequency Response of 5-Coefft Periodic FIR Filter

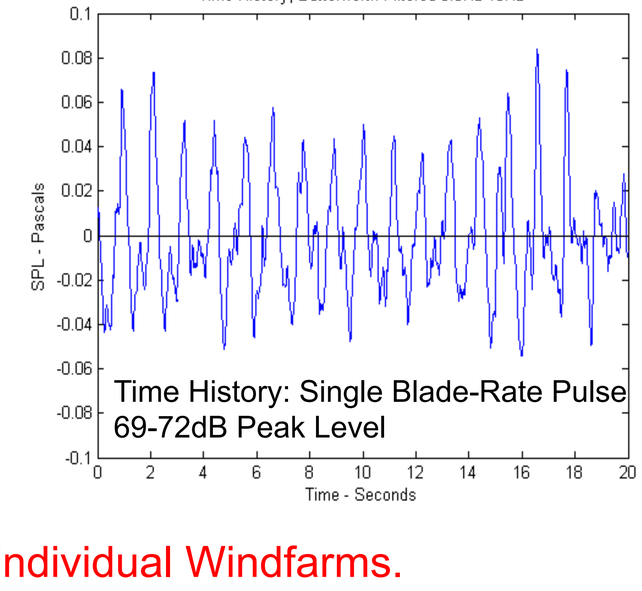
Infrasound SPL

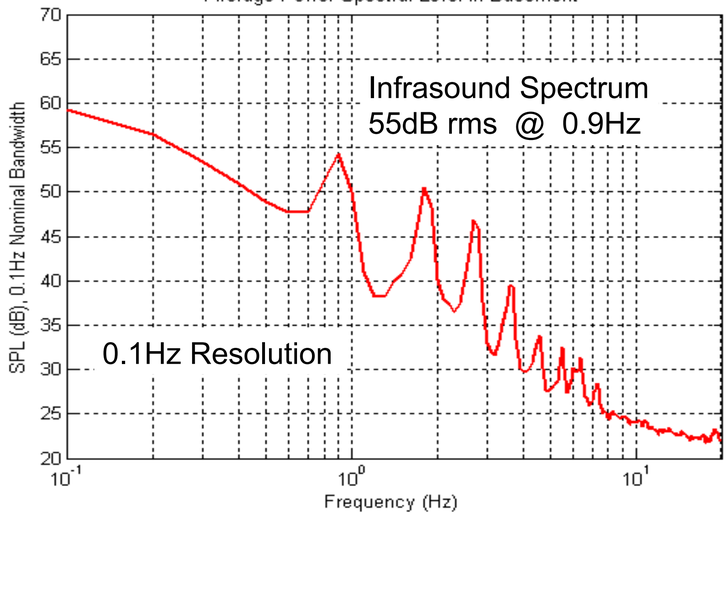


Time History: Blade-Passage Detail v's Successive Blade Passages

Very Low Frequency Infrasound in Basement. 5 Hours Exposure left Author Extremely Unwell.

Loss of Concentration & Coordination => Driving Ability Thoroughly Compromised





Windfarm Noise Predicted only for Individual Windfarms.

Failure to Consider Cumulative Low-Frequency & Infrasound Effects arising from Multiple Windfarms coupled with Low Rates of Attenuation (-3dB/ Doubling of Distance)

INCE EUROPE

6th International Conference on Wind Turbine Noise 2015
Glasgow 20-23 April 2015