

Critique of the “Salford Report”

Actual Title: *Research into aerodynamic modulation of wind turbine noise*

Authors: Moorhouse, Hayes, von Hunerbein, Piper, Adams.

Commissioned By: Defra et al, government agencies

by Wayne Gulden

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Saved at: http://windfarmrealities.org/wfr-docs/salford_turbine_sound.pdf (600kb)

What this reference was really about:

In the UK there were complaints of noise from wind turbines, and one theory was the AM (amplitude modulation) was the cause – the beating sound created when the blade passes the tower. Defra gave a grant to the University of Salford to study the matter. Their research was conducted in four phases, never going into the field. They interviewed no victims, conducted no health assessments.

Used By: CanWEA. Curiously, not by BWEA nor AWEA.

Typical Wind Industry Quote (this one by CanWEA):

The Government then commissioned experts at Salford University to investigate Aerodynamic Modulation and the broader issue of noise from wind turbines. The Salford research looked at 133 wind farms and concluded that “... in terms of the number of people affected, wind farm noise is a small-scale problem compared with other types of noise; for example the number of complaints about industrial noise exceeds those about windfarms by around three orders of magnitude” and that “The low incidence of AM and the low numbers of people adversely affected make it difficult to justify further research funding in preference to other more widespread noise issues.”

Compared to what was actually said:

“looked at 133 wind farms” – no, it was “a survey of local authorities with windfarms in their areas”
“a small-scale problem” – but “in relative terms about 20% ... have been subject to complaints”
“difficult to justify further research” – but, the next sentence “On the other hand, since AM cannot be fully predicted at present, and its causes are not understood we consider that it might be prudent to carry out further research to improve understanding in this area.”

Criticisms:

From WCO, at <http://windconcernsontario.wordpress.com/2009/05/22/deconstructing-canwea-health-claims/item#4>.

- **Does** state purpose of study: “The aims of this study are to ascertain the prevalence of AM (aerodynamic modulation) from UK wind farm sites, to try to gain a better understanding of the likely causes, and to establish whether further research into AM is required.”
- **Does not** “conclude that there is no evidence that wind turbines have an adverse impact on human health”.
- **Does not** “show that there is no peer-reviewed scientific evidence indicating that wind turbines have an adverse impact on human health.”
- **Does not** review Dr Pierpont’s research. (Wind Turbine Syndrome Manuscript).
- **Does not** study patients or reports of patients describing adverse health effects when exposed to wind turbines.
- **Does not** mention other recent research such as that conducted by Dr. Amanda Harry, Alves Perreira and Castello Blanco, Frey and Haddon or the Academy of Medicine of France.
- **Does** present format of survey used which concentrates on aerodynamic modulation not adverse health effects. The survey does not ask respondents any questions about their health or adverse health effects. Pages 54, 55, 56
- **Does** state further research may be needed. “On the other hand, since AM cannot be fully predicted at present, and its causes are not understood we consider that it might be prudent to carry out further research to improve understanding in this area.” Page 47

From Dr Henning (at <http://windfarmrealities.org/wfr-docs/hanning-noise-sleep-report.pdf>):

Nuon [a project developer] is likely to refer also to a report by Moorhouse and others of the University of Salford, commissioned by DEFRA into Aerodynamic Modulation of Wind Turbine Noise published in 2007. A survey was made of the local authorities responsible for wind farms in, or adjacent to, their area. 133 wind farms were identified of which 27 (20%) had attracted complaints. An attempt was made to correlate complaint logs with recorded wind speed and direction. Once again the methodology is fundamentally flawed. Complaints were solicited from local authorities and not from residents. The review was entirely theoretical with no communication with residents. The conclusions were that AM was such a minor problem that no further research was warranted.

The Editor of Noise Bulletin greeted the publication of the report thus:

“New report eases concerns over wind turbine noise’ trumpets the Government press release, then saying aerodynamic modulation is ‘not an issue for the UK’s wind farm fleet’. This conclusion is not justified based on the report, and by halting further research work without transparently monitoring the wind farms subject to complaints will inflame, not ease concern of objectors ... Only when the public can trust the Government and wind farm developers on noise issues will there be a chance that the public will accept them without a fight ...”

(Pease J. Noise Bulletin, Issue 15, Aug/Sept. 2007 page 5).

3.6.3. On 2 August 2007, Dick Bowdler, an acoustician and member of the Noise Working Group which commissioned the report, resigned from the NWG. This highly unusual step was taken because, as his letter states:

"I have read the Salford Report and the Government Statement. As a result I feel obliged to resign from the Noise Working Group.

The Salford Report says that the aims of this study are to ascertain the prevalence of AM from UK wind farm sites, to try to gain a better understanding of the likely cause, and to establish whether further research into AM is required. This bears little relation to what we asked for which clearly set out in the minutes of the meeting in August 2006. We all knew then (as was recorded in the original notes of the meeting) that complaints concerning wind farm noise are currently the exception rather than the rule. The whole reason for needing the research was that 'The trend for larger more sophisticated turbines could lead to an increase in noise from AM'

It was not the intended purpose of the study to establish whether more research was required. We all agreed at the August 2006 meeting that such research was needed. That was precisely the outcome of the meeting. The prime purpose of what eventually became the Salford Report was to identify up to 10 potential sites which could be used to carry out objective noise measurements. The brief for the Salford report, which was never circulated to the NWG, completely ignored the NWG views.

Additionally, I find it entirely unacceptable that we are not to be told the names of the wind farms listed in the Salford report. So the only part of the report of any value to assist future research is inaccessible to those of us who would like to progress matters further.

*Looking at the Government Statement it is clear that the views of the NWG (that research is needed into AM to assist the sustainable design of wind farms in the future) have never been transmitted to government and so the Statement is based on misleading information".
(Noise Bulletin, Issue 15, Aug/Sept. 2007 page 5)*

If both a leading commentator in the field and a leading member of the Government's own working group have no faith in the study then its conclusions may safely be dismissed.