

To Mark Stevens. CAA Re. Freedom of Information Act request F0002371. Sent 01/10/2015

Dear Mark,

Further to the release of a Sunday Express article, which I'm sure you have seen concerning RAF reports (as attached) of a steep rise in near misses over wind farms, it becomes apparent that the FoI questions previously lodged are entirely justified. Obviously the subject has been coincidentally raised elsewhere and underlines that there are indeed real problems arising related to wind turbines for our pilots both overseas and in the UK. This includes the associated problems caused by the proliferation of anemometer masts linked to wind power developments. It is why bringing these issues into the public domain whilst continuing our discussions will be an important part of the kind of transparency the public both deserve and expect. I have every confidence that the CAA will agree, as the current willingness to engage over these matters is entirely to their credit. This has apparently not been the case with air safety authorities outwith the U.K.

Having been alerted to a submission to the Australian Senate Inquiry involving the same issues as we are discussing, contact has been made with the pilot concerned. He has kindly shared with me all his documents and submissions including private communications where relevant. They make highly disturbing reading. Just one example being that of the important issue of turbulence. Although the subjects of cumulative effects & turbulence are covered in Chapter 2 pages 6 –8 of the CAA's CAP 764 Policy & Guidelines on Wind Turbines, it is becoming clear that in the light of emerging evidence and events, this guidance is seriously out of date. A list of questions follow:

1. Does the CAA share CASA concerns about the turbulence coming from the Wind Turbines and effects on air traffic?
2. Does the CAA agree that such turbulence, which can travel up to 30-40 Kilometres, should be taken into consideration in respect of turbines erected nearer to airports than these distances?
3. It is assumed that the CAA agrees that a British court would find that where an Authority advises that there should be notification of turbines being built within 30-40 kilometres of airports in the UK, it establishes that there is an implication of a safety issues. Should this not be the case, please will the CAA provide reasons for disagreement.
4. Will the CAA confirm that the turbulence has been demonstrated to be severe to light aircraft and light twin engine aircraft up to a considerable distance?
5. In Chapter 2 page 7. 8.4 of CAP 764 is this somewhat amazing admission/statement (my emphasis). 'There are currently no Mandatory Occurrence Reports (MOR) or aircraft accident reports related to wind turbines in the UK. However, the CAA has received anecdotal reports of aircraft encounters with wind turbine wakes representing a wide variety of views as to the significance of the turbulence. Although research on wind turbine wakes has been carried out, the effects of these wakes on aircraft **are not yet known**. Furthermore, the CAA is not aware of any formal flight trials to investigate wake effects behind operating wind turbines. In the UK wind turbines are being proposed and built close to aerodromes (both licensed and unlicensed), including some developments on aerodrome sites, indicating an **urgent need** to assess the potential impact of turbulence on aircraft and in particular, to

light aircraft and helicopters.’ As this document is dated Jan.2012 – will the CAA explain why this ‘urgent need’ has not yet been addressed?

6. Will the CAA please confirm that the advice relating to both cumulative effects and turbulence issues was given to the Scottish Government either before or during discussions leading to the granting of planning permission for the Whitelee wind farm development. May I also have dates of any meetings held with Ministers or Government departments & minutes provided of the discussions undertaken. It is important to know whether the Directorate of Airspace Policy (DAP) or NATS were involved in these meetings if held, as it is stated that the DAP hold ‘responsibility for the planning and regulation of all UK airspace, including the communications, navigation and surveillance (CNS) infrastructure, to support safe and efficient operations by the appropriate aviation stakeholders and also has the lead responsibility within the CAA for all wind turbine related issues.’ NATS’ say that their first priority is the safety of aircraft in the airspace they are licensed to operate. They are also ‘legally obliged to provide safeguarding services’ for the airports they are contracted to, as part of the wind farm planning process. There is an admission that the radar manufacturer’s (Terma) SCANTER system is not yet available. Even if proved to be as successful as hoped, this will take time to integrate and install and will not help in the event of emergency landing episodes.

7. At the Senate Inquiry, CASA stated they did not carry out a study into the effects of turbulence due to the absence of funds, despite a recent funding boost. Due to its importance for public safety, can the CAA confirm that such a question of funding will not enter into the equation should further work be needed into any existing study, or commencement of the required work?

8. An Australian flying operations inspector has been reported to have said that this study was both needed and required - but that it had been denied due to political interference. Can the CAA confirm that in the absence of a UK study such interference will not be permitted should this work commence?

9. Are plans in hand to conduct this study as a matter of urgency if it does not yet exist?

10. It would be of interest to know please, in respect of Glasgow & Prestwick airports, exactly which protective and other services are also run from them. Those I have in mind would be Aerial Fire Fighting services and crop spraying activities, Search & Rescue helicopter services and areas covered. If these services are run from elsewhere to cover the area adjacent to and within the Whitelee wind farm catchment area, where are they based? Likewise Air Ambulance and Police cover services and areas covered. Also to what extent are either airports used for Air Training activities e.g. by Air Training schools?

As has been observed, as far as Aerial Fire fighting and crop spraying are concerned, to be remembered is the insistence that some companies have that these important areas of activity will be unaffected. This is clearly untrue. There is also a tendency to downplay the impact of the power lines which are needed to transfer the electricity to the Grid. Where farmers requiring crop spraying are concerned, turning off turbines is offered as a solution. They remain a formidable obstacle. Furthermore, this only eliminates the potential for pilot vertigo and reduces the turbulence caused by turning blades – but there remains the misconception that turning off turbines pertains only to those in the field being treated. It is reported that companies balk when realisation dawns that *ALL turbines for a mile around each field need*

**to be shut down.** The IAAA resolution regarding this is on record to be found at [www.agaviation.com/](http://www.agaviation.com/) It is interesting in that although there is not a refusal to work within a wind farm, *support will be given to any pilot who does.* It is notable that in Australia, agricultural companies working in and around wind farms charge extra for doing so. They recognise the obviously raised danger levels and some companies, understandably, refuse to undertake this work. The level of dereliction of a duty of care for those involved is shown by those wind power companies who apparently have gone as far as offering to pay these raised charges - **if** they are given planning permission. Where aerial fire fighting is concerned, time will not always be available when needed for contacting those responsible for turning turbines off. The RFS's conclusion that there *is* in fact an Aviation Hazard due to the Turbines located around the Crookwell Aerodrome is important. This is because it was based upon **International experience** from Aviation Fire Fighting incidents, and Agricultural Pilots, with regards to operating Aircraft near Wind Turbines.

So once again, this information establishes justification for question 10 in addition to the original FoI enquiries.

In a bid to acquire accurate up to date information, the Department of Energy & Climate Change, of which the CAA is a member, has been asked the following questions and a response is awaited:

1. How many studies have been funded or co-funded by DECC (or previously by the DTI) into the effects of wind turbines on radar?
2. May I please have copies of any such studies?
3. Have they produced any solutions?
4. How much have they cost?
5. How many of the solutions are now incorporated into radar at airports thereby allowing the safe operation with wind turbines nearby?

In conclusion, it becomes clear that the 'elephant in the room' is current Energy Policy in respect of renewable energy involving wind power. The Scottish Government's obsession with this technology has resulted in a complete absence of the **precautionary principle** needed when allowing the construction of ranks of wind turbines on hills overlooking/in close proximity to a Major International Airport. In this sense both Glasgow and Prestwick Airports are implicated. Should any disaster feared by pilots having to run the current gauntlet ever actually happen, (an event fervently prayed for not to occur) this fact will not be lost on lawyers representing families involved. Should it be revealed that those in Government made the decision in favour of granting planning approval in the full knowledge of existing dangers for air traffic, they and their advisors, may well find that they are indeed culpable.

When facts are examined again, they appear to fall as below.

- a. There is no failsafe method of radar system in existence which covers all known problems for air traffic – neither was there when permission for Whitelee wind farm to be built was granted.
- b. RAF pilots are reporting near misses involving wind turbines.
- c. Proliferation of low visibility met masts on hills in all areas, which can also cause a danger to low flying aircraft, turbine wake turbulence and radar clutter are all established as being unresolved and of real concern.
- d. Proof that emergency landings into Glasgow and Prestwick Airports would not be impeded by the Whitelee wind farm does not exist.

As advisors to the Government on such matters, it is sincerely hoped and trusted that in respect of the removal of turbines which *pilots* would now judge to be needed on the grounds of public safety, such advice will be given as a matter of urgency. Especially those nearest to the airport judged to be capable of causing dangerous turbulence effects - which are in addition to the known radar inadequacies. Instances of such turbine removals having been ordered in other countries are now being reported. The problem of anemometer masts on high ground must also be addressed to avoid similar risks to public safety.

Yours sincerely,

Mrs. V.C.K. Metcalfe.