Annex A:

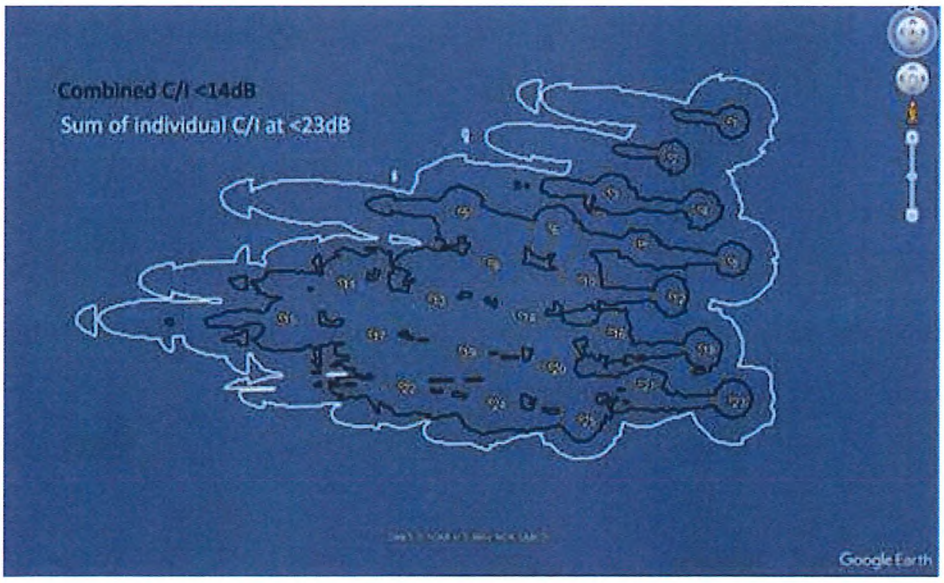
From: [redacted]@nats.co.uk>
Sent: 02 April 2025 08:17
To: Coleman Aviation <[redacted]>; [redacted] <[redacted]nats.co.uk>; [redacted] <[redacted]@nats.co.uk>; [redacted] <[redacted]@nats.co.uk>
Cc: [redacted] <[redacted]@flotationenergy.com>
Subject: RE: VHF radio communications assessment - Blackpool Airport

[redacted],

Apologies I should have been clearer. I am aware that CAP670 calls for single turbine checks at <23dB as well as a combined turbine check at <14dB.

And whilst I was keen to avoid modelling every turbine at every altitude for every radio as would have been very computationally intensive and would have added weeks of delay to the delivery of the results (particularly as everyone is aware we've been asked to look at 4 airfields and 4 large windfarms simultaneously) based on what remains a representative rather than definitive set of turbine locations.

This however was not the only reason that I skipped over the combined turbine analysis in favour of treating each turbine as a stand-alone "worst single turbine interferer" at <23dB; It is the case for turbine as far apart as these that the individual impact dominates (see below the 500ft case and attached to show the trend gets more pronounced as altitude increases) and therefore it is erring on the side of caution when checking 169 turbines against 12 different radio stations to assume each turbine has their own volume of interference based on the worst case CAP670 criteria and select a few representative samples for analysis.



If Blackpool assume that radio performance will be sub-optimal within the volumes identified in the report (assuming that every turbine has a similar volume around it, which would merge at 500ft and 1000ft to encompass the complete farm, breaking down into pockets of interference at hight altitudes)

they should hopefully be able to provide a statement as to how operationally significant this would be. If they can live with this worst case then we can put this to bed, if not we can look as some additional modelling for specific areas and radios before moving on to discuss mitigation.

Happy to have a chat with them if above is insufficient.

Regards,