

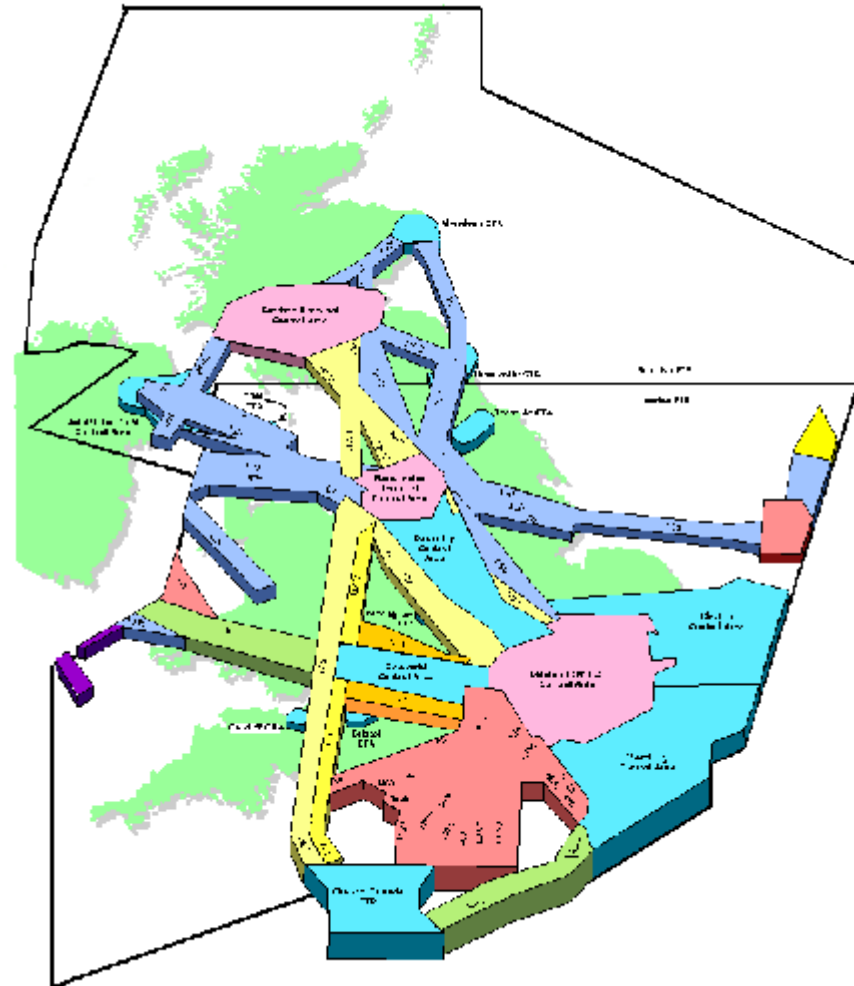
NERL's Windfarm Mitigation Policy A Strategic Approach

BWEA 30

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NATS

NERL (NATS En-route plc) provides Air Traffic Control Services to aircraft flying within the UK air route structure, outside the immediate vicinity of airports. We also provide ATC services to aircraft flying over the eastern half of the North Atlantic.





A few facts about where we are at the moment.



- » NERL supports over 93% of individual windfarm applications received. We engage with industry to address the rest.
- » Our prime duty is the safe provision of air traffic services.
- » Our licence legally obliges us to safeguard the communication, navigation and surveillance (CNS) facilities that support air traffic services.
- » The licence also obliges us to provide service enhancements in line with increased traffic demand. We make investments in CNS integrity/reliability for the benefit of our customers and other UK users.
- » NERL has set company targets to reduce air traffic CO₂ emissions by an average of 10% per flight by 2020.

Current problems for NERL

- » Windfarms can appear as clutter on air traffic radar displays, performance of the system is degraded. This has an impact on the safety of the service provided to aircraft.
- » Applications are assessed on a case-by-case basis. With no strategic guidance from Government on priorities, NERL is obliged to consider applications as and when they arrive.
- » Objections can arise because of applications already approved in close proximity. This is known as proliferation and can result in larger developments being held up.
- » Site-specific mitigations are very resource-intensive. They result in local solutions that often do not align with our strategic intent and can undermine system investments.
- » Even where a specific solution is identified, due to the limited capacity within our airspace and operational systems to accommodate changes, there is no guarantee that it can be implemented.



NERL's Engagement – the Aviation MoU

- » NERL has signed the BERR-sponsored MoU, undertaking to engage in progressing mitigation activities to remove aviation objections. The managerial structure is now in place to drive progress.
- » Core to the MoU is the aviation plan which sets out the programme for the differing mitigation strategies. This has the support of all the aviation stakeholders.
- » In the plan there is a workstream to address the en-route radar problem and NERL will play a key role in delivering an acceptable solution. Both NERL and industry are committed to resolving this issue.





Our way forward

- » NERL has produced a **Mitigation Policy** paper which explains why we object to developments and gives guidance for developers on what they need to do to successfully mitigate any impact.
- » The paper highlights the strategic intent of our position and why we believe a UK technical solution that has wide ranging applicability is better for all stakeholders. It also sets out the minimum requirements for individual solutions should they be necessary.
- » We hope that industry will use this paper to frame its approach to NERL when seeking engagement on potential applications. The paper can be found on both BWEA and NATS websites.



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Mitigation Policy – Strategic solution

- » NERL has invested in a common surveillance platform supplied by Raytheon Canada.
- » NERL, BERR and Raytheon Canada have worked together to define enhancements to the en-route primary radars to remove the effects of wind turbines. This programme is referred to as the '**Raytheon Solution**'.
- » Once implemented throughout the whole of our surveillance infrastructure we believe the en-route radar impact will no longer be a factor in the vast majority of applications.
- » This strategic approach to wind turbine mitigation is the most cost-effective and efficient way to address the en-route radar problem.
- » Industry investment from development through to implementation is key to its success.



Raytheon Solution

- » Phased development programme
 - » Allows for refinement and re-orientation of work
 - » Progressively reduces uncertainty and improves confidence for all parties

- » Development Phase
 - » Analysis phase [Complete]
 - » Enhancement of mitigation techniques
 - » Testing and field trials at representative site
 - » Qualification phase
 - » 15-24 months approximate duration

- » Implementation Phase
 - » Phase implementation at NERL en-route sites

- » Current Status
 - » Confirmation of funding from aviation plan is required
 - » Proposal requires commercial negotiation with Raytheon Canada



Mitigation Policy - Bespoke Solutions

- » Acknowledging that NERL is focussed on the Raytheon solution, if a developer proposes an individual solution to a specific application, there are some general minimum requirements that need to be met:
 - » It must have no impact on the safety performance of our operations
 - » It must have no material business or efficiency impact on our operations
 - » It must be cost-free to NERL for the lifetime of the requirement
 - » It must be environmentally neutral
 - » It must be compatible with joint civil/military operational and commercial arrangements.
- » In essence any specific solution proposed must have a neutral affect on NERL's business



Mitigation Policy - Easing the planning process

- » The Government's planning policy paper PPS22 is clear that the onus is on developers to deal with aviation impacts.
- » Supplementary to PPS22, the following pre-planning can be carried out:
 - » The BWEA web site has radar coverage maps, indicating areas where a development is likely to have a potential impact on our surveillance infrastructure
 - » An initial technical assessment of a development may be provided by NERL on request
 - » A more detailed operational assessment may also be provided on request.
- » We would encourage developers to make use of these tools before submitting a formal application. As ever, we welcome feedback if these tools are not working for you.





Mitigation Policy - Planning and Consent Conditions

- » For applications where there have been aviation objections, planning consents have been proposed subject to 'suitable mitigations' being found. There is both executive and legal concern that, in the event that the proposed mitigation is found not to be suitable, development schedules can be jeopardised.
- » This is not good for industry or for UK renewable targets. There is now consensus that it is in the best interests of all parties that any consent condition identifies a specific, workable and deliverable mitigation. NERL agrees with this approach.

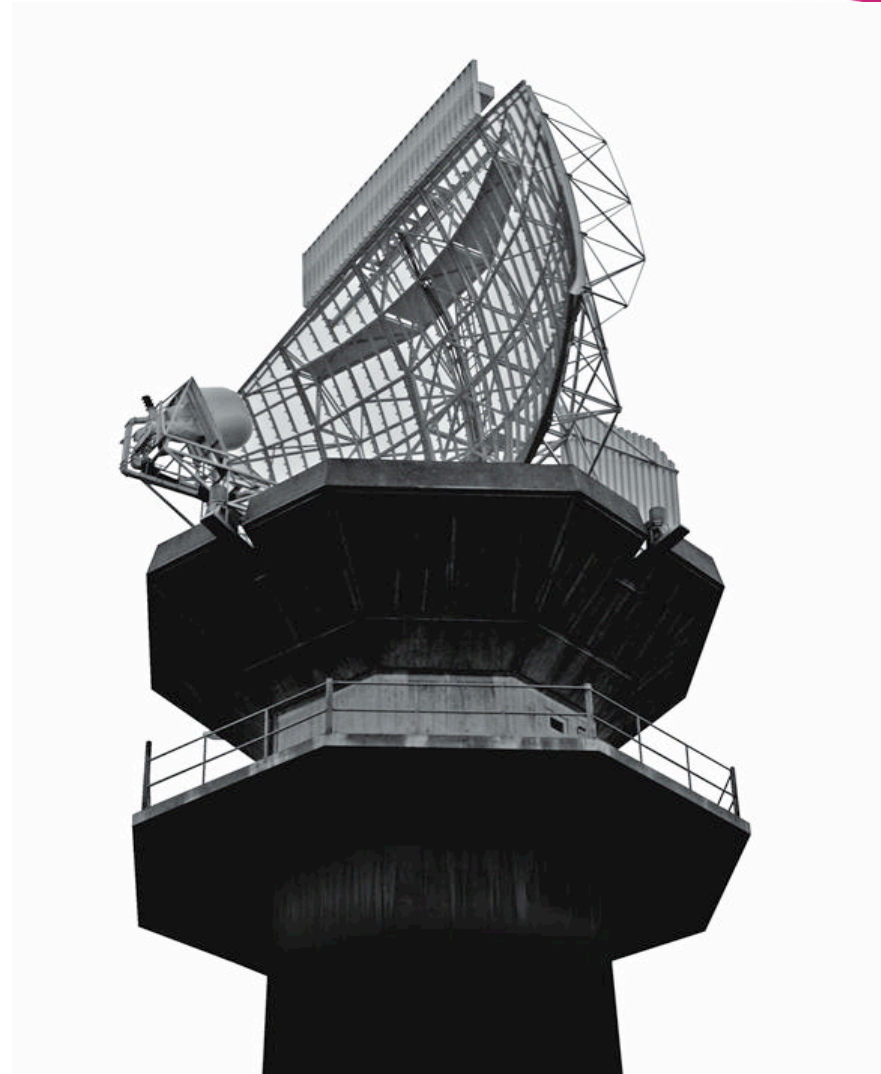


Summary

- » NERL is legally obliged to safeguard its ATC services.
- » NERL is committed to resolving aviation issues and is engaged with industry and other stakeholders at senior level to make progress.
- » Our mitigation policy sets out our concerns, our preference for a strategic technical solution and guidance for developers when proposing mitigations.
- » We would encourage developers to make use of pre-planning tools.

Thank You

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