

Offshore Round 2 and Air Defence Radars – What are the Solutions?

The MOD Perspective

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Agreed Roadmap with DTI/Industry

- Output of Trial SWIFT CROFTER
- Output of Round 2 Feasibility Study
 - Academic research to complement MOD's practical trials
 - Report published 19 Aug 05
- Output of Trial MISTRAL CROP
 - Hardware and software mitigation techniques identified
 - Report published 1 Aug 05
- Operational Risk Assessment and Air Defence Radar Policy review
- Earliest opportunity for decision on Air Defence concerns

Dec 04
Jul 05
Aug 05
Dec 05


The Solutions?

- MOD Air Defence radar experts recommend that the following technical mitigation techniques are worthy of further investigation by the Developers and/or DTI:

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- Use of fine clutter maps (clutter map range/azimuth resolution equal to radar range/azimuth resolution)
 - Adaptation of radar clutter-processing techniques to prevent detections in one radar beam adversely affecting the sensitivity of other beams
 - Adaptation of the radar's Background Averager to reduce the impact of a large radar cross section object
 - Use of an additional radar as a gap-filler to mitigate loss of coverage

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 - Use of an additional radar as a gap-filler to mitigate loss of coverage
 - Radar cross section reduction for wind turbines - stealth
 - Use of optimised layouts for windfarms within line of sight of Air Defence radars

Revised Roadmap - Recommendations

- Additional sensor/e-tilt validated, or not, as a operationally-acceptable solution for Round 2 Greater Wash area
- DTI (or Developers) confirm commitment to providing a solution before Greater Wash developments become operational
- MOD remove 6 extant Round 2 objections
 - DTI/Developers decide to fund additional sensor*
 - or
 - DTI/Developers decide to fund technology demonstration using new MOD radar with software mitigation implemented*
 - or
 - DTI/Developers decide to fund research and development of software mitigation techniques for extant MOD radars*

Dec 05 - Mar 06

Jul 06

Summary

- MOD is highly confident that it has identified a range of effective technical mitigation solutions
 - Near-term and medium term solutions available if funding identified to implement them
- Techniques believed to also provide a solution for onshore concerns raised by Air Defence Radar
- Proliferation is not considered to be a major factor if the software mitigation tools are implemented
- Policy for raising concerns expected to remain extant until mitigation solutions are implemented
- Once implemented, Policy is expected to be amended to reflect a small 'keep-out' zone