

ONLINE RISK REPORT - DEMO WIND - PAGER POWER OFFICE

Introduction

A Risk Report has been produced concerning the Pager Power Office development (site centre 588235E, 239960N)

This is not a scoping report, but a basic overview of the proposed development and details the most significant aviation issues from the Pager Power database. This includes UK civil and military radar (Air Traffic Control, Air Defence, Meteorological, and NATS/NERL), licensed aerodromes, unlicensed airfields and radio navigation aids. It does not currently include Military Low Flying. Best endeavours are undertaken to keep this database up to date and free of errors, however, such information is both volatile and in some cases of subjective nature.

Therefore if the proposed Pager Power Office development is taken forward then it is recommended that a full scoping report is undertaken to both confirm and investigate in more detail this report's results.

Key Aviation Issues

The following list of aviation sites have been identified as potential issues for the proposed Pager Power Office site.

Site Name	Site Type	Approximate Distance (km)
Cuckoo Tye Farm	Unlicensed	4
Earls Colne	Licensed Airfield	13
Wattisham PSR	Military Airfield ATC	18
Wattisham	MATZ	18
Wattisham PAR	Military Airfield PAR	18
Debden PSR (NATS)	NERL PSR	33
Honington PSR	Military Airfield ATC	35
London Stansted PSR	Civil Airfield Radar	39
Cambridge PSR	Civil Airfield Radar	43
Lakenheath PSR	Military Airfield ATC	44

This is not intended to be an exhaustive list, rather it details the most significant potential aviation issues found in the Pager Power database.

Radar Analysis

For each radar identified as potentially at issue line of sight analysis has been undertaken using a bare earth 50m post spaced ordnance survey DTM. Analysis has been undertaken to the site centre of Pager Power Office to provide an initial guide as to the likelihood of each radar causing longer term issues for the proposed development.

Wattisham PSR

Based on preliminary analysis an initial objection is considered likely from the operator of Wattisham PSR for a 125m turbine as 63m of a turbine placed at the site centre will be within line-of-sight of the radar. This is based on bare earth analysis and does not account for any additional shielding by buildings or trees. Appendix [A] illustrates this result.

Being visible to a radar does not necessarily mean that there will be a sustained issue as for example:

- Other parts of the development may be shielded from the radar and could be identified in full radar coverage analysis
- If the visibility is borderline or the turbine is a significant distance from the radar then radar detectability analysis may demonstrate that in practice it is unlikely the proposed turbines will cause clutter;
- There may be buildings or trees that will provide further shielding of the proposed development
- In the proposed area the radar operator will have no operational concerns resulting from any technical impact
- The developer may be able to consider a reduced tip height

Debden PSR (NATS)

Based on preliminary analysis an initial objection is considered likely from the operator of Debden PSR (NATS) for a 125m turbine as 66m of a turbine placed at the site centre will be within line-of-sight of the radar. This is based on bare earth analysis and does not account for any additional shielding by buildings or trees. Appendix [B] illustrates this result.

Being visible to a radar does not necessarily mean that there will be a sustained issue as for example:

- Other parts of the development may be shielded from the radar and could be identified in full radar coverage analysis
- If the visibility is borderline or the turbine is a significant distance from the radar then radar detectability analysis may demonstrate that in practice it is unlikely the proposed turbines will cause clutter;
- There may be buildings or trees that will provide further shielding of the proposed development
- In the proposed area the radar operator will have no operational concerns resulting from any technical impact
- The developer may be able to consider a reduced tip height

London Stansted PSR

Based on preliminary analysis an initial objection is considered likely from the operator of London Stansted PSR for a 125m turbine as 38m of a turbine placed at the site centre will be within line-of-sight of the radar. This is based on bare earth analysis and does not account for any additional shielding by buildings or trees. Appendix [C] illustrates this result.

Being visible to a radar does not necessarily mean that there will be a sustained issue as for example:

- Other parts of the development may be shielded from the radar and could be identified in full radar coverage analysis
- If the visibility is borderline or the turbine is a significant distance from the radar then radar detectability analysis may demonstrate that in practice it is unlikely the proposed turbines will cause clutter;
- There may be buildings or trees that will provide further shielding of the proposed development
- In the proposed area the radar operator will have no operational concerns resulting from any technical impact
- The developer may be able to consider a reduced tip height

Precision Approach Radar

The proposed development lies within range of the precision approach radar PAR known as Wattisham PAR. It is possible that the impact will be both unacceptable and immitigable. Further analysis (beyond the scope of this report) will be required to determine the severity of this issue. Please contact Pager Power for further information on this specific issue.

Other Aviation Issues

The following aviation sites may also have issues with the proposed PP site:

Licensed Airfields

The following licensed airfields have been identified within 20km of the proposed development:

Airfield Name	Approximate Distance (km)
Andrewsfield	24
Earls Colne	13

The likelihood of any of these airfields objecting to the PP site is based on a number of parameters such as size of the airfields runway(s), distance of turbines from the airfield and size of turbines. Any objection is likely to be based on physical safeguarding concerns and a full assessment of CAA defined surfaces will help to clarify any risk from these airfields. It should be noted that occasionally airfields have additional concerns such as interference to beacons or instrument landing systems. Full consultation with airfields that are identified by the CAA as needing to be consulted will confirm this.

Unlicensed Airfields

The following unlicensed airfields and helicopter sites have been identified within 7km of the proposed development:

Site Name	Approximate Distance
Cuckoo Tye Farm	4
Stones Farm	7

Due to the nature of unlicensed airfields not all of the above will necessarily cause issue to the proposed development and may no longer be in operation or used frequently. However, when an unlicensed airfield does decide to take issue they can be very vocal in the local community. Unlicensed airfields are considered to be of significant issue when turbines lie within 2km of the airfield.

Summary of Issues

An objection from the operator Wattisham PSR is considered likely.

An objection from the operator Debden PSR (NATS) is considered likely.

An objection from the operator London Stansted PSR is considered likely.

The following licensed airfields were identified within 20km of the site centre:

- Andrewsfield at a distance of approximately 24km
- Earls Colne at a distance of approximately 13km

The following unlicensed airfields were identified within 7km of the site centre:

- Cuckoo Tye Farm at a distance of approximately 4km
- Stones Farm at a distance of approximately 7km

Recommendations

If the development is taken forward then Pager Power has the following recommendations:

For those radar within line-of-sight it is recommended that an assessment is made to determine whether any additional factors such as positioning of turbines, size of turbines, buildings and trees may help to further shield turbines. For borderline turbines or radars at significant distance radar detectability analysis could be undertaken. If none of these are successful then consultation with operators and technical mitigation should be considered.

For those licensed airfields identified it is recommended that an initial assessment is made to determine whether protected surfaces may be an issue. If they could then full assessment should be made to determine any constraint to the proposed development.

Consultation with the CAA and MoD is recommended. Full consultation with those airfields (both licensed and unlicensed) identified by the CAA should be made to confirm if they have any further concerns.

The report considers aviation issues only, full Ofcom and link operator consultation will be required to identify and calculate any constraints relating to communication links. TV interference may require further analysis and will be of most concern to those developments with large population centres within 5 - 10km.

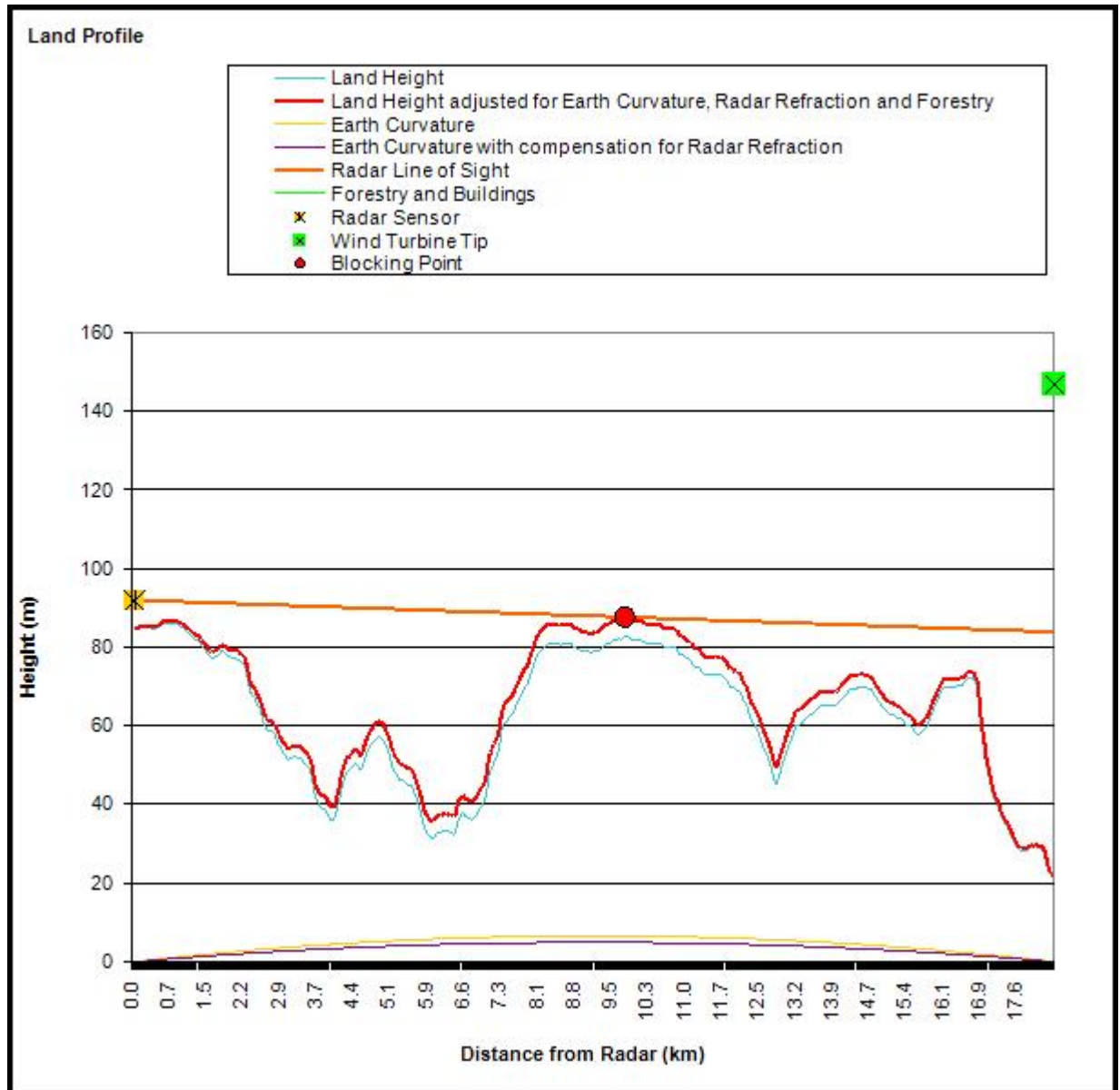
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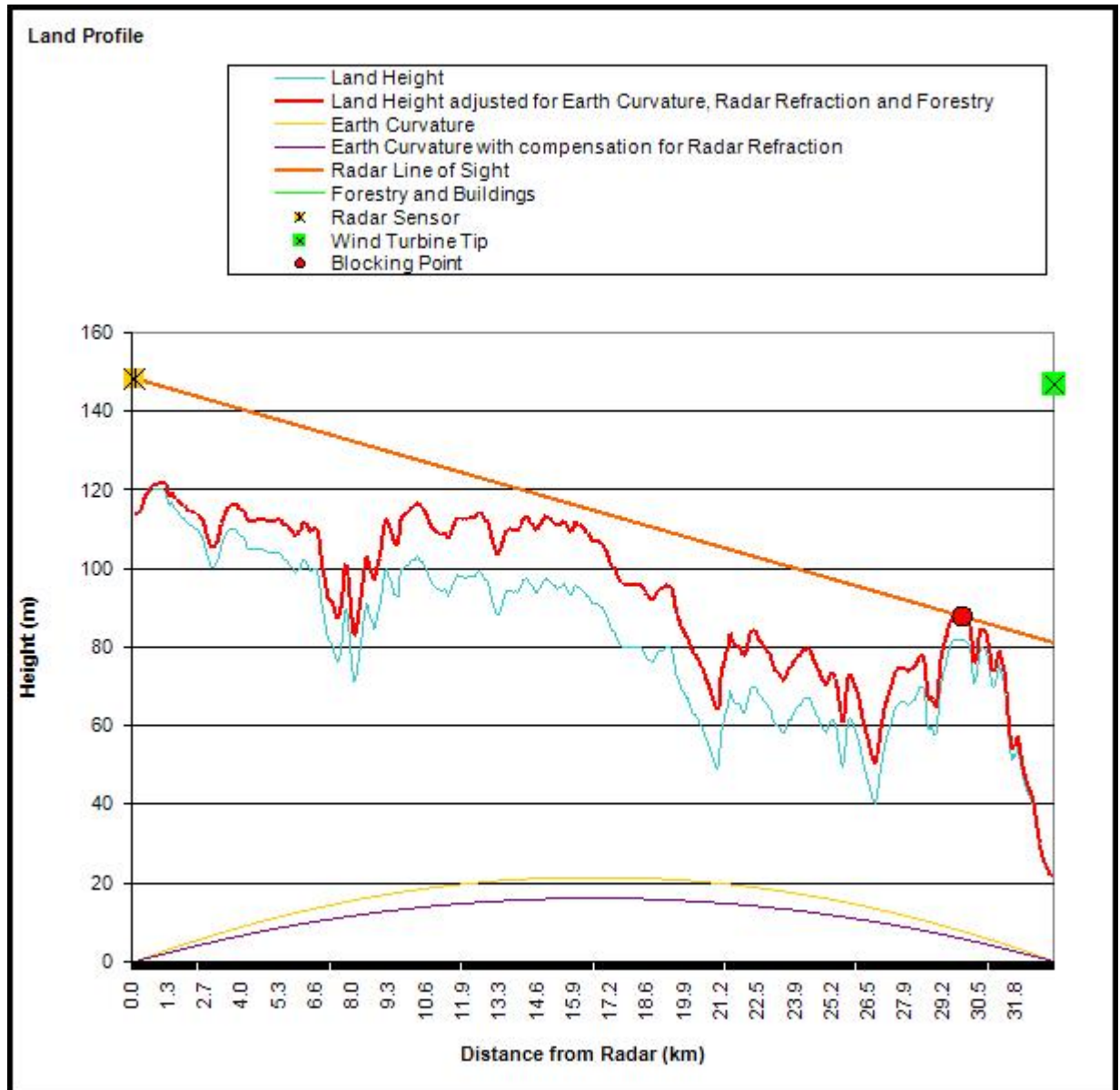
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APPENDIX A LINE-OF-SIGHT CHART FOR WATTISHAM PSR



APPENDIX B LINE-OF-SIGHT CHART FOR DEBDEN PSR (NATS)



APPENDIX C LINE-OF-SIGHT CHART FOR LONDON STANSTED PSR

