

**PROPOSAL
TO ESTABLISH
TRANSPONDER MANDATORY AIRSPACE
IN THE VICINITY OF
THANET OFFSHORE WINDFARM AND LONDON ARRAY**

**FINAL REPORT ON THE CONSULTATION
STAKEHOLDER FEEDBACK**

Issue 1



EXECUTIVE SUMMARY

Manston Airport (MSE) proposes to submit to the Civil Aviation Authority (CAA) a case for the establishment of Transponder Mandatory Airspace, in the form of 2 Transponder Mandatory Zones (TMZ) in Class G airspace in the vicinity of 2 major offshore windfarms, in the Thames Estuary approaches, known as the Thanet Offshore Windfarm (TOW) and the London Array (LA).

The proposed TMZs are one element of 4 inter-dependent elements necessary to mitigate the suspensive conditions imposed on the development consent by the Secretary of State in order to ensure that the development would not interfere with the safe provision of Air Traffic Services by MSE.

The agreed mitigation comprises the following inter-dependent elements:

- The installation of a Mode S Secondary Surveillance Radar system (SSR) at MSE;
- Introduction of Transponder Mandatory Zone(s) (TMZ) covering the TOW and LA sites including, if appropriate, a buffer zone;
- MSE to be approved to provide radar services within the TMZ(s) using SSR alone;
- Blanking out the Primary Surveillance Radar (PSR) returns within the TMZ airspace.

This document is the report of a Sponsor Consultation carried out by MSE between 9 August and 8 November 2010 with aviation industry and other interested parties as specified by the CAA in CAP725¹. Seventy-two organisations were consulted as detailed in Appendix H of the Sponsor Consultation Document. In addition, 3 Members of Parliament and 3 CAA Regulatory Departments were copied as Information Addressees.

Of the 72 consultees, 60 (83.3%) responded to the Consultation variously by e-mail, letter or telephone call. Of the 60 consultees who responded:

- 26 (43.3%) supported the proposal;
- 16 (26.7%) stated that they did not object to the proposal;
- 18 (30%) stated that they had no comment to make on the proposal;
- No consultees objected to the proposal.

Furthermore, another 4 submissions were received from organisations or individuals who were not formal consultees. MSE has taken their views into account in the analysis of the Consultation. Two of the submissions supported the proposal and, initially, 2 opposed it. However, one of the objections was withdrawn following detailed explanation by MSE of the generation of windfarm clutter on Primary Surveillance Radar (PSR).

¹ CAP725: CAA Guidance on the Application of the Airspace Change Process.

MSE considers this to be an excellent response to an airspace consultation and is encouraged by the level of support and only a single notified objection to the proposal. Now that the post-consultation activity has been completed MSE intends to submit a formal proposal to the CAA in accordance with the provisions of CAP 724 and CAP725 within the next month.

Introduction

1. Manston Airport (MSE) proposes to submit to the Civil Aviation Authority (CAA) a case for the establishment of Transponder Mandatory Airspace, in the form of 2 Transponder Mandatory Zones (TMZ) in Class G airspace in the vicinity of 2 major offshore windfarms, in the Thames Estuary approaches, known as the Thanet Offshore Windfarm (TOW) and the London Array (LA). The proposed TMZs are one element of 4 inter-dependent elements necessary to mitigate the suspensive conditions imposed on the development consent by the Secretary of State (SoS) in order to ensure that the development would not interfere with the safe provision of Air Traffic Services by MSE.
2. The agreed mitigation comprises the following inter-dependent elements:
 - The installation of a Mode S Secondary Surveillance Radar system (SSR) at MSE;
 - Introduction of TMZ covering the TOW and LA sites including, if appropriate, a buffer zone;
 - MSE to be approved to provide radar services within the TMZ(s) using SSR alone;
 - Blanking out the Primary Surveillance Radar (PSR) returns within the TMZ airspace.
3. This document is the report of a Sponsor Consultation carried out by MSE between 9 August and 8 November 2010 with aviation industry and other interested parties as specified by the CAA in CAP725 and provides feedback to all consultees who participated in the Consultation. It should be read in conjunction with the Sponsor Consultation Document (SCD) which remains published on the MSE website. Technical terms are explained in the SCD. The background to the consultation and methodology used is detailed at Appendix A.
4. This report includes a statistical breakdown of the Consultation and then includes a detailed review of responses received from listed consultees and submissions from other individuals or organisations. Although none of the known consultees objected to the proposal, there was a single objection from an individual and this has been included. Noteworthy comments on the proposal made by consultees have been listed together with a response by MSE at Appendix B.
5. MSE extends its thanks to all consultees and others who took the time to participate in this Consultation.

Confidentiality

6. The CAA requires that all consultation material, including copies of responses from consultees and others, is included in any formal submission to the CAA of the proposal to establish TMZs.
7. MSE undertakes that, apart from the necessary submission of material to the CAA and essential use by our consultants for analysis purposes, MSE will not disclose personal details or content of responses and submissions to any third parties. Our consultants are signatories to confidentiality agreements in this respect.

Statistics

8. A total of 72 consultation letters were distributed as detailed in Appendix A. A list of consultees was given in Appendix H of the SCD. The consultee groups are detailed in Figure 1 below. In addition, 3 Members of Parliament and 3 CAA Departments were included as Information Addressees.

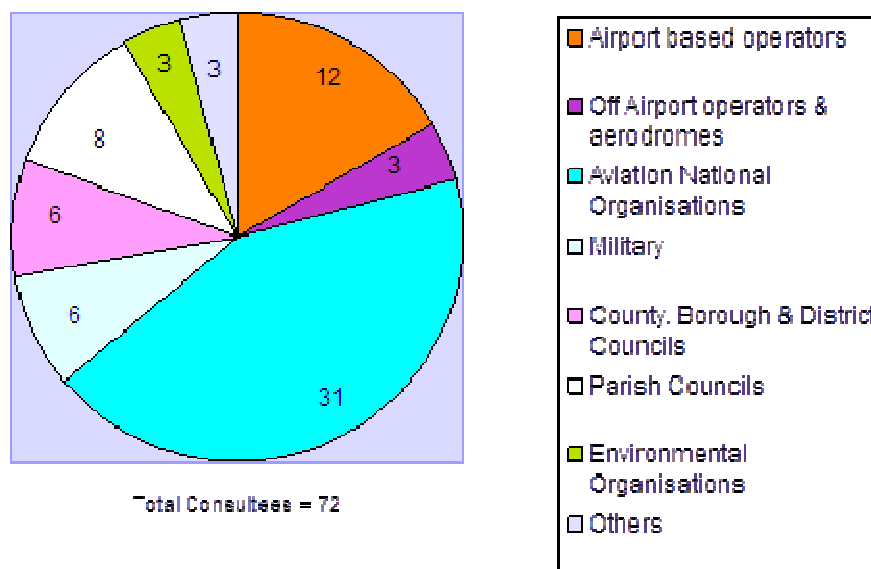


Figure 1: Distribution of Consultees

Note: Aviation "National Organisations" comprises those organisations who are members of the CAA's National Air Traffic Management Advisory Committee (NATMAC).

9. The SCD was distributed via a dedicated link on the MSE website. Hard copy documents were available if requested.
10. Responses were received from a total of 60 (83.3%) of the consultees as follows:

	Listed Consultee Groups	Number Consulted	Responses	%
1	Airport based operators	12	12	100
2	Off-airport airspace users and aerodrome operators	3	3	100
3	Aviation "National Organisations"	31	24	77.4
4	Military Airspace User Groups	6	1*	100
5	County, Borough, District and City Councils	6	4	66.7
6	Parish Councils	8	5	62.5
7	National or local Environmental Organisations	3	3	100
8	Others	3	3	100

Note (). MOD provided a consolidated response on behalf of all military consultees. This is standard MOD practice. Thus, all military consultees are deemed to have responded.*

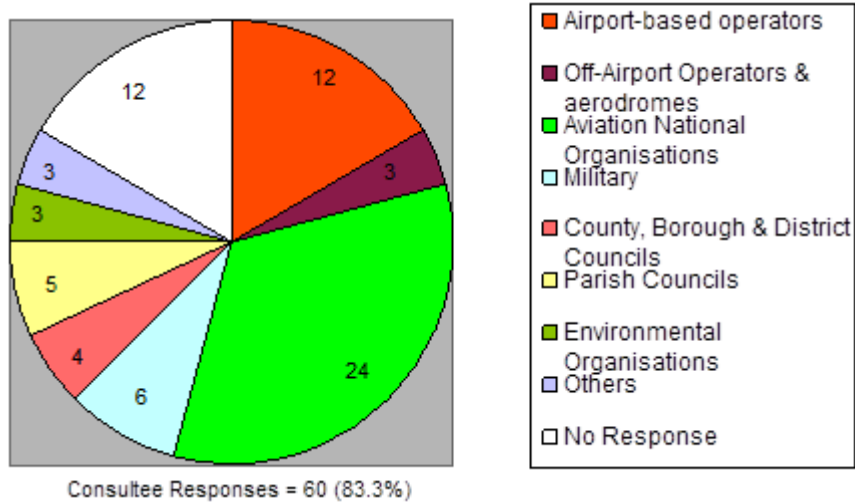


Figure 2: Responses from Consultees

11. In addition to responses to consultees shown in Figure 2, a further 4 submissions were received from organisations or individuals who were not formal consultees. MSE has taken these additional submissions into account in the analysis of the consultation.

Analysis

12. Of the 60 responses received from listed consultees:
- 26 (43.3%) supported the proposal;
 - 16 (26.7%) stated that they did not object to the proposal
 - 18 (30%) stated that they had no comment to make on the proposal
 - No consultees objected to the proposal.

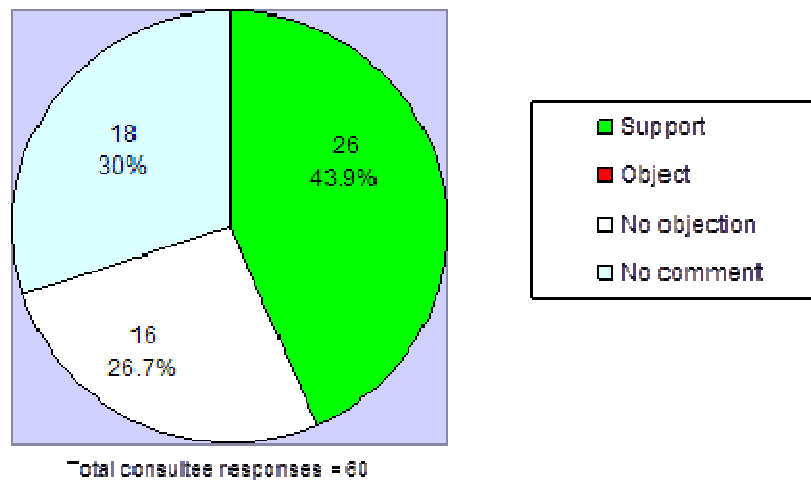


Figure 3: Support Ratio from Listed Consultees

13. In addition, one Information Addressee (MP) wrote in support of the proposal. Of the 4 submissions received from other parties, 2 (non-consultee) organisations supported the proposal and 2 individual light aircraft pilots objected to the proposal.

However, one of the latter objections was withdrawn as a result of a more detailed explanation by MSE of the generation of windfarm clutter on PSR radar displays and the differences of Air Defence Radars.

Analysis of Comments Received

14. Notwithstanding that some consultees and submissions stated that they supported or had no objection to the proposal, a number submitted comments, both of a general and of a specific nature, which are tabulated, together with a MSE comment where appropriate, at Appendix B to this Report.
15. Following analysis of the comments made, MSE has reviewed the proposal, including the configuration of the proposed TMZs, once again. There were no comments raised which caused MSE to modify the proposal in any way.

MSE Conclusions

16. All of the responses and comments received, both from listed consultees and others have been subjected to analysis and review by MSE. The MSE management has taken a balanced view on all of the comments made and provided further information to respondees where appropriate.
17. MSE has found that no new or unexpected issues have arisen which would materially affect the case for the introduction of Transponder Mandatory Airspace as one of the 4 inter-dependent elements necessary to mitigate the suspensive conditions placed by the SoS upon the TOW and LA windfarm developments.
18. MSE concludes that, on balance, given the safety responsibilities and accountabilities placed upon the airport management under Article 169 of the Air Navigation Order 2009 and the MSE Safety Management System, there are no material issues which would justify withdrawal of the proposal.
19. Consequently, MSE remains convinced that the case for the establishment of Transponder Mandatory Airspace is sound. Thus MSE intends to proceed with the submission of a case to the CAA for the introduction of TMZs in the vicinity of the TOW and LA wind turbine arrays.

Subsequent Action

20. MSE will continue to prepare its formal submission to the CAA for the establishment of 2 TMZs in the vicinity of TOW and LA windfarms. The CAA requires that all documentation, including responses from consultees and others and the MSE analysis, are included in the formal submission. This Report of the consultation will also form part of the submission.
21. It is planned that the case will be presented to the CAA in April 2011.
22. Following receipt of the proposal the CAA will carry out a documentation check to ensure that the submission is complete and will request clarification and/or additional data if necessary. Subsequently, the CAA case study process aims to reach a Regulatory Decision within 6 months.
23. In the event that the CAA DAP Regulatory Decision supports the proposal, then the implementation phase would lead to the introduction of the Transponder Mandatory Airspace at AIRAC 12/2011, effective on 17 November 2011.

A Background to the Consultation

A.1 Introduction

- A.1.1 The CAA sets out its regulatory requirements and process for applications to change the status of airspace or associated arrangements in CAP 724 “The Airspace Charter” and CAP 725 “CAA Guidance on the Application of the Airspace Change Process”. An essential element of the airspace development process is for the Change Sponsor to carry out an extensive consultation with the airspace users who may be directly or indirectly affected by the change and, moreover, with organisations representing those who may be affected by the environmental impact of the change.
- A.1.2 The airspace development proposal and consultation has been conducted in accordance with the CAA requirements.
- A.1.3 MSE carried out this consultation between 9 August and 8 November 2010 in accordance with the principles set out in the Cabinet Office Code of Practice on Consultation.

A.2 Consultation methodology

- A.2.1 A comprehensive Sponsor Consultation Document (SCD) was prepared by MSE with the assistance of Cyrrus Ltd, a specialist airspace management consultancy company with extensive experience of managing Airspace Change Proposals and conducting consultation to meet the CAA requirements.
- A.2.2 The SCD was posted at a discrete link on the MSE website. The link was (www.manstonairport.com/about-the-airport/planning/airspace-change.html).
- A.2.3 Notifying letters were sent to consultees by e-mail wherever practical, or by post where e-mail was not practicable, detailing the consultation and how to access the consultation document. Paper copies of the SCD were made available to consultees on request.
- A.2.4 The Cabinet Office Code of Practice on Consultation and the CAA requirements specify a minimum period of 12 weeks for consultation. In order to allow for Bank Holiday periods MSE extended the consultation period to 13 weeks. Thus the Consultation began on 9 August 2010 and closed on 8 November 2010.
- A.2.5 Within the Consultation period consultees were asked to consider the proposal and submit a response to MSE, either through a discrete e-mail address (tmzconsultation@manstonairport.com) or in writing. In addition, consultees were given the opportunity to seek clarification of the terminology used or any other aspects of the Consultation or the proposed airspace design.
- A.2.6 In order to promote maximum response, MSE was proactive throughout the Consultation process. A review of responses received was undertaken 1 month prior to the end of the Consultation and, for those who had not responded, a reminder e-mail was sent. Subsequently this was followed up, where necessary, with individual telephone calls to organisations or representatives in the last two weeks to elicit a response.

A.3 **Consultees**

A.3.1 At the start of the Consultation MSE sent out a notification to 72 consultees, comprising:

- 12 Airport-based operators;
- 3 Off-airport airspace users and aerodrome operators;
- 31 Aviation “National Organisations” (CAA NATMAC list) ;
- 6 Military Airspace User Groups² (NATMAC participants);
- 6 County, Borough, District and City Councils;
- 8 Parish Councils;
- 3 National or Local Environmental Organisations;
- 3 Other organisations (representing the developers).

In addition, 3 Members of Parliament and 3 CAA Departments were included as Information Addressees.

A full list of Consultees was detailed at Appendix I of the Sponsor Consultation Document.

A.3.2 Access to the SCD was not limited in any way. Members of the public (including individual aviators), as well as listed consultees had access to the SCD through the MSE website. Submissions received from individuals or organisations have been included in the analysis and have been taken into account by MSE.

² Standard practice for MoD departments, in response to airspace change consultations, is to submit a single consolidated response representing all MoD interests. The consolidated response is taken to represent a 100% response to the consultation. However, it remains necessary to address the consultation to specific military departments.

B Comments made by Consultees

B.1 Tabulation of Comments

B.1.1 The Table below encapsulates the key issues raised by consultees and the MSE response provided.

Serial	Consultee comment	MSE comment
1.	Some consultees representing GA airspace user groups would normally object in principle to the establishment of TMZs to resolve the issue of windfarm clutter. However, they acknowledged (and therefore did not object) that this particular proposal would not affect the airspace user groups they represent.	CAA Policy on the application of the TMZ concept is detailed in a DAP Policy Statement dated April 2009. MSE considered a number of options in reaching a conclusion that TMZ airspace, as one element of 4 inter-dependent elements, would be the most effective solution to the suspensive conditions attached to the windfarm development approvals. A key factor in reaching this conclusion was the minimal use of the offshore airspace by the “lighter” element of the GA community.
2.	Still possible for undetected incursion by non-transponding aircraft (lost a/c or deliberate act or inexperienced pilot).	MSE recognises that such undetected intrusions can occur across any defined airspace boundary. The “ATC Buffer” incorporated in the proposed TMZs around the blanked area (as described in the SCD) provides a safety trigger for controller awareness of incursion. PSR responses of intruder aircraft would (normally) be visible before and after the incursion, albeit as unknown traffic. The likelihood of such an occurrence is very low.
3.	Transponder failures - lengthy repair time.	It was acknowledged that repairs to aircraft transponders cannot always be undertaken immediately for a number of reasons and it is the owner’s prerogative to address the problem according to his/her personal schedule. Nonetheless, MSE has made provision in its proposal for access to the TMZs by non-transponder (or transponder u/s) aircraft. All requests will be considered sympathetically.
4.	Cost of transponder upgrade to Mode S.	The consultee was advised that the carriage of a serviceable Mode A/C transponder would be sufficient for operations in the lower airspace local to Manston. The policy for the carriage of Mode S is a CAA issue.
5.	“Do Nothing” option ruled out too quickly.	Given the suspensive conditions attached to the Section 36 Consent, government determined that the “Do Nothing” was not an option as it would have precluded development of the wind energy developments contrary to UK Energy Policy.

		MSE had made this clear in the SCD and hence had championed the change.
6.	Most GA do not carry transponders (disagree with MSE assertion in SCD) but acknowledge that TMZ will not inhibit those a/c)	An MSE traffic study of flights through the subject airspace shows that the statement made by Maypole is incorrect and that most GA traffic observed carried and operated a transponder. It was opined that those aircraft groups where a substantial proportion do not carry transponder (i.e. microlights) would be unlikely to operate in the subject airspace; but, in any event, provision has been made for them so to do.
7.	Preferred option would be for ATC to vector flights outside the clutter area or not provide a radar service rather than TMZ.	If such a proposal was to be implemented it would result in a very inefficient use of the airspace and induce an adverse environmental impact through extended routing, extra fuel burn, additional overland routing. Moreover it would be contrary to the Transport Act 2000 and not in accord with the best practice espoused by the Single European Skies initiative. This was explained quite succinctly in Section 6 of the SCD.
8.	What volume of traffic affected?	A small traffic study was carried out by MSE throughout 2010 as part of the airspace development. It was explained to the consultee that MSE had reported results from a previous small study (late 2009) in the SCD (paragraph 7.10.3). Additional information was provided to the consultee.
9.	Concern that this would set a precedent for proliferation of TMZs.	The MSE position was quite clear and a response which reflected the content of the response provided to serial 1 comment was issued.
10.	Concern that TMZ extends from surface to base of controlled airspace. Seek clarification of why clutter extends above the level of turbines.	A comprehensive response was sent to AOPA explaining the physics of radar propagation and the effect on radar screens used by ATC staff.
11.	Chart annotation of TMZs gives no explanation.	MSE advised that charting policy was a matter for the UK CAA to address. The “rules” associated with flight within TMZs are given in the UK AIP at GEN 1-5 and the AD2.22 Section of the appropriate “managing” Air Traffic Service (ATS) Unit.
12.	Improve AIP notification of TMZs	The methodology for notifying the existence and access to TMZ is a matter for the UK CAA to address. MSE will ensure that the AD2-EGMH AD2.22 entry is clear and adequate.

13.	Training Plan required for controllers	It had been noted that a Training Plan to familiarise the controllers with the ATC techniques that would need to be employed if the revised airspace arrangements are implemented would be required. MSE has established an appropriate training plan which forms part of the TMZ Safety Case.
14	Concern that some airspace users may choose to route overland rather than offshore through TMZ. Request monitoring of the situation.	It was explained to the consultee that pilots are free to operate in Class G airspace without reference to any ATS agency. No records are kept of random GA activity in any particular portions of Class G airspace. It would not be practicable to surmise the routing intentions of any particular uncontrolled flight in the various circumstances of whether the TMZs did or did not exist.
15.	Strong support for use of SSR and TCAS at all times.	MSE responded to state that this observation was welcomed.
16.	Concern for possible effect of wind turbine clutter on aircraft weather radar.	MSE contacted the BALPA representative and gave advice on the telephone and cleared up any misunderstanding. The consultee was grateful and satisfied and stated that their organisation supported the application to establish TMZs.

Comments from Non-consultee Submissions

- B.1.2 Four submissions were received from individuals or organisations who were not consultees on the consultee list.
- B.1.3 Two supported the TMZ concept whilst two initially objected.
- B.1.4 Of the supporters, one was concerned that undue weight might be given to minor inconvenience to some aircraft operators over and above the requirements for flight safety.
- B.1.5 Conversely, one of the objectors was opposed to TMZs in principle and felt that they had an adverse effect on flight safety and denied large areas of airspace to his (vintage aviation) flying activity.
- B.1.6 The other objector initially believed that an alternative radar technical solution to the problem of clutter was available which did not require the use of transponders. However, on explanation of the different nature of air defence radars (to which his observation applied) the objection was withdrawn.