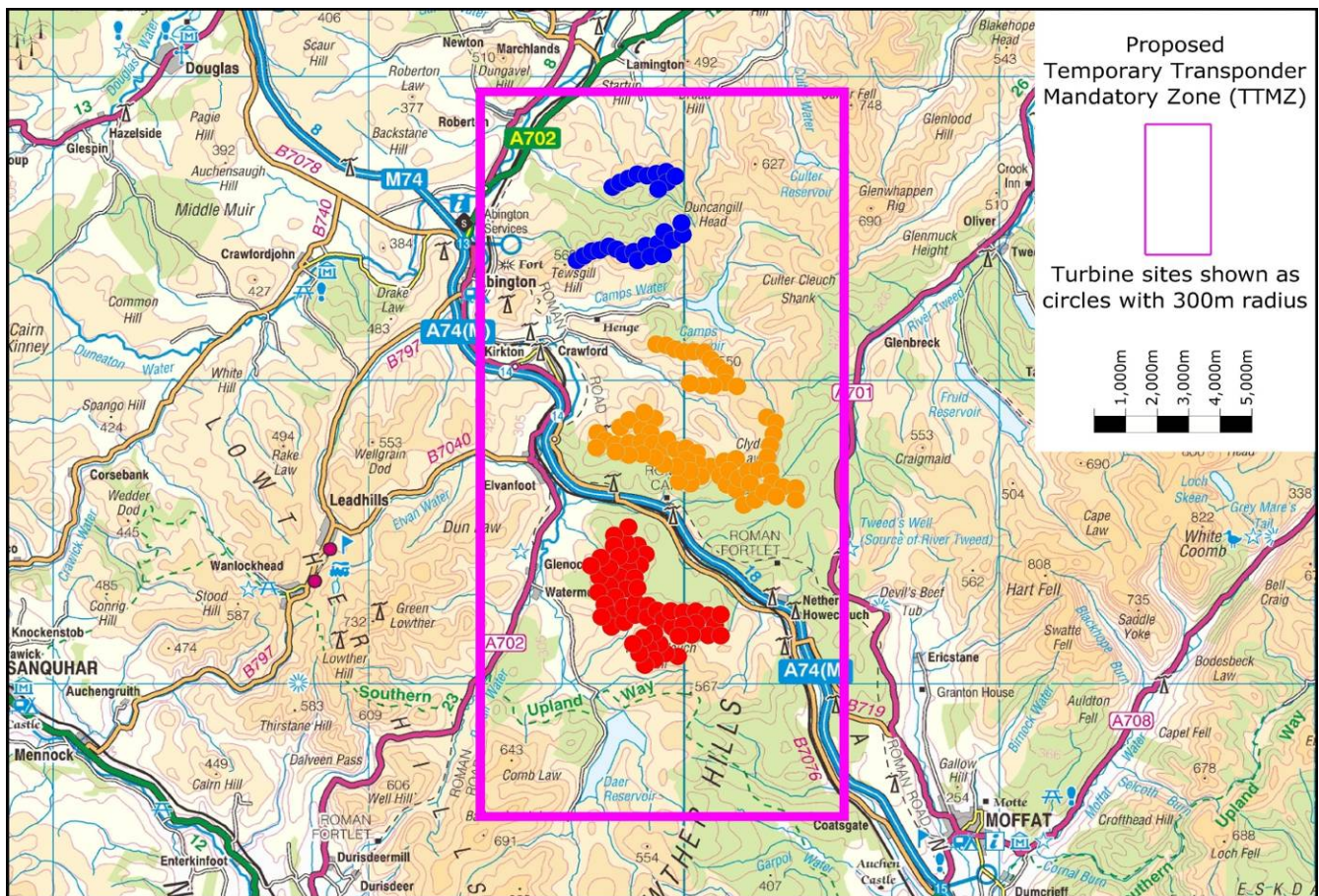


# PROPOSAL TO ESTABLISH A TEMPORARY TRANSPONDER MANDATORY ZONE (TTMZ) OVER THE CLYDE WIND FARM

## STAKEHOLDER CONSULTATION FEEDBACK

### ISSUE 1

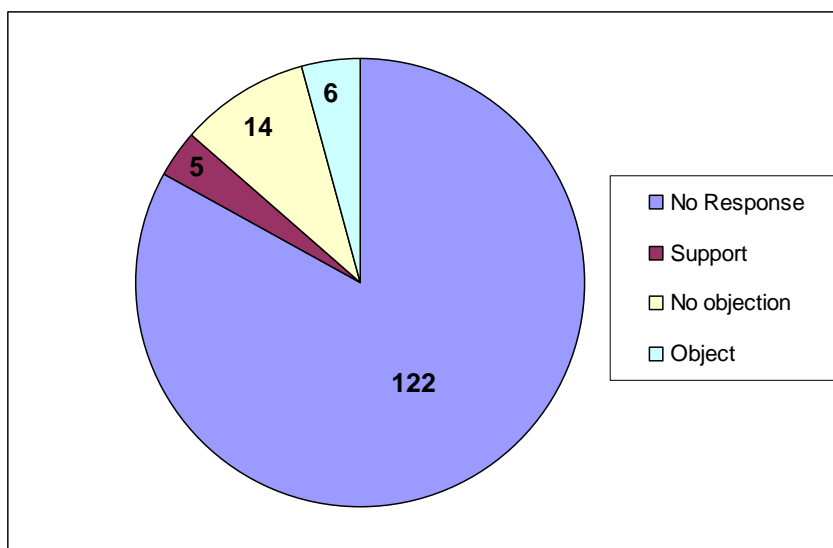


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## Executive Summary

This document provides feedback to all stakeholders who participated in the Consultation undertaken by SSER Renewables (SSER) and NATS for the proposed Temporary Transponder Mandatory Zone (TTMZ) over the Clyde Wind Farm. The introduction of a TTMZ requires a formal Consultation to be undertaken as part of the Civil Aviation Authority (CAA) Airspace Change Proposal (ACP) process.

The Consultation ran for a period of 12 weeks commencing on the 25 September 2010 and concluding on the 18 December 2010. The Consultation was distributed to a total of 135 stakeholders. A full list of these stakeholders is available from page 24 onwards of the TTMZ Consultation. 25 responses were received during the process Figure 1 below categorises and show the proportions of responses from all those involved in the Consultation.



**Figure 1. All stakeholders' responses pie chart**

As a result of careful consideration of all the feedback NATS will be proceeding with the airspace design described in the original Consultation to the CAA for consideration in the ACP. It is proposed to introduce a TTMZ that will cover the areas shown in Figure 2. Various modifications to the implementation and access procedures for the proposed TTMZ have been informed as a result of the Consultation feedback. The details of the feedback and modifications are outlined in the main body of this report.

In the event that a representative Organisation wishes to present **new** evidence or data to the Director of Airspace Policy, for consideration prior to making his Regulator decision regarding this proposal, the representative Organisation must submit in writing, the information to the following address:

The Director (Clyde TMZ ACP)  
 Directorate of Airspace Policy  
 CAA House  
 45-59 Kingsway  
 London  
 WC2B 6TE



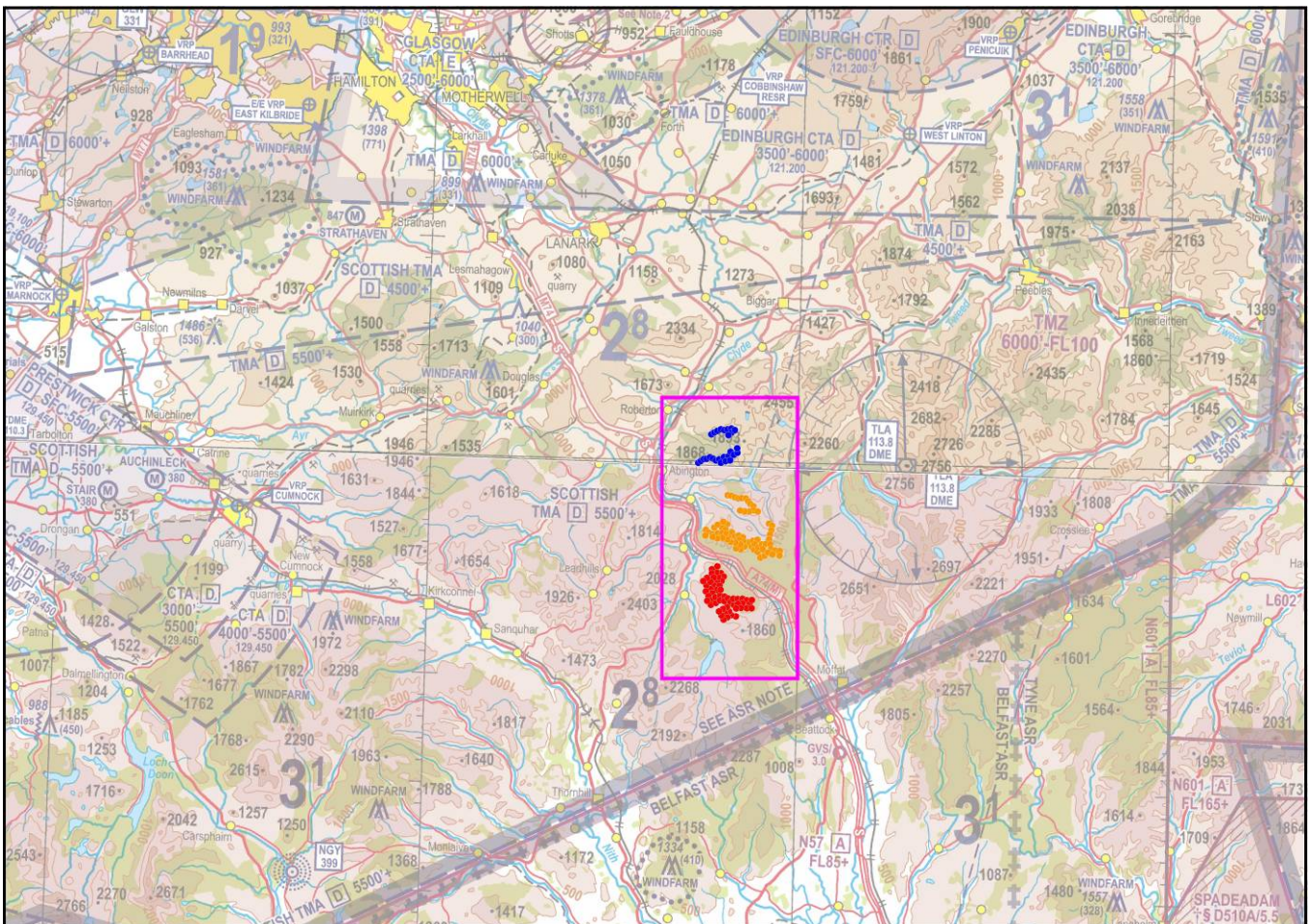
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## 1. Introduction

During September-December 2010, SSER conducted a consultation process soliciting feedback on proposals to introduce a Temporary Transponder Mandatory Zone (TTMZ) in the Clyde Valley south of Edinburgh and Glasgow. This document provides feedback to stakeholders who participated in this Consultation exercise. This document will be sent to all stakeholders who participated in the Consultation, and will be published on the SSE website at [www.sse-clyde.com](http://www.sse-clyde.com).

This document should be read in conjunction with the Stakeholder Consultation document (available from the above website). All technical terms and acronyms are explained in full in the stakeholder Consultation document.



**Figure 2 Location of the proposed TTMZ on VFR chart background.**

## 2. Overview of Responses

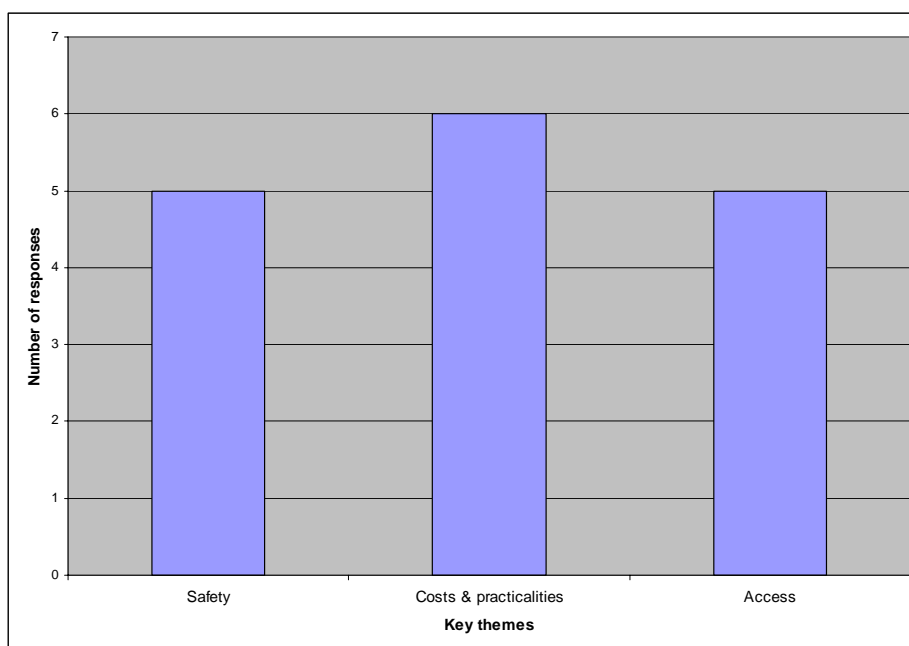
The Consultation Document was distributed to a number of Primary Stakeholders', including local aerodromes, local flight organisations and aviation members of the National Air Traffic Management Advisory Committee (NATMAC). Stakeholders were requested to cascade the information to other groups as they deemed appropriate. The Consultation material was also placed on the SSER website, and NATS public and customer web sites. This stimulated further responses from individuals and organisations, both local to Clyde and across the UK. The Consultation Document was also sent, for information only, to a range of Politicians, i.e. local Members of Parliament, local Members of the Scottish Parliament, Councillors and other parties interested in the Clyde Wind Farm.

A total of 135 stakeholders were contacted in September 2010. A full list of these stakeholders is available from page 24 onwards of the TTMZ Consultation Document. In total 147 stakeholders

participated in the Consultation. 122 of the stakeholders did not respond to the Consultation; 25 stakeholders responded, of which 14 responses indicated a neutral position (no comment/no objection); 5 respondents said they supported the proposal and 6 objected. Please see Figure 1.

## 2.1 Key themes arising from objections

Objections were categorised according to the key themes identified in Figure 3 below. One response could include several themes & hence would be counted in each category. Objections can be categorised under three broad headings; Cost and practicality of fitting equipment; Safety and Access.



**Figure 3. Key themes arising from objections**

## 3. Comments on particular issues

Within each of the themes, particular and recurring issues could be identified. Some of the comments and objections informed the development of access procedures and the planned implementation. These are summarised below, with comments.

### 3.1 Cost & Practicalities

Several respondents suggested that if certification costs were much smaller, many owner/operators would fit a transponder voluntarily.

Some respondents suggested that the cost of fitting transponders should be borne by the wind farm developer.

Many light aircraft, gliders, paragliders etc. have limited/no power supply which makes fitting a transponder impractical. Some suggested that transponder equipment should not be included in the weight limit for microlights, Very Light Aircraft (VLA) etc.

### 3.2 Safety

The second theme that recurred in responses was the challenge to the safety justification for the TTMZ. The primary justification for introducing a TTMZ is to mitigate against the loss of primary radar cover resulting from the necessary blanking of the primary radar. The purpose of radar surveillance outside of controlled airspace is to enable the detection of aircraft that may infringe the

controlled airspace. While airspace infringements are not commonplace they are a concern to NATS, hence the following statistics were provided to stakeholders who questioned this aspect.

Figure 4 and Figure 5 below summarize the reported airspace infringements in the Scottish ACC since 2006. There have been 18 airspace infringements during this period within the Talla (TLA) sector which overlies the proposed TMZ and 8 relating to the Scottish FIR<sup>1</sup>.

The Talla sector is the most “infringed” sector within the Scottish ACC. The majority of the **reported** infringements involved aircraft with operating mode C transponders, this is due to the ease with which infringement can be identified where the aircraft has a Mode C transponder.

Infringements where there is no radar return, or primary return only are usually only reported where the infringement results in an AIRPROX and the “other” aircraft is reported by one of the pilots. Hence it is generally believed that there are likely to be many more infringements by aircraft not equipped with mode C transponders that do not result in AIRPROXs, than the numbers in the statistics portray. These infringements usually go undetected, (and hence are not reflected in the statistics) but represent a serious safety concern.

Sector	Number of Infringements
MON	1
CEN	1
FIS Swan	1
HEB	1
No sector information	1
Airways	2
MOR	2
WCST	2
HUMBER	4
ANT	5
GAL	5
ScFIR	8
TAY	13
TLA	18
<b>Total</b>	<b>64</b>

Figure 4. ScACC Infringements by sector since 01/01/2006

Year	Transponder				Data not available	Total
	No return	Primary only	Mode A	Mode A&C		
2006					15	15
2007				8		8
2008		1		7		8
2009		1	1	10		12
2010	1	1	1	18		21
<b>Total no. of Infringements</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>43</b>	<b>15</b>	<b>64</b>

Figure 5. ScACC Infringements by year and transponder mode since 01/01/2006

<sup>1</sup> The Scottish FIR covers a wider area also encompassing the proposed TTMZ area.

### 3.3 Access

There was initially concern from some stakeholders that a TMZ would mean large scale exclusion from the airspace. Hence during Consultation SSER/NATS has worked with stakeholders and has developed a procedure whereby aircraft which are not transponder-equipped can access/transit the TTMZ with the minimum of inconvenience.

The controlling authority for the TMZ will be NATS Prestwick Centre. The procedure for non-transponder-equipped aircraft would be as follows:

For aircraft equipped with 2-way radio:

- Call the Scottish FIS on 119.875MHz and request authorisation at least 15 minutes before reaching the TTMZ.

For aircraft not equipped with 2-way radio:

- Prior to take off the pilot (or their representative) should telephone an allocated number to request authorisation to access the TTMZ for a block period.
- The authorisation could be requested/granted for individual or group access, e.g. for a group of gliders, balloons or paragliders.
- Authorisation would be granted for a set period (usually up to 4 hours, possibly 8 hours for exceptional circumstances such as a national competition).
- the telephone number will be promulgated if the TMZ is approved by DAP.

The proposed TMZ is temporary and will only be in place for 18 months, after this time all restrictions (and the necessity for the above procedures) will be lifted.

The above procedure is designed as a measure to mitigate against the TTMZ impacting on the activities of those airspace users who are not equipped with transponders. Experience from a similar procedure used for the Stansted TMZ shows that authorisation was granted more than 99% of the time (2 out of 268 requests were not authorised<sup>2</sup>).

Radio coverage is adequate in this area as the antennas are located at the Lowther Hill radar site. This is in close proximity to and in direct line of sight of the wind farm & proposed TTMZ (hence the need for the TTMZ).

The use of this procedure to permit access to participating non-transponder equipped aircraft, also provides mitigation against concerns on the grounds of Cost & Practicalities (para 3.1)

### 3.4 Process/documentation

The list of stakeholders identified as primary recipients of the Consultation material was agreed in accordance with CAA guidance and at the framework briefing on 15 September 2010. The aerodrome primary stakeholders were identified as those appearing on the CAA 1:500,000 VFR chart and for whom the responsible person could be identified. Other individuals who came forward during Consultation have been included in the dialogue, and their input has been given equal weighting.

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<sup>2</sup> The instances of non-authorisation, were due to staff not being aware of the procedure. This was rectified by education of all relevant staff.

#### **4. Summary of intended Airspace Change Proposal**

As a result of careful consideration of all Consultation responses, NATS will proceed on behalf of SSER, with an Airspace Change Proposal (ACP) to the CAA. The basis of this proposal will be for the introduction of a TTMZ as shown in Figure 2.

To allow access for aircraft that are unable to be transponder equipped, NATS proposes two methods gaining authorisation to access the TTMZ for non-compliant aircraft as detailed in section 3.3. These procedures have been informed by stakeholder responses.

The Consultation period closed on Saturday 18<sup>th</sup> December, any comments you may wish to make after this date will still be accepted, and may still influence the final airspace change proposal. All responses submitted will be forwarded to the CAA Directorate of Airspace Policy who will consider the merits of this proposal.