

**Engagement Correspondence - NATS**

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**From:** [Redacted]  
**Sent:** 07 June 2023 13:33  
**To:** [Redacted]  
**Cc:** clashgouracp@consultation-online.co.uk  
**Subject:** Clash Gour Wind Farm ACP

Sent on behalf of Clash Gour Holdings Ltd/Force 9 Energy

Good afternoon,

Thank you for your response to the Clash Gour Wind Farm ACP.

As we move the project forward, we feel it would be beneficial for us, as a non-aviation organisation, to try and get a better picture of air traffic patterns in the vicinity of the proposed site. Specifically, we would like data which shows, as far as we can, the amount of non-transponding aircraft in the area of the wind farm.

To that end, we would like to explore the possibility of obtaining the information by asking if you could provide us with any Primary Radar data for the airspace around the proposed Clash Gour site, for the period 1<sup>st</sup> March 2022 until 1<sup>st</sup> March 2023?

[Redacted]

[Redacted]

In relation to the provision of a TMZ-crossing service to non-transponding aircraft, we are in the process of engaging with other ANSPs in the area with the aim of forming an agreement for this to be provided. We do not anticipate NERL being in a position to be able to deliver this service due to the radar coverage in the area, but would be happy to discuss this on a one-to-one basis, if required.

Thank you for your continued participation in this project. We look forward to continue working constructively with you in the near future.

Regards,

[Redacted]

[Redacted]

[Redacted]

Follow us on: [Redacted]

**From:** [REDACTED]  
**Sent:** 19 June 2023 15:50  
**To:** [REDACTED]  
**Cc:** clashgouracp@consultation-online.co.uk  
**Subject:** [EXTERNAL] RE: Clash Gour Wind Farm ACP

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Good afternoon [REDACTED]

Thank you for your email.

I have made some enquiries about the provision of data. Our coverage in that region is such that we don't see those turbines at all; no blanking has been needed, and therefore we don't feel that our recorded data would be of value to you.

For the same reason, you are correct in assuming that NERL would not be in a position to provide a TMZ crossing service.

Regards

[REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]

NATS Internal

**Engagement Correspondence - HIAL**

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**From:** [REDACTED]  
**Sent:** 07 June 2023 13:34  
**To:** [REDACTED]  
**Cc:** clashgouracp@consultation-online.co.uk  
**Subject:** Clash Gour Wind Farm ACP

Sent on behalf of Clash Gour Holdings Ltd/Force 9 Energy

Good afternoon,

Thank you for your response to the Clash Gour Wind Farm ACP consultation.

As we move the project forward, we feel it would be beneficial for us, as a non-aviation organisation, to try and get a better picture of air traffic patterns in the vicinity of the proposed site. Specifically, we would like data which shows, as far as we can, the amount of non-transponding aircraft in the area of the wind farm.

To that end, we would like to explore the possibility of obtaining the information by asking if you could provide us with Primary Radar data for the airspace around the proposed Clash Gour site, for the period 1<sup>st</sup> March 2022 until 1<sup>st</sup> March 2023?

[REDACTED]

In addition, we would like to arrange a meeting between yourselves and Force 9 Energy (on behalf of the change sponsor, Clash Gour Holdings Ltd) to discuss your response to the consultation. In particular, we would like to further engage with you to discuss the issues relating to the lateral and vertical dimensions of the proposed TMZ, the times of operation and the Controlling Authority. We would prefer to hold these meetings face-to-face, but would be happy to hold virtual meetings if that suits you better. Please let us know by responding to this e-mail whether:

- (a) You are able to provide the primary Radar data requested.
- (b) You are able to participate in a meeting to discuss your consultation response.

Thank you for your continued participation in this project. We look forward to continue working constructively with you in the near future.

Regards,

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Follow us on: [REDACTED]

**From:** [REDACTED]  
**Sent:** 09 June 2023 16:00  
**To:** [REDACTED]  
**Cc:** clashgouracp@consultation-online.co.uk  
**Subject:** [EXTERNAL] Re: Clash Gour Wind Farm ACP

**CAUTION:** This email originated from outside of the organisation. Do not follow guidance, click links, or open attachments unless you recognise the sender and know the content is safe.

Good afternoon,

Thank you for your email regarding HIAL's response to the Clash Gour Wind Farm ACP consultation.

Please be assured that we are considering the implications of your request for access to Primary Radar data for the airspace around the proposed Clash Gour site, for the period 1st March 2022 until 1st March 2023 and evaluating the technical feasibility of providing it.

Furthermore, we acknowledge your interest in arranging a meeting between your organization and HIAL to discuss our response to the consultation. However, to facilitate effective discussions, we kindly request clarification on the agenda topics proposed for the meeting. Specifically, you mentioned concerns regarding the lateral and vertical dimensions of the proposed TMZ, the times of operation, and the Controlling Authority. It is important to note that these particular issues were not specifically raised in our consultation response. Therefore, we seek further clarification on why they would be included in the meeting agenda and how they relate to our consultation response.

Once HIAL has received clarification on the agenda then a decision will be made as to appropriate continued engagement.

Kind regards,

[REDACTED]

[REDACTED]

**ATM Professional Support**  
Highlands and Islands Airports Limited

[REDACTED]

[REDACTED]

**From:** [REDACTED]  
**Sent:** 16 June 2023 15:33  
**To:** [REDACTED]  
**Cc:** Clashgour ACP; [REDACTED]  
**Subject:** RE: Clash Gour Wind Farm ACP

Good afternoon [REDACTED]

Thank you for your response to our request for the provision of access to the primary radar data from Inverness Airport relating to the proposed Clash Gour site. We look forward to hearing from you as to whether this data could be made available to assist us in our assessments for the proposed TMZ.

In relation to our request for a meeting with the HIAL team, our aim and objective is to engage with HIAL as a stakeholder and discuss potential mitigations and try to identify a way ahead that would satisfy all parties. The solution would enable the wind farm project forward to meet the agreed grid connection dates, there will be a need for an airspace solution to mitigate the interference caused to primary radars until a technical mitigation solution has been approved by both Inverness Airport and the MOD.

Our key agenda item would be to discuss and understand with HIAL what the effect of a TMZ would be. We would also be interested in understanding whether HIAL would be in a position to consider agreeing to become the Controlling Authority for the proposed TMZ, to facilitate a crossing service for non-EC equipped aircraft.

In terms of the lateral dimensions of any TMZ, we are seeking to understand the implications of the deconfliction requirements for your traffic of a TMZ both with, and without, a buffer zone and how the potential TMZ may impact your current ACP. In terms of the vertical dimensions of the TMZ, we are looking into the possibility of providing an in-fill radar picture utilising NATS-radar facilities in order to reduce the required top height of the TMZ and we wanted to engage with you as a key ANSP in the area to understand your views.

We hope that the above information gives you a greater understanding of our intent and would be grateful for the opportunity to meet to discuss the above. Thank you for your continued participation in this project and we look forward to hearing from you in due course.

Regards,

[REDACTED]

[REDACTED]

[REDACTED]

Follow us on: [REDACTED]

**From:** [REDACTED]  
**Sent:** 14 November 2023 10:05  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** Clash Gour Wind Farm Airspace Change Proposal  
**Attachments:** 71609 026 Clash Gour Wind Farm Airspace Change Proposal Issue 1 HIAL.pdf

Good morning,

Please see attached letter, sent on behalf of Force 9 Energy Ltd, with regard to the Clash Gour Wind Farm Airspace Change Proposal.

Regards,

[REDACTED]

[REDACTED]

[REDACTED]

Follow us on: [REDACTED]

**From:** [REDACTED]  
**Sent:** 14 November 2023 10:18  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** Clash Gour Wind Farm Airspace Change Proposal  
**Attachments:** 71609 026 Clash Gour Wind Farm Airspace Change Proposal Issue 1 HIAL.pdf

Good morning,

Please see attached letter, sent on behalf of Force 9 Energy Ltd, with regard to the Clash Gour Wind Farm Airspace Change Proposal. This has been sent to you following an Out of Office response from [REDACTED]

Regards,

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



[REDACTED]  
[REDACTED]  
Highlands and Islands Airports Limited  
[REDACTED]

Copy to:  
[REDACTED]  
[REDACTED]

Date: 14<sup>th</sup> November 2023  
Ref: 71609 026

Dear [REDACTED]

## **Clash Gour Wind Farm Airspace Change Proposal ACP-2021-046**

### **Introduction**

This letter has been issued to both the MoD and HIAL on behalf of Clash Gour Holdings Ltd to address comments made by both parties during the consultation period (Stage 3) of the proposed Airspace Change Proposal (ACP) for Clash Gour wind farm, which will take the form of a Transponder Mandatory Zone (TMZ). Specifically, this letter seeks the agreement of both the MoD and HIAL on proposals for a controlling authority for the TMZ.

A TMZ is being sought while technical mitigation solutions are awaiting sign off with the MoD. We anticipate the TMZ forming a part of the overall package of mitigation offered and agreed as part of the Air Traffic Control Radar Mitigation Scheme required under conditions 5 in respect of RAF Lossiemouth of the consent for the wind farm.

Approval of the TMZ will allow key financing milestones necessary for the timely construction programme of the wind farm to be achieved. We would not however anticipate implementation of the proposed TMZ being necessary until 2026, when turbine erection is currently programmed to commence.

By way of reminder, the wind farm is expected to have a capacity of approximately 225 MW and will therefore make a substantial contribution to the Scottish Government Climate Change and on shore wind capacity targets. The project benefits from a grid connection agreement to connect in 2027 which if missed would likely delay the project for 5 years, meaning it would not be capable of contributing to current Government policy targets.

As a further update, the electricity generated from the wind farm has been contracted with the UK Governments Low Carbon Contracts Company. The contract requires generation to start by 2028.

Taken together, we see the TMZ as a positive route to unlocking the potential of Clash Gour wind farm while discussions continue on technical mitigation solutions with the MoD.





## **Clash Gour Wind Farm: Proposed TMZ**

You will be aware that the proposed ACP associated with the proposed Clash Gour wind farm has reached Stage 4a of the CAP1616 process. Clash Gour Holdings Ltd has been considering the responses to the proposal during Step 3: Consultation. A common theme in the responses from all areas of the aviation community was defining a Controlling Authority for the TMZ.

To progress this ACP and meet the specific deadlines and milestones associated with the wind farm project, noted above, we are seeking your views, and ultimately your agreement to the proposals set out below in respect of defining a Controlling Authority for a TMZ associated with the wind farm. This letter also sets out our thinking on the timing of operation of the TMZ and the proposed lateral and vertical limits of the TMZ. We are seeking your early response to these proposals which we will take account of in making our Stage 4 submissions to the CAA.

## **Controlling Authority: Inverness Airport ATC**

Inverness Airport ATC operating hours are routinely longer than those of RAF Lossiemouth, including routine availability on weekends and public holidays. In addition, Inverness Airport has installed a Terma radar which we understand will provide effective mitigation for the turbines seen by the radar at Clash Gour wind farm. It is expected therefore that by the time of turbine erection and operation, Inverness Airport will have a complete and mitigated picture of the airspace around Clash Gour meaning it can provide effective airspace management. Furthermore having a single Controlling Authority is considered preferential to ensure that there is no confusion with operators as to which Air Navigation Service Provider to contact if permission to enter the TMZ is required.

Given the above noted factors, in our opinion, we believe that Inverness Airport ATC are in the best position to be the Controlling Authority for the TMZ.

## **Hours of activation:**

0630 – 2130(L)

The proposed hours of activation are during the period when a radar service is available from Inverness Airport ATC.

Outside of these proposed activation times, we believe that the flight activity at both units would be sufficiently reduced to not have the TMZ activated. It is assumed that radar blanking would still be in place outside these activation times, so it would be the responsibility of each unit to ensure any traffic under a radar service avoids the area of the TMZ. We do not believe that this would unduly increase controller workload as the levels of activity of Inverness Airport, RAF Lossiemouth and General Aviation aircraft operating in the vicinity are likely to be very low outside of the proposed activation times. Aircraft operating under Visual Flight Rules (VFR) in the vicinity of the area would be responsible for avoidance of other aircraft under the usual see-and-avoid principles for Class G airspace.

## **Lateral Limits:**

It is proposed that Option 7(E) will be submitted as our preferred option. For clarity, Option 7(E) did not include a 2nm buffer and represents the smallest proposed TMZ possible to cover



the wind farm area. We do not consider that the inclusion of a buffer zone to allow ATC to provide warning to aircraft that look like they may infringe the radar-blanked area sufficiently outweighs the impact that the increased size of the TMZ (with a buffer), would have on both the GA traffic in the area and traffic operating from RAF Lossiemouth or Inverness Airport. The inclusion of a buffer area would both increase the amount of traffic that is likely to be displaced and create funnelling and choke points, closer to the RAF Lossiemouth MATZ and approach routes, increasing the risk of a mid-air collision for all aircraft. The proposed TMZ would primarily be situated over the higher ground where there are existing wind farms, which is generally avoided by transiting air traffic.

**Vertical Limit:**

The proposed vertical limit of the TMZ would be FL195 to cater for gliders operating without transponder in the non-SSR Glider Area above the proposed TMZ. Gliders operating above FL195 in the TRA(G) area must maintain radio contact and therefore would be able to obtain clearance through the TMZ.

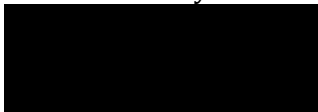
**Conclusions**

We believe Inverness Airport are best placed to be controlling authority for the proposed TMZ during its hours of operation and the proposed TMZ would be the smallest possible option. Other options for controlling authority, lateral limits and vertical limits which have been considered are included in the table in Appendix A1 to this document.

As previously explained, we are proposing to make a submission to the CAA for approval of a TMZ in the near future. Approval will allow key milestones in the development of the wind farm to be achieved, as noted above.

We very much look forward to continued engagement with you on this subject in order to reach a solution that is acceptable to Inverness Airport/RAF Lossiemouth and ourselves. We would appreciate your early comments on the proposals for a controlling authority for the TMZ contained herein and whether they address some of the concerns you expressed during Stage 3 of the proposed ACP.

Yours sincerely



Osprey Consulting Services Ltd on behalf of Force 9 Energy Ltd

# A1 Options Considered

## A1.1 TMZ Options Considered

	Option	Activation Time	Controlling Authority	Vertical Extent	Notes
1	7F	H24	Nil	FL195	Buffer to allow extra time to warn aircraft approaching blanked area
<p>We believe that this is the worst-case option. The inclusion of the buffer zone would both increase the amount of traffic that is likely to be displaced and could create funnelling and choke points, increasing the risk of a potential mid-air collision for all aircraft. Twenty-four hour activation is not required because ATC hours of operation in the area are not 24hr and the lack of a Controlling Authority would prevent access to the airspace for aircraft that are equipped with a radio, but non-transponding.</p> <p>Option 7F is not considered any further in this table.</p>					
2	7E	H24	Inverness Airport	FL195	Would require additional ATC manpower establishment
<p>Traffic levels would not justify 24-hour activation and the requirement to increase ATC manning levels at the unit.</p>					
3	7E	H24	RAF Lossiemouth	FL195	Would require additional ATC manpower establishment
<p>Traffic levels would not justify 24-hour activation and the requirement to increase ATC manning levels at the unit.</p>					
4	7E	H24	Inverness Airport	6,500 ft	Would require additional ATC manpower establishment and Onward Routed Radar Data (ORRD) from NATS Perwinnes Hill radar site
<p>Traffic levels would not justify 24-hour activation and the requirement to increase ATC manning levels at the unit. An agreement to provide ORDD from the NATS Perwinnes Hill radar site to reduce the proposed upper level of the TMZ cannot be achieved in a timeframe that is compatible within the project milestones.</p> <p>Options which include an upper limit less than FL195 are not therefore considered any further in this table.</p>					
5	7E	0630-2130	Inverness Airport	FL195	
<p>This is our preferred option.</p>					

6	7E	0900-1700 Mon-Fri 0630-2130 Sat-Sun	RAF Lossiemouth  Inverness Airport	FL195	Outside active times, TMZ would be 'cold' and RAF Lossiemouth and Inverness Airport would need to avoid the area (unless operating under Visual Meteorological Conditions (VMC) and traffic accept responsibility for avoidance)
The use of a single Controlling Authority would be preferential to ensure that there is no confusion with operators as to which Air Navigation Service Provider to contact if permission to enter the TMZ is required.					
7	7E	0900-1700 Mon-Fri	RAF Lossiemouth	FL195	Only if Inverness Airport sign-off the Consent condition Outside active times, TMZ would be 'cold' and RAF Lossiemouth would need to avoid the area (unless operating under VMC and traffic accept responsibility for avoidance)
If the use of the technical mitigation solution available at Inverness Airport is agreed prior to commencement of the turbine erection programme, radar blanking, and therefore the TMZ, would only be required to protect RAF Lossiemouth operations. It is our opinion that the TMZ would only be required to be active during the busy, routine daytime flying period.					

**From:** [REDACTED]  
**Sent:** 27 November 2023 13:59  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** [EXTERNAL] RE: Clash Gour Wind Farm Airspace Change Proposal  
**Attachments:** 71609 026 Clash Gour Wind Farm Airspace Change Proposal Issue 1 HIAL.pdf

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Hi [REDACTED]

This is just a quick email to acknowledge receipt and to advise that I have picked up from [REDACTED] initially as HIAL PM for this ACP related to the development of the Clashgour Windfarm. Thanks for your help this afternoon as I try to pick up on the threads left by Jon's departure from the business and my extended absence, I hope you won't mind a delay in full response as I coordinate with the teams at Inverness Airport and the Air Traffic Control Unit.

All things considered, it may be that a response will have to wait to the New Year, and I appreciate that you were comfortable with that timeline.

Regards

[REDACTED]

[REDACTED]  
[REDACTED]  
**Highlands and Islands Airports Ltd**  
Head Office, Inverness Airport, Inverness IV2 7JB  
[REDACTED]  
[REDACTED]  
[REDACTED]

Working from home and available via contacts above

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**From:** [REDACTED]  
**Sent:** Monday, November 27, 2023 8:33 AM  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** FW: Clash Gour Wind Farm Airspace Change Proposal

**CAUTION:** This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Good morning [REDACTED]

I was just wondering whether you have had a chance to look at the letter I sent in relation to the Clash Gour Wind Farm ACP?

We look forward to receiving your response and continuing to work with you on this project.

Regards,

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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**From:** [REDACTED]  
**Sent:** 27 November 2023 15:29  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** [EXTERNAL] Re: Clash Gour Wind Farm Airspace Change Proposal  
**Attachments:** Outlook-edsl0klh

**CAUTION:** This email originated from outside of the organisation. Do not follow guidance, click links, or open attachments unless you recognise the sender and know the content is safe.

Good afternoon [REDACTED]

Thank you for acknowledging receipt of the letter from Osprey about options for a controlling authority and the shape and size of the proposed TMZ in respect of our Clash Gour windfarm. I understand you are recently returned from a prolonged period of leave and are just getting back up to speed. It might help you if we have a meeting (either at the Airport or online) to set out the current programme for the windfarm and to backfill our ongoing discussions with HIAL and the MoD in respect of mitigation options for the proposed wind farm. If you think that would be helpful can you suggest a couple of dates and times when you are available over the next couple of weeks and I can set something up.

Regards

[REDACTED]  
[REDACTED]

[REDACTED]  
[REDACTED]

[www.force9energy.com](http://www.force9energy.com)



**Best Engagement Award, 2018**  
Force 9 Energy for Clash Gour Wind Farm  
Community Shared Ownership Opportunity

272 Bath Street, Glasgow, G2 4JR.  
T: 0141 354 1410 F: 0141 354 1411

Force 9 Energy Partners LLP, registered number OC355316

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**From:** [REDACTED]

**Sent:** Monday, January 29, 2024 8:41 AM

**To:** [REDACTED]

**Cc:** [REDACTED]

[REDACTED]

**Subject:** Clash Gour Wind Farm ACP

Good morning,

Following comments received last week, please find attached the updated minutes from the meeting between Force 9 Energy and HIAL on Tuesday 19<sup>th</sup> December 2023.

If you have any further comments or questions, please do not hesitate to get in touch.

Regards,

[REDACTED]

[REDACTED]



# Clash Gour Wind Farm ACP

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<b>Project Title</b>	Clash Gour Airspace Change Proposal
<b>Client</b>	Force 9 Energy Partners LLP on behalf of Clash Gour Holdings Ltd.
<b>Purpose of Meeting</b>	To discuss the proposal for Controlling Authority for the TMZ
<b>Date of Meeting</b>	19 <sup>th</sup> December 2023
<b>Held at</b>	Online (Teams)
<b>Present</b>	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
<b>Osprey Reference</b>	71609 032
<b>Issue</b>	Issue 1 dated 23 <sup>rd</sup> January 2024

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## Meeting Summary

Item
<p><b>Opening introductions and background</b></p> <p>Following introductions from those present, [REDACTED] provided an introduction which described the background to the wind farm development and the requirement to discharge the Planning Conditions attached to the grant of consent for the wind farm. To do this, the developers would need to present a document to the Scottish Government that seeks to discharge the ‘aviation related’ conditions with respect to Inverness Airport and RAF Lossiemouth (conditions 5 and 6 of consent). The current timeframes for the project are based on a confirmed grid connection date of September 2027. This would require a financial investment decision and order of long lead time items such as transformers in 2024, discharge of planning conditions, letting of min contracts and commencement of civil works in 2025 and turbine erection in 2026.</p> <p>AS noted that the goal was for a long-term technical solution as mitigation for the impact the wind turbines would have on both Inverness and RAF Lossiemouth Primary Surveillance Radars and whilst a technical mitigation solution was moving forward with Inverness, a solution for RAF Lossiemouth, whilst understood to be available, was proving challenging to fit with the timescales of the project.</p> <p>The ACP was initiated to allow confidence in making the Financial Investment Decision (scheduled for November 2024) and subsequently building the wind farm to prove the technical mitigation solutions.</p> <p>[REDACTED] reiterated at this point that this meeting was arranged to discuss the proposal and no decision from HIAL would be made at this point. The HIAL team would take away the discussion points before responding (to the letter issued to HIAL on 14<sup>th</sup> November 2023) in due course. This was acknowledged and understood by [REDACTED]</p>
<p><b>RAF Lossiemouth update</b></p> <p>[REDACTED] gave an update on the discussions being held with the MOD and RAF Lossiemouth. [REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED] added that the MOD were looking to implement a technical mitigation solution as the main solution, but wanted a back-up solution to be available in case of issues with the primary solution.</p> <p>[REDACTED] asked if there was any suggestion what the back-up solution would be, to which [REDACTED] responded that the TMZ was being considered.</p> <p>[REDACTED] commented that, whilst a TMZ was the obvious solution, taking UK airspace in general and the number of wind farm developments, it was probably not feasible in the long term to generate TMZ’s for wind farm developments. [REDACTED]</p>

**Item**

He suggested that TMZ's should be designated as Temporary (TTMZ) to minimise the impact. [REDACTED] added that the assumption in the narrative that accompanies the TMZ application is that it will only be in place for as long as needed. [REDACTED] F9 are aware of this and have commissioned a technical study which shows that it is possible and have submitted that to the MOD for consideration. F9 would like to discuss with HIAL at a separate meeting.

**ACP update - vertical extent**

[REDACTED] provided an update on the progress and timescales of the ACP. [REDACTED] also provided an update on the likely parameters of the TMZ for the proposal to the CAA. [REDACTED] stated that the likely vertical extent of the TMZ would be FL195 due to the non-SSR gliding area above the proposed site. FL100 had previously been considered as the top height but following discussions with the CAA during consultation preparation, this was discounted due to the possibility of gliders being in the blanked area above FL100 without a transponder. Consideration had been given to providing ORRD from the Perwinnes Hill NATS radar site, but this would not be achievable within the timescales of the project.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] confirmed that this reaffirmed the requirement for the TMZ.

**ACP update - lateral extent**

[REDACTED] stated that the likely lateral extent of the TMZ would be the option without the buffer zone. Previous TMZ ACPs had included a buffer zone to allow ATC sufficient time to warn aircraft that they were about to enter an area of radar blanking. However, for this ACP, it is considered that the size of the TMZ with a buffer zone would have a potentially negative impact on other airspace users, creating potential choke points and funnelling, that would be more of a safety issue. It is considered that in this area of Class G airspace, many of the airspace users would either not be on frequency or not even be radio equipped, so it may not be possible to issue a warning in any event. [REDACTED] presented 2 images that had been sent by a consultation respondent that showed traffic patterns in the vicinity of the proposed TMZ. The

**Item**

images reiterated that, although the TMZ would have some impact, the majority of flights were in the area of the buffer zone and would be unaffected by the TMZ.

These images were provided to HIAL following the meeting.

**ACP update – Controlling Authority**

■ stated that one of the main reasons for the letter that was sent to HIAL in November was to seek a decision on the Controlling Authority for the TMZ. It is the opinion of the Change Sponsor that Inverness Airport is in the better position to be the Controlling Authority for the TMZ based on the hours of operation. ■ stated that he was open to further discussions in the future on the commercial aspects for this.

■ reiterated that they were not going to make a decision at this point, but HIAL would definitely take it away for consideration and re-engage at a later date by responding to the letter issued to HIAL on 14<sup>th</sup> November 2022.

■ closed the meeting by thanking the participants for their attendance and contribution.

**From:** [REDACTED]  
**Sent:** 09 February 2024 16:41  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** [EXTERNAL] Re: Clash Gour Wind Farm ACP

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Dear [REDACTED]

Thank you for your email below. We appreciate that you are giving the new team members responsible for ATC and operations at the airport a chance to review the TMZ proposals set out in our letter of 14th November 2023 and provide a refreshed position. The proposal includes an invite to the Airport to consider becoming controlling authority for the TMZ because it provides longer, more regular operating hours than Lossiemouth, which we feel will service the GA community in the area better.

We understand the current position is that you have concerns that if [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

[REDACTED] In effect we would like our proposal to the CAA to include Inverness Airport as controlling authority for the TMZ [REDACTED]

I trust this makes our position clear but please don't hesitate to contact me for further discussion if it will help settle your position on the TMZ proposal.

Regards

[REDACTED]  
[REDACTED]

[REDACTED]  
[REDACTED]

[www.force9energy.com](http://www.force9energy.com)

272 Bath Street, Glasgow, G2 4JR.  
T: 0141 354 1410 F: 0141 354 1411

Force 9 Energy Partners LLP, registered number OC355316

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---

**From:** [REDACTED]  
**Sent:** Thursday, February 8, 2024 09:41  
**To:** [REDACTED]

Cc: [REDACTED]

Subject: RE: Clash Gour Wind Farm ACP Hi [REDACTED]

The letter of 14 Nov 2023 asked a singular question, albeit in 3 places, with the final paragraph asking:

*'We would appreciate your early comments on the proposals for a controlling authority for the TMZ contained herein and whether they address some of the concerns you expressed during Stage 3 of the proposed ACP'.*

The short answer today is that our view of who has controlling authority remains unchanged, and we advised such during the meeting of 19 December i.e. that Lossiemouth should have control, and we explained why.

However, in lieu of a changed management team at Inverness ATC, I have asked [REDACTED] to take our initial response as a whole back into his management team and review. I expect that to be completed when I return from Annual Leave on Mon 19 Feb, and we'll provide you with an updated holistic response then, but I can't say at this stage whether the response will materially change

I hope you appreciate the fact that the Inverness management team are taking a fresh look at the formal HIAL response and will revert shortly.

Kind Regards

[REDACTED]

---

From: [REDACTED]

Sent: Wednesday, February 7, 2024 3:38 PM

To: [REDACTED]

Cc: [REDACTED]

Subject: RE: Clash Gour Wind Farm ACP

**CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.**

Good afternoon [REDACTED]

Would you please be able to give us an update as to when we might expect a response to our letter from 14<sup>th</sup> November 2023?

Many thanks,

[REDACTED]

---

From: [REDACTED]

Sent: Thursday, January 25, 2024 9:10 AM

To: [REDACTED]

Cc: [REDACTED]

[REDACTED]

Subject: [EXTERNAL] RE: Clash Gour Wind Farm ACP



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Hi [REDACTED]

Of the 4<sup>th</sup> Para under ACP Update – Vertical extent

[REDACTED]

[REDACTED] I'd be grateful if you could remove from final version of notes.

We will aim to respond to your November letter, building upon our original response to the ACP, by the end of the month.

Kind Regards

[REDACTED]

---

**From:** [REDACTED]  
**Sent:** Wednesday, January 24, 2024 10:03 AM  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** Clash Gour Wind Farm ACP

**CAUTION:** This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Good morning [REDACTED]

Apologies for the delay, but please find attached the minutes from the meeting between Force 9 Energy and HIAL on Tuesday 19<sup>th</sup> December 2023. If you have any comments on the content, or require any amendments to clarify any points, please do not hesitate to get in touch.

In addition, we would very much appreciate your thoughts and comments on our proposal that Inverness ATC become the Controlling Authority for the TMZ, as detailed in our letter to you dated 14<sup>th</sup> November 2023. We are approaching the point where we would like to submit our proposal to the CAA for consideration, but need an indication of whether HIAL would be in a position to accept our proposal relating to the Controlling Authority.

We will of course, continue to engage with yourselves in relation to this ACP and very much look forward to continuing our dialogue in the near future.

Please do not hesitate to get in touch if you have any questions.

Regards,

[REDACTED]



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**Osprey Consulting Services Ltd, Bristol and Bath Science Park, Emersons Green, Bristol, BS16 7FR**

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[REDACTED]

---

**From:** [REDACTED]  
**Sent:** 01 March 2024 17:06  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** [EXTERNAL] RE: Clash Gour Wind Farm ACP  
**Attachments:** HIAL Response Clash Gour v2 01 Mar 24.docx

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Good Afternoon [REDACTED]

Thank you for outlining your position below. However, after due consideration, our position has not materially changed from that of our initial consultation response, in that we must continue to object to both the TMZ and proposal to act as the controlling authority, as outlined in the attached response.

Kind Regards

[REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
**Highlands and Islands Airports Ltd**  
Head Office, Inverness Airport, Inverness IV2 7JB

[REDACTED]  
[REDACTED]  
[REDACTED]

Working from home and available via contacts above

---

**From:** [REDACTED]  
**Sent:** Friday, February 9, 2024 4:41 PM  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** Re: Clash Gour Wind Farm ACP

**CAUTION:** This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Dear [REDACTED]

Thank you for your email below. We appreciate that you are giving the new team members responsible for ATC and operations at the airport a chance to review the TMZ proposals set out in our letter of 14th November 2023 and provide a refreshed position. The proposal includes an invite to the Airport to consider becoming controlling authority for the TMZ because it provides longer, more regular operating hours than Lossiemouth, which we feel will service the GA community in the area better.

We understand the current position is that you have concerns that if [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

[REDACTED] In effect we would like our proposal to the CAA to include Inverness Airport as controlling authority for the TMZ [REDACTED]

I trust this makes our position clear but please don't hesitate to contact me for further discussion if it will help settle your position on the TMZ proposal.

Regards

[REDACTED]  
[REDACTED]  
  
[REDACTED]  
[REDACTED]

[www.force9energy.com](http://www.force9energy.com)

272 Bath Street, Glasgow, G2 4JR.

T: 0141 354 1410 F: 0141 354 1411

Force 9 Energy Partners LLP, registered number OC355316

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**From:** [REDACTED]  
**Sent:** Thursday, February 8, 2024 09:41  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** RE: Clash Gour Wind Farm ACP Hi [REDACTED]

*'We would appreciate your early comments on the proposals for a controlling authority for the TMZ contained herein and whether they address some of the concerns you expressed during Stage 3 of the proposed ACP'.*

The short answer today is that our view of who has controlling authority remains unchanged, and we advised such during the meeting of 19 December i.e. that Lossiemouth should have control, and we explained why.

However, in lieu of a changed management team at Inverness ATC, I have asked [REDACTED] to take our initial response as a whole back into his management team and review. I expect that to be completed when I return from Annual Leave on Mon 19 Feb, and we'll provide you with an updated holistic response then, but I can't say at this stage whether the response will materially change

I hope you appreciate the fact that the Inverness management team are taking a fresh look at the formal HIAL response and will revert shortly.

Kind Regards

[REDACTED]

---

**From:** [REDACTED]  
**Sent:** Wednesday, February 7, 2024 3:38 PM  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** RE: Clash Gour Wind Farm ACP

**CAUTION:** This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Good afternoon [REDACTED]

Would you please be able to give us an update as to when we might expect a response to our letter from 14<sup>th</sup> November 2023?

Many thanks,

[REDACTED]

[REDACTED]	IV2 7JB	[REDACTED]	Senior Air Traffic Control Officer, Inverness, Highlands and Islands Airports Limited	Anonymous ANON-86GN-B2XU-4
Do you support the proposed Airspace Change Proposal?			OBJECT – I object to the proposed changes	
<p>In response to letter reference 71609 026 dated 14<sup>th</sup> November 2023 which is seeking a rapid solution to mitigate the business need of financial milestones, government energy targets and contractual obligations. The HIAL response previously provided coupled with the below is purely based on flight safety and evidenced facts.</p> <p>HIAL objects to the Clash Gour ACP for a Transponder Mandatory Zone. HIAL has invested in a technical windfarm mitigation solution (Terma Radar) which it has full confidence in ensuring the radar picture from which ATS will be delivered will not be vitiated by Clash Gour wind turbines.</p> <p>HIAL stands by our previous objection and largely does not accept the ACP sponsors comments to that objection. A technical solution to the Clash Gour proposals will shortly be operational at Inverness Aerodrome and as such an airspace solution is not required. Our technical solution allows freedom of flight without any caveats for all airspace users, it keeps the airspace free from undue complexity and prevents funnelling avoidance; a hazard clearly raised which increases ATCO and pilot workload in a relatively tight piece of airspace with fast jet operations rapidly changing the kinetic flight profiles and co-ordination. A TMZ is an agricultural solution which instigates an unhealthy confliction between airspace users (safety of flight) and the renewable sector. It is anticipated that Inverness Airspace Change Proposal will be implemented in spring of 2025; the establishment of controlled airspace around Inverness mandates the unit to provide zone crossing services to all aircraft concomitant with the principles of freedom of flight while enhancing protection for General Air Traffic arriving and departing Inverness.</p> <p>If the Clash Gour ACP be deemed by the CAA to require a TMZ, our preferred implementation of the ACP would be – H24 TMZ, SFC FL 195. The flying operations in and out of Inverness is not cognisant with our published regular hours and on a frequent ad-hoc basis Inverness can be open for 24hrs to support humanitarian and lifeline medical flights. In addition, the Inverness Airport opening hours change on a 6 month seasonal basis to meet airline requirements and the provision of radar services provided through the night is currently planned - this change is with the regulator for approval. As such the TMZ, if imposed, would need to be H24 7 days a week to provide suitable mitigation. Inverness does not support the suggestion that it should be the control authority for this TMZ and would not wish to take on this liability, regardless of the hours of operation agreed and as such objects to the proposed changes for the following reasons.</p> <ul style="list-style-type: none"> <li>• RAF Lossiemouth is a continuously active airfield in support of UK Air Defence and as such is open and provides ATS H24.</li> <li>• RAF Lossiemouth is a declared LARS unit Mon- Fri; Inverness only holds a liability to facilitate the safe and expeditious flow of transit traffic effecting the Inverness operation presently and, in the future, the transit of established controlled airspace.</li> <li>• Any approved TMZ within the confines of what is proposed has a far greater effect on Lossiemouth operations (situated in its climb out/approach lane for its longest runway) than that of Inverness.</li> </ul>				

<p>LOAs with adjoining ANSPs creates more complexity; in essence, 6 ATC agencies (Inverness Airport, RAF Lossiemouth, ScACC (Moray, Hebrides, and Tay Sectors), and Lon Mil North)} are already able to operate within the confines of the proposed TMZ and the Inverness DOC which only extends up to 15,000ft per <i>UKAIP EGPE AD 2.18 Air Traffic Services Communication Facilities</i>.</p>	
<p>Preferred option:</p>	<p>Do not support either Option 7(E) or Option 7(F).</p> <p>However, if the Clash Gour ACP is successful, number 3 to Option 7(E) with a TMZ with no buffer, SFC-FL195 H24 with RAF Lossiemouth as the control authority is the preferred and most practicable solution of those proposed.</p>
<p>The technical solution to mitigate the impact of windfarms on Inverness airport PSR will shortly be operational at Inverness Aerodrome and will have reached maturity well ahead of any Clash Gour milestones of turbine erection in 2026. A similar solution is understood to be in the pipeline at Lossiemouth. Both of these technical solutions would negate the requirement for a TMZ if implemented.</p>	
<p><b>CAP 1616 Categorisation</b></p>	



**From:** [REDACTED]  
**Sent:** 08 June 2023 09:28  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** [EXTERNAL] RE: Clash Gour Wind Farm ACP

**CAUTION:** This email originated from outside of the organisation. Do not follow guidance, click links, or open attachments unless you recognise the sender and know the content is safe.

Good morning [REDACTED]

Please see [responses](#) to your requests below:

- (a) You are able to provide the primary Radar data requested [REDACTED]  
[REDACTED]  
[REDACTED] are you able to point [REDACTED] in the right direction to obtain Lossiemouth radar data in support of Stage 3 of their Airspace Change Proposal? If you require any background information on the proposal, please let me know and I will be happy to discuss.
  
- (b) You are able to participate in a meeting to discuss your consultation response. MOD would be happy to meet to discuss the consultation response. The minimum attendance required from a MOD perspective would be DAATM (myself) and Lossiemouth SATCO, [REDACTED] It would appear that she is on leave until w/c 19 Jun, so a meeting after that date would seem appropriate – please feel free to propose dates after the 19 Jun (I am on leave that day) and we will see what we can accommodate.

Best regards,

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

**From:** [REDACTED]  
**Sent:** 09 June 2023 11:40  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** [EXTERNAL] RE: Clash Gour Wind Farm ACP

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[REDACTED] your best POC for the will be [REDACTED] who is the Service Delivery leader for [REDACTED] – he should be able to assist with request a.

[REDACTED] can you work with SATCO to support this Airspace Change Proposal application request? I don't think there will be any data due to Lossiemouth being on Legacy sensors, but you'll be better placed due to the change in management process under [REDACTED].

[REDACTED] cc'd for awareness.

Many thanks,

[REDACTED]  
[REDACTED] [REDACTED] [REDACTED]









## Controlling Authority

**Consultation Response – ‘Increased workload vs resource – Lossiemouth ATC is not configured personnel-wise to be the controlling authority for this TMZ. Any requirement to be so would require an uplift in personnel due to the potential additional workload’**

Although there is no requirement to have a Controlling Authority (CA), not to do so would be to the detriment of all aviation users in the local area. From our perspective, we believe that RAF Lossiemouth would be in the best position to be the CA for the TMZ, although we appreciate that there would need to be agreement with the MOD to achieve this. There is also the possibility that the CA could be shared between RAF Lossiemouth and Inverness Airport, depending on operational hours of each unit. Further discussions would be required to achieve this.

If RAF Lossiemouth were to be the CA, this would need to be captured as an ATC task to be guaranteed. This may require an increase in establishment (manning) for RAF Lossiemouth ATC and although this could be achieved, there is no guarantee that posts could be filled to achieve 100% manning. Any increase in establishment to achieve this additional task but leaving gaps in manning would increase the workload for ATC.

Notwithstanding the above issues, it was felt that some of the issues raised through the consultation response could be mitigated if RAF Lossiemouth was the CA.

## Activation times

Our preference would be to have limited activation times, not H24, to mitigate some of the issues relating to GA, especially weekend activity. Limiting the activation times to periods when RAF Lossiemouth and Inverness Airport are open for routine flying. We appreciate that RAF Lossiemouth is routinely active 24/7, with the possibility of activity specifically at the weekend. Given the level of expected activity at the weekend, would it be acceptable to RAF Lossiemouth not to have the TMZ active on a weekend and ATC actively avoid the area of the TMZ, given that the radar would still be blanked? Inverness Airport may be in a position to provide the CA role for weekend activation.

## Lateral limits

**Consultation Response – ‘of the limited options presented, 7F presents the least-worst option’**

We would like to understand why Option 7(F) (TMZ with a 2nm buffer) is the least worst option. In our opinion, the additional space required for the buffer zone would increase the negative impact on all airspace users. An option with a buffer will affect more airspace users as a result of its larger lateral extents and it is therefore more likely to create funnelling and choke points and potentially have a greater impact on RAF Lossiemouth procedures.

The option for a buffer zone to enhance safety was based on giving ATC warning time for non-transponding aircraft that may enter the radar blanked zone. It could be argued that to avoid infringement of the TMZ, ATC would attempt to warn aircraft ahead of entering the buffer zone, therefore further increasing the affected area. Could ATC not implement a theoretical buffer zone and if non-transponding aircraft are seen to be approaching the inner area, then warnings could be given. Also, there is no guarantee that aircraft will either have a radio, or be on a frequency that ATC can contact them on. It could be argued that professional aviators would be expected to avoid the area of the TMZ, like any other airspace structure, if they do not have the necessary clearance or equipment to transit the area. Any aircraft infringing the airspace would then be treated in the normal reporting way with the CAA.

On balance our preference is for a TMZ without buffers to reduce its area and thereby reduce the level of non transponding traffic potentially affected. If the lateral extents of the TMZ were reduced in this way, would the TMZ be more acceptable to RAF Lossiemouth?

### Vertical Limits

Consultation Response – ‘Lossiemouth ATC are an Enhanced Air Traffic Service Unit and are therefore permitted to provide ATS in the TRA. If the TRA is active and the TMZ only goes up to FL195, there is the potential for non-transponding gliders to operate over the TMZ in the suppressed area and therefore be invisible to Lossiemouth controllers’

Consultation Response – ‘traffic operating in the TRA within the lateral confines of the TMZ would not be visible on primary radar to Lossiemouth, thereby reducing the effectiveness of ATS provision’

Consultation Response – ‘providing a NATS feed into Lossiemouth. Therefore the TMZ only needs to be up to a very limited altitude.’

Under normal circumstances in the UK, civilian aircraft operating above FL100 must be transponder equipped. However, with the Temporary Reserved Area (Gliding) (TRA(G)), gliders may operate without a transponder above this level. The area of the proposed TMZ is beneath one of these TRA(G) areas. However, in accordance with the AIP, aircraft operating above FL195 must maintain radio contact on the appropriate frequency, and therefore gliders could be given clearance to enter the TMZ.

For non-glider aircraft operating in the lateral confines of the TMZ, they would need to be transponding or communicating with ATC, so ATC situational awareness would be maintained. We would like to understand what reduction in ATS would take effect in this situation?

The potential to provide a NATS radar feed into RAF Lossiemouth will be investigated further. This could reduce the vertical extent of the TMZ by providing a radar picture from a NATS radar that would not be impacted by the wind turbines. This could also provide a radar picture of aircraft operating within the lateral confines of the TMZ, mitigating the impact on ATS provision. It is understood that there is no assurance from NATS on data once it has left Swanwick and it is up to receiving units to provide a safety case. However, it is believed that this is already in place in some locations so the issue is not insurmountable.

### Additional Consultation response Comments

‘Should there be a concentration of non-transponding aircraft in this area (who often do not contact on the published LARS frequency), and Lossiemouth aircraft under a Deconfliction Service, it may prevent recovery to Lossiemouth, potentially forcing them to divert’

We do not believe that current traffic levels in the area would cause a concentration of traffic, and particularly non-transponding traffic, in the area, particularly if the TMZ without the buffer zone is the chosen option. We are trying to quantify this effect and are exploring the possibility of obtaining radar data to support this. We would like to understand why the displacement of traffic who are not transponding and who do not contact the LARS service would change the actions of ATC, who would have to provide avoiding action to achieve separation minima on these aircraft currently?

Can Lossiemouth ATC provide radar data from either the Watchman or STAR NG to help us quantify the level of non transponding aircraft currently using the airspace in the vicinity of the ATC?

**‘There is an increased risk to life due to the reduction in service Lossiemouth ATC will have to apply for aircraft transiting the TMZ’**

We would like clarity on this statement. What reduction in ATS would need to be applied for aircraft transiting the TMZ. Would this ‘increased risk to life’ not therefore be applicable to any TMZ activated across the UK where radar blanking has been used, rendering a TMZ as unsafe? The objective of a TMZ is to enhance the conspicuity of aircraft operating within, or in the vicinity of, complex, or otherwise busy airspace in order to maintain a balance between safe, efficient operations and fair, equitable access for all airspace users.

**‘Formation stream departures and arrivals’**

Do subordinate aircraft in a stream departure or arrival operate their transponder in standby? Would all aircraft be monitoring the same frequency, and therefore be able to get clearance through the TMZ?

**‘the MOD recognises that for the short term there will need to be airspace mitigation, until a permanent solution is determined by the Sponsor’**

The introduction of a TMZ is considered to be the only airspace mitigation available until a permanent technical solution is operational, has been tested and has been accepted by both Inverness Airport and the MOD as suitable mitigation for the proposed wind farm.

**From:** [REDACTED]  
**Sent:** 19 October 2023 15:27  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** [EXTERNAL] RE: Force 9 Energy/RAF Lossiemouth TMZ Discussion  
**Attachments:** Lossiemouth Responses.docx

**CAUTION:** This email originated from outside of the organisation. Do not follow guidance, click links, or open attachments unless you recognise the sender and know the content is safe.

Good afternoon [REDACTED]

Please see attached for MOD responses to your post-consultation follow-up questions.

Best regards,

[REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]

---

**From:** [REDACTED]  
**Sent:** 02 October 2023 11:32  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** FW: Force 9 Energy/RAF Lossiemouth TMZ Discussion

Good morning [REDACTED]

Just following up on the e-mail below and was wondering whether you had any comments on the content, or were able to provide some answers to the included questions?

Regards,

[REDACTED]

[REDACTED]  
[REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

Follow us on: [REDACTED]

## Controlling Authority

Consultation Response – ‘Increased workload vs resource – Lossiemouth ATC is not configured personnel-wise to be the controlling authority for this TMZ. Any requirement to be so would require an uplift in personnel due to the potential additional workload’

Although there is no requirement to have a Controlling Authority (CA), not to do so would be to the detriment of all aviation users in the local area. From our perspective, we believe that RAF Lossiemouth would be in the best position to be the CA for the TMZ, although we appreciate that there would need to be agreement with the MOD to achieve this. There is also the possibility that the CA could be shared between RAF Lossiemouth and Inverness Airport, depending on operational hours of each unit. Further discussions would be required to achieve this.

If RAF Lossiemouth were to be the CA, this would need to be captured as an ATC task to be guaranteed. This may require an increase in establishment (manning) for RAF Lossiemouth ATC and although this could be achieved, there is no guarantee that posts could be filled to achieve 100% manning. Any increase in establishment to achieve this additional task but leaving gaps in manning would increase the workload for ATC.

Notwithstanding the above issues, it was felt that some of the issues raised through the consultation response could be mitigated if RAF Lossiemouth was the CA.

The Lossiemouth concern is that due to the proximity of the Easterton gliding site, they may be inundated with calls from non-transponding aircraft to cross the TMZ or operate within, distracting from the unit task. Therefore, operating as the TMZ Control Authority is not something Lossiemouth would be able to agree to without the sponsor providing detail regarding the likely frequency of requests from non-transponding aircraft to cross the TMZ, so they can understand the potential impact to ATC task. The concern is that if Lossiemouth routinely approve non-transponding aircraft to cross the TMZ then local airspace users may decide to request this rather than route around the TMZ, which would ultimately defeat the point of its existence and sap unit ATC capacity, for an activity that does not benefit MOD. It may be the case that local gliders are not radio-equipped and would therefore have to route around the TMZ – it is suggested that the sponsor investigate this. Further, there would need to be notes appended to the UK AIP entry stating that entry is not subject to ATC approval for aircraft operating SSR equipment, otherwise calls from external ATC units and pilots would sap unit capacity.

The CAA ‘Policy for Radio Mandatory Zones and Transponder Mandatory Zones’ says the following:

- 4.5 The Controlling Authority of a notified RMZ/TMZ should have sufficient resource in place to ensure that the airspace is managed in accordance with the sponsor’s safety assessment as approved by the CAA in the airspace change decision document; for example, where appropriate, suitable ATS provision for the duration of activation of the subject airspace.

Lossiemouth’s potential ability to be able to manage the TMZ would be dependent on the unit resource – should this resource not be available Lossiemouth may not be able to act in accordance with the policy requirements. During airfield quiet hours and at weekends the resource is reduced, so there would be little to no flex to be able to approve crossing requests if ATC became busy in those periods.



## Activation times

Our preference would be to have limited activation times, not H24, to mitigate some of the issues relating to GA, especially weekend activity. Limiting the activation times to periods when RAF Lossiemouth and Inverness Airport are open for routine flying. We appreciate that RAF Lossiemouth is routinely active 24/7, with the possibility of activity specifically at the weekend. Given the level of expected activity at the weekend, would it be acceptable to RAF Lossiemouth not to have the TMZ active on a weekend and ATC actively avoid the area of the TMZ, given that the radar would still be blanked? Inverness Airport may be in a position to provide the CA role for weekend activation.

The Lossiemouth concern with the TMZ not being active at weekends would be that the radar would still be blanked but non-transponding aircraft would be able to operate within the area. That means there would be an area where ATS provision becomes less effective i.e. the controller would not be able to see what non-transponding traffic is in there and therefore cannot provide an ATS without limiting the service accordingly, iaw CAP774. MOD airspace users would not be able to operate in, or close to, the lateral confines of the blanked area without an increase to MAC risk. If Inverness was able to operate as CA at weekends then this concern would be mitigated.

## Lateral limits

**Consultation Response – ‘of the limited options presented, 7F presents the least-worst option’**

We would like to understand why Option 7(F) (TMZ with a 2nm buffer) is the least worst option. In our opinion, the additional space required for the buffer zone would increase the negative impact on all airspace users. An option with a buffer will affect more airspace users as a result of its larger lateral extents and it is therefore more likely to create funnelling and choke points and potentially have a greater impact on RAF Lossiemouth procedures.

The option for a buffer zone to enhance safety was based on giving ATC warning time for non-transponding aircraft that may enter the radar blanked zone. It could be argued that to avoid infringement of the TMZ, ATC would attempt to warn aircraft ahead of entering the buffer zone, therefore further increasing the affected area. Could ATC not implement a theoretical buffer zone and if non-transponding aircraft are seen to be approaching the inner area, then warnings could be given. Also, there is no guarantee that aircraft will either have a radio, or be on a frequency that ATC can contact them on. It could be argued that professional aviators would be expected to avoid the area of the TMZ, like any other airspace structure, if they do not have the necessary clearance or equipment to transit the area. Any aircraft infringing the airspace would then be treated in the normal reporting way with the CAA.

On balance our preference is for a TMZ without buffers to reduce its area and thereby reduce the level of non transponding traffic potentially affected. If the lateral extents of the TMZ were reduced in this way, would the TMZ be more acceptable to RAF Lossiemouth?

Lossiemouth have re-assessed the options and the TMZ without a buffer would now be considered the least-worst option.

## Vertical Limits

**Consultation Response – ‘Lossiemouth ATC are an Enhanced Air Traffic Service Unit and are therefore permitted to provide ATS in the TRA. If the TRA is active and the TMZ only goes up to FL195, there is the potential for non-transponding gliders to operate over the TMZ in the suppressed area and therefore be invisible to Lossiemouth controllers’**

**Consultation Response – ‘traffic operating in the TRA within the lateral confines of the TMZ would not be visible on primary radar to Lossiemouth, thereby reducing the effectiveness of ATS provision’**

Consultation Response – ‘providing a NATS feed into Lossiemouth. Therefore the TMZ only needs to be up to a very limited altitude.’

Under normal circumstances in the UK, civilian aircraft operating above FL100 must be transponder equipped. However, with the Temporary Reserved Area (Gliding) (TRA(G)), gliders may operate without a transponder above this level. The area of the proposed TMZ is beneath one of these TRA (G) areas. However, in accordance with the AIP, aircraft operating above FL195 must maintain radio contact on the appropriate frequency, and therefore gliders could be given clearance to enter the TMZ.

For non-glider aircraft operating in the lateral confines of the TMZ, they would need to be transponding or communicating with ATC, so ATC situational awareness would be maintained. We would like to understand what reduction in ATS would take effect in this situation?

In this situation, radar services to other aircraft ivo the TMZ would be reduced iaw CAP 774, as they would effectively be operating close to the limits of non-cooperative surveillance coverage.

The point regarding carriage of transponders above FL100 is noted. If the sponsor can demonstrate that there will not be non-transponding aircraft above FL100 other than above FL195 in the TRA(G), then potentially a limit of FL100 may be acceptable instead of FL195. However, MOD would be keen to understand how the non-transponding glider gets up into the TRA(G) and whether they would need to route through the blanked area above FL100, thus rendering them invisible to Lossiemouth ATC. In the AIP other TMZs have a top level of FL100 so the sponsor may want to consider the rationale for their FL100 limit; however, a lot of these are over the sea so the airspace context is different from the Clash Gour proposal.

The potential to provide a NATS radar feed into RAF Lossiemouth will be investigated further. This could reduce the vertical extent of the TMZ by providing a radar picture from a NATS radar that would not be impacted by the wind turbines. This could also provide a radar picture of aircraft operating within the lateral confines of the TMZ, mitigating the impact on ATS provision. It is understood that there is no assurance from NATS on data once it has left Swanwick and it is up to receiving units to provide a safety case. However, it is believed that this is already in place in some locations so the issue is not insurmountable.

#### **Additional Consultation response Comments**

‘Should there be a concentration of non-transponding aircraft in this area (who often do not contact on the published LARS frequency), and Lossiemouth aircraft under a Deconfliction Service, it may prevent recovery to Lossiemouth, potentially forcing them to divert’

We do not believe that current traffic levels in the area would cause a concentration of traffic, and particularly non-transponding traffic, in the area, particularly if the TMZ without the buffer zone is the chosen option. We are trying to quantify this effect and are exploring the possibility of obtaining radar data to support this. We would like to understand why the displacement of traffic who are not transponding and who do not contact the LARS service would change the actions of ATC, who would have to provide avoiding action to achieve separation minima on these aircraft currently?

As the TMZ does not currently exist, the non-transponding traffic can route through the area as they please. The TMZ would force this traffic to the north of the TMZ, which puts it in closer proximity to Lossiemouth and aircraft in the radar pattern recovering to the airfield, or traffic departing from it. If that Lossiemouth traffic was to be under a Deconfliction Service then the controller must attempt to achieve lateral deconfliction minima from the non-transponding traffic, which wouldn't be that close to Lossiemouth if the TMZ wasn't there and would therefore not normally be an issue. The non-transponding traffic is unlikely to re-route to the south of the TMZ due to the high ground.

Can Lossiemouth ATC provide radar data from either the Watchman or STAR NG to help us quantify the level of non transponding aircraft currently using the airspace in the vicinity of the ATC?

It is understood that DE&S have already contacted yourselves on this matter.

**‘There is an increased risk to life due to the reduction in service Lossiemouth ATC will have to apply for aircraft transiting the TMZ’**

We would like clarity on this statement. What reduction in ATS would need to be applied for aircraft transiting the TMZ. Would this ‘increased risk to life’ not therefore be applicable to any TMZ activated across the UK where radar blanking has been used, rendering a TMZ as unsafe? The objective of a TMZ is to enhance the conspicuity of aircraft operating within, or in the vicinity of complex, or otherwise busy airspace in order to maintain a balance between safe, efficient operations and fair, equitable access for all airspace users.

Whilst transiting a TMZ, traffic information and deconfliction advice can only be provided against transponding traffic, as the area will be blanked. If there is any unknown traffic operating in the area without a transponder then they would not be visible to Lossiemouth ATC. The rules of a TMZ are understood but that does not mean that non-transponding could not inadvertently enter the area without a clearance to do so e.g. lost traffic.

**‘Formation stream departures and arrivals’**

Do subordinate aircraft in a stream departure or arrival operate their transponder in standby? Would all aircraft be monitoring the same frequency, and therefore be able to get clearance through the TMZ?

That would depend on the formation requirement – it may be that lead and last aircraft squawk but it may be all elements depending upon how far apart they are in the stream or formation. However if they form part of the formation the clearance should apply to all aircraft in the formation.

**‘the MOD recognises that for the short term there will need to be airspace mitigation, until a permanent solution is determined by the Sponsor’**

The introduction of a TMZ is considered to be the only airspace mitigation available until a permanent technical solution is operational, has been tested and has been accepted by both Inverness Airport and the MOD as suitable mitigation for the proposed wind farm.

**From:** [REDACTED]  
**Sent:** 14 November 2023 10:05  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** Clash Gour Wind Farm Airspace Change Proposal  
**Attachments:** 71609 026 Clash Gour Wind Farm Airspace Change Proposal Issue 1 MOD.pdf

Good morning,

Please see attached letter, sent on behalf of Force 9 Energy Ltd, with regard to the Clash Gour Wind Farm Airspace Change Proposal.

Regards,

[REDACTED]

[REDACTED]

[REDACTED]

Follow us on: [REDACTED]



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 SO2 Airspace Plans  
 Defence Airspace and Air Traffic Management  
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Copy to:

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 [REDACTED]  
 [REDACTED]  
 [REDACTED]

Date: 14<sup>th</sup> November 2023  
 Ref: 71609 026

Dear [REDACTED]

## **Clash Gour Wind Farm Airspace Change Proposal ACP-2021-046**

### **Introduction**

This letter has been issued to both the MoD and HIAL on behalf of Clash Gour Holdings Ltd to address comments made by both parties during the consultation period (Stage 3) of the proposed Airspace Change Proposal (ACP) for Clash Gour wind farm, which will take the form of a Transponder Mandatory Zone (TMZ). Specifically, this letter seeks the agreement of both the MoD and HIAL on proposals for a controlling authority for the TMZ.

A TMZ is being sought while technical mitigation solutions are awaiting sign off with the MoD. We anticipate the TMZ forming a part of the overall package of mitigation offered and agreed as part of the Air Traffic Control Radar Mitigation Scheme required under conditions 5 in respect of RAF Lossiemouth of the consent for the wind farm.

Approval of the TMZ will allow key financing milestones necessary for the timely construction programme of the wind farm to be achieved. We would not however anticipate implementation of the proposed TMZ being necessary until 2026, when turbine erection is currently programmed to commence.

By way of reminder, the wind farm is expected to have a capacity of approximately 225 MW and will therefore make a substantial contribution to the Scottish Government Climate Change and on shore wind capacity targets. The project benefits from a grid connection agreement to connect in 2027 which if missed would likely delay the project for 5 years, meaning it would not be capable of contributing to current Government policy targets.

As a further update, the electricity generated from the wind farm has been contracted with the UK Governments Low Carbon Contracts Company. The contract requires generation to start by 2028.

Taken together, we see the TMZ as a positive route to unlocking the potential of Clash Gour wind farm while discussions continue on technical mitigation solutions with the MoD.

---

Osprey Consulting Services Ltd, Harston Mill, Royston Road, Harston, Cambridge, CB22 7GG  
 Main Telephone No. 01420 520200 / enquiries@ospreycls.co.uk

Registered in England and Wales under No: 06034579





## **Clash Gour Wind Farm: Proposed TMZ**

You will be aware that the proposed ACP associated with the proposed Clash Gour wind farm has reached Stage 4a of the CAP1616 process. Clash Gour Holdings Ltd has been considering the responses to the proposal during Step 3: Consultation. A common theme in the responses from all areas of the aviation community was defining a Controlling Authority for the TMZ.

To progress this ACP and meet the specific deadlines and milestones associated with the wind farm project, noted above, we are seeking your views, and ultimately your agreement to the proposals set out below in respect of defining a Controlling Authority for a TMZ associated with the wind farm. This letter also sets out our thinking on the timing of operation of the TMZ and the proposed lateral and vertical limits of the TMZ. We are seeking your early response to these proposals which we will take account of in making our Stage 4 submissions to the CAA.

## **Controlling Authority: Inverness Airport ATC**

Inverness Airport ATC operating hours are routinely longer than those of RAF Lossiemouth, including routine availability on weekends and public holidays. In addition, Inverness Airport has installed a Terma radar which we understand will provide effective mitigation for the turbines seen by the radar at Clash Gour wind farm. It is expected therefore that by the time of turbine erection and operation, Inverness Airport will have a complete and mitigated picture of the airspace around Clash Gour meaning it can provide effective airspace management. Furthermore having a single Controlling Authority is considered preferential to ensure that there is no confusion with operators as to which Air Navigation Service Provider to contact if permission to enter the TMZ is required.

Given the above noted factors, in our opinion, we believe that Inverness Airport ATC are in the best position to be the Controlling Authority for the TMZ.

## **Hours of activation:**

0630 – 2130(L)

The proposed hours of activation are during the period when a radar service is available from Inverness Airport ATC.

Outside of these proposed activation times, we believe that the flight activity at both units would be sufficiently reduced to not have the TMZ activated. It is assumed that radar blanking would still be in place outside these activation times, so it would be the responsibility of each unit to ensure any traffic under a radar service avoids the area of the TMZ. We do not believe that this would unduly increase controller workload as the levels of activity of Inverness Airport, RAF Lossiemouth and General Aviation aircraft operating in the vicinity are likely to be very low outside of the proposed activation times. Aircraft operating under Visual Flight Rules (VFR) in the vicinity of the area would be responsible for avoidance of other aircraft under the usual see-and-avoid principles for Class G airspace.

## **Lateral Limits:**

It is proposed that Option 7(E) will be submitted as our preferred option. For clarity, Option 7(E) did not include a 2nm buffer and represents the smallest proposed TMZ possible to cover



the wind farm area. We do not consider that the inclusion of a buffer zone to allow ATC to provide warning to aircraft that look like they may infringe the radar-blanked area sufficiently outweighs the impact that the increased size of the TMZ (with a buffer), would have on both the GA traffic in the area and traffic operating from RAF Lossiemouth or Inverness Airport. The inclusion of a buffer area would both increase the amount of traffic that is likely to be displaced and create funnelling and choke points, closer to the RAF Lossiemouth MATZ and approach routes, increasing the risk of a mid-air collision for all aircraft. The proposed TMZ would primarily be situated over the higher ground where there are existing wind farms, which is generally avoided by transiting air traffic.

### **Vertical Limit:**

The proposed vertical limit of the TMZ would be FL195 to cater for gliders operating without transponder in the non-SSR Glider Area above the proposed TMZ. Gliders operating above FL195 in the TRA(G) area must maintain radio contact and therefore would be able to obtain clearance through the TMZ.

### **Conclusions**

We believe Inverness Airport are best placed to be controlling authority for the proposed TMZ during its hours of operation and the proposed TMZ would be the smallest possible option. Other options for controlling authority, lateral limits and vertical limits which have been considered are included in the table in Appendix A1 to this document.

As previously explained, we are proposing to make a submission to the CAA for approval of a TMZ in the near future. Approval will allow key milestones in the development of the wind farm to be achieved, as noted above.

We very much look forward to continued engagement with you on this subject in order to reach a solution that is acceptable to Inverness Airport/RAF Lossiemouth and ourselves. We would appreciate your early comments on the proposals for a controlling authority for the TMZ contained herein and whether they address some of the concerns you expressed during Stage 3 of the proposed ACP.

Yours sincerely

[Redacted signature]

[Redacted name]

[Redacted title]

Osprey Consulting Services Ltd on behalf of Force 9 Energy Ltd

# A1 Options Considered

## A1.1 TMZ Options Considered

	Option	Activation Time	Controlling Authority	Vertical Extent	Notes
1	7F	H24	Nil	FL195	Buffer to allow extra time to warn aircraft approaching blanked area
<p>We believe that this is the worst-case option. The inclusion of the buffer zone would both increase the amount of traffic that is likely to be displaced and could create funnelling and choke points, increasing the risk of a potential mid-air collision for all aircraft. Twenty-four hour activation is not required because ATC hours of operation in the area are not 24hr and the lack of a Controlling Authority would prevent access to the airspace for aircraft that are equipped with a radio, but non-transponding.</p> <p>Option 7F is not considered any further in this table.</p>					
2	7E	H24	Inverness Airport	FL195	Would require additional ATC manpower establishment
<p>Traffic levels would not justify 24-hour activation and the requirement to increase ATC manning levels at the unit.</p>					
3	7E	H24	RAF Lossiemouth	FL195	Would require additional ATC manpower establishment
<p>Traffic levels would not justify 24-hour activation and the requirement to increase ATC manning levels at the unit.</p>					
4	7E	H24	Inverness Airport	6,500 ft	Would require additional ATC manpower establishment and Onward Routed Radar Data (ORRD) from NATS Perwinnes Hill radar site
<p>Traffic levels would not justify 24-hour activation and the requirement to increase ATC manning levels at the unit. An agreement to provide ORDD from the NATS Perwinnes Hill radar site to reduce the proposed upper level of the TMZ cannot be achieved in a timeframe that is compatible within the project milestones.</p> <p>Options which include an upper limit less than FL195 are not therefore considered any further in this table.</p>					
5	7E	0630-2130	Inverness Airport	FL195	
<p>This is our preferred option.</p>					



6	7E	0900-1700 Mon-Fri 0630-2130 Sat-Sun	RAF Lossiemouth  Inverness Airport	FL195	Outside active times, TMZ would be 'cold' and RAF Lossiemouth and Inverness Airport would need to avoid the area (unless operating under Visual Meteorological Conditions (VMC) and traffic accept responsibility for avoidance)
The use of a single Controlling Authority would be preferential to ensure that there is no confusion with operators as to which Air Navigation Service Provider to contact if permission to enter the TMZ is required.					
7	7E	0900-1700 Mon-Fri	RAF Lossiemouth	FL195	Only if Inverness Airport sign-off the Consent condition Outside active times, TMZ would be 'cold' and RAF Lossiemouth would need to avoid the area (unless operating under VMC and traffic accept responsibility for avoidance)
If the use of the technical mitigation solution available at Inverness Airport is agreed prior to commencement of the turbine erection programme, radar blanking, and therefore the TMZ, would only be required to protect RAF Lossiemouth operations. It is our opinion that the TMZ would only be required to be active during the busy, routine daytime flying period.					

**From:** [REDACTED]  
**Sent:** 20 November 2023 09:10  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** [EXTERNAL] RE: Clash Gour Wind Farm Airspace Change Proposal

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Good morning [REDACTED]

Thank you for your letter dated 14 Nov 23, please take this as a response on behalf of MOD airspace users.

Lossiemouth is content for Inverness ATC to be the Controlling Authority (CA) for the proposed TMZ. This mitigates Lossiemouth's initial concern that the CA task could outstrip their unit resource. It should still be noted that procedures will be required between Lossiemouth and Inverness to allow Lossiemouth an understanding of when non-transponding traffic has been given permission to fly through the TMZ, so Lossiemouth traffic is able to re-route or safely transit the TMZ under an SSR-alone service. Further to that, the MOD - not just Lossiemouth - requires access to the TMZ airspace at all times for aircraft that have serviceable SSR equipment – please see UK AIP ENR 2.2 for several examples of TMZ's where CA permission is not required for transponding traffic, regardless of who is providing the ATS.

It is assumed that the 0630-2130 TMZ operating window is inclusive of weekends, if it is not then please make this clear. There would be an overnight period where the TMZ is not active but the RAG Blanking remains applied to the Lossiemouth radar, which will mean a PSR blind spot. This will present a hazard – albeit reduced due to the time of day – of encountering non-transponding traffic that ATC cannot see, which will require acceptance of a potentially higher MAC risk if flying effectively SSR alone in the area, or the need to avoid the TMZ area when it is not active. However, it is noted that non-transponding traffic levels are likely to be considerably reduced during the time that the TMZ is not active.

The MOD agrees that Inverness Airport are best placed to be controlling authority for the proposed TMZ during its hours of operation and the proposed TMZ would be the least-worst option of those presented in terms of dimensions and activation times. However, the main concern of Lossiemouth still exists, in that non-transponding aircraft that route around the TMZ, either of their own volition or because they are unable to obtain a clearance to access the TMZ, are likely to be pushed closer to Lossiemouth arrival and departure patterns. This has the potential to impact the air safety of Lossiemouth arrivals and departures, or preclude efficient arrivals and departures for Lossiemouth aircraft that require a Deconfliction Service.

If you require any further information, please let me know.

Best regards,

[REDACTED]

[REDACTED]

[REDACTED]

**From:** [REDACTED]  
**Sent:** 26 March 2024 16:36  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** [EXTERNAL] Clash Gour Wind Farm - Proposed TMZ

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Dear [REDACTED]

Thank you for meeting with me on Thursday last week to discuss the Clash Gour ACP proposal, which will take the form of a TMZ. As discussed we are readying our final submissions to the CAA. One of the key points for the submission is identifying a controlling authority for the TMZ. We wrote to you in November of last year setting out our initial proposals that the TMZ would be the smallest possible area to cover the wind farm and that we considered HIAL may be best placed to take on responsibility as controlling authority for the TMZ. You wrote back agreeing with those general principles. We have since been discussing responsibility for controlling authority for the TMZ with HIAL. After a few months of deliberation HIAL has suggested to us that it does not consider itself to be best placed to take on the role of controlling authority for the TMZ.

I am therefore writing to you to ask whether the MoD and specifically Lossiemouth ATC would take the role of controlling authority for the proposed TMZ. [REDACTED]

[REDACTED] I also noted that the evidence that we have collected during preparation of the ACP submission to the CAA, suggests that the amount of aircraft without a transponder which are likely to seek an ATC service to pass through the TMZ, is likely to be very low. I attach extracts from our final submission to the CAA which illustrate the point (in Section 3) and sets out our proposals for the TMZ (in Section 5).

I have tried to provide only the key points in these extracts (from a much longer document) for ease of reading. The extracts illustrate an estimate of the level of activity around the proposed TMZ, but in short:

- We undertook a pattern of life study for an area within 10kms of the wind farm. It is accepted that this only illustrates transponding aircraft, but using a scaling factor, we estimate that there could be 8 aircraft per day flying within a 10km area of the wind farm, without the use of transponder. This figure represents the busiest period analysed in our pattern of life study in August. Not all of those 8 aircraft will have been flying in the vicinity of the proposed TMZ and not all of them would make a request of ATC to pass through the TMZ.
- The Gliding Club at Easterton provided us data of flights from the airfield recorded on FLARM. They also made its own estimate of the area of the proposed TMZ. They estimated that over a 3 year period, there were 237 flights through their estimate of where the TMZ would be located. In fact the proposed TMZ is smaller and when accurately georeferenced, is located further west from the club than they estimated. It can be seen from Figures 9 and 10 of the ACP submission extracts, that significantly fewer glider flights than the estimate given by the club would pass through the TMZ. Some of those flights may be by aircraft with transponders.

On the basis of the evidence we have gathered about the quantity of flights by non transponding aircraft in the area, combined with our final proposed size of TMZ, we don't believe the task of controlling authority for the TMZ will be an onerous one. We believe only a handful of non transponding aircraft might require to seek permission to pass through the TMZ on a weekly basis. It is more likely such aircraft will simply avoid the TMZ and will be displaced to areas where flights by GA aircraft are already made regularly.

We would appreciate it if you would review this submission with colleagues and provide us your comments on whether our analysis of air traffic movement in the area ties in with your working experience. We hope you can agree that taking on the role of controlling authority for the TMZ is unlikely to be an onerous task. If you do still have resourcing concerns we would be happy to discuss how we can contribute to help you overcome them.

At this stage, we are only seeking from you an agreement in principle that you could take on the role of controlling authority, to enable our submission to the CAA. As we discussed, we are hoping to take a financial investment decision on the wind farm in November and for a positive decision, we will need some assurance that we can move to build the wind farm under a plan for mitigating the effects of the project on radar, to overcome the conditions on the grant of consent. The proposed TMZ has already been recognised by the MoD as a key stepping stone in allowing the wind farm to come forward, while technical mitigation solutions are defined, bottomed out and ultimately tested and verified while the wind farm is operating in situ. The TMZ would not need to be operational until 2026, when on current programme turbines are due to be delivered to site. An agreement in principle to the MoD taking controlling authority responsibility for the TMZ will allow plenty of time for final details and agreements to be put in place prior to operation of the wind farm.

We would be very happy to discuss the content of this email with you when you have had the opportunity to consider its detail.

Regards

[Redacted signature]

[Redacted signature]

[www.force9energy.com](http://www.force9energy.com)

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Force 9 Energy Partners LLP, registered number OC355316

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**From:** [REDACTED]  
**Sent:** 16 April 2024 09:04  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** [EXTERNAL] RE: Clash Gour Wind Farm - Proposed TMZ

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[REDACTED]

In the event that the Clash Gour ACP is approved, Lossiemouth ATC would be able to take on Controlling Authority responsibilities for the proposed TMZ.

Best regards,

[REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]

Upcoming out of office dates: 6 May; 25 May-2 Jun; 10 Jun; 21-24 Jun.

---

**From:** [REDACTED]  
**Sent:** 15 April 2024 16:22  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** Re: Clash Gour Wind Farm - Proposed TMZ

Good Afternoon [REDACTED]

I'm wondering whether SATCO at Lossiemouth has had a chance to review our proposal that Lossiemouth take responsibility as controlling authority for the proposed TMZ associated with the Clash Gour wind farm. I'd be very happy to meet with you and her either in person or over teams (or similar) if it would help set more context or detail to the proposal. We are keen to make our submission to the CAA as soon as possible and would appreciate an early 'in principle' response.

regards,

[REDACTED]

---

**From:** [REDACTED]  
**Sent:** Wednesday, March 27, 2024 09:20  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** RE: Clash Gour Wind Farm - Proposed TMZ

[REDACTED]

Received, thank you. I have passed this to SATCO Lossiemouth ATC for their consideration.

Best regards,

[Redacted]

[Redacted]  
[Redacted]  
[Redacted]

Upcoming out of office dates: 29 Mar-2 Apr; 12 Apr; 25 May-2 Jun.



## Engagement Correspondence – Highland Glider Club

---

**From:** [REDACTED]  
**Sent:** 13 June 2023 09:24  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** [EXTERNAL] FW: Clash Gour Wind Farm ACP  
**Attachments:** Easterton Flight Traces.pdf; Skydemon Heatmap 2023.png

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Good morning

Please see below and attached from [REDACTED]

Kind regards,

■

liberty<sup>1</sup>

[REDACTED]

[REDACTED]  
[REDACTED]



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**From:** [REDACTED]  
**Sent:** Monday, June 12, 2023 1:09 PM  
**To:** Clashgour ACP <clashgouracp@consultation-online.co.uk>; [REDACTED]  
**Subject:** Re: Clash Gour Wind Farm ACP

**CAUTION:** This email originated from outside of the organisation. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi [REDACTED]

No problem, thank you for your interest.

Please find attached a couple of representative images. One is an image produced by Skydemon themselves for us. It is over a 3 year period and clearly shows traffic transiting through the TMZ.

The second was produced by me over a similar period for comparison and comprises glider traces recorded on FLARM and uploaded to the British Gliding Associations National Competition Ladder database.

Both of these include the two lockdown periods so there was an obvious reduction in traffic then.

I can produce other traces for the gliding traffic if required.

Thank you

Kind regards

[REDACTED]

---

**From:** Clashgour ACP <[clashgouracp@consultation-online.co.uk](mailto:clashgouracp@consultation-online.co.uk)>

**Sent:** 08 June 2023 13:00

**To:** [REDACTED]

**Subject:** Clash Gour Wind Farm ACP

Dear [REDACTED]

Thank you for your response to the Clash Gour Wind Farm ACP submitted on 17th April 2023.

We note in your response that you have offered to provide us with GPS traces of glider activity in the area around the proposed wind farm. We would very much like to accept your offer of the data. As we move the project forward, we feel it would be beneficial for us, as a non-aviation organisation, to try and get a better picture of air traffic patterns in the vicinity of the proposed site.

Thank you for your continued participation in this project. We look forward to continue working constructively with you in the near future.

Yours sincerely,

[REDACTED]

[REDACTED]

Force 9 Energy



# Highland Gliding Club is a mainly weekend operation but does regularly fly midweek

## Glider Flights Visualisation

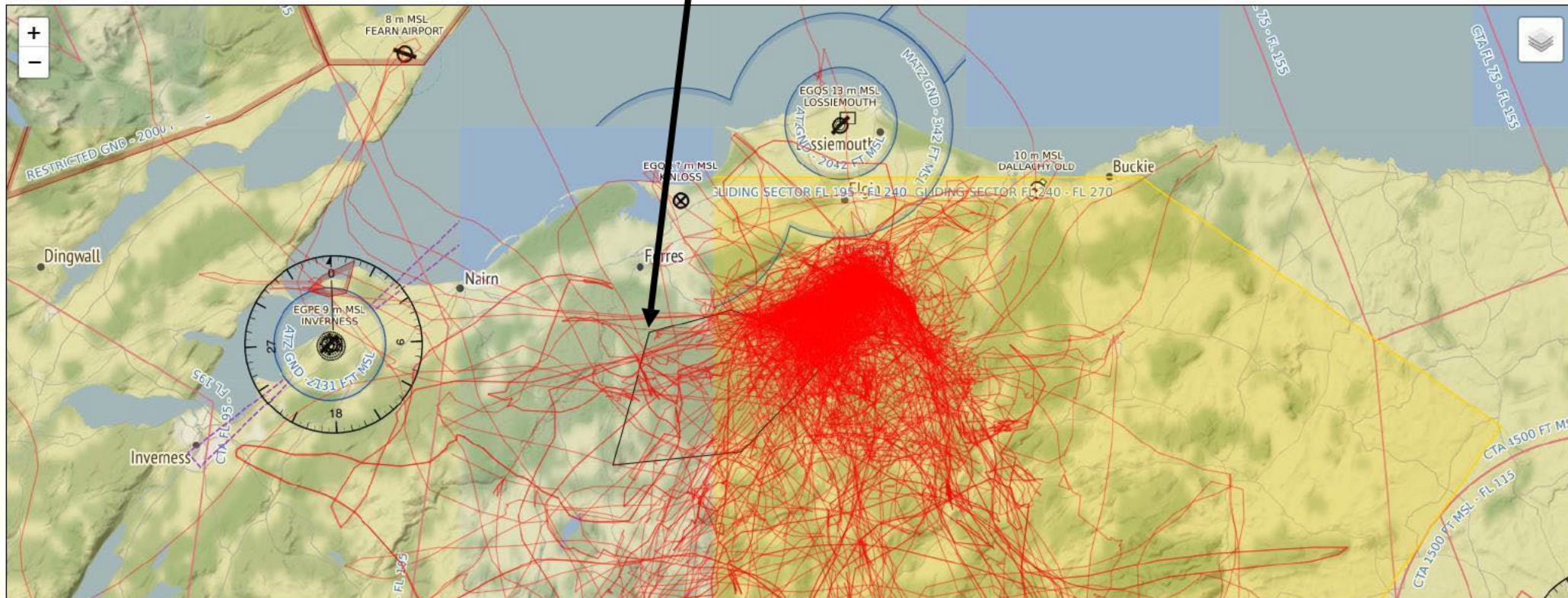
98,958 Flights, 22,573,141 points logged

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- [Settings](#)
- [Tools](#)

### Flight Paths for Request 'Clashgour TMZ'

POLYGON((-3.604 57.551,-3.654 57.452,-3.477 57.462,-3.341 57.538,-3.489 57.568,-3.604 57.551));  
 Flights passing through the selected area from 01-Mar-2020 to 01-Mar-2023  
 Altitude -1000 to 19500 feet  
 All days  
 237 flights plotted

An approximation of the proposed TMZ is outlined in black on the image with the eastern edge obscured by the number of traces



These traces are taken over the same period as the Skydemon heatmap for comparison. Bear in mind, this includes the COVID lockdown periods.



