

# **Aviation mitigation progress report**





Docume	nt status						
Version	Purpose of document	Authored by	by Reviewed by Appro		Review date		
F01	Deadline 3	RPS	Morgan Offshore Wind Limited	Morgan Offshore Wind Limited	November 2024		
F02	Deadline 4	RPS	Morgan Offshore Wind Limited	Morgan Offshore Wind Limited	December 2024		
F03	Deadline 5	RPS	Morgan Offshore Wind Limited	Morgan Offshore Wind Limited	January 2025		
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# **Glossary**

Term	Meaning
Applicant	Morgan Offshore Wind Limited.
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for a Nationally Significant Infrastructure Project (NSIP).
Morgan Array Area	The area within which the wind turbines, foundations, inter-array cables, interconnector cables, scour protection, cable protection and offshore substation platforms (OSPs) forming part of the Morgan Offshore Wind Project: Generation Assets will be located.
Morgan Offshore Wind Project: Generation Assets	This is the name given to the Morgan Generation Assets project as a whole (includes all infrastructure and activities associated with the project construction, operations and maintenance, and decommissioning).
The Planning Inspectorate	The agency responsible for operating the planning process for applications for development consent under the Planning Act 2008.

# **Acronyms**

Acronym	Description
ACP	Airspace Change Procedure
APDO	Approved (Instrument Flight) Procedure Design Organisation
CAA	Civil Aviation Authority
DCO	Development Consent Order
DIO	Defence Infrastructure Organisation
EIA	Environmental Impact Assessment
ExA	Examining Authority
IoM	Isle of Man
MOD	Ministry of Defence
MSA	Minimum Sector Altitude
NDA	Non Disclosure Agreement
PEIR	Preliminary Environmental Information Report
PSR	Primary Surveillance Radar
RNP	Required Navigation Performance
SoCG	Statements of Common Ground
UHF	Ultra High Frequency
VHF	Very High Frequency



# **Units**

Unit	Description
ft	Feet
m	Metres



# 1 AVIATION MITIGATION PROGRESS REPORT

#### 1.1 Introduction

1.1.1.1 This document has been prepared in response to the Examining Authority's (ExA's) first written Questions (AR 1.3) addressed to the Applicant, with further updates provided at Deadlines 4 and 5. The Question is as follows:

#### **Aviation and Radar Mitigation**

A number of IPs have referred to the need for agreement on mitigation proposals including:

- BAE Systems [RR-004, REP1-029]
- Blackpool Airport [RR-006, REP1-028]
- DIO Safeguarding/MOD [PD1-019, REP1-032, REP1-042]
- Isle of Man Government Territorial Seas Committee (and Ronaldsway Airport) [RR-015, REP1-038, REP1-047]
- NATS En-Route plc [RR-025, REP1-037].

The ExA notes that the parties are actively engaging to agree solutions, but requests that a consolidated report with checklist of progress with all the above is submitted in relation to mitigation for aviation and radar effects for each location and how it is to be secured. This should include an indication of updates to the draft DCO where such mitigation should be secured.

1.1.1.2 This document provides a consolidated report with a checklist of progress with all identified stakeholders.

# 1.2 Response

1.2.1.1 The aviation mitigation progress report is provided in Table 1.1, based on the latest Statements of Common Ground (SoCG) agreed between the Applicant and the relevant parties, as referenced. The reference number for each discussion point reflects that in the latest SoCG.

 Table 1.1:
 Aviation mitigation progress report.

IP and SoCG Reference Number	Applicant's Position	Aviation IP Position	Status	Means of securing	Progress at Deadline 5	Next Steps	Expected timescales to resolve negotiation/ agreement of actions
BAE Systems Marine Limited at Walney Aerodrome (BAE.AR.12) (REP1-029)	The Applicant has undertaken an IFP assessment but requires information from BAE Systems on their proposed Required Navigation Performance (RNP) IFP design for Walney Aerodrome Runway 05 in order to understand their concerns.  The Applicant is seeking further discussion with BAE Systems on this matter and will update the Examining Authority at a future Deadline.  The Applicant acknowledges the need to procure an assessment from NATS as Walney Aerodrome's Civil Aviation Authority (CAA) Approved (Instrument Flight) Procedure Design	BAE Systems is awaiting the commissioning and funding (by the Applicant) of a NATS IFP assessment based on the revised tip height (NATS is Walney Aerodrome's CAA APDO). The outcome from this could affect the magnitude of the impact on the operation of Walney Aerodrome.	Requirement included in draft Development Consent Order (DCO) Ongoing Point of Discussion	The Applicant has included a requirement within the draft DCO at Deadline 5, the scope of which would cover mitigation in the event it was established to be necessary.	Applicant has commissioned the NATS report but delivery is not expected to occur prior to close of the Examination.	Receive report from NATS and agree acceptability of assessment with Walney.  It is however noted that it is agreed that a DCO requirement should be included in the draft DCO in terms suitable to cover mitigation, should it be determined to be necessary. The requirement included in the draft DCO at Deadline 5 is in broad terms to provide for mitigation of any material impacts on air traffic services, including IFP impacts.  The Applicant has included a requirement that it considers to be in industry-standard terms to secure	Having now included a requirement in the draft DCO, the Applicant considers that this matter has been resolved from a consenting perspective.  An update will be provided at Deadline 6 regarding progress on reporting of this matter, agreement on requirement wording and associated commercial agreements.  BAE have had limited resources available to engage between DL4 and DL5. It is therefore proposed a revised (anticipated to be final) SoCG will be provided at DL6



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	Organisation (APDO).					mitigation of this nature. A draft commercial agreement has been issued for BAE Systems consideration.	
BAE Systems Marine Limited at Walney Aerodrome (BAE.AR.13) (REP1-029)	The Preliminary Environmental Information Report (PEIR) identified that at a maximum tip height of 324 m, the current Minimum Sector Altitude (MSA) was sufficient. However, it is agreed that following the updated tip height to 364 m, the MSA would need to be increased to 2,200 ft to provide safe coverage. Updates to the MSA, if required, will need to be started in accordance with the aviation regulatory process. The Project Description chapter (APP-010) identifies	BAE Systems believes that an update to the MSA will be required based on a tip height of 364 m. It needs more clarity about the responsibility (including funding) for updating the MSA and implementing it.	Requirement included in draft DCO Ongoing point of discussion	The Applicant has included a requirement within the draft DCO at Deadline 5, the scope of which would cover mitigation in the event it was established to be necessary.	Meeting held on 04/12/2024.  Applicant has commissioned the NATS report but delivery is not expected to occur prior to close of the Examination.  The Applicant acknowledges that if a mitigation solution is required, then this will be undertaken at the cost of the Applicant.	Receive report from NATS and agree acceptability of assessment with Walney.  It is however noted that it is agreed that a DCO requirement should be included in the draft DCO in terms suitable to cover mitigation, should it be determined to be necessary. The requirement included in the draft DCO at Deadline 5 is in broad terms to provide for mitigation of any material impacts on air traffic services, including MSA impacts.	Having now included a requirement in the draft DCO, the Applicant considers that this matter has been resolved from a consenting perspective.  An update will be provided at Deadline 6 regarding progress on reporting of this matter, agreement on requirement wording and associated commercial agreements.  BAE have had limited resources available to engage between DL4 and DL5. It is therefore proposed a revised (anticipated to be



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	the earliest construction could commence is 2026. The Applicant will know the exact wind turbine dimensions post-consent and will provide confirmation to BAE Systems of the final design at that juncture to ensure the MSA can be appropriately implemented.					A draft commercial agreement has been issued for BAE Systems consideration.	final) SoCG will be provided at DL6
Warton Aerodrome (BAE.AR.13) (REP1-029)	Applicant's IFP assessment for Warton Aerodrome indicates no impact (APP-045).	BAE Systems in respect of Warton aerodrome has also requested a review of the IFP assessment undertaken by the Applicant (APP-045) with a focus on new prospective IFPs for Warton Runway 07/25.	Requirement included in draft DCO Ongoing Point of Discussion	The Applicant has included a requirement within the draft DCO at Deadline 5, the scope of which would cover mitigation in the event it was established to be necessary.	Warton Aerodrome are yet to supply the Applicant further information to allow complete assessment to be undertaken to Warton's satisfaction.  The Applicant acknowledges that if a mitigation solution (which is only procedural and requires no provision of new assets) is required, then this will be	Osprey to amend assessment when Warton data provided by BAE. It is however noted that it is agreed that a DCO requirement should be included in the draft DCO in terms suitable to cover mitigation, should it be determined to be necessary. The requirement included in the draft DCO at Deadline 5 is in broad terms to	Having now included a requirement in the draft DCO, the Applicant considers that this matter has been resolved from a consenting perspective.  An update will be provided at Deadline 6 regarding progress on reporting of this matter, agreement on requirement wording and associated commercial agreements.



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					undertaken at the cost of the Applicant.	provide for mitigation of any material impacts on air traffic services, including IFP impacts.	BAE have had limited resources available to engage between DL4 and DL5. It is therefore proposed a revised (anticipated to be final) SoCG will be provided at DL6
Walney Aerodrome (BAE.AR.13) (REP1-029)	The stakeholder has recently raised concerns, prompted by engagement with CAA, that Very High Frequency (VHF) comms may be materially degraded by the presence of the Morgan offshore array.  The Applicant has seen no evidence that this would be the case and notes that the existing windfarms in the Irish Sea have not been attributed to cause a degradation of service at the aerodrome.  The Applicant understands that	Walney Aerodrome have recently raised concerns regarding VHF communications.	Requirement included in draft DCO Ongoing Point of Discussion	The Applicant has included a requirement within the draft DCO at Deadline 5, the scope of which would cover mitigation in the event it was established to be necessary.	The Applicant has commissioned a communications assessment from NATS. Delivery is however not expected to occur prior to close of the Examination.	It is the Applicant's contention that it is on the aerodrome licence holder to undertake its VHF comms safeguarding assessment and continue to demonstrate the safety case is upheld.  The Applicant will engage with the aerodrome on receipt of the report to further discuss the potential for impact.  Given the emerging nature of this issue and the ongoing nature of the project's	Having now included a requirement in the draft DCO, the Applicant considers that this matter has been resolved from a consenting perspective.  It remains the Applicant's position that no material evidence has been provided to support the suggestion that a material degradation of VHF communications could occur.  However it is accepted that discussion on this matter will not be concluded by the close of the



IP and SoCG Reference Number	Applicant's Position	Aviation IP Position	Status	Means of securing	Progress at Deadline 5	Next Steps	Expected timescales to resolve negotiation/ agreement of actions
	concern on this matter originates from the CAA and relates to specific impacts experienced at Prestwick. It is the Applicant's position that the topography and density, distribution and proximity of onshore windfarm development creates a unique circumstance at Prestwick which is not replicated in the Irish Sea. It is notable that Prestwick is not impacted by offshore development.					assessment of the issue it is acknowledged by both parties that this matter is best resolved through a requirement.  The DCO requirement to be agreed with BAE is broad and provides for mitigation of impacts on air traffic services, including VHF impacts.	Examination. The DCO requirement provided (and to be agreed with BAE) is broad and provides for mitigation of impacts on air traffic services, including VHF communications.  Whilst engagement will continue, the Applicant considers this matter will be resolved by inclusion of the requirement.  BAE have had limited resources available to engage between DL4 and DL5. It is therefore proposed a revised (anticipated to be final) SoCG will be provided at DL6
Warton Aerodrome (BAE.AR.13) (REP1-029)	The stakeholder has recently raised concerns, at the behest of CAA, that VHF/Ultra High Frequency (UHF) comms may be materially degraded	Warton Aerodrome have recently raised concerns regarding VHF/UHF communications.	Requirement included in draft DCO Ongoing Point of Discussion	The Applicant has included a requirement within the draft DCO at Deadline 5, the scope of which would cover mitigation in the	The Applicant has commissioned a communications assessment from NATS. Delivery is however not expected to occur	It is the Applicant's contention that it is on the aerodrome licence holder to undertake its VHF/UHF comms safeguarding assessment and	Having now included a requirement in the draft DCO, the Applicant considers that this matter has been resolved from a consenting perspective.



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	by the presence of the Morgan offshore array.  The applicant has seen no evidence that this would be the case and notes that the existing windfarms in the Irish Sea have not be attributed to causing a degradation of service at the aerodrome.  The Applicant understands that concern on this matter originates from the CAA and relates to specific impacts experienced at Prestwick. It is the Applicant's position that the topography and density, distribution and proximity of onshore development creates a unique circumstance at Prestwick which is not replicated in the Irish Sea. It is			event it was established to be necessary.	prior to close of the Examination.	continue to demonstrate the safety case is upheld.  The Applicant will engage with the aerodrome on receipt of the report to further discuss the potential for impact.  Given the emerging nature of this issue and the ongoing nature of the project's assessment of the issue it is acknowledged by both parties that this matter is best resolved through a requirement.  The DCO requirement to be agreed with BAE is broad and provides for mitigation of impacts on air traffic services, including VHF impacts.	It remains the Applicant's position that no material evidence has been provided to support the suggestion that a material degradation of VHF/ UHF communications could occur. However it is accepted that discussion on this matter will not be concluded by the close of the Examination. A DCO requirement is to be agreed with BAE which is broad and provides for mitigation of impacts on air traffic services, including communications. BAE have had limited resources available to engage between DL4 and DL5. It is therefore proposed a revised (anticipated to be final) SoCG will be provided at DL6



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	notable that Prestwick is not impacted by offshore development.						
Blackpool Airport (BA.AR.12) (REP1-028)	No significant effects on aviation assets operated by Blackpool Airport were predicted in the Environmental Impact Assessment (EIA) (APP-015), however the Applicant understands that Blackpool Airport is currently conducting a 5 year review of its flight procedures and cannot comment on the conclusion of the Applicant's assessment or any need for mitigation measures until that process is complete. The Applicant will work with Blackpool Airport to ensure that appropriate mitigation is in place so that the Morgan	Blackpool Airport is undertaking a safeguarding assessment which is updating its five-year review as requested by the CAA and considering both the Morgan Generation Assets and other relevant projects.  This is anticipated to be submitted to the CAA in October/November 2024. At the time of writing, it is difficult to estimate when approval and implementation of the finalised instrument approach procedures (IAPs) will be received.	Agreed	Requirement	A number of meetings have been held between the Applicant and the IP ahead of Deadline 5.  Given the lack of clarity relating to timescales and outcomes with the CAA as regulator, the Applicant has accepted the IP's position that this matter is best resolved through the provision of a requirement. The mutually agreed drafting of such a requirement is included within the draft DCO submitted at DL5.	It is considered that for the purposes of the Examination this matter is concluded by provision of an agreed requirement. The Applicant and IP will maintain dialogue as details emerge from the CAA.	Matter resolved through provision of requirement.



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	Generation Assets will not have a significant effect on the Blackpool Airport Minimum Sector Altitude (MSA).						
Blackpool Airport (BA.AR.12) (REP1-028)	The stakeholder has recently raised concerns, at the behest of CAA, that VHF comms may be materially degraded by the presence of the Morgan offshore array.  The Applicant has seen no evidence that this would be the case and notes that the existing windfarms in the Irish Sea have not be attributed to causing a degradation of service at the aerodrome.  The Applicant understands that concern on this matter originates from the CAA and relates to specific	Blackpool Aerodrome have recently raised concerns regarding VHF communications.	Agreed	Requirement	The Applicant has commissioned a communications assessment from NATS. Delivery is however not expected to occur prior to close of the Examination.  In light of the fact this matter will not be concluded prior to close of the Examination, this matter has been resolved by a requirement. The mutually agreed drafting of such a requirement is included within the draft DCO submitted at DL5.	It is the Applicants consideration that is the responsibility of the aerodrome licence holder to demonstrate the safety case is upheld.  The Applicant will engage with the aerodrome on receipt of the report to further discuss the potential for impact.	This matter is resolved through the agreed provision of a requirement.



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	impacts experienced at Prestwick. It is the Applicant's position that the topography and density, distribution and proximity of onshore development creates a unique circumstance at Prestwick which is not replicated in the Irish Sea. It is notable that Prestwick is not impacted by offshore development.						
Defence Infrastructure Organisation (DIO) (DIO.AR.15) (REP1-032)	BAE Systems Warton Aerodrome are in the process of implementing a new Primary Surveillance Radar (PSR) at Warton Aerodrome which was expected to be online by the end of 2024 subject to site acceptance and flight trials. BAE Systems have indicated that mitigation is likely to include as a	Confirm that position set out by the Applicant aligns with that of the Ministry of Defence (MOD).  Discussion of mitigation is ongoing as set out in the Applicants position.	included in draft DCO	The Applicant has included a requirement within the draft DCO at Deadline 5, the scope of which would cover mitigation in the event it was established to be necessary.	Further meetings have been held with DIO ahead of DL5. An updated SoCG has been provided in light of this.  Discussion of the mitigation (and the potential for this to be delivered by the existent wind farm tolerant radar that is being installed at Warton) continues	A requirement for this matter has been provided to DIO for inclusion in the DCO, but the acceptance of this remains outstanding. It is however included in the draft submitted at DL5. The Applicant has included a requirement that it considers to be in industry-standard	DL6 - Matter to be closed through acceptance of requirement in DCO; remaining actions to deliver mitigation will continue post closure of the Examination.  Finalised SoCG to be provided at DL6.



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	minimum: optimisation of the radar for the Morgan Generation Assets, flight trials and a safety case to the Civil Aviation Authority.  BAE Systems anticipated being in a position to provide further information by mid-October 2024, but update currently outstanding. This process is constrained by the presence of a Non Disclosure Agreement (NDA) that prevents transparent communication regarding the parameters of the new PSR.  DIO's role in the matter is holder of the radar safety case, and therefore they are the counter party that will accept any requirement				to be restricted by commercial NDA. Whilst wording of the requirement relating to this matter is well progressed with the operator, DIO are unable to accept at this time as they are unclear on the viability of delivery of mitigation. This lack of clarity arises as they are merely holders of the safety case for this asset, not the owners or operators, and therefore cannot determine this position without guidance from BAE.	terms to secure mitigation of this nature.  The Applicant shall seek a tripartite meeting ahead of DL6 whereby BAE can confirm to DIO the viability of delivery of mitigation.	



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	provided in due course.						
sle of Man (IoM) Airport (Ronaldsway) (IoMA.AR.13) (REP1-038)	The mitigation measures and conditions outlined in Volume 2, Chapter 11: Aviation and radar (APP-015) and the Mitigation and Monitoring schedule (APP-076) are appropriate and will result in minor adverse residual impacts, which are not significant in EIA terms.  The Applicant is aware that IoM Airport (Ronaldsway) are undertaking a surveillance strategy to manage air traffic safeguarding which includes consideration of the Morgan Generation Assets and any potential mitigation requirements.  An executive	Whilst the executive summary identifies a viable path to mitigation, the technical solution is not yet prescribed, nor is the commercial path to delivery agreed. Both matters are ongoing point of discussion. In the meantime, the Applicant has provided draft wording for a DCO requirement. Once this wording is agreed it will be added to the draft DCO. The Applicant and IoM Airport (Ronaldsway) will provide an update into the Examination when available on progress with technical solution.	Agreed	Agreement of the necessary mitigation is considered unlikely to be agreed prior to the close of the Examination. A requirement that secures any necessary mitigation be approved and implemented has been committed to in DCO.	Wording for requirement agreed and included in draft DCO submitted at DL5.	No further steps anticipated for exam process. Engagement with IOM Ronaldsway to continue.	Matter resolved with DCO requirement at DL5.  A final SoCG will be provided at DL6 reflecting the agreed position.



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	report has been shared with the Applicant and meetings held to discuss with both parties.  The Applicant will continue to engage with IoM Airport (Ronaldsway) regards the design of the technical solution and will update the Examining Authority at the next opportunity.						
NATS En Route plc (NATS.AR.12) (REP1-037)	The Applicant has received details of preferred mitigation solutions from NATS (Large Blanking and an Airspace Change Procedure (ACP) to implement a Transponder Mandatory Zone (TMZ)) and the parties are engaging on a commercial agreement.  The draft DCO (REP2-011) includes	Agreed in meeting 06/09/24, ongoing discussion required to finalise agreements.	Agreed	Draft DCO (REP2- 011) Requirement 4.	Further meeting held to close out outstanding points for SoCG.	SoCG to be signed	Matter resolved by DCO requirement.



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	under Requirement 4, restrictions on operation until the appropriate mitigation for Lowther Hill PSR and St Anne's PSR is implemented.						
	The parties will provide an update on progress through subsequent SoCG submissions.						