

IFP Safeguarding

Wind Turbine (Onshore)

Blackpool Airport

20 December 2023

CL-6011-RPT-003 V1.0

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Change History Record

Issue	Change Reference	Date	Details
V1.0	Initial Issue	20 December 2023	Initial Issue

Executive Summary

Blackpool Airport (The Client) has requested Cyrrus to conduct an Instrument Flight Procedure (IFP) safeguarding assessment of a proposed Wind Turbine, approximately 9.33 Nautical Mile (NM) southeast from the nearest threshold (THR), for Runway (RWY) 28 at Blackpool Airport.

The purpose of this assessment is to determine if the proposed wind turbine infringes upon the protection areas/surfaces of the IFPs serving the Airport. These protection areas and surfaces (sloping or level) are established based upon the runway (RWY) and thresholds, ARP, clearways, ground navigation equipment, and established waypoints.

The proposed wind turbine does not impact the IFPs currently published at Blackpool Airport.

Overview

The proposed Wind Turbine is located approximately 9.33 NM southeast from the nearest THR for RWY 28 at Blackpool Airport, as depicted in Figure 1.

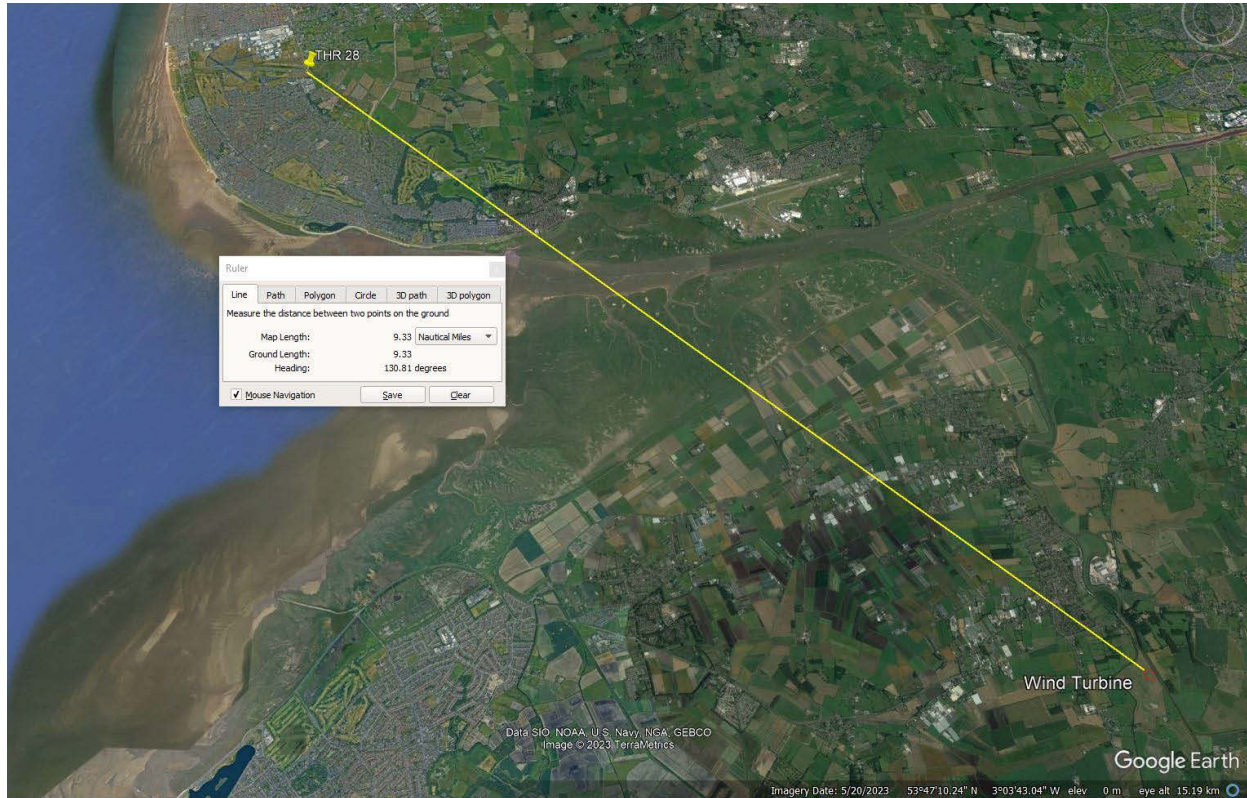


Figure 1: Obstacle Position relative to RWY 28

IFP's Assessed

The following IFPs, as published in the UK Aeronautical Information Publication (AIP) were assessed.

- INSTRUMENT APPROACH NDB(L)/DME RWY 10 (AD 2.EGNH-8-1)
- INSTRUMENT APPROACH NDB(L) RWY 10 (AD 2.EGNH-8-2)
- INSTRUMENT APPROACH ILS/DME RWY 28 (AD 2.EGNH-8-3)
- INSTRUMENT APPROACH LOC/DME RWY 28 (AD 2.EGNH-8-4)
- INSTRUMENT APPROACH RNP RWY 28 (AD 2.EGNH-8-5)
- INSTRUMENT APPROACH NDB(L)/DME RWY 28 (EGNH-8-6)

Data

The following data was received from the Client for the purpose of this assessment:

- Turbine position and elevation: 'IFP-011 V1.3 Safeguarding Client Information Form Onshore Turbine'.xls

Discrepancies and Assumptions

The terrain information supplied on the IFP-011 V1.3 Safeguarding Client Information Form, was unable to be verified against any supplementary terrain documentation such as engineering drawings or survey data, (required to be provided), and therefore it was not assumed that the terrain information received, had integrity. As a result, in accordance with the approved Cyrrus Quality Management System (QMS), a 10 m vertical tolerance was applied to the terrain elevation data.

The horizontal tolerance applied to the wind turbine, was the same as the value supplied for the radius at 69 metres (m).

Obstacle (No/Name)	Lat (WGS84)	Long (WGS84)	Obstacle (AGL m)	Tolerance (m)	Ground Level (m AMSL)	Elevation (m AMSL)
Wind Turbine (Onshore)	53°40'6.57"N	002°48' 59.47W	131	10	6	147

Table 1: Data used for assessment

IFP Safeguarding Assessment

An IFP Safeguarding assessment was completed against the applicable procedures for Runway 10 / Runway 28 at Blackpool Airport.

Due to the technical nature of the information, this report is a distillation of the IFP modelling and subsequent assessment of the obstacles, the full data set is available if required¹. The purpose of this report is to identify what procedures were assessed and whether there is an impact, in the event of an impact, potential mitigation is provided². Where an impact was identified, only the assessment of the respective segment for said procedure, is provided.

The IFPs were assessed using the following software and version : PHX 21.0.2.11825.

Table 2 provides an impact summary of all the IFPs that were assessed.

¹ Please note that the full data set can run into an excess of 20 pages per procedure and can only be decoded by those familiar with the output generation from the IFP Software and trained IFP Designers.

² Mitigation for the IFPs is for the Airport (Sponsor) to decide upon as these may have a direct impact on their operations. It is recommended that further discussion and guidance is obtained from the CAA.

Assessed Procedure	RWY	Impact	Comments
MSAs NDB(L) BPL	Both	No	Nil.
Visual Circling (Total Area)		No	Outside obstacle protection areas.
Visual Circling (South of RWY 10/28)		No	Outside obstacle protection areas.
NDB(L)/DME	10	No	Outside obstacle protection areas.
NDB(L)		No	Outside obstacle protection areas.
ILS/DME/NDB(L)	28	No	Outside obstacle protection areas.
LOC/DME/NDB(L)		No	Outside obstacle protection areas.
RNP		No	Nil.
NDB(L)/DME		No	Nil.

Table 2: IFP Assessment Impact Summary

Conclusion

The assessment has been carried out against the proposed wind turbine approximately 9.33 NM southeast from the nearest THR for RWY 28 at Blackpool Airport.

The assessment has determined that the proposed wind turbine does not impact the currently published IFPs for Blackpool Airport.

Note:

The Civil Aviation Authority have published information on their website concerning “Event and obstacle notification³” for notification of obstacles including cranes and buildings, to the CAA.

The CAA have also published information on their website concerning requirements for “Lighting and marking of obstacles⁴.”

³ <https://www.caa.co.uk/commercial-industry/airspace/event-and-obstacle-notification/event-and-obstacle-notification/>

⁴ <https://www.caa.co.uk/commercial-industry/airspace/event-and-obstacle-notification/lighting-and-marking-of-obstacles/>



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