GTech Surveys Limited

One Castlefield

Aviation Safeguarding

CHANGE HISTORY

Issue	Date	Details of Changes
0.0	22/04/2026	Working draft
0.1	29/06/2026	First draft issue for review
0.2	21/07/2026	Second draft issue - minor editing, site plan updated
1.0	04/08/2026	Final issue - no changes
Author: G Phillips		Reviewer: O Lloyd

Contents Page

GTech Surveys Limited

Executive Summary

1 - Introduction **5**

2 - NATS **10**

3 - Aerodrome Safeguarding **13**

4 - Conclusions **26**

Appendices **28**

Aerodrome Safeguarding for Manchester Airport

Aeronautical Information Service

CAP 168 CHAPTER 4: The assessment and treatment of obstacles - Figure 4.11

UK Area Minimum Altitudes (AMA)

Standard Departure Chart - Instrument (SID) - ICAO (MANCHESTER 2S 2Z)

Chart Key

The town and country planning (safeguarded aerodromes, technical sites and military explosives storage areas) direction 2002

© GTech Surveys Limited 2026

GTech Surveys Limited

GTech Surveys Limited is a Midlands based broadcast and telecommunications consultancy conducting projects throughout the entire UK. We undertake mobile phone network, television and radio reception surveys (pre- and post-construction signal surveys), conduct broadcast interference and reception investigations, and supports aviation and telecommunications planning work for wind energy developers, construction companies, architects, broadcasters and Local Planning Authorities.

In addition to radio interference modelling services and television reception surveys, we produce EIA and ES Telecommunications Chapters (also known as an 'Electronic Interference Chapter'); satisfying the requirements of Part 5, Regulation 18 (Parts 5a and 5b) of The Town and Country Planning EIA Regulations 2017. We peer review ES and EIA work, liaising with telecommunications providers (Arqiva, BT etc.) and advise developers with respect to associated Section 106 (Town and Country Planning Act 1990) and Section 75 (Town and Country Planning (Scotland) Act 1997) agreements.

GTech Surveys Limited is a consultant member of the Trade Association for Content Delivery - (Confederation of Aerial Industries Ltd - CAI) - the digital sector's professional body and trade organisation. We are listed on Constructionline and verified as a Safety Schemes in Procurement (SSIP) member by Safety Management Advisory Services (SMAS), making us compliant with the industry standard PAS 91:2013 + A1:2017.

Professional broadcast trained project engineers deliver, and supply Markel (UK) Limited insured technical products to support planning applications, discharge planning conditions (including S106 schedule agreements) and for due diligence. For more information about GTech Surveys Limited please visit our website - www.gtechsurveys.com

Constructionline Gold Member

SSIP

smas worksafe consultant

smas worksafe contractor www.smasltd.com

GTech Surveys Ltd.
Accountancy House,
4 Priory Road,
Kenilworth,
Warwickshire,
CV8 1LL.

T: +44(0) 1926 744771

© GTech Surveys Limited 2026

Executive Summary

This technical note provides an assessment of the potential impact of the proposed One Castlefield development, Manchester, on aviation safeguarding at Manchester Airport, (designated reference EGCC, ("the aerodrome")), and provides commentary on aviation safeguarding and other related matters.

To ensure a robust assessment and for completeness, both the Aerodrome Safeguarding Authority for Manchester Airport and NATS have been involved with pre-application consultation during spring 2026.

Due to the proposed massing of the Proposed Development and especially due to the proposed height, NATS consider that the Proposed Development will have an adverse impact upon the operations of the Secondary Surveillance Radar (SSR) at Manchester Airport. Consequently, NATS have considered that the following proposed planning condition is suitable to provide mitigation:

Aviation Conditions relating to Radar impacts

1. No construction shall commence on site, unless there has been submitted to and approved in writing by the Local Planning Authority and by the Radar Operator - NATS (En-route) plc, either:

a. detailed plans or evidence for the proposed buildings in that individual phase, demonstrating that there would be no detrimental impact upon the operation of the Manchester M10 SSR Radar; OR,

b. details of a 'Radar Mitigation Scheme' (including a timetable for its implementation during construction) to mitigate any detrimental impact upon the Manchester M10 SSR Radar.

2. Where a 'Radar Mitigation Scheme' has been required, no construction above 80m AOD shall take place on site, unless the 'Radar Mitigation Scheme' has been implemented. Development shall not take place other than in complete accordance with such a scheme as so approved unless the planning authority and NATS (En-route) plc have given written consent for a variation.

REASON:

In the interests of Air Traffic Safety and of the operations of NATS En-route PLC.

Consequently, it is likely that NATS will require a Radar Mitigation Scheme to be formulated to ensure that radar functionality is not adversely impacted by the Proposed Development during both the construction phase and operation phase.

© GTech Surveys Limited 2026

An analysis of the obstacle limitation surfaces (OLS) for EGCC indicates that the Site falls within the footprint of the OLS outer horizontal surface. Considering a maximum proposed building height of 168.00 m AOD, no infringement to any OLS can occur (providing a minimum 38.7 m clearance) and therefore is not likely to present a collision risk.

However, due to proposed height of the Proposed Development and the location of the Site next to a visual route, the Aerodrome Safeguarding Authority for Manchester Airport have indicated that they are likely to request an obstacle lighting regime. Any such request would outline that Block A be lit by 2000 candela (cd) steady red omnidirectional obstacle lights on each corner of Block A with spacing of each set of lights not exceeding 52 m. Consequently, it has been suggested that the proposed planning condition is likely to be suitable:

> *Prior to construction, the submission of an Aviation warning light scheme is to be submitted to the LPA in consultation with the Aerodrome Safeguarding Authority for Manchester Airport.*
>
> *Reason: Flight safety - To ensure adequate separation between aircraft and ground-based structures*

In addition to the obstacle lighting scheme, a formal Instrument Flight Procedure Assessment may[1] be required due to the proposed height of the Proposed Development.

Overall, without mitigation, the Proposed Development presents several risks to aircraft safety based on high-level assessments. During the determination period, relevant planning conditions will be finalised to ensure that the Proposed Development will present a minimal risk to aircraft safety.

As with any tall structure, the presence of a single crane or number of cranes has the potential to affect aviation activities. Crane-related issues are usually considered and managed in much the same way as any tall structure. It is advised that the developer applies[2] for crane permit(s) to the CAA within a minimum of 12 weeks prior to the commencement of the Proposed Development.

The assessment has been produced to accompany the planning application submission.

---

1 - 'May' - The reason for ambiguity around IFPs is because they are not fixed in nature i.e. by the time a formal planning application is presented the situation may have changed so giving definitive advice at this stage would not be reliable. Notwithstanding this, the Aerodrome Safeguarding Authority for Manchester Airport will complete an IFP check at the point of formal application and will be able to advise for certain at that juncture if a further IFP Assessment document is required.

2 - https://www.caa.co.uk/commercial-industry/airspace/event-and-obstacle-notification/crane-notification/

© GTech Surveys Limited 2026

1 - Introduction

This technical note details the findings of an aviation safeguarding assessment to inform the applicant of possible aviation safeguarding issues with respect to the One Castlefield proposal upon aviation infrastructure associated with Manchester Airport, which is located approximately 13 km south-west of the Site. This assessment has been prepared by GTech Surveys Limited on behalf of the applicant, Kirindolam 8 Ltd.

The Proposed Development

The Proposed Development presents the erection of two residential blocks, Block A (46 storeys) and Block B (9 storeys), providing 592 homes (Use Class C3) with supporting amenity spaces, car and cycle parking, new access arrangements, landscaping and other associated works.

The Site

The Site is located on the north-western edge of the Hulme Ward, bounded by Trentham Street, Ellesmere Street, Castlefield Locks, the elevated railway line, and a small area of the Bridgewater Canal. It is approximately 1.1 miles from Manchester city centre.

The Site is 100 metres from the Castlefield Conservation Area and close to three Grade II listed buildings (former Albert Mill, railway bridge over the canal, former Turville public house).

The Site was previously occupied by low-rise office and industrial units and is now cleared for development.

Figure 1 shows the location of the Site, which is 0.72 hectares in area.

© GTech Surveys Limited 2026



Figure 1 - Location of the Site (delineated in red)

The Proposed Development presents two blocks with the following maximum heights:

Block A: 46 storeys (+168.00m AOD)

Block B: 9 storeys (+59.8m AOD)

Figure 2 indicates the proposed massing of the Proposed Development.

© GTech Surveys Limited 2026

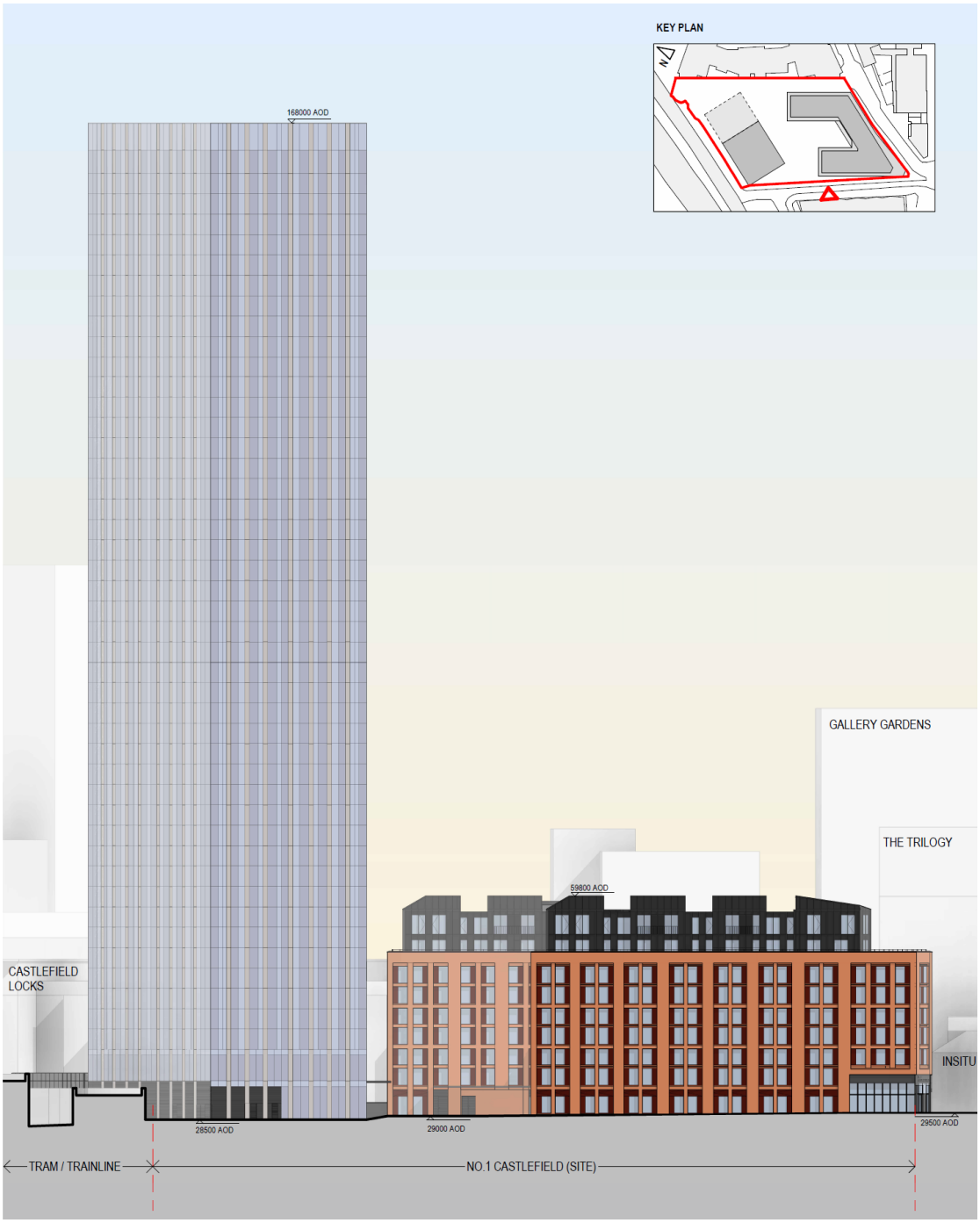


Figure 2 - Proposed West Elevation of the Proposed Development

© GTech Surveys Limited 2026

For aviation safeguarding matters, the following locations, as shown in Figure 3, indicate the approximate four corners of the Site:

Point	Easting	Northing
A	382472	397209
B	382513	397119
C	382483	397059
D	382433	397146

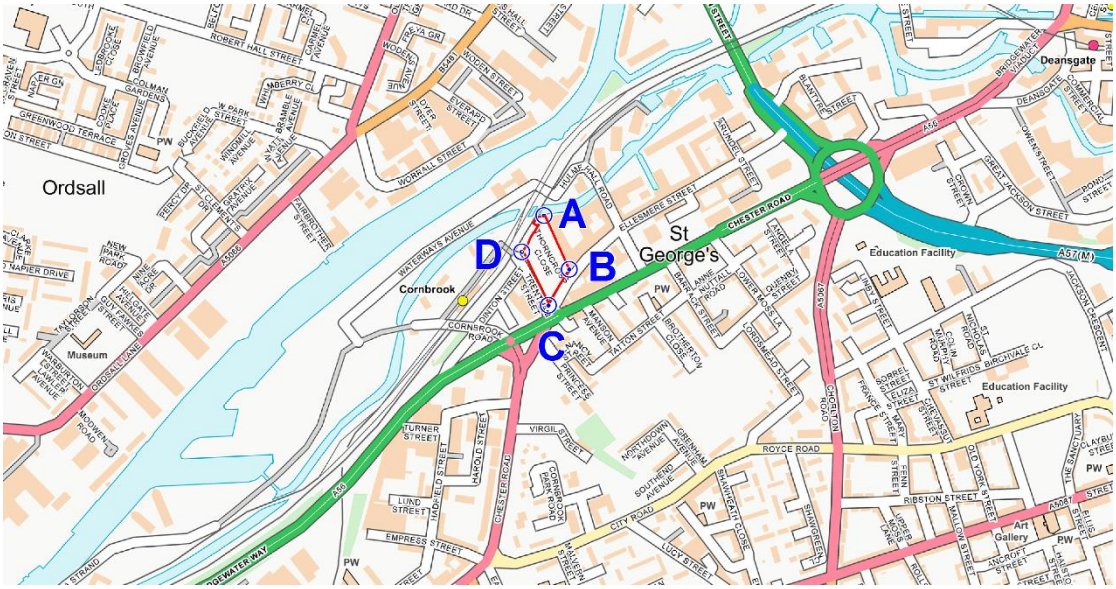


Figure 3 - Location of the Site for Aviation Safety Considerations

<u>The Assessment</u>

Consideration has been given to The town and country planning (safeguarded aerodromes, technical sites and military explosives storage areas) direction 2002. The direction is fully presented in the Appendix.

To inform this assessment, the Aerodrome Safeguarding Authority for Manchester Airport were consulted on the proposal during May 2026. It was concluded through their own assessment that several safeguarding issues exist, namely due to the proposed height of the Proposed Development and the ability of the Proposed Development to impact radar functionality at Manchester Airport.

However, Manchester Airports Group Aerodrome Safeguarding Team considered that the following were not of a concern; Lighting, Wildlife, Materials and Construction Management matters.

© GTech Surveys Limited 2026

NATS was consulted on the Proposed Development during April 2026. NATS concluded that radar impacts may exist and suggested a suitable planning condition to protect radar operations, which aligned with the suggested condition as presented by the Aerodrome Safeguarding Authority for Manchester Airport.

In this assessment no consideration has been given to the use of cranes used during the construction phase of the Proposed Development because it is understood that these details will be presented in the outline CMP to follow the requirements specified by CAP 1096[3] and to notify the Civil Aviation Authority (CAA) before the erection of any tower crane(s).

An assessment of aerodrome safeguarding is a complex undertaking and whilst all considerations have been given to certain thresholds and procedures, only relevant aerodrome safeguarding authorities can determine accurately if any potential impacts will exist and what mitigation measures are required to reduce or avoid any possible effects. Overall, this assessment has only considered possible impacts to aviation safeguarding arising from proposed tall buildings with respect to certain aircraft operations relative to Manchester Airport.

The assessment includes, a description of the Site and the Proposed Development, relevant policy relating to aircraft and airport safety; details of Manchester Airport (the aerodrome considered in the assessment); details of radar installations at Manchester Airport; a high level assessment of Obstacle Limitation Surfaces (OLS) breaches for Manchester airport; a high level Instrument Flight Procedures (IFP) impact assessment; and any other relevant comments or observations.

The following building heights have been considered for this assessment:

Block A: 46 storeys (+168.00m AOD)

Block B: 9 storeys (+59.8m AOD)

3 - CAP1096: Guidance to crane users on the crane notification process and obstacle lighting and marking. CAP 1096 provides guidance to crane users on the crane notification process and lighting and marking requirements applicable to cranes. In the main, crane-related issues are considered and managed in much the same way as for any tall object, however due to the distinctive character of the crane construction and operations, they are addressed separately.

© GTech Surveys Limited 2026

Chapter 2 - NATS

Manchester Airport utilises several radars for safeguarding and en-route operations. These radar systems are installed on a mast to the immediate south of the airport site, Figure 4 (located near to the South Fire Station).

The lower mounted radar is a non-cooperative Primary Surveillance Radar (PSR)[4]. The higher mounted radar is a cooperative Secondary Surveillance Radar (SSR), which has been considered in this assessment. The Site is located approximately 14.5km north north-east of Manchester Airport's SSR.

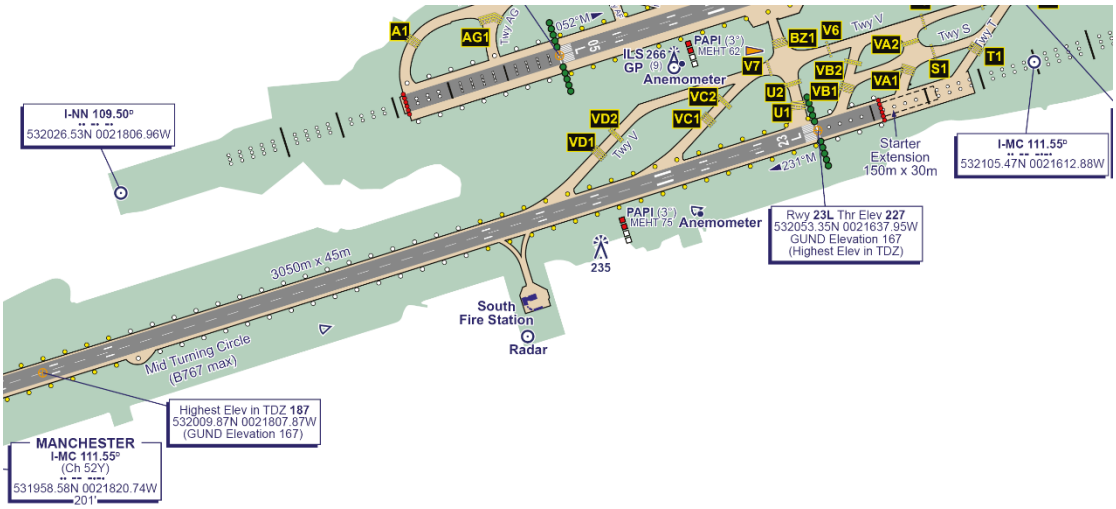


Figure 4 - Location of the SSR at Manchester Airport (indicated as *Radar)* centre bottom of image

The SSR transmits interrogating radio signals that are picked up by aircraft equipped with onboard transponders. In response, the transponder sends back a radio signal that typically includes identification and altitude data. The SSR calculates the aircraft's horizontal position based on the direction of the received signals and the time taken to receive the response to its interrogation.

Both radar systems at Manchester assist air traffic controllers in providing approach services for aircraft arriving at and departing from Manchester Airport. Additionally, they will be utilised by air traffic controllers at national air traffic control centres to manage services for en-route aircraft.

Impacts to radar functionality can occur when an obstruction is positioned between the line-of-sight (LOS) signal path between the radar emitter / receiver and tracked object. In addition to obstruction-caused interference, tall structures

4 - A primary radar or primary surveillance radar (PSR) is a conventional radar sensor that illuminates a large portion of space with an electromagnetic wave and detects the waves that reflect from targets within that space. The term thus refers to a radar system used to detect and localize potentially non-cooperative targets. It is specific to the field of air traffic control where it is opposed to the secondary radar which receives additional information from the target's transponder.

© GTech Surveys Limited 2026

can cause unwanted signal reflections, presenting errored locations for tracked aircraft. The situation is presented in Figure 5, where the plane on the right-hand side is not visible to the interrogating radar and the plane on the left-hand side will present an incorrect location due to the additional signal path created by the tall building's unwanted signal reflections.

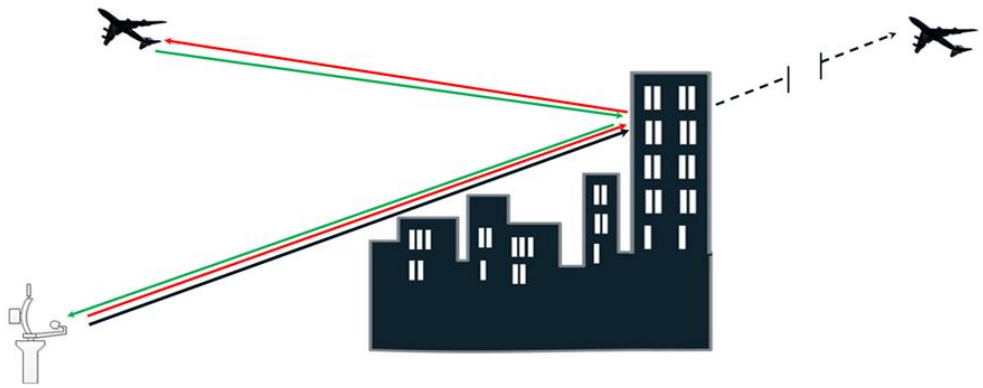


Figure 5 - A pictorial example of tall structures causing false and errored radar signal interactions

Modelling radar interactions and radar interference is complex and requires an astute understanding of the technology and current radar systems in use at the aerodrome and elsewhere. Consequently, consultation with NATS (En-Route) Public Limited Company ("NERL") was undertaken to determine if the Proposed Development was likely to cause any significant effects to radar operations. NATS is responsible for the management of en-route air traffic in the UK. A NATS systems safeguarding engineer confirmed by email 24 April 2026 (NATS ref. SG41386) that impacts were likely.

Due to the proposed massing and maximum height of the Proposed Development, impacts to radar functionality exist. A draft proposed planning condition has been provided and it is considered that this is appropriate for the Proposed Development. The draft planning condition with respect to protecting radar functionality is as follows:

Aviation Conditions relating to Radar impact

1. No construction shall commence on site, unless there has been submitted to and approved in writing by the Local Planning Authority and by the Radar Operator - NATS (En-route) plc, either:

a. detailed plans or evidence for the proposed buildings in that individual phase, demonstrating that there would be no detrimental impact upon the operation of the Manchester M10 SSR Radar; OR,

© GTech Surveys Limited 2026

b. details of a 'Radar Mitigation Scheme' (including a timetable for its implementation during construction) to mitigate any detrimental impact upon the Manchester M10 SSR Radar.

2. Where a 'Radar Mitigation Scheme' has been required, no construction above 80m AOD shall take place on site, unless the 'Radar Mitigation Scheme' has been implemented. Development shall not take place other than in complete accordance with such a scheme as so approved unless the planning authority and NATS (En-route) plc have given written consent for a variation.

REASON:

In the interests of Air Traffic Safety and of the operations of NATS En-route PLC.

Consequently, it is likely that NATS will require a Radar Mitigation Scheme to be formulated to ensure that radar functionality is not adversely impacted by the Proposed Development during both the construction phase and operation phase.

Such a scheme may include radar software modifications, terrain and line-of-sight masking, or installation of supplementary infill sensors to counter signal shadowing caused by the new building. The scheme will also set out exact milestones, ensuring the technical fix is fully operational before the building reaches a critical height or interferes with active airport surveillance. NATS will be able to advise in more detail due to the complexity of their radar systems and how and when such mitigation can be implemented.

© GTech Surveys Limited 2026

3 - Aerodrome Safeguarding

The chapter presents various aviation safeguarding aspects in relation only to Manchester Airport. Manchester Airport designated reference is EGCC (its international civil aviation organisation (ICAO) aerodrome location indicator). The aerodrome is approximately 13 km from the Site as measured from the aerodrome reference point (ARP) to the approximate centre of the Site. Figure 6 shows the general layout of the airport with other aerodrome technical information. The chapter assesses the various components of aerodrome safeguarding relative to the Proposed Development and EGCC. The relevant reference documents and principal safeguarding concepts which assure the continued safety of aircraft operations to and from EGCC are outlined, described and discussed.

The Aerodrome Safeguarding Authority for Manchester Airport were consulted on the Proposed Development during May 2026. Their impact assessment and our findings are presented below.

Manchester Airport

Manchester Airport operates according to weather conditions, principally the wind direction. In order to ensure a safe takeoff and landing, aircraft have to fly into the wind. The prevailing wind direction is westerly so normally aircraft fly from northeast to southwest. In practice this means that normally aircraft land from the northeast over Stockport, Cheadle and Heald Green and takeoff towards and around Knutsford. In dual runway operations aircraft will usually land on to Runway 1 (23R) and depart from Runway 2 (23L). When the wind direction changes, for safety reasons, landing processes are reversed with aircraft landing from the southwest, lining up to the south of Northwich and over Knutsford and taking off towards Stockport. In dual runway operations aircraft will usually land on to Runway 2 (05R) and depart from Runway 1 (05L). The runway details are presented below and in the appendix.

- 05L/23R measuring 3,048m by 45m (concrete and asphalt);
- 05R/23L measuring 3,050m by 45m (concrete and asphalt).

ID	True Heading	Magnetic Heading	Length	Width	Surface	Latitude	Longitude
05R	051°	050°	3,050 m	45 m	Concrete	53.3491	-2.2750
23L	231°	230°				53.332	-2.3107
05L	051°	050°	3,048 m	45 m	Asphalt	53.3624	-2.2571
23R	231°	230°				53.3451	-2.2927

© GTech Surveys Limited 2026

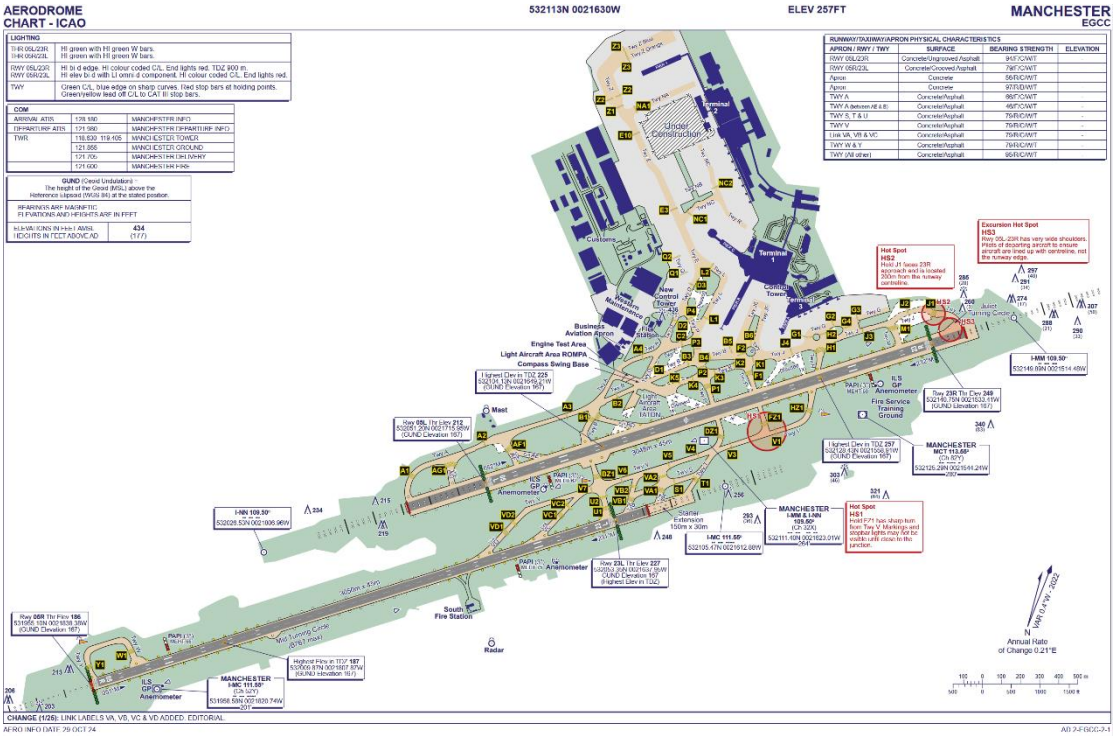


Figure 6 - Layout of Manchester Airport

Physical Safeguarding

Physical safeguarding is the relationship between physical obstacles (tall buildings, tower cranes, wind turbines etc.) and the Obstacle Limitation Surfaces (OLS) defined for the aerodrome (in this case EGCC). The OLS are defined to protect the operations of aircraft utilising an aerodrome.

In CAP 168[5] Chapter 4,"*The assessment and treatment of obstacles*", the CAA has outlined the principles of safeguarding.

> *4.1 The effective utilisation of an aerodrome may be influenced by natural features and manufactured constructions inside and outside its boundary. These may result in limitations on the distance available for take-off and landing and on the range of meteorological conditions in which take-off and landing can be undertaken. For these reasons, certain areas of the local airspace must be regarded as integral parts of the aerodrome environment. The degree of freedom from obstacles in these areas is as important in the granting and retention of an aerodrome licence as the more obvious physical requirements of the runways and their associated runway strips and is determined by survey in accordance with CAP1732, Aerodrome Survey Guidance and CAP232, Aerodrome Survey Information.*

5 - CAP 168 sets out the standards required at UK National licensed aerodromes relating to management systems, operational procedures, physical characteristics, assessment and treatment of obstacles, visual aids, rescue and fire-fighting services and medical services.

© GTech Surveys Limited 2026

4.2 Licensed aerodromes with IFPs are required to undertake an aerodrome survey to the requirements of CAP1732 and meet the requirements of CAP1054. In this instance CAP785(B) Implementation and Safeguarding of IFPs in the UK also applies.

4.3 Licensed aerodromes that do not have IFPs are required to undertake a survey to the requirements of CAP232.

4.4 The method of assessing the significance of any existing or proposed object within the aerodrome boundary or in the vicinity of the aerodrome is to establish defined obstacle limitation surfaces particular to a runway and its intended use.

4.5 The purpose of this chapter is to define these obstacle limitation surfaces and their characteristics and describe the action to be taken in respect of objects which infringe them. These surfaces are illustrated at figure 4.11. In ideal circumstances all the surfaces will be free from obstacles but when a surface is infringed, any safety measures required by the CAA will have regard to:

1. *The nature of the obstacle and its location relative to the surface origin, to the extended centreline of the runway or normal approach and departure paths and to existing obstructions*
2. *The amount by which the surface is infringed*
3. *The gradient presented by the obstacle to the surface origin*
4. *The type of air traffic at the aerodrome; and*
5. *The instrument approach procedures published for the aerodrome*

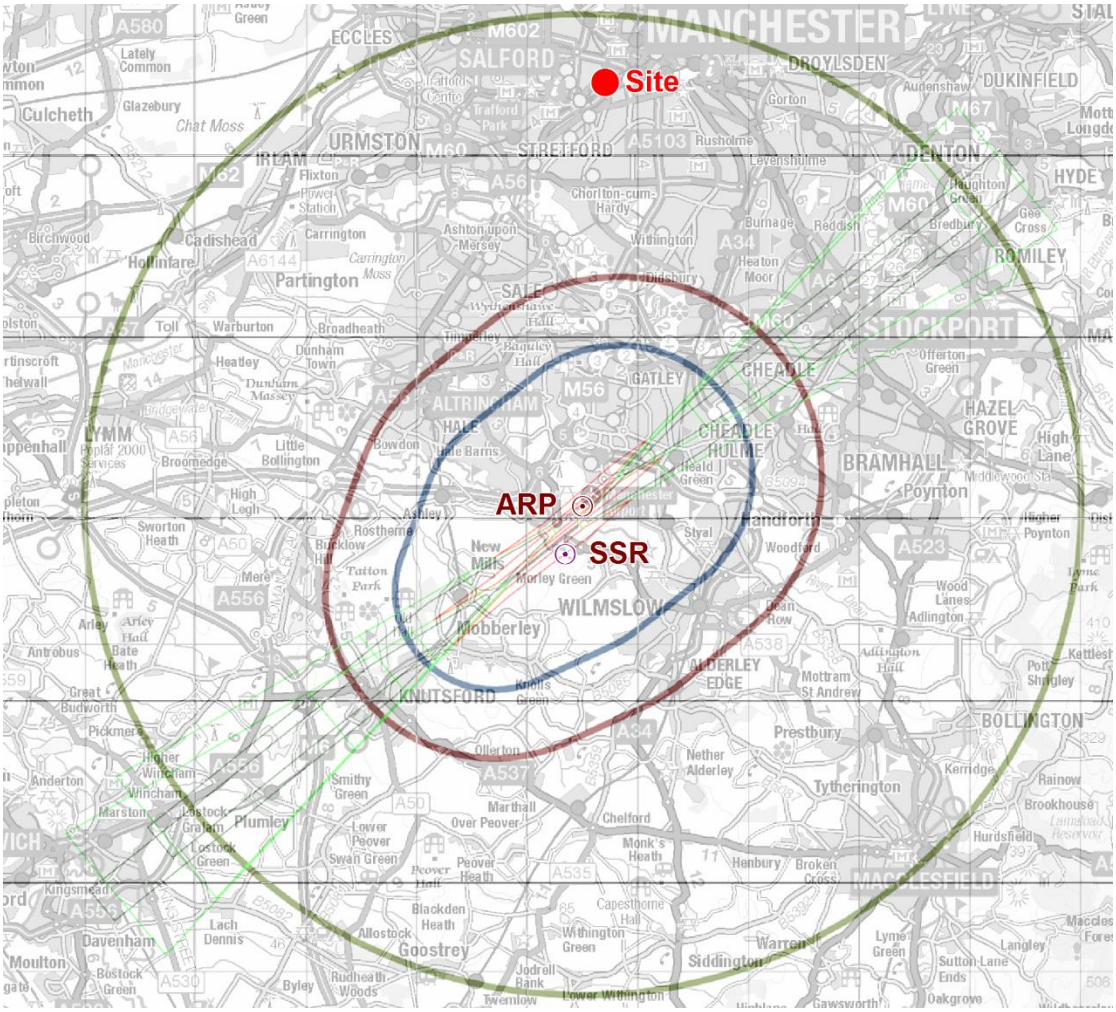
Safety measures could be as follows:

1. *Promulgation in the UK AIP of appropriate information*
2. *Marking and/or lighting of the obstacle*
3. *Variation of the runway distances declared as available*
4. *Limitation of the use of the runway to visual approaches only*
5. *Restrictions on the type of traffic*

Obstacle Limitation Surfaces (OLS)

OLS are conceptual planes delineated in three dimensions to ensure physical safety, particularly to prevent structures from becoming hazards for aircraft operating from airfields. These surfaces are established around licensed airfields, with their dimensions and geometries shaped according to the comprehensive regulations outlined in CAP 168. The extent of these surfaces varies depending on the number of runways, their sizes, and the operational procedures implemented at the airfield. Figure 7 indicates the locations and profiles of the OLS for the aerodrome and the Site.

© GTech Surveys Limited 2026



Key:

Site	●
Runway 05L/23R Transitional	———
Runway 05L/23R Take Off Climb	———
Runway 23R Take Off Climb	———
Runway 05L Approach	———
Runway 23R Approach	———
Inner Horizontal	———
Conical	———
Outer Horizontal	———

Figure 7 - OLS for EGCC relative to the Site (not to scale). The Site's approximate location Lat / Long WGS84 (53.470579, -2.265490) is indicated by the red marker.

The Site lies within the Outer Horizontal Surface (OHS)[6].

6 - Outer Horizontal Surface is 206.6928m Above Ordnance Datum (AOD)

© GTech Surveys Limited 2026

Safeguarding Assessment Calculations

Unless a safeguarding calculation indicates a possible risk or concern due to infringement of the relevant surface, no detailed presentation of calculations will be presented. Modelling assumes a maximum proposed height of 168.00 m AOD. The below presents a summary of the assessment's findings.

Inner Horizontal Surface

The Site is not located within the inner horizontal surface.

Conical Surface

The Site is not located within the conical surface.

Outer Horizontal Surface

For the purposes of this assessment, the elevation of the outer horizontal surface is calculated from the lowest runway threshold on the eastern side of the airport. This threshold is 23L and has an elevation of 227 ft or 69.19 m AOD.

Analysis has shown that the tallest part of the Proposed Development (168.00 m AOD) does not infringe Manchester Airport's OLS. The proposed structure is clear of the most restrictive surface (OHS) by a minimum of 38.7 metres. Consequently, no physical safeguarding concerns with respect to the OLS and the tallest proposed structure are predicted.

Take-off Climb Surface

The Site is not positioned under the take-off climb surface of either runway.

Therefore, no further consideration has been made regarding the take-off climb surfaces.

Approach Surface

The Site is not positioned under the approach surfaces of either runway.

Therefore, no further consideration has been made regarding the approach surfaces.

© GTech Surveys Limited 2026

Balked Landing Surface

The balked landing surface[7] is too far from the Site to be of consideration.

Obstacle Free Zone

CAP 168 defines the obstacle free zone (OFZ) as:

> *"The OFZ is the airspace extending above the inner approach surface, inner transitional surfaces and baulked landing surface and that portion of the strip bounded by these surfaces which is not penetrated by any fixed object other than a low mass and frangibly mounted one required for air navigation purposes."*

The Site is sufficiently far from the aerodrome for it to not have any consideration for OFZ matters.

High-Level Instrument Flight Analysis

Aircraft flying Instrument Flight Rules (IFR)[8] have been assessed at high-level covering:

- Maximum Elevation Figures (MEF)[9] shown on national aeronautical charts;
- Manchester Airport IFR Approach Charts;
- Manchester Airport Standard Departure Chart - Instrument (SID);
- Manchester Airport Standard Terminal Arrival Route (STAR); and
- Manchester Airport Surveillance Minimum Altitude Chart (SMAC).

High-level assessments have been undertaken to determine whether an impact upon Instrument Flight Procedures (IFP)[10] is likely or if more detailed analysis is required.

7 - A balked landing surface is an inclined plane, extending from the runway threshold, designed to provide obstacle clearance during a go-around or balked landing manoeuvre. It's essentially an "obstacle limitation surface" that ensures an aircraft can safely climb away from the runway after a landing attempt is abandoned

8 - IFR are a set of regulations that govern aircraft operations in conditions where visibility is inadequate for visual flight rules (VFR). IFR flights rely on instruments and navigation equipment rather than visual cues to navigate

9 - Maximum Elevation Figures (MEFs) on aeronautical charts represent the highest elevation within a specific area, typically a quadrant, of a map. These figures are expressed in thousands and hundreds of feet above mean sea level (MSL). MEFs are a crucial tool for pilots, as they provide an indication of the highest terrain or obstacle within a given area, helping them plan their flights to avoid flying into terrain or obstacles

10 - IFP are a set of published instructions for aircraft flying under IFR, designed to guide and ensure safe and efficient navigation, particularly during instrument approach and departure procedures. IFPs are used when visibility is poor, and pilots rely on instruments and electronic signals for navigation and communication with air traffic control.

© GTech Surveys Limited 2026

Area Minimum Altitude (AMA)

The AMA provides the minimum obstacle clearance above all obstacles (terrain and structures) in a certain quadrangle of an aeronautical chart. AMAs are sometimes referred to as Minimum Off-Route Altitudes (MORAs) and provide minimum obstacle clearance above all obstacles in an area. These altitudes are designed to ensure safe flight operations, particularly under instrument meteorological conditions (IMC), where visibility is limited. The AMA for the quadrangle in which the Site is located is set at 3,500 feet AOD, (presented as 3 in Figure 1 Appendix). The Proposed Development has a maximum altitude of 551.18 feet, which is 2,948.82 feet below the AMA. Consequently, the Proposed Development will not breach the existing AMA.

ATC Surveillance Minimum Altitude

The ICAO ATC Surveillance Minimum Altitude Chart (SMAC) for EGCC is shown in Figure 8. SMACs indicate the lowest altitude a pilot will be instructed to fly whilst receiving an air traffic control service. The minimum altitude for the sector where the Site is located above is 2,400 feet AOD. As Proposed Development has a maximum altitude of 551.18 feet, the vertical clearance between aircraft subject to a radar control service and the top of Proposed Development will be at least 1,848.82 feet. This means that aircraft flying IFR and receiving a radar control input will have an acceptably low collision risk.

Obstacle Clearance Margins (OCM)

OCM ensure aircraft maintain a safe vertical and horizontal distance from obstacles during various flight phases like takeoff, en-route and landing. These margins are crucial for aviation safety, especially in environments with many ground or aerial obstructions.

Generally, IFP are structured to include vertical and horizontal safety margins between the defined flight path and nearby terrain or obstacles. These margins can differ based on the flight phase and whether UK, European, or international regulations apply. Despite this, the vertical margins typically do not exceed 1,000 feet unless the area is exceptionally mountainous, which doesn't apply to Manchester and the Greater Manchester region. Therefore, if the vertical clearance between an IFP route and the apex of a proposed development is greater than 1,000 feet, it won't significantly affect the safety of aircraft utilizing the route.

As the Proposed Development has a maximum altitude of 551.18 feet, any aircraft subject to any IFP route or limit which is more than 1,551.18 feet will have an acceptably low collision risk.

© GTech Surveys Limited 2026

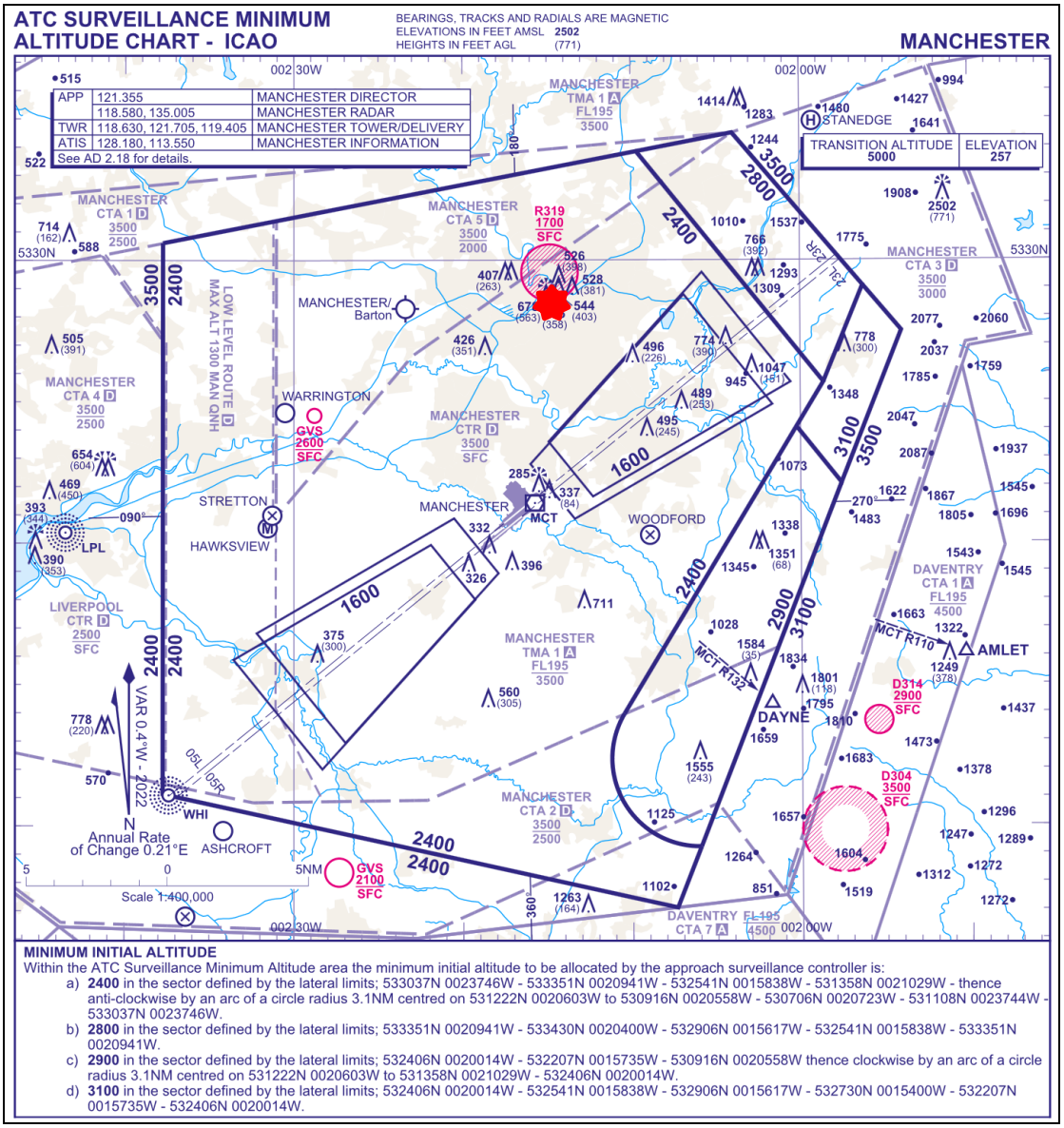


Figure 8 - ATC Surveillance Minimum Altitude Chart for Manchester. The approximate location of the Site[11] is indicated with a red star. The key for Figure 8 is presented in the Appendix.

11 - The Site is located near to Restricted Area R319 (Manchester), as shown in Figure 9 as 'R319 1700 SFC'. This is a restricted area, specifically for helicopters, located around Strangeways Prison in Manchester. It extends from the surface to 1700 feet.

Key points about R319:

Purpose: The restriction is in place to protect the prison facility
Applicability: It only applies to helicopters (Flight permitted by any helicopter operated by or on behalf of a police force for any area of the United Kingdom)
Limits: The restriction extends from the surface to 1700 feet. A circle radius 1 nm centred on 532934N 0021450W
Location: The area is centered around Strangeways Prison

© GTech Surveys Limited 2026

Standard Departure Chart - Instrument (SID)

SID are pre-planned, published flight procedures followed by aircraft on an IFR flight plan immediately after takeoff. They guide aircraft from the departure end of the runway (DER) to the first waypoint or fix in the en-route phase of the flight. SIDs are designed to streamline departures, improve safety, and enhance air traffic flow.

EGCC has six published SID[12] procedures. An example of a SID chart is presented in the Appendix. Each SID has been assessed with respect to the physical attributes of the Proposed Development and the location of the Site relative to each procedure. No impacts are expected because the Proposed Development is vertically clear of each SID. Consequently, the Proposed Development is likely to present an acceptably low collision risk to aircraft flying any SID.

Standard Terminal Arrival Route (STAR)

A STAR is a published flight procedure that aircraft follow when approaching a destination airport on an IFR flight plan.

EGCC has four published STAR charts[13]. Each of these has been assessed with respect to the Proposed Development. No impacts are expected because the Proposed Development is vertically clear of each STAR. Consequently, the Proposed Development is likely to present an acceptably low collision risk to aircraft flying any standard terminal arrival route.

12 - STANDARD DEPARTURE CHART - INSTRUMENT (SID) RWY 05L/R 23R/L ASMIM 1S 1Z/KUXEM 1R 1Y/EKLAD 1R 1Y, STANDARD DEPARTURE CHART - INSTRUMENT (SID) RWY 05L/R LISTO 2S 2Z, STANDARD DEPARTURE CHART - INSTRUMENT (SID) RWY 23R/L (RESTRICTED USE) LISTO 2R 2Y, STANDARD DEPARTURE CHART - INSTRUMENT (SID) RWY 23R/L 05L/R POL 5R 4S 1Y 1Z, STANDARD DEPARTURE CHART - INSTRUMENT (SID) RWY 23R/L 05L/R SONEX 1R 1Y/DESIG 1S 1Z and STANDARD DEPARTURE CHART - INSTRUMENT (SID) RWY 23R/L (JET AIRCRAFT ONLY) SANBA 1R 1Y

13 - RNAV1 (DME/DME or GNSS) STANDARD ARRIVAL CHART - INSTRUMENT (STAR) LAKEY 1M SETEL 1M TILNI 2M, RNAV1 (DME/DME or GNSS) STANDARD ARRIVAL CHART - INSTRUMENT (STAR) LIBSO 1M OTBED 1M, RNAV1 (DME/DME or GNSS) STANDARD ARRIVAL CHART - INSTRUMENT (STAR) MAKUX 1M MALUD 1M AXCIS 1M PENIL 1M, RNAV1 (DME/DME or GNSS) STANDARD ARRIVAL CHART - INSTRUMENT (STAR) ELVOS 1M LESTA 1M

© GTech Surveys Limited 2026

Instrument Approach Charts (IAC)

Manchester Airport has 11[14] published IACs. An IAC is an aeronautical chart which portrays the aeronautical data that is required to execute an instrument approach to an airport. Besides depicting topographic features, hazards and obstructions, they depict the procedures and airport diagram.

Given the proposed height of the Proposed Development and the Site's location next to a potential visual route (The Manchester Ship Canal/River Irwell), an IFP Assessment document may be required.

IFPs are not fixed in nature i.e. by the time a formal planning application is presented the situation may have changed, so giving definitive guidance at this stage would not be reliable. An IFP check will be conducted at the point of formal application and MAG will be able to advise if a further IFP Assessment document is required.

Conclusions

Instrument Flight Procedures (IFP) are typically engineered to incorporate vertical and horizontal safety buffers between the prescribed flight trajectory and proximate terrain or obstructions. The absence of Obstacle Limitation Surface (OLS) infringement by an obstruction generally indicates minimal adverse impact on IFP. However, due to the proposed height of the Proposed Development and the Site's location next to a potential visual route, an IFP Assessment may be required at some point.

14 - Each procedure chart uses a specific type of electronic navigation system such as VOR, ILS/MLS, RNAV etc. The chart name reflects the primary navigational aid (NAVAID) or aids.

INSTRUMENT APPROACH CHART ILS/DME RWY 05R, INSTRUMENT APPROACH CHART LOC/DME RWY 05R, INSTRUMENT APPROACH CHART VOR/DME RWY 05R, INSTRUMENT APPROACH CHART ILS/DME RWY 05L, INSTRUMENT APPROACH CHART LOC/DME RWY 05L, INSTRUMENT APPROACH CHART VOR/DME RWY 05L, INSTRUMENT APPROACH CHART ILS/DME RWY 23R, INSTRUMENT APPROACH CHART LOC/DME RWY 23R, INSTRUMENT APPROACH CHART VOR/DME RWY 23R, INSTRUMENT APPROACH CHART VOR/DME RWY 23L and INSTRUMENT APPROACH CHART RNP RWY 23L

© GTech Surveys Limited 2026

Aerodrome Safeguarding Authority for Manchester Airport - High-level Assessment

For completeness, Manchester Airports Group (MAG) were commissioned to produce a high-level aerodrome safeguarding assessment. Their high-level assessment provides advice with regards to aerodrome safeguarding concerns followed by a brief conclusion. The full assessment is presented in the Appendix. The assessment results below were reached using a combination of technical assessments and aerodrome safeguarding analysis.

Height

We have reviewed the development against OLS surfaces and at the proposed height of 168m AMSL we would not expect an impact upon OLS surfaces.

Given the scale of the development a formal Instrument Flight Procedure Assessment may be required.

Given the scale of the development and location adjacent to a potential visual route (The Manchester Ship Canal/River Irwell) we would likely request an obstacle lighting regime. Any such request would outline that Block A be lit by 2000cd steady red omnidirectional obstacle lights on each corner of Block A with spacing of each set of lights not exceeding 52 m. We would be content to discuss with the applicant the omission of lights where their installation would only serve to shine directly into adjacent buildings.

Lighting

We would not envisage imposing any lighting restrictions on this development. In the unlikely event that high-powered skyward lighting is proposed e.g. sky-firing lasers, we would first request consultation with ourselves to ensure that there is no impact to aviation safety.

Wildlife

We do not expect any aerodrome safeguarding wildlife implications for this development.

Communication, Navigation, and Surveillance systems

As part of this high-level assessment, we have consulted with our CNS Engineers who have confirmed that they expect an impact via SSR reflections, and they have outlined the proposed below condition:

"No construction shall commence on site, unless there has been submitted to and approved in writing by the Local Planning Authority and by the Radar Operator - NATS (En-route) plc, either:

© GTech Surveys Limited 2026

detailed plans or evidence for the proposed buildings in that individual phase, demonstrating that there would be no detrimental impact upon the operation of the Manchester M10 SSR Radar;

OR,

details of a 'Radar Mitigation Scheme' (including a timetable for its implementation during construction) to mitigate any detrimental impact upon the Manchester M10 SSR Radar.

Where a 'Radar Mitigation Scheme' has been required, no construction above 80m AOD shall take place on site, unless the 'Radar Mitigation Scheme' has been implemented. Development shall not take place other than in complete accordance with such a scheme as so approved unless the planning authority and NATS (En-route) plc have given written consent for a variation.

REASON:

In the interests of Air Traffic Safety and of the operations of NATS En-route PLC."

The Aerodrome Safeguarding Authority for Manchester Airport would support NATS in applying this condition.

Materials

The proposed materials are unlikely to be of aerodrome safeguarding concern at this distance. On this basis, we are content with the proposed materials and would not require any further assessments e.g. Glint and Glare Assessments.

Tall Equipment

The applicant's attention is drawn to the procedures for crane and tall equipment notifications, please see:

https://www.caa.co.uk/Commercial-industry/Airspace/Event-and-obstacle-notification/Cranenotification/

Tall Equipment used during construction may have the potential to infringe protected surfaces at Manchester Airport. Notification of tall equipment operations should in the first instance be made to the Civil Aviation Authority via the above link.

Construction Management

We would not expect to require any specific aerodrome safeguarding provisions with regards to construction management for this scheme.

© GTech Surveys Limited 2026

Conclusion:

The above high-level aerodrome safeguarding review of the proposed development No.1 Castlefield, outlines that the Aerodrome Safeguarding Authority for Manchester Airport does expect there to be an impact upon aerodrome safeguarding considerations, and that appropriate mitigations/solutions should be included within the scheme. Should the scheme be changed at a later date, the assessment results may require updating to ensure that they remain accurate.

If further clarification is required upon any of the outputs of this high-level assessment the Aerodrome Safeguarding Authority for Manchester Airport will endeavour to provide further clarification where possible.

© GTech Surveys Limited 2026

4 - Conclusions

This technical note has been produced to assess aviation safeguarding matters that may arise from the One Castlefield proposal on certain aircraft operations at Manchester Airport (ICAO airport code *EGCC*).

For completeness, both MAG and NATS have been involved with pre-application consultation.

NATS have confirmed that they expect that the Proposed Development will impact the optimal functioning of the M10 SSR Radar (located at Manchester Airport).

NATS have indicated that the following planning condition is likely to be applied in order to protect NATS radar operations.

Aviation Conditions relating to Radar impact

1. No construction shall commence on site, unless there has been submitted to and approved in writing by the Local Planning Authority and by the Radar Operator - NATS (En-route) plc, either:

a. detailed plans or evidence for the proposed buildings in that individual phase, demonstrating that there would be no detrimental impact upon the operation of the Manchester M10 SSR Radar; OR,

b. details of a 'Radar Mitigation Scheme' (including a timetable for its implementation during construction) to mitigate any detrimental impact upon the Manchester M10 SSR Radar.

2. Where a 'Radar Mitigation Scheme' has been required, no construction above 80m AOD shall take place on site, unless the 'Radar Mitigation Scheme' has been implemented. Development shall not take place other than in complete accordance with such a scheme as so approved unless the planning authority and NATS (En-route) plc have given written consent for a variation.

REASON:

In the interests of Air Traffic Safety and of the operations of NATS En-route PLC.

Consequently, it is likely that NATS will require a Radar Mitigation Scheme to be formulated to ensure that radar functionality is not adversely impacted by the Proposed Development during both the construction phase and operation phase.

© GTech Surveys Limited 2026

As the Proposed Development consists of a tall structure adjacent to a visual route, the Aerodrome Safeguarding Authority for Manchester Airport have indicated that they are likely to request an obstacle lighting regime. Any such request would outline that Block A be lit by 2000cd steady red omnidirectional obstacle lights on each corner of Block A with spacing of each set of lights not exceeding 52 m. It has been suggested that the proposed planning condition is likely to be suitable:

> *Prior to construction, the submission of an Aviation warning light scheme is to be submitted to the LPA in consultation with the Aerodrome Safeguarding Authority for Manchester Airport.*
>
> *Reason: Flight safety - To ensure adequate separation between aircraft and ground-based structures*

In addition to the obstacle lighting scheme, a formal Instrument Flight Procedure Assessment may be required due to the proposed height of the Proposed Development. This requirement will be assessed during the determination period.

As with any tall structure, the presence of a single crane or number of cranes has the potential to affect aviation activities. Crane-related issues are usually considered and managed in much the same way as any tall structure. It is advised that the developer applies[15] for crane permit(s) to the CAA within a minimum of 12 weeks prior to the commencement of the Proposed Development.

Overall, without mitigation, the Proposed Development presents several risks to aircraft safety based on detailed and high-level assessments. During the determination period, the required planning conditions will be finalised which will ensure that the Proposed Development presents a minimal risk to aviation and aircraft safety.

The assessment has been produced to accompany the planning application submission.

15 - https://www.caa.co.uk/commercial-industry/airspace/event-and-obstacle-notification/crane-notification/

© GTech Surveys Limited 2026

Appendices

Aerodrome Safeguarding for Manchester Airport

Aeronautical Information Service

CAP 168 CHAPTER 4: The assessment and treatment of obstacles - Figure 4.11

UK Area Minimum Altitudes (AMA)

Standard Departure Chart - Instrument (SID) - ICAO (MANCHESTER 2S 2Z)

Chart Key

The town and country planning (safeguarded aerodromes, technical sites and military explosives storage areas) direction 2002

© GTech Surveys Limited 2026

Appendix - MAG Assessment Findings

08/05/2026

Aerodrome Safeguarding High-level Assessment, No. 1 Castlefield

Please see below high-level aerodrome safeguarding assessment in relation to the proposed development of a tall building in Manchester City Centre. The building extends to 168m AOD/AMSL and is located along Ellesmere Street and Trentham Street in Manchester.

At the request of GTech Surveys Limited, Manchester Airports Group have been commissioned to create a high-level aerodrome safeguarding assessment. This high-level assessment provides advice with regards to aerodrome safeguarding matters.

The assessment results below were reached using a combination of technical assessments and aerodrome safeguarding analysis. If further clarification is required upon any of the outputs below the Aerodrome Safeguarding Team will endeavour to provide further clarification where possible.

High-level Assessment:

Height

We have reviewed the development against OLS surfaces and at the proposed height of 168m AMSL we would not expect an impact upon OLS surfaces. Given the scale of the development a formal Instrument Flight Procedure Assessment may be required. Given the scale of the development and location adjacent to a potential visual route (The Manchester Ship Canal/River Irwell) we would likely request an obstacle lighting regime. Any such request would outline that the building be lit by 2000cd steady red omni-directional obstacle lights on each corner of the building with spacing of each set of lights not exceeding 52m. We would be content to discuss with the applicant the omission of lights where their installation would only serve to shine directly into adjacent buildings.

Lighting

We would not envisage imposing any lighting restrictions on this development. In the unlikely event that high-powered skyward lighting is proposed e.g. sky-firing lasers, we would first request consultation with ourselves to ensure that there is no impact to aviation safety.

Wildlife

We do not expect any aerodrome safeguarding wildlife implications for this development.

Communication, Navigation, and Surveillance systems

As part of this high-level assessment, we have consulted with our CNS Engineers who have confirmed that they expect an impact via SSR reflections, and they have outlined the proposed below condition:

"No construction shall commence on site, unless there has been submitted to and approved in writing by the Local Planning Authority and by the Radar Operator - NATS (En-route) plc, either:
detailed plans or evidence for the proposed buildings in that individual phase, demonstrating that there would be no detrimental impact upon the operation of the Manchester M10 SSR Radar; OR,
details of a 'Radar Mitigation Scheme' (including a timetable for its implementation during construction) to mitigate any detrimental impact upon the Manchester M10 SSR Radar.

Where a 'Radar Mitigation Scheme' has been required, no construction above 80mAOD shall take place on site, unless the 'Radar Mitigation Scheme' has been implemented. Development shall not take place other than in complete accordance with such a scheme as so approved unless the planning authority and NATS (En-route) plc have given written consent for a variation.

REASON:
In the interests of Air Traffic Safety and of the operations of NATS En-route PLC."

The Aerodrome Safeguarding Authority for Manchester Airport would support NATS in applying this condition.

© GTech Surveys Limited 2026

Materials

The proposed materials are unlikely to be of aerodrome safeguarding concern at this distance. On this basis, we are content with the proposed materials and would not require any further assessments e.g. Glint and Glare Assessments.

Tall Equipment

The applicant's attention is drawn to the procedures for crane and tall equipment notifications, please see: https://www.caa.co.uk/Commercial-industry/Airspace/Event-and-obstacle-notification/Crane-notification/. Tall Equipment used during construction may have the potential to infringe protected surfaces at Manchester Airport. Notification of tall equipment operations should in the first instance be made to the Civil Aviation Authority via the above link.

Construction Management

We would not expect to require any specific aerodrome safeguarding provisions with regards to construction management for this scheme.

Conclusion:

The above high-level aerodrome safeguarding review of the proposed development No.1 Castlefield, outlines that the Aerodrome Safeguarding Authority for Manchester Airport does expect there to be an impact upon aerodrome safeguarding considerations, and that appropriate mitigations/solutions should be included within the scheme. Should the scheme be changed at a later date the assessment results may require updating to ensure that they remain accurate.

If further clarification is required upon any of the outputs of this high-level assessment the Aerodrome Safeguarding Authority for Manchester Airport will endeavour to provide further clarification where possible.

C2 - Internal

© GTech Surveys Limited 2026

Appendix - Aeronautical Information Service

Name and Address of Aerodrome

Manchester Airport
Wythenshawe
Manchester
M90 1QX

Insert Location of Aerodrome

Manchester Airport is located 7.5 NM SW of Manchester, United Kingdom.

Geographical Coordinates of the Aerodrome Reference Point (ARP)

Latitude: 532113N
Longitude: 0021630W

Aerodrome Elevation and GEOID Undulation

Latitude & Longitude 532114N 0021630W
Elevation 257ft
Mid-point of Runway 05L/23R
Geoid Undulation 167ft

Elevation of Thresholds and Runway Ends

a) Elevation of Each Threshold and Geoid Undulation
Elevation Threshold of Runway 05L 212ft
Elevation Threshold of Runway 23R 249ft
Elevation Threshold of Runway 05R 186ft
Elevation Threshold of Runway 23L 227ft

b) Elevation of the Runway Ends
Runway 05L end 249ft
Runway 23R end 200ft
Runway 05R end 235ft
Runway 23L end 186ft

c) Significant High and Low Points along the Runway
Runway 05l/23R has a high point, elevation of 257ft situated abeam Link Golf

Aerodrome Reference Temperature

The Aerodrome Reference Temperature is 18C

© GTech Surveys Limited 2026

The Aerodrome Beacon

Aerodrome beacons are not used at Manchester Airport

Name of the Aerodrome Operator and Contact Details

Manchester Airport Group
Olympic House
Manchester Airport
Manchester
M90 1QX
Telephone No: 0161 489 3000

Aerodrome Dimensions (Runways)

True Bearing

Runway 05L/23R 51 03’ 48” / 231 05’ 10”
Runway 05R/23L 51 02’ 46” / 231 04’ 23”

Runway Designation

Runway designated numbers are 05L/23R and 05R/23L

Length and Width

Runway 05L/23R 3048m long and 45m wide, with 23m runway shoulders either side of the runway.

Runway 05R/23L 3200m long and 45m wide with 7.5m shoulders either side of the runway.

Displaced Threshold Locations

Runway 05L 532051.20N 0021715.95W Elevation 212ft Located 426m from runway start

Runway 23R 532140.74N 0021533.41W Elevation 249ft Located 183m from runway start

Runway 23L 532053.35N 0021637.95W Elevation 227ft Located 333m from runway start

Slope

Runway 05L/23R Longitudinal slope overall 0.48%
Runway 05R/23L Longitudinal slope overall 0.46%

© GTech Surveys Limited 2026

Surface Type

Runway 05L/23R Ungrooved asphalt (Betons Bitumineaux Aeronatiques)
Runway 05R/23L Grooved Marshall asphalt

Type of Runway and Precision Approach Runway

Both runways are ICAO Code 4F runways with a compatible Obstacle Free Zone from a Precision Approach Runway.

© GTech Surveys Limited 2026

Appendix - CAP 168 CHAPTER 4: The assessment and treatment of obstacles – Figure 4.11

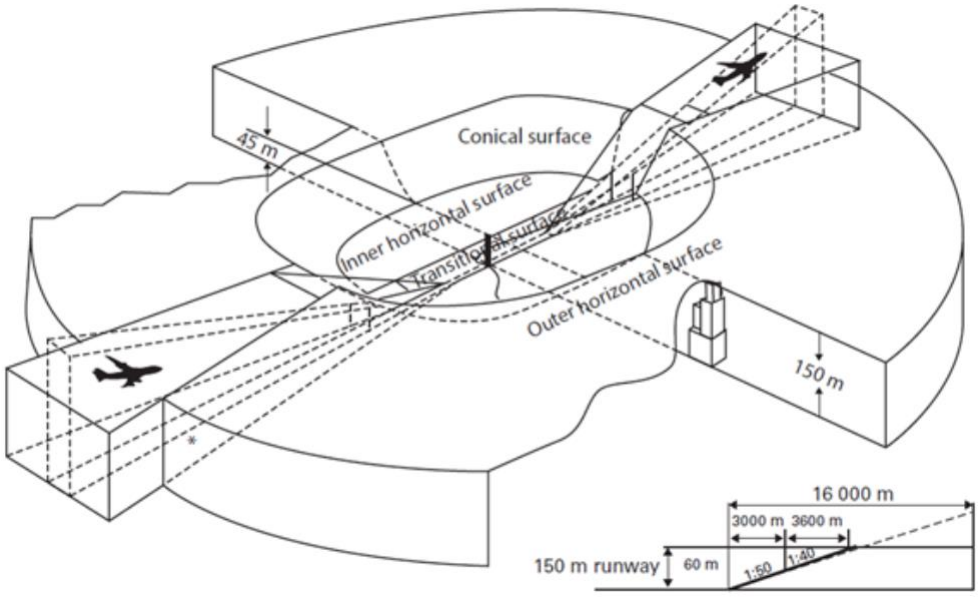


Figure 4.11 Obstacle limitation surfaces for an instrument runway where the main runway is 1800 m or more in length

Note: The take-off funnels are shown in chain-dot line in both views. To assess clarification the vertical scale on this chart is 20 times that of the horizontal scale

© GTech Surveys Limited 2026

UK AREA MINIMUM ALTITUDES (AMA)

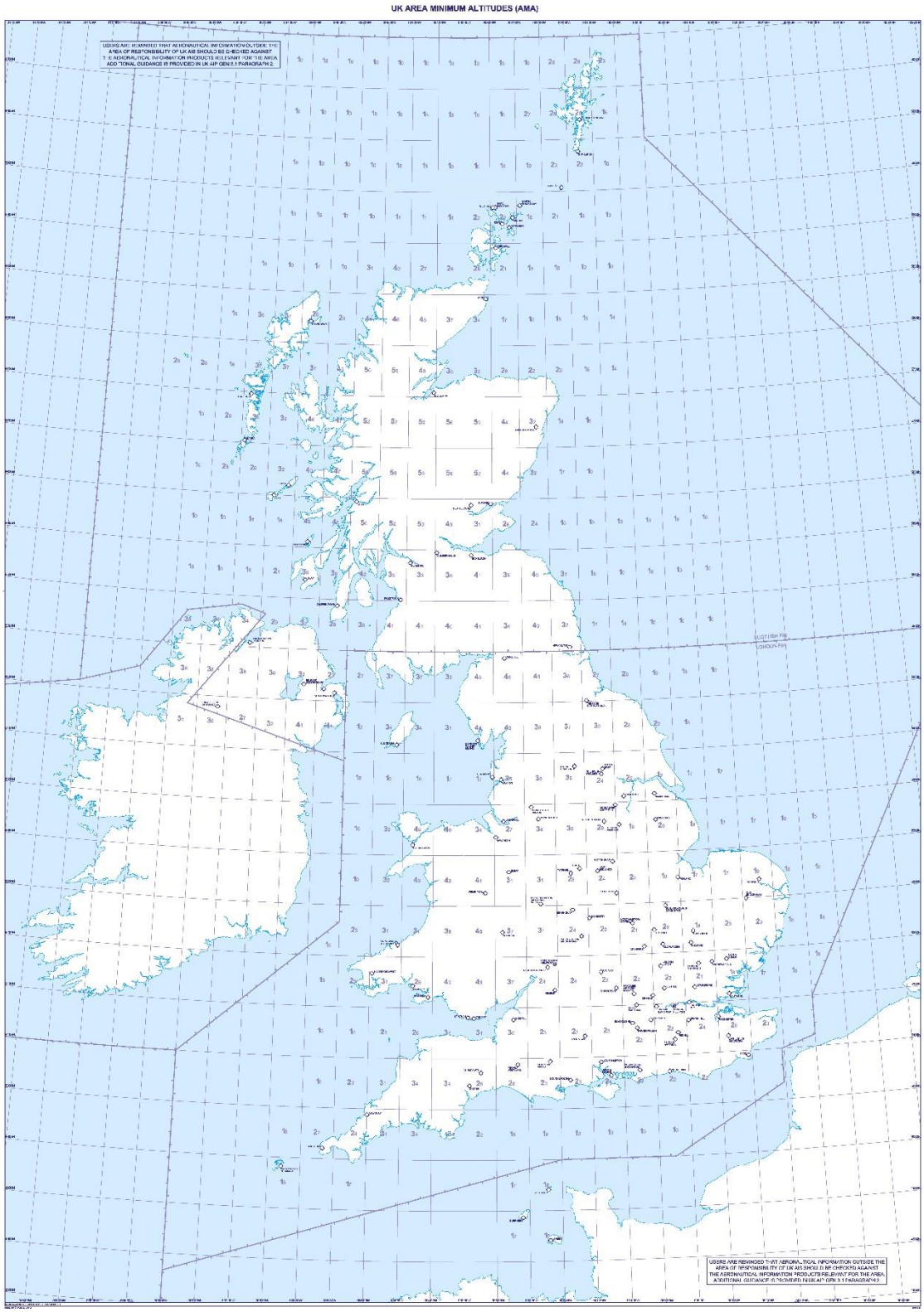
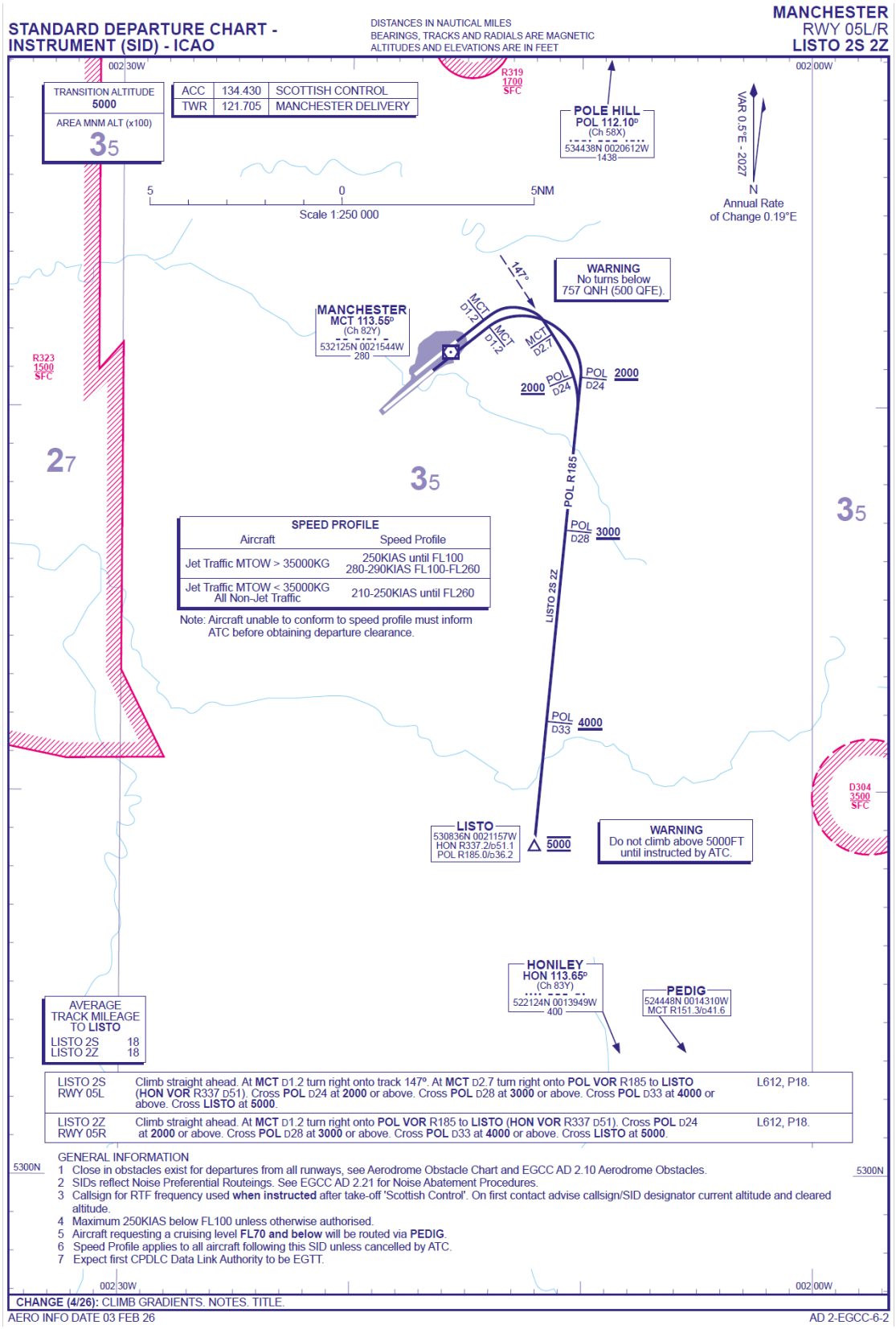


Figure 1 - The AMA for the quadrangle in which the Site is located is set at 3,500 feet AOD, presented as 3_5

© GTech Surveys Limited 2026

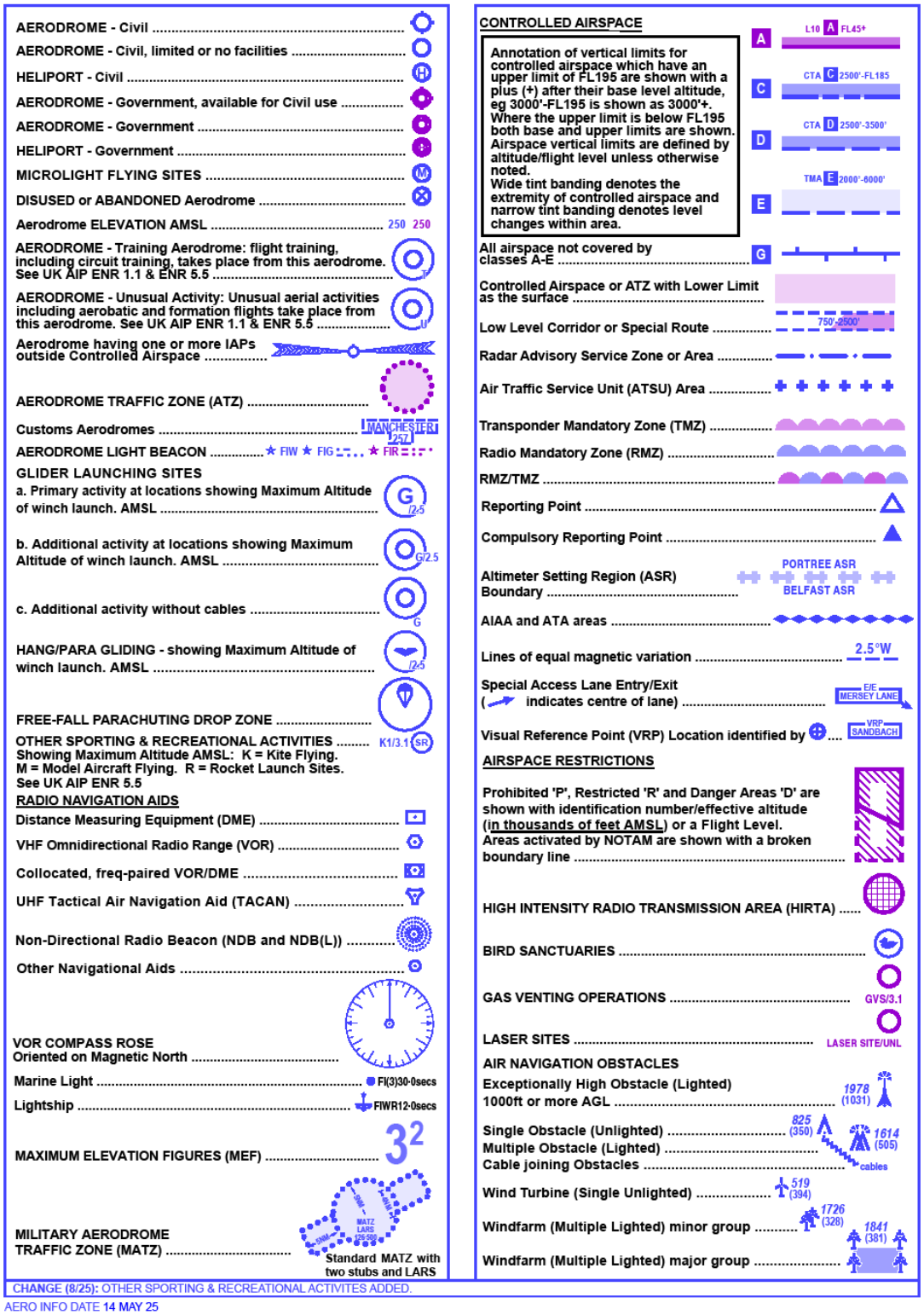
Appendix - Example of a Standard Departure Chart - Instrument (SID) - ICAO (Manchester LISTO 2S 2Z)



© GTech Surveys Limited 2026

Appendix - Chart Key

AERONAUTICAL CHART SYMBOLOGY



CHANGE (8/25): OTHER SPORTING & RECREATIONAL ACTIVITES ADDED.

AERO INFO DATE 14 MAY 25

© GTech Surveys Limited 2026

ADDITIONAL SYMBOLS FOR THE 1:250,000 TOPOGRAPHICAL AIR CHARTS

AERODROMES - Field limits with hard runway pattern... Civil..... Government.....

- Showing disused runways as solid patterns .....

HELIPORT.....

MINOR AERODROME with runway pattern unknown or not portrayable and where flying training may be taking place .....

DISUSED or ABANDONED Aerodrome. Shown for navigational landmark purposes only .....

Power Transmission Line .....

Power Transmission Line over 200' AGL ..... 200+

Low Level Corridor or Special..... 750'-2500' or

ADDITIONAL SYMBOLS FOR THE 1:50,000 HELICOPTER ROUTES IN THE LONDON CTR & THE LONDON CITY CTR (LONDON HELI CHART)

Annotation of vertical limits for controlled airspace which have an upper limit of FL195 are shown with a plus (+) after their base level/altitude, eg 3000'-FL195 is shown as 3000' +. Where the upper limit is below FL195 both base and upper limits are shown.

D ..... LONDON CTR D SFC-2500' ALT

A ..... LONDON TMA A 2500' ALT +

Cable Car, etc. ..... cables

Power Transmission Line (80'-200' AGL) .....

Power Transmission Line (over 200' AGL) ..... 200+

Hospital Helicopter Landing Site .....

Aerodrome Traffic Zone (ATZ) circle 2.0NM or 2.5NM radius and Local Flying Area within the London CTR .....

Route from BEDFONT to SIPSON & vice versa, as directed by ATC .....

Helicopter Routes .....

Helicopter Routes not available to single-engined Helicopters at night .....

Compulsory & On Request Reporting Point .....

Reporting Points where Holding may be required .....

Route Identifier H3

Maximim Route Altitude between Max Altitude extent markers [ ] ..... VFR 1500 | SVFR 1000

Suggested Minimum Route Altitude to achieve required obstacle clearance between consecutive reporting points [/] 650

Special Access Lane, Entry/Exit .....

Aerodromes With Instrument Approach Procedures (IAP) Outside Controlled Airspace. Pilots are strongly recommended to contact aerodrome ATSU before flying within 10nm of any aerodrome marked with instrument approach feathers. Note that the feathers only align with the main instrument runway.There may also be approaches to other runways as well.

Runway Extended Centrelines .....

ADDITIONAL SYMBOLS FOR AERODROME AND AIRCRAFT PARKING/DOCKING CHARTS - ICAO

Wind Direction Indicator .....

Illuminated Wind Direction Indicator .....

Aerodrome Reference Point .....

Runway Visual Range .....

Pattern A (CAT I) Holding Position Closest to the Runway .....

Pattern B (CATII/III) Holding Position .....

Intermediate Holding Position .....

Holding Position Signs H1 D2

Helicopter Approach Aiming Point .....

Helicopter Training Area ..... HTA W

Approach Lighting, simple approach - 2 bar (spacing not to scale)

Approach Lighting ..... (spacing not to scale)

Supplementary Lighting (spacing not to scale)

Precision Approach Path Indicator (PAPI).....

Runway Lighting .....

Aerodrome Radar .....

Aerodrome Radar (lit) .....

Aerodrome Radar and Obstacle .....

Aerodrome Radar and Obstacle (lit) .....

Centreline, Threshold and Touch-Down Zone Markings:

Starter Extension/Stopway .....

Taxiway Centreline, Stands & TRP .....

Apron .....

Operational Taxiway .....

Disused Area .....

Apron/Taxiway/Runway .....

Grass Apron/Taxiway/Runway .....

Hot Spot HS2

Lighting Table .....

LIGHTING	
APCH 05/23	HI 900m with 5 crossbars.
THR 05/23 THR 12/30	HI green W bars. HI green W bars.
RWY 05/23	HI white final 600m yellow. HI white final 600m yellow. HI white final 600m yellow.
TWY	Blue edge between THR 12 and THR 05 round apron. (but not via Hold C) Green C/L through north apron. Guard lights and stop bars at Holds A and F. Guard lights and stop bars at Holds A and F.

CHANGE (1/25): UPDATE, VARIOUS.

AERO INFO DATE 07 NOV 24

© GTech Surveys Limited 2026

Appendix - The town and country planning (safeguarded aerodromes, technical sites and military explosives storage areas) direction 2002

The town and country planning (safeguarded aerodromes, technical sites and military explosives storage areas) direction 2002 applies to military explosives storage areas in addition to aerodromes and technical sites. It came into effect on 10 February 2003.

The circular:

- provides details of the system of safeguarding
- lists the civil aerodromes which are officially safeguarded
- lists the local planning authority areas containing civil en-route technical sites for which separate official safeguarding maps have been issued

It replaced the town and country planning (aerodromes and technical sites) direction 1992, which was issued with Department of the Environment circular A list of these civil en-route technical sites can be obtained from the NATS Group property department. A list of the currently safeguarded military aerodromes, technical sites and explosives storage areas can be obtained from Defence Estates.

Annexe 1 - The Circular

The first Secretary of State as respects England and the National Assembly for Wales as respects Wales, in exercise of the powers conferred on them by articles 10(3), 14(1), 20(4) and 27 of the Town and Country Planning (General Development Procedure) Order 19951 and all other powers enabling them in that behalf, hereby direct as follows:

- this direction may be cited as the Town and Country Planning (safeguarded aerodromes, technical sites and military explosives storage areas) direction 2002 and shall come into force on 10 February 2003
- this direction applies to England and Wales

In this direction:

‘aerodrome’ means any area of land or water designed, equipped, set apart, commonly used or in prospective use for affording facilities for the landing and departure of aircraft and includes any area of space, whether on the ground, on the roof of a building or elsewhere, which is designed, equipped or set apart for affording facilities for the landing or departure of aircraft capable of descending or climbing vertically, particulars of which have been furnished by the First Secretary of State, the National Assembly for Wales, the Civil Aviation Authority or the Secretary of State for Defence to the local planning authority or authorities for the area in which it is situated.

© GTech Surveys Limited 2026

‘consultee’ means:

(a) in relation to a safeguarding map certified by the Civil Aviation Authority, the owner or operator of the aerodrome or technical site identified on that map; or

(b) in relation to a safeguarding map certified by the Secretary of State for Defence, the Secretary of State for Defence;

‘military explosives storage area’ means any area, including an aerodrome, depot or port, within which the storage of military explosives has been licensed by the Secretary of State for Defence, particulars of which have been furnished by the Secretary of State for Defence to the local planning authority or authorities for the area in which it is situated;

‘safeguarding map’ means:

(a) a map issued for the purpose of this direction and certified by the Civil Aviation Authority to be the safeguarding map for the aerodrome or technical site; or

(b) a map issued for the purpose of this direction and certified by the Secretary of State for Defence to be the safeguarding map for the aerodrome, technical site or military explosives storage area; and

‘technical site’ means:

(a) any area within which is sited or is proposed to be sited equipment operated by or on behalf of NATS Holdings Limited, any of its subsidiaries or such other person who holds a licence under Chapter I of Part I of the Transport Act 20002 for the provision of air traffic services, particulars of which have been furnished by the First Secretary of State, the National Assembly for Wales or the Civil Aviation Authority to the local planning authority or authorities for the area in which it is situated; or

(b) any area within which is sited or is proposed to be sited equipment operated by or on behalf of the Secretary of State for Defence for the provision of air traffic services, particulars of which have been furnished by the Secretary of State for Defence to the local planning authority or authorities for the area in which it is situated.

A local planning authority, before granting permission for the development of land forming the site of or in the neighbourhood of an aerodrome, technical site or military explosives storage area for which a safeguarding map has been furnished to the authority, shall, to the extent specified on such a safeguarding map in relation to particular parts shown thereon, consult the consultee.
For the purpose of consultation under this direction the local planning authority shall furnish to the consultee a copy of the application for permission for the development in question together with copies of any submitted plans showing

© GTech Surveys Limited 2026

the location with a Grid Reference (to at least 6 figures each of Eastings and Northings) and the elevation of the site (to an accuracy of 0.25 metres above Ordnance Datum), together with particulars of the layout, dimensions and heights of buildings or works to which the application relates, and shall furnish such further information as is necessary to enable them to consider the application.

Subject to paragraph 7, a local planning authority which have given information to the consultee in accordance with paragraph 5 in respect of an application for planning permission to develop land within the area covered by a safeguarding map shall not grant planning permission for the development before the expiry of a period of 21 days beginning with the date advised in writing by the consultee as the date of receipt of the information.

If a local planning authority propose to grant permission for the development of land forming the site of or in the neighbourhood of an aerodrome, technical site or military explosives storage area, or to grant permission subject to conditions, contrary to the advice of the consultee, they shall notify-

(a) both the Civil Aviation Authority and the consultee; or

(b) the Secretary of State for Defence

as the case may be.

Where a local planning authority are required to notify in accordance with paragraph 7 they shall as soon as practicable send to those required to be notified the following information-

(a) a copy of the application (including any accompanying plans or drawings);

(b) a copy of the advice from the consultee about the proposed development;

(c) a statement providing sufficient information to demonstrate that, in reaching a decision on the application, they have assessed the application in the light of the guidance in Annex 2 of ODPM Circular 1/2003 (NAFW Circular 1/2003) Joint Circular from the Office of the Deputy Prime Minister, the Department for Transport and the National Assembly for Wales; and

(d) a statement of reasons for proposing to grant planning permission, or to grant permission subject to conditions, contrary to the advice of the consultee.

Subject to paragraph 10, where a local planning authority have provided notification in accordance with paragraph 7, they shall not grant planning permission for the development before the expiry of a period of 28 days from the date or, where there are two consultees, the last of the dates advised in writing by the consultee as the date of receipt of the information specified in paragraph 8.

© GTech Surveys Limited 2026

If, before the expiry of the 28 day period mentioned in paragraph 9, the First Secretary of State or the National Assembly for Wales has notified the local planning authority that it is not intended to issue a Direction under section 77 of the Town and Country Planning Act 1990 in respect of that application, the local planning authority may proceed to determine that application.

Any safeguarding map under the authority of the Town and Country Planning (Aerodromes) Direction 1949, the Town and Country Planning (Aerodromes) Direction 1966, the Town and Country Planning (Aerodromes) Direction 1972, the Town and Country Planning (Aerodromes) Direction 1981 or the Town and Country Planning (Aerodromes and Technical Sites) Direction 1992 shall remain in force as if it was a safeguarding map which had been issued under this Direction until such time as it is withdrawn-

(a) in the case of a map issued in relation to a military aerodrome or technical site, by the First Secretary of State or the National Assembly for Wales as the case may be; or

(b) in the case of a map issued in relation to a civil aerodrome or technical site, by the Civil Aviation Authority.

The Town and Country Planning (Aerodromes and Technical Sites) Direction 1992 is cancelled by this Direction, save that it shall continue to apply to any application for planning permission to develop land which was made and not determined before this Direction comes into force.

Signed by authority of the First Secretary of State
17 December 2002

1 S.I 1995/419, to which there are amendments not relevant to this Direction. The functions of the Secretary of State under sections 59, 61(1), 65, 69, 71, 73(3), 74, 77(4), 78, 79(4), 188, 193, 196(4) and 333(7) of, and paragraphs 5,6,7(6), and 8(6) of Schedule 1 to, the Town and Country Planning Act 1990 (c.8), in so far as they are exercisable in relation to Wales, were transferred to the National Assembly for Wales by article 2 of and Schedule 1 to the National Assembly for Wales (Transfer of Functions) Order 1999, S.I. 1999/672, as amended by S.I. 2000/253. 2 2000 c.38

© GTech Surveys Limited 2026

Annexe 2: Arrangements for safeguarding aerodromes, technical sites and military explosives storage areas international and national aviation background

Civil aerodromes are licensed in order to ensure that certain types of flights, essentially those for the transport of fare-paying passengers and those for flying training, use only those aerodromes which provide a range of facilities in accordance with internationally agreed safety criteria. These criteria are set out in annex 14 to the Convention on International Civil Aviation 1944 (The Chicago Convention). The Civil Aviation Authority has developed its own licensing guidance document, Civil Aviation publication (CAP) 168, Licensing of Aerodromes, which amplifies Annex 14 to the convention.

In domestic legislation civil aerodromes are licensed under an Air Navigation Order made under section 60 of the Civil Aviation Act 1982. The Civil Aviation Authority is responsible under the Air Navigation Order for being satisfied that a licensed aerodrome is safe for use by aircraft, having regard in particular to the physical characteristics of the aerodrome and its surroundings. This is a continuing responsibility, which it discharges by means of regular audits, by placing obligations on the licensee to inform it when material changes take place and by ensuring that proposed developments are assessed. In addition, a requirement is placed on the licensee to take all reasonable steps to ensure that the aerodrome and its surrounding airspace are safe at all times for use by aircraft.

Officially safeguarded civil or military aerodromes and technical sites

Certain civil aerodromes, selected on the basis of their importance to the national air transport system, are therefore officially safeguarded, in order to ensure that their operation and development are not inhibited by buildings, structures, erections or works which infringe protected surfaces, obscure runway approach lights or have the potential to impair the performance of aerodrome navigation aids, radio aids or telecommunication systems; by lighting which has the potential to distract pilots; or by developments which have the potential to increase the number of birds or the bird hazard risk. A similar official safeguarding system applies to certain military aerodromes, selected on the basis of their strategic importance. In order to determine the safety implications of a planning application for a development within the approach, take-off or circuit areas of an aerodrome, a safeguarding process is established with all the relevant local planning authorities. Because the safety of aircraft in United Kingdom airspace is often dependent on ground-based navigation and radio aids, certain civil technical sites currently owned by NATS Holdings Ltd or its subsidiaries and certain military technical sites owned by the Secretary of State for Defence are also officially safeguarded under a similar process.

A list of the currently officially safeguarded civil aerodromes referred to in the previous paragraph is set out in Annex 3. A list of the local planning authority areas containing civil en-route technical sites for which separate official safeguarding maps have been issued is set out in Annex 4. A list of the currently

© GTech Surveys Limited 2026

safeguarded civil technical sites can be obtained from the NATS Group Property Department at One Kemble Street, London WC2B 4AP. A list of the currently safeguarded military aerodromes, technical sites and explosives storage areas can be obtained from Defence Estates at the address given in paragraph 35.

Safeguarding maps: buildings, structures, erections and works

A site-specific safeguarding map is centred on the safeguarded aerodrome or technical site and shows colour-coded areas which in total equate to the extent of the safeguarded area. In the case of civil aerodromes, the colour-coded areas are principally derived from a series of protected surfaces above and around the aerodrome which are defined in Annex 14 to the Chicago Convention and the Civil Aviation Authority's licensing guidance document CAP168. Their purpose is to indicate to a local planning authority those types of development upon which consultation is required. It is required if the height of any building, structure, erection or works would, as a result of the development, exceed the level indicated on the map for the relevant colour-coded area, in cases where the local planning authority are considering an application for full or outline planning permission, an application for the amendment of an outline planning permission, an application for the renewal of a planning permission or an application for the removal or modification of conditions imposed on a previous planning permission. The requirements for such consultation are described in the legend on the safeguarding map.

The importance of the consultation which the safeguarding process involves does not in practice relate solely to the height of buildings, structures, erections or works. Aerodrome operators employ a variety of navigational aids, radio aids and telecommunication systems in order to facilitate air traffic control and aircraft movements. In addition, at night or in low visibility conditions such as fog, pilots rely on approach and runway lighting to align themselves with the runway and to touch down at the correct point. A building or structure can, because of its size, shape, location or construction materials, act as a reflector or diffractor of the radio signals on which navigational aids, radio aids and telecommunication systems depend, while almost any development in the vicinity of these aids and systems has the potential to interfere with them. The colour coding on the safeguarding map is therefore designed to ensure that local planning authorities consult the relevant consultee on any proposed development in the vicinity of an aerodrome which has the potential to interfere with the operation of its navigational aids, radio aids and telecommunication systems. In addition, the lighting elements of a development have the potential to distract or confuse pilots, particularly in the immediate vicinity of the aerodrome and of the aircraft approach paths. Any safeguarding assessment will therefore need to consider the impact of lighting proposals. Road lighting is referred to in more detail in paragraph 12.

© GTech Surveys Limited 2026

Aerodrome safeguarding maps: “Birdstrike” hazard

Birdstrikes are one of the major controllable hazards to aviation. Common birds have caused catastrophic accidents to all types of aircraft. Most birdstrikes occur on or near aerodromes but, because birds are very mobile, features far beyond an aerodrome boundary may increase the hazard. If a man-made development provides feeding, roosting or breeding opportunities, or shelter and security, it may, depending on the siting of the development and the species which it attracts, increase the number of birds visiting or overflying an aerodrome or the number of birds in the airspace used by aircraft. Gulls and starlings congregate in very large overnight roosts and travel long distances daily, while waterfowl are large and often fly in close formation. There is only limited scope for taking action on aerodromes to counter these hazards, and safeguarding may be the only effective means of reducing the risk to aircraft in flight.

The primary aim is to guard against new or increased hazards caused by development. The most important types of development in this respect are: facilities intended for the handling, compaction, treatment or disposal of household or commercial wastes, which attract a variety of species, including gulls, starlings, lapwings and corvids; the creation or modification of areas of water such as reservoirs, lakes, ponds, wetlands and marshes, which attract gulls and waterfowl; nature reserves and bird sanctuaries; and sewage disposal and treatment plant and outfalls, which can attract gulls and other species. Planting trees and bushes normally creates a bird hazard only when it takes place relatively near to an aerodrome, but a potential starling roost site further away from an aerodrome can create a hazard. Mineral extraction and quarrying can also create a bird hazard because, although these processes do not in themselves attract birds, the sites are commonly used for landfill or the creation of wetland.

In order to protect aerodromes against these hazards, safeguarding maps include, in addition to the requirements related to the height of buildings and structures, a dotted circle, with a 13 kilometre radius in the case of civil aerodromes and an eight mile (about 12.87 kilometre) radius in the case of military aerodromes, centred on the safeguarded aerodrome reference point to indicate the area within which developments likely to attract birds require similar consultation. Local planning authorities are required to consult the relevant consultee before granting planning permission for any development within the relevant radius of an officially safeguarded civil or military aerodrome which is likely to attract birds. Whether or not a development is likely to attract birds will depend on a number of factors. A local planning authority will need to consider not only the individual potential bird attractant features of a proposed development but also whether the development, when combined with existing land features, will make the safeguarded area, or parts of it, more attractive to birds or create a hazard such as bird flightlines across aircraft flightpaths.

© GTech Surveys Limited 2026

Aerodrome safeguarding maps: Other aviation uses

In order to protect aerodromes against the hazards which would arise from other aviation uses, the 13 kilometre or eight mile radius dotted circle referred to in paragraph 9 is also relevant to these uses. Local planning authorities are required to consult the relevant consultee before granting any application connected with an aviation use within a 13 kilometre radius of an officially safeguarded civil aerodrome or within an eight mile radius of an officially safeguarded military aerodrome. Examples of applications connected with an aviation use include applications for development at an existing aerodrome and applications for the use of a site other than an aerodrome for the purposes of flight or as a drop zone for parachuting. Article 129 of the Air Navigation Order 2000 defines flight.

Roads and Railways near safeguarded aerodromes

Road and rail vehicles are potential obstructions to aircraft. The internationally agreed safety criteria recognise this by considering a road to be a mobile obstruction of 4.8 metres and a railway to be a mobile obstruction of 5.4 metres. The Civil Aviation Authority has adopted these provisions as part of its safeguarding practice. If a road or a railway forms part of a planning application, the local planning authority should regard it as development of a height of 4.8 or 5.4 metres, as the case may be, and consult in accordance with the colour coding on the safeguarding map. Lighting columns and other street furniture, and signal gantries and power lines, should also be the subject of consultation appropriate to their height, in accordance with the colour coding on the safeguarding maps. In the case of safeguarded military aerodromes local planning authorities are asked to consult the Secretary of State for Defence about any proposal to build a new road, or to upgrade an existing road, which is planned to run within 300 metres of the perimeter of the aerodrome. The extension of this provision to a wider area in the case of military aerodromes takes into account the presence of explosives storage areas on certain military aerodromes.

Local planning authorities should pay particular attention to the intensity and alignment of road lighting, which is a matter of concern over much more than the areas close to the ends of a runway. The intensity of lighting can distract pilots by causing glare in the direction of an approaching aircraft while, when viewed from the air, a road lighting scheme which makes a pattern similar to an approach or runway lighting pattern can confuse pilots who use those lights when landing at night or in foggy conditions. British Standard 5489, Part 8, states that the area within which a road lighting scheme may affect the safe use of an aerodrome is 4.8 kilometres beyond the aerodrome boundary. Local planning authorities should take account of the possibility that road lighting can be a safeguarding issue within this area.

© GTech Surveys Limited 2026

Other civil aerodromes

Operators of licensed aerodromes which are not officially safeguarded, and operators of unlicensed aerodromes and sites for other aviation activities (for example gliding or parachuting) should take steps to protect their locations from the effects of possible adverse development by establishing an agreed consultation procedure between themselves and the local planning authority or authorities. One method, recommended by the Civil Aviation Authority to aerodrome licensees, is to lodge a non-official safeguarding map with the local planning authority or authorities. Local planning authorities are asked to respond sympathetically to requests for non-official safeguarding. The general advice in this Annex is applicable to non-officially as well as to officially safeguarded aerodromes, but the requirements of the Direction at Annex 1 will not apply. The Civil Aviation Authority is prepared to offer advice on the preparation of a non-official safeguarding map at the request of any aerodrome operator or local planning authority.

Technical sites

All airport-related technical sites are located within the areas of the respective aerodrome safeguarding maps. In the case of an officially safeguarded civil en-route technical site that lies within an area which is also covered by aerodrome safeguarding requirements, a local planning authority need to refer both to an aerodrome and to a technical site safeguarding map and to carry out separate consultations as required by those maps. Where a military technical site is located on a military aerodrome the safeguarding criteria are included on the aerodrome safeguarding map. A single site-specific map is issued for each of the other military technical sites, showing colour-coded areas which in total equate to the extent of the safeguarded area and indicating which types of planning application are to be the subject of consultation.

Wind turbine development

The safeguarding requirements for the civil aerodromes listed at Annex 3 and for officially safeguarded civil en-route technical sites are completed by separate maps showing circles with a 30 kilometre radius centred on the aerodrome reference point or technical site to indicate the area within which a proposed wind turbine development requires consultation. The issue of these maps recognises the fact that the introduction of wind powered generator turbines within the United Kingdom as part of an alternative energy policy can create certain problems for aviation. In addition to their potential for presenting a physical obstacle to air navigation, wind generator turbines can affect signals radiated from and received by aeronautical systems. The rotating blades create electromagnetic disturbance, which can degrade the performance of these systems and cause incorrect information to be received. The amount of interference depends on the number of wind turbines, on a wind turbine’s size, construction materials and location and on the shape of its blades. Local planning authorities, consultees, developers and others may wish to refer to

© GTech Surveys Limited 2026

Wind Energy and Aviation Interests - Interim Guidelines, published by the Department of Trade and Industry in 2002.

Officially safeguarded military explosives storage areas

The Secretary of State for Defence safeguards military explosives storage areas. The safeguarding criteria for many of these areas are included on military aerodrome safeguarding maps. Site-specific explosives safeguarding plans have been issued for other sites where military explosives are stored or handled. These plans show the areas adjacent to a Potential Explosion Site where restrictions are imposed: within a yellow arc people may not remain for long periods of time, while within a purple arc new buildings which might be of vulnerable construction may not be built. There has hitherto been no general Direction as for aerodromes and technical sites but the Direction at Annex 1 now incorporates a general Direction in respect of military explosives storage areas; explosives safeguarding plans are to be treated as safeguarding maps.

These arrangements should not be confused with the arrangements for consulting the Health and Safety Executive about proposals for development around licensed explosives factories and magazines. Local planning authorities were advised of these consultation arrangements in a letter of 12 October 2000 from the Explosives Inspectorate of the Health and Safety Executive.

Safeguarding procedure

Safeguarding maps for civil aerodromes and technical sites are certified by the Civil Aviation Authority. Safeguarding maps for military aerodromes, technical sites and explosives storage areas are certified by the Secretary of State for Defence. A safeguarding map is issued to each local planning authority within the area indicated on the map. The requirements for consultation are described in the legend on the safeguarding map. In respect of any officially safeguarded civil aerodrome or civil en-route technical site, there will be two safeguarding maps. But as the maps relating to wind turbine development cover larger areas than the general aerodrome safeguarding maps and larger areas than some of the general technical site safeguarding maps, some local planning authorities will need to consult civil aerodrome or technical site operators only in connection with proposed wind turbine development.

It is recognised as good practice for applicants to initiate technical consultations before submitting planning applications, and it is open to them to send details of a proposed development direct to a statutory consultee. Local planning authorities which are themselves consulted before a planning application is submitted should encourage the applicant to consult the relevant consultee if this has not already been done. It is likely to be necessary for local planning authorities to ask an applicant for any of the types of development listed in paragraph 8 to show by means of a risk assessment that a proposed development would not be likely to increase the number of birds or the bird hazard risk to aircraft.

© GTech Surveys Limited 2026

Consultees may face particular difficulty in providing advice in respect of outline planning applications, because they are likely to need to examine specific proposals on matters such as siting, design (including height) and external appearance before they can advise on whether the proposed development might compromise the safe operation of the aerodrome or interfere with the navigation aid. In considering outline planning applications local planning authorities should therefore take account of the importance to consultees of what could otherwise be reserved matters. Article 3(2) of the Town and Country Planning (General Development Procedure) Order 1995 provides that, where a local planning authority consider that an application for outline planning permission ought not to be considered separately from all or any reserved matters, they must notify the applicant within one month of receiving the application that they are unable to determine the application unless further specific details are submitted. If the consultee is provided with all the information necessary to enable it to consider the effect of the proposed development on the aerodrome, technical site or military explosives storage area, this will minimise the need for the consultee to advise against the proposal on a holding basis.

More generally, a similar provision exists in Article 4 of the town and country planning (applications) regulations 1988, whereby the local planning authority may direct an applicant in writing to supply any further information, plans and drawings that may be necessary to determine the application. As it may be necessary for the consultee to have further information in order to consider the effect of a proposed development on the aerodrome, technical site or military explosives storage area concerned, it is important that the local planning authority consult the representative of the consultee at the earliest possible stage. As in the case of outline planning applications, if the consultee is provided with all the information necessary to enable it to consider the effect of the proposed development on the aerodrome, technical site or military explosives storage area, this will minimise the need for the consultee to advise against the proposal on a holding basis.

The operators of safeguarded aerodromes, technical sites and military explosives storage areas are likely to need to examine specific proposals in respect of matters such as siting, design (including height) and external appearance when local planning authorities consider applications for approval of reserved matters. Although these are not applications for planning permission, and are therefore not covered by the Direction at Annex 1, local planning authorities should as a matter of good practice consult the relevant consultees in accordance with the colour-coding on the safeguarding maps when they receive such applications, and allow the consultees sufficient time to consider the implications for their operations before taking decisions on them.

Appeals against enforcement notices are also outside the scope of the Direction at Annex 1, as they are not planning applications to a local planning authority. But where an appeal has been made against a breach of planning control alleged in an enforcement notice, local planning authorities should have regard to the possibility that the operation of a safeguarded aerodrome, technical site

© GTech Surveys Limited 2026

or military explosives storage area may be adversely affected by the alleged breach, even if the aerodrome, technical site or military explosives storage area is not in the immediate locality of the site to which the enforcement notice relates. They should therefore as a matter of good practice give notice of such appeals in accordance with the requirements for consultation described in the legend on the safeguarding map, whether the appeal is to be determined following written representations or whether a hearing or local inquiry is to be held.

But the fact that a proposed development is of a height which makes consultation necessary does not automatically mean that it will infringe a protected surface. Planning permission should therefore not be refused simply because a proposal is one requiring consultation. Nor is it necessary for new buildings to be automatically restricted to certain maximum heights in safeguarded areas: the consultee will consider whether, due to the location or the nature of a proposed development, it is necessary to advise against it or to seek restrictions on its height or design because of a conflict with a protected surface.

If a local planning authority propose to grant planning permission contrary to advice given on behalf of the consultee for a civil aerodrome or technical site, or not to attach conditions which that consultee has requested, or to attach conditions which the consultee has advised against, it will be necessary for the relevant safety regulator to assess the planning application and the consultee's advice and to identify any possible solutions. In such circumstances the local planning authority are therefore required to notify the Civil Aviation Authority as well as the consultee. If a local planning authority propose to grant planning permission contrary to the advice of the Secretary of State for Defence as the consultee for a military aerodrome, technical site or explosives storage area, or not to attach conditions which that consultee has requested, or to attach conditions which that consultee has advised against, they are required to notify the Secretary of State for Defence again. The Civil Aviation Authority or the Secretary of State for Defence may wish to request the First Secretary of State or the National Assembly for Wales to call in the planning application and determine it.

Official searches

Local planning authorities whose areas include an officially or non-officially safeguarded area or part of such an area should ensure that the associated restrictions on development are entered in the Register of Local Land Charges.

Purchase notices and compensation payable by Local Planning Authorities

Where permission for development is refused, or conditions are imposed, or a planning permission is revoked or modified on advice from the relevant consultee for a safeguarded civil aerodrome or technical site or from the Secretary of State for Defence, a local planning authority may have to acquire the site under the purchase notice provisions in sections 137-144 of the Town

© GTech Surveys Limited 2026

and Country Planning Act 1990, or pay compensation under section 144(2) of that Act. Similarly, where planning permission is revoked or modified, or where permitted development rights are withdrawn by a Direction under Article 4 of the Town and Country Planning (General Permitted Development) Order 1995 and planning permission subsequently sought is refused or granted subject to conditions, a local planning authority may incur expenditure under sections 107, 108 or 279 of the 1990 Act. In these circumstances, if the action which gives rise to a compensation claim has been taken solely because of advice given by the relevant consultee for a safeguarded aerodrome or technical site, or by the Secretary of State for Defence, the following arrangements apply: (a) military aerodromes, technical sites and explosives storage areas

Provided that its agreement is obtained before any claim is settled, the Secretary of State for Defence will indemnify the local planning authority against the expenditure incurred, on condition that, in the case of acquisition following service of a purchase notice, the authority confirm the validity of the notice and state that in their view the land has become incapable of reasonably beneficial use, and convey the land to the Secretary of State. If the local planning authority wish to retain the land, or part of it, specific arrangements can be made between the Secretary of State and the local planning authority. In the case of revocation or modification of planning permission, the undertaking to indemnify will not in general apply if the local planning authority have failed to consult the Secretary of State at the appropriate time, as required by the safeguarding Direction. (b) civil technical sites and Civil Aviation Authority aerodromes

Section 53 of the Civil Aviation Act 1982, as amended by paragraph 11 of Schedule 4 to the Transport Act 2000, provides for the local planning authority to recover from the technical site consultee or the Civil Aviation Authority compensation payable by the local planning authority, if the liability to pay compensation is attributable either to a planning decision which would not have been taken, or to an order which would not have been made, but for the need to secure the safe and efficient operation of the respective technical site or aerodrome. The section also applies the provisions under which the technical site consultee or the Civil Aviation Authority may have to acquire a site where a purchase notice is served. There are currently no Civil Aviation Authority aerodromes. (c) local authority or privately owned airports subject to Part V of the Airports Act 1986

Any airport in respect of which a permission to levy charges is in force under Part IV of the Airports Act 1986, or in respect of which there is a pending application for such permission (subject to certain exclusions), and any airport owned and managed by any subsidiary of the Civil Aviation Authority, is subject to Part V of the Act. Section 61 of the 1986 Act provides for the local planning authority to recover from the airport operator compensation which the authority have become liable to pay. This provision applies if the compensation liability results either from a planning decision which would not have been taken, or from an order which would not have been made, other than to secure the safe and efficient operation of the airport, the protection of persons or buildings from aircraft using the airport, or the safe and efficient operation of air traffic control

© GTech Surveys Limited 2026

or air navigation apparatus. Section 61 also applies the provisions under which the operator of an airport subject to Part V of the 1986 Act may have to acquire a site where a purchase notice is served. (d) local authority or privately owned aerodromes not subject to Part V of the Airports Act 1986

Where a local authority or privately owned aerodrome is not subject to Part V of the Airports Act 1986, section 61 of the Act does not apply. A local planning authority may wish to seek a specific deed of indemnity from the owner of any such aerodrome against liability under the purchase notice and compensation provisions of the Town and Country Planning Act 1990, so that the aerodrome owner will be the body to whom any land acquired under a purchase notice will normally be conveyed.

Incorporation of safeguarded areas into development plans

Local plans and unitary development plans should include a policy stating that officially safeguarded areas have been established for a particular airport or technical site, that certain planning applications will be the subject of consultation with the operator of that aerodrome or technical site and that there may be restrictions on the height or detailed design of buildings or on development which might create a bird hazard, as described in this Circular. The outer boundary of safeguarded areas should be indicated on proposals maps accompanying local plans and unitary development plans. A plan should state why an area has been safeguarded and that it is neither the responsibility nor the proposal of the local planning authority.

Unauthorised development

In the interests of safety local planning authorities are asked to advise the relevant consultee of any unauthorised development in safeguarded areas of which they become aware and for which consultation with the Civil Aviation Authority or the relevant consultee would have been required. DOE Circular 10/97 and Welsh Office Circular 24/97 outline the powers available to local planning authorities to enforce planning control. Policy on the use of these powers is set out in Planning Policy Guidance Note 18: Enforcing Development Control. Local planning authorities should consider carefully the appropriate action they should take in relation to any breach of planning control, taking into account any views expressed by the relevant consultee.

High structures

The Civil Aviation Authority is responsible for recording all air navigation obstacles in the United Kingdom. This record is essential for air safety. Full details of obstacles, that is any building or works extending 91.4 metres or more above ground level, are published for pilots' information and noted on aeronautical maps and charts. Article 109A of the Air Navigation Order 2000 requires the person in charge of any en-route obstacle which extends 150 metres or more above ground level and which is not in the vicinity of a licensed

© GTech Surveys Limited 2026

aerodrome to ensure that it is fitted with warning lights and to ensure that they are displayed.

Local planning authorities are asked to inform the Civil Aviation Authority about new development anywhere within their area which involves an obstacle, as soon as permission has been granted. The detailed information needed is:

(a) Position: an Ordnance Survey Grid reference, correct to at least six figures each of Eastings and Northings, so that the exact position may be plotted;

(b) Height: measured from the highest point of the building or works above ground level (where exact figures are not available, to the nearest 1.5 metres). The height above mean sea level should also be stated, if known;

(c) Description: a brief description of the nature of the obstacle, for example, church steeple or water tower. In a group of structures, the number and approximate height of those exceeding 91.4 metres should be given and the extent of ground covered by the group;

(d) Developer: state name and address of developer.

Local planning authorities are also asked to supply similar information to the Civil Aviation Authority about obstacles not previously notified, and to notify it of any which no longer exist.

Electricity and pipelines

Applications by electricity companies for overhead electricity lines and significant generating stations (with a capacity of 50 megawatts or more) are dealt with by the Secretary of State for Trade and Industry under the Electricity Act 1989. The procedure is that when applying for consent a company applies also for a Direction by the Secretary of State for Trade and Industry under section 90 of the Town and Country Planning Act 1990 that planning permission shall be deemed to be granted. The Secretary of State for Trade and Industry will carry out necessary consultations with the Secretary of State for Defence or the Civil Aviation Authority. Generating stations with a capacity of less than 50 megawatts require planning permission and local planning authorities should therefore carry out consultation in accordance with the requirements described in the legend on the safeguarding map. DOE Circular 14/90 (Welsh office circular 20/90, Department of Energy circular 1/90) refers.

The Secretary of State for Trade and Industry will also consult the Secretary of State for Defence and the Civil Aviation Authority, amongst others, about the construction of cross-country pipelines over 16.093 kilometres in length. Local pipelines (16.093 kilometres or less), other than those built by licensed public gas transporters, require planning permission and local planning authorities should therefore carry out consultation in accordance with the requirements described in the legend on the safeguarding map. The Department of Trade and Industry's guidance notes on the Pipelines Act 1962 refer.

© GTech Surveys Limited 2026

DISCLAIMER

This Report was completed by GTech Surveys Limited on the basis of a defined programme of work and terms and conditions agreed with the Client. We confirm that in preparing this Report we have exercised all reasonable skill and care taking into account the project objectives, the agreed scope of works, prevailing site conditions and the degree of manpower and resources allocated to the project.

GTech Surveys Limited accepts no responsibility to any parties whatsoever, following the issue of the Report, for any matters arising outside the agreed scope of the works. This work was conducted under GTech Surveys Limited's standard terms and conditions which can be found on our website.

This Report is issued in confidence to the Client and GTech Surveys Limited have no responsibility to any third parties to whom this Report may be circulated, in part or in full, and any such parties rely on the contents of the report solely at their own risk.

Unless specifically assigned or transferred within the terms of the agreement, the consultant asserts and retains all Copyright, and other Intellectual Property Rights, in and over the Report and its contents.

Any questions or matters arising from this Report should be addressed in the first instance to the Project Manager.

© GTech Surveys Limited 2026