Glossary & Terminology Explained

Airspace Modernisation ACP-2019-46

Consultation runs from:
20 October 2025 to 25 January 2026

GLASGOW AIRPORT

1 Introduction

Glasgow Airport is consulting on an Airspace Change Proposal to modernise its arrival and departure routes and the surrounding airspace to meet the UK Government's Airspace Modernisation Strategy.

These proposals are part of a nationwide drive to upgrade UK airspace, driven by the Government's strategy.

This document forms part of our set of Consultation Documents for our Glasgow Airport Airspace Change Proposal.

This document is intended to be read alongside our main consultation document and provides consultees with a glossary of terms that are used in that document.

2 Glossary

Acronym	Term	Description
ACOG	Airspace Change Organising Group	ACOG is a separate and impartial body set up on the direction of the Department for Transport and Civil Aviation Authority to coordinate the Airspace Change Proposals required to deliver airspace modernisation.
ACP	Airspace Change Proposal	A proposal (usually from an airport or air navigation service provider) to change the design of UK airspace, in line with the CAA's CAP1616 guidance.
-	ACP Sponsor	An ACP Sponsor is the organisation (usually an airport or Air Navigation Service Provider) that owns and develops an Airspace Change Proposal to make a change to the notified airspace design in accordance with the CAA's airspace change process (CAP1616).
ADS-B	Automatic Dependent Surveillance Broadcast	A means by which aircraft can automatically transmit and/or receive data, as appropriate in a broadcast mode via a data link.
-	Airway	An airway has no physical existence but can be thought of as a motorway in the sky. Each airway starts and finishes at a way point.
AIP	Aeronautical Publication	A publication which contains details of regulations, procedures and other information pertinent to the operation of aircraft in the particular country to which it relates.
AMS	Airspace Modernisation Strategy	The long-term strategy of the CAA and the UK Government is called the Airspace Modernisation Strategy (AMS). Its CAA document reference number is CAP1711. The AMS sets out the 'ends, ways and means' of modernising airspace through a series of 'delivery elements' for the future design, technology and operations of airspace.
AMSL	Above Mean Sea Level	
ANSP	Air Navigation Service Provider	An Air Navigation Service Provider is an organisation that provides navigation services to aircraft in the airspace.
ATC	Air Traffic Control	The ground-based personnel and equipment concerned with controlling and monitoring air traffic within a particular area.
ATS Routes	Air Traffic Service Routes	An ATS route is a generic term to describe a specified route designed for channeling the flow of traffic as necessary for the provision of air traffic services. This includes airways and arrival and departure routes, amongst others.
ATZ	Aerodrome Traffic Zone	An airspace of defined dimensions established around an aerodrome for the protection of aerodrome traffic.
A-weighting	-	A frequency weighting curve applied to sound measurements to reflect the sensitivity of the human ear.

Acronym	Term	Description
CAA	Civil Aviation Authority	The Civil Aviation Authority (CAA) is UK's specialist aviation regulator responsible for the regulation of aviation safety in the UK, determining policy for the use of airspace, the economic regulation of designated airports and ANSPs, the licensing and financial fitness of airlines and the management of the ATOL financial protection scheme for holidaymakers. The CAA co-sponsor airspace modernisation, and it is a public corporation of the Department for Transport.
CAP1616	Civil Aviation Publication 1616	The airspace change process regulated by the CAA.
–	Capacity	A term used to describe how many aircraft can be accommodated within an airspace area without compromising safety or generating excessive delay.
CAS	Controlled Airspace	Generic term for the airspace in which an air traffic control service is provided as standard; note that there are different sub classifications of airspace that define the particular air traffic services available in defined classes of controlled airspace.
–	Centreline	The nominal track for a published route.
–	Collective Impact	Collective impacts incorporate all the impacts (both positive and negative) of the ACPs contributing to the overall design when they are added together consistently, regardless of their effects on specific stakeholders or locations.
–	Concentration/ Concentrated	Refers to a density of aircraft flight paths over a given location. This generally refers to high density where tracks are not spread out; this is the opposite of dispersal.
–	Conflict	A conflict can be described as two or more ACPs that cannot both proceed in their proposed form because their design options are not compatible.
CCO	Continuous Climb Operations	An aircraft operating technique facilitated by the airspace and procedure design and assisted by appropriate ATC procedures, allowing the execution of a flight profile optimised to the performance of aircraft, leading to significant economy of fuel and environmental benefits in terms of noise and emissions reduction.
CDO	Continuous Descent Operations	An aircraft operating technique in which an arriving aircraft descends from an optimal position with minimum thrust and avoids level flight to the extent permitted by the safe operation of the aircraft and compliance with published procedures and ATC instructions.
–	Conventional Navigation	The historic navigation standard where aircraft fly with reference to ground-based radio navigation aids.
–	Conventional route	Routes defined to the conventional navigation standard, i.e. using ground-based radio navigation beacons to determine their position.

Acronym	Term	Description
CTA	Control Area	Controlled airspace extending upwards from a specified limit above the earth. Control Areas are situated above the Aerodrome Traffic Zone (ATZ) and afford protection over a larger area to a specified upper limit.
CTR	Control Zone	Controlled airspace extending upwards from the surface of the earth to a specified upper limit. Aerodrome Control Zones afford protection to aircraft within the immediate vicinity of aerodromes.
–	Cumulative impact	Cumulative impacts are where two or more routes from different ACPs are positioned in the same portion of the airspace below 7000ft, creating cumulative adverse effects for people on the ground in a specific location.
CAF	Cumulative Analysis Framework	The CAF considers where cumulative impacts from the interdependent design options from conflicting ACPs below 7,000ft may affect stakeholders on the ground and the collective impacts of all the ACPs in a cluster when they are added together. The CAF incorporates the outputs that are available from the Initial Options Appraisals conducted by ACP sponsors on their design options in Stage 2 of the CAP1616 process, the Full Options Appraisals conducted in Stage 3 and the Final Options Appraisals in Stage 4.
CQA	Candidate Quiet Area	A candidate quiet area (CQA) is defined as a location that meets specific criteria for low noise levels, providing a tranquil environment. These areas are typically assessed based on noise measurements and may be designated in parks, nature reserves, or other public spaces. Within the Glasgow area, there is Scottish Government action plan which identifies CQAs. More information can be found at: www.gov.scot/publications/glasgow-agglomeration-noise-action-plan/pages/7/
dB	Decibels	A logarithmic unit used to express sound pressure levels. It quantifies the intensity of sound relative to a reference sound pressure corresponding to the threshold of human hearing.
DfT	Department for Transport	The Department for Transport (DfT) along with the Civil Aviation Authority (CAA) co-sponsor airspace modernisation and oversee ACOG's work. The DfT work with agencies and partners to support the transport network that helps the UK's businesses and gets people and goods travelling around the country. DfT is a ministerial department, supported by 24 agencies and public bodies.
DP	Design Principle	Design Principles encompass the objectives that the airport seeks to achieve through an airspace change, including safety, policy, environmental and operational factors. Design Principles are set through engagement with stakeholders at Stage 1 of the process, and they guide the airspace designers to create suitable flight path options at Stage 2.
DPE	Design Principle Evaluation	An evaluation of each option against each design principle which forms part of Stage 2A of the CAP1616 process.

Acronym	Term	Description
–	Dispersal/ dispersion	Refers to the density of aircraft flight paths over a given location, this generally refers to lower density – tracks that are spread out; this is opposite of Concentration.
–	Easterlies	When a runway is operating such that the aircraft are taking off and landing in an easterly direction.
–	Final Approach	The final part of an arrival flight path that is directly lined up with the runway.
FL	Flight Level	The Altitude above sea-level in 100 feet units measured according to a standard atmosphere. A flight level is an indication of pressure, not of altitude. Only above the **transition level** (which depends on the local **QNH** but is typically 4,000 feet above sea level) are flight levels used to indicate altitude; below the transition level feet are used.
FLARM	Flight Alarm	FLARM (an acronym based on 'flight alarm') is the proprietary name for an electronic device which is in use as a means of alerting pilots of small aircraft, particularly gliders, to potential collisions with other aircraft which **are similarly equipped**.
–	Flight Path	The track flown by aircraft when following a route, or when being directed by Air Traffic Control.
ft	Feet	The standard measure for vertical distance used in Air Traffic Control.
FOA	Full Options Appraisal	The 2nd appraisal required by the CAP1616 process and builds on the work carried out as part of the Initial Options Appraisal (IOA).
FASI	Future Airspace Implementation Strategy	Under the Government's Airspace Modernisation Strategy (AMS) airports in the UK are required to update their airspace and routes in a coordinated way.
GA	General Aviation	All civil aviation operations other than scheduled air services and non-scheduled air transport operations for remuneration or hire. The most common type of GA activity is recreational flying by private light aircraft and gliders, but it can range from paragliders and parachutists to microlights, balloons, and private corporate jet flights.
–	Hold/Holding stack	A published airborne hold, sometimes referred to as a holding stack, is a structure for arriving aircraft to fly in a racetrack pattern at assigned altitudes and speeds waiting for instructions from controllers to begin their approach for landing.
HRA	Habitats Regulation Assessment	Habitats Regulation assessment (HRA) is a process that determines whether or not development plans could negatively impact local plans on a recognised protected European site beyond reasonable scientific doubt. This is required by all competent authorities.

Acronym	Term	Description
IFP	Instrument Flight Procedures	A published procedure used by aircraft flying in accordance with the instrument flight rules, which is designed to achieve and maintain an acceptable level of safety in operations and includes an instrument approach procedure, a standard instrument departure, a planned departure route and a standard instrument arrival.
IFR	Instrument Flight Rules	A set of regulations under which a pilot must fly, if the weather conditions are beyond the limits where it is safe to fly by visual references.
ILS	Instrument Landing System	An ILS operates as a ground-based instrument approach system that provides precision lateral and vertical guidance to an aircraft approaching and landing on a runway, using a combination of radio signals to enable a safe landing even during poor weather.
IOA	Initial Options Appraisal	A qualitative appraisal of an option against a baseline 'do nothing' scenario, as required at Step 2B of CAP1616.
–	Interdependency	An interdependency can be described as two or more ACPs that are linked together in some way. For example, there is a potential conflict in their design options or there is a potential cumulative impact on stakeholders on the ground.
L_{Aeq}	–	The most common international measure of noise, meaning, 'equivalent continuous sound level'. This is a measurement of sound energy over a period of time.
$L_{Aeq,T}$	A-weighted equivalent continuous sound level	The total sound energy in decibels (dB), averaged over a specified period (T). It is the most common international measure of aviation noise and is typically calculated over a 92-day summer period (16 June to 15 September) when the airport is busiest.
$L_{Aeq,16h}$	–	The A-weighted equivalent continuous sound level measured over the 16 busiest daytime hours (07:00-23:00). This period is commonly used to develop airport noise contours for daytime operations.
$L_{Aeq,8h}$	–	The A-weighted equivalent continuous sound level measured over the 8 night-time hours (23:00-07:00). This period is commonly used to develop airport noise contours for night-time operations.
L_{ASmax}	A-weighted maximum noise level	The maximum A-weighted noise level experienced during an individual aircraft overflight.
–	Lower Airspace	Airspace in the general vicinity of the airport containing arrival and departure routes below 7,000ft. Airports have the primary accountability for the design of this airspace, as its design and operation is largely dictated by local noise requirements, airport capacity and efficiency.
–	Masterplan	The Masterplan, developed by ACOG, is the single coordinated implementation plan for the ACPs needed to modernise airspace up to 2040.
NAP	Noise Abatement Procedures	Noise Abatement Procedures are designed to minimise exposure of residential areas to aircraft noise, while ensuring safety of flight operations.

Acronym	Term	Description
NATS	–	NATS is the UK's main navigation service provider for en-route operations and is sponsoring Airspace Change Proposals to modernise the network that sits above 7,000ft.
NATS NERL	NATS En-Route	NATS (NERL) provides Air Traffic Control services to aircraft flying in airspace above 7,000 feet over the UK and eastern part of the North Atlantic.
NPR	Noise Preferential Route	A flight path which is designed to minimise noise over populated areas by directing aircraft over less sensitive areas with lower populations.
nm	Nautical Mile	Aviation measures distances in nautical miles. One nautical mile (nm) is 1,852 metres. One road mile ('statute mile') is 1,609 metres, making a nautical mile about 15% longer than a statute mile.
–	Network Airspace / Upper network	En route airspace above 7,000ft in which NATS has accountability for safe and efficient air traffic services for aircraft travelling between the UK airports and the airspace of neighbouring states.
NTK	Noise Track Keeping	A system that monitors and records radar data to monitor aircraft operations and report statistics focused around noise.
N65 and N60	–	Metrics that quantify the number of times a maximum aircraft noise event level is exceeded. For daytime, the threshold is 65 dB L_{ASmax}; for night-time, it is 60 dB L_{ASmax}.
PANS OPS	Procedures for Air Navigation Services Aircraft Operations	PANS-OPS is contained in an ICAO Document 8168 which sets out the design criteria and rules for instrument flight procedures which include approach and departure procedures.
PBN	Performance Based Navigation	Performance Based Navigation (PBN) improves the accuracy of where aircraft fly by using satellite technology rather than ground navigation beacons. It is a cornerstone of airspace modernisation as it decouples routes from the location of the beacons and improves aircraft track keeping.
RMA	Radar Manoeuvring Area	An ATC operational area articulated as a volume of airspace by the ANSP. It facilitates the close-in radar vectoring by ATC that is required to take the aircraft safely from a holding stack and established onto final approach.
–	Regional cluster	The Masterplan ACPs are organised into four regional clusters based on the interdependencies between the ACPs and analysis into areas of the existing airspace where inefficiencies and delays are expected to worsen as traffic levels grow.
RNAV / RNAV 1	aRea NaVigation	This is a generic term for a particular specification of Performance Based Navigation. The suffix '1' denotes a requirement that aircraft can navigate to with 1nm of the centreline of the route 95% or more of the time. In practice the accuracy is much greater than this.
RNP-RF	Required Navigation Performance – Radius to fix	An advanced navigation specification under the PBN umbrella. The RF means Radius to Fix, where airspace designers can set extremely specific curved paths to a greater accuracy than RNAV1.

Acronym	Term	Description
Overflight	–	A metric representing the number of times an aircraft is perceived to fly over an area below 7,000 ft, either directly overhead or slightly offset.
RNP-AR	Required Navigation Performance – Authorisation required	An advanced navigation specification under the PBN umbrella. 'Authorisation required' refers to aircraft and operators complying with specific airworthiness and operational requirements. RNP-AR allow airspace designers to set extremely specific curved paths to a greater accuracy than RNAV1, these can be designed before and after the Final Approach Fix.
–	Route	A specified lateral track and vertical profile designed for channeling the flow of traffic as necessary for the provision of air traffic services.
–	Separation	Aircraft under Air Traffic Control are kept apart by standard separation distances, as agreed by international safety standards. Participating aircraft are kept apart by at least 3nm or 5nm lateral separation (depending on the air traffic control operation), or 1,000ft vertical separation.
SEA	Strategic environmental assessment	A strategic environmental assessment is a systematic process for identifying, reporting, proposing mitigation measures and monitoring environmental effects of plans, programmes and strategies.
SID	Standard Instrument Departure	Usually abbreviated to SID; this is a route for departures to follow straight after take-off.
STAR	Standard Arrival Route	
–	Tactical Intervention	Air traffic control methods that involve controllers directing aircraft for specific reasons at that particular moment (see Vector).
TMA/ ScTMA	Terminal Manoeuvring Area (Terminal Airspace) / Scottish Terminal Manoeuvring Area	Also known as a Terminal Control Area. An aviation term to describe a designated area of controlled airspace surrounding a major airport or cluster of airports where there is a high volume of traffic. The airspace surrounding Glasgow & Edinburgh airports is described as the Scottish TMA (ScTMA). This is the airspace that contains all the arrival and departure routes for Glasgow & Edinburgh from the surface to 6,000ft.
TMZ	Transponder Mandatory Zone	Airspace of defined dimensions where the carriage and operation of transponder equipment is mandatory.
–	Trade off	A trade-off is the decision to resolve a conflict and could be between two or more Sponsors of separate ACPs, or between two or more objectives (such as achieving noise reduction and achieving fuel efficiency improvements).
–	Uncontrolled airspace	Airspace where aircraft are able to fly freely without being constrained by instructions in routing or by Air Traffic Control, although they may request information or a service.
–	Vector/ vectored/ vectoring	A vector is a specific instruction given by a controller to a pilot to fly a particular compass heading and altitude to keep aircraft safely separated and maintain an expeditious flow of traffic.

Acronym	Term	Description
VFR	Visual Flight Rules	Visual Flight Rules (VFR) are the rules that govern the operation of aircraft in Visual Meteorological Conditions (VMC) (conditions in which flight solely by visual reference is possible).
VMC	Visual Meteorological Conditions	Visual meteorological conditions (VMC) are the meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling equal to or better than specified minima.
VSA	VFR Significant Area	A volume of airspace which has been identified as being particularly important to VFR operations. A VSA might take the form of a route, a zone, or an area chosen for its particular importance to GA users. These areas do not have any official status but are intended to highlight the importance of a particular area so that future airspace development plans can take account of the GA activity.
	Waypoints	A waypoint is a pre-determined geographical position that is defined in terms of latitude and longitude. Waypoints used in aviation are given five-letter names. Airways start and finish at a waypoint and airways may cross or join at a waypoint, so an aircraft can change from one airway to another. A waypoint is most often used to indicate a change in direction, speed or altitude along the desired path.
-	Westerly operation	When a runway is operating such that aircraft are taking off and landing in a westerly direction.

3 Airport/aircraft terminology

Aircraft movement

An aircraft movement, sometimes known as an Air Transport movement (ATM) is either a landing or take-off of an aircraft or helicopter at the airport.

How are runways used?

A runway may be used in two directions, depending on wind direction, amongst other factors. As far as possible, aircraft need to take-off and land into wind.

When the wind blows from the south-west, planes take off and land towards Johnstone (south-west).

74%

Runway 23

Across an average year, 74% of flights use Runway 23 (south-west).

South-west operations

When the wind blows from the north-east, planes take off and land towards Clydebank (north-east).

26%

Runway 05

Across an average year, 26% of flights use Runway 05 (north-east).

North-east operations

The following images show a selection of the aircraft which are most frequently referred to in our consultation material.

Jet Airbus 321

The Airbus A321 is a member of the Airbus A320 family of short to medium range, narrow-body, commercial passenger twin engine jet airliners; it carries 185 to 236 passengers.

Turboprop Saab 340

The Saab 340 is a Swedish twin-engine turboprop aircraft designed and initially produced by Saab AB and Fairchild Aircraft. It is designed to seat 30-36 passengers.

ATR (72-600)

The ATR 72 is a twin-engine turboprop, short-haul regional airliner developed and produced in France and Italy by aircraft manufacturer ATR. The number "72" in its name is derived from the aircraft's typical standard seating capacity of 72 passengers.

Twin Otter

The de Havilland Canada DHC-6 Twin Otter is a Canadian STOL (Short Takeoff and Landing) utility aircraft developed by de Havilland Canada, typically seating 18-20 passengers, as well as a cargo and medical evacuation aircraft.

4 Air navigation terminology

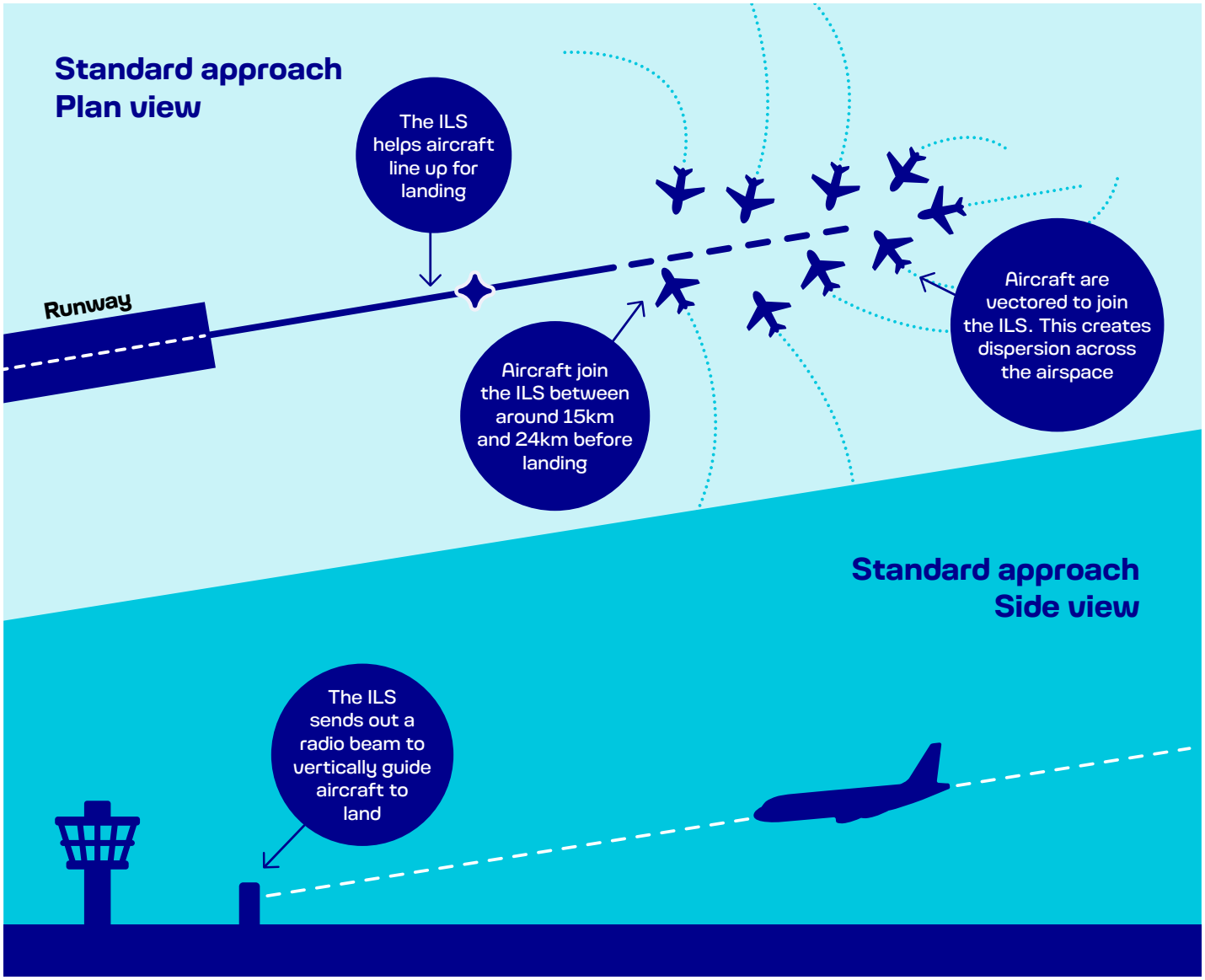
Performance-Based Navigation

Performance based navigation (PBN) is a type of navigation that uses satellite-based technology. This is similar to the type of technology used in car sat-navs, or in GPS based sports watches. PBN is being introduced across the work and Glasgow Airport are required to consider implementing it as part of meeting the requirements of the Airspace Modernisation Strategy.

Instrument Landing System

The Instrument Landing System (ILS) is used by aircraft once on final approach. It is a system of radio beacons which provide the aircraft with horizontal and vertical guidance, so that they know their exact position just before and during landing, even in the poorest of visibility. The ILS relies on physical infrastructure which is located on the ground at the airport.

Instrument Landing System



Vectoring (also known as tactical controlling)

When there are no set routes for aircraft to fly, pilots rely on instructions from air traffic controllers to navigate them. These instructions can be a climb or descent instruction and/or a positioning instruction. To ensure the aircraft is flying in the right direction, the air traffic controller will provide the pilot with a right or left turn instruction, combined with a heading to fly. This heading is based on a compass bearing between 001–360 degrees. This is known as vectoring. At larger airports, the Air Traffic Controller will have radar equipment to see where the aircraft are flying, in that situation this is known as Radar Vectoring.

Dispersion

Dispersion refers to the density of flight paths over a given area, and generally refers to low density operations where tracks or routes are 'spread out' over a wider area.

Concentration

Concentration refers to the density of aircraft flight paths over a given location. Generally, refers to high density, where tracks are not spread out over a wide area.

DVOR

DVOR is a short/medium-range radio navigation system. It is used to aid aircraft in determining their flight position and direction in relation to their destination.

VOR

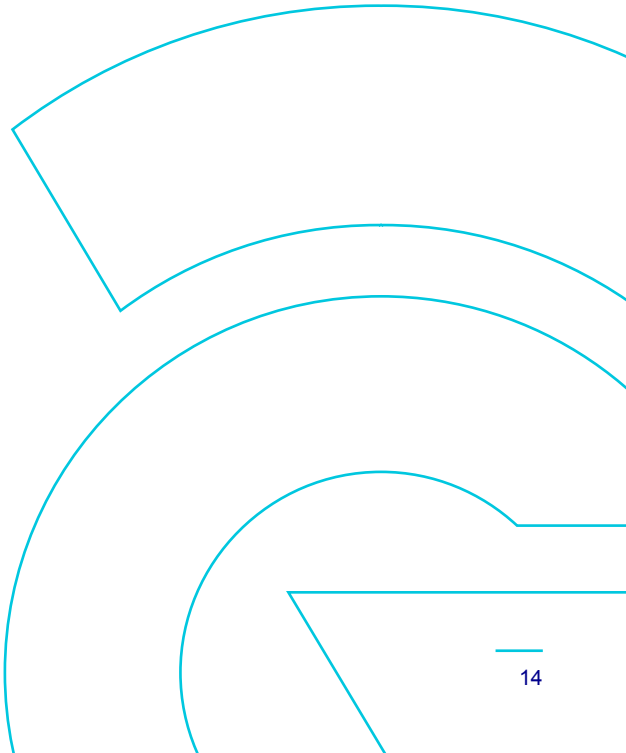
VOR stands for very high frequency omni-directional range and is a navigation aid for aircraft. It uses very high frequency radio signals emitted by radio beacons and sends a signal that an aircraft can pick up and use it to navigate.

DME

DME stands for Distance Measuring Equipment. This equipment is usually co-located with a VOR and will give a pilot an indication of the aircraft's distance from the VOR.

NDB

NDB is a Non-Directional Beacon. It is a ground-based radio transmitter which is used to aid navigation and is used as an approach aid for airports.



5 Airspace terminology

Controlled Airspace

Controlled Airspace is a generic term for airspace in which an Air Traffic Control service is provided and aircraft flying in controlled airspace must follow instructions from Air Traffic Controllers. Controlled airspace is provided primarily to protect its users, mostly commercial airlines. The UK there are currently five classes of airspace: A, C, D, E and G. The classification of airspace an aircraft is flying in determines how much control Air Traffic Controllers provide and responsibilities of the pilots and ATC differs between the classifications.

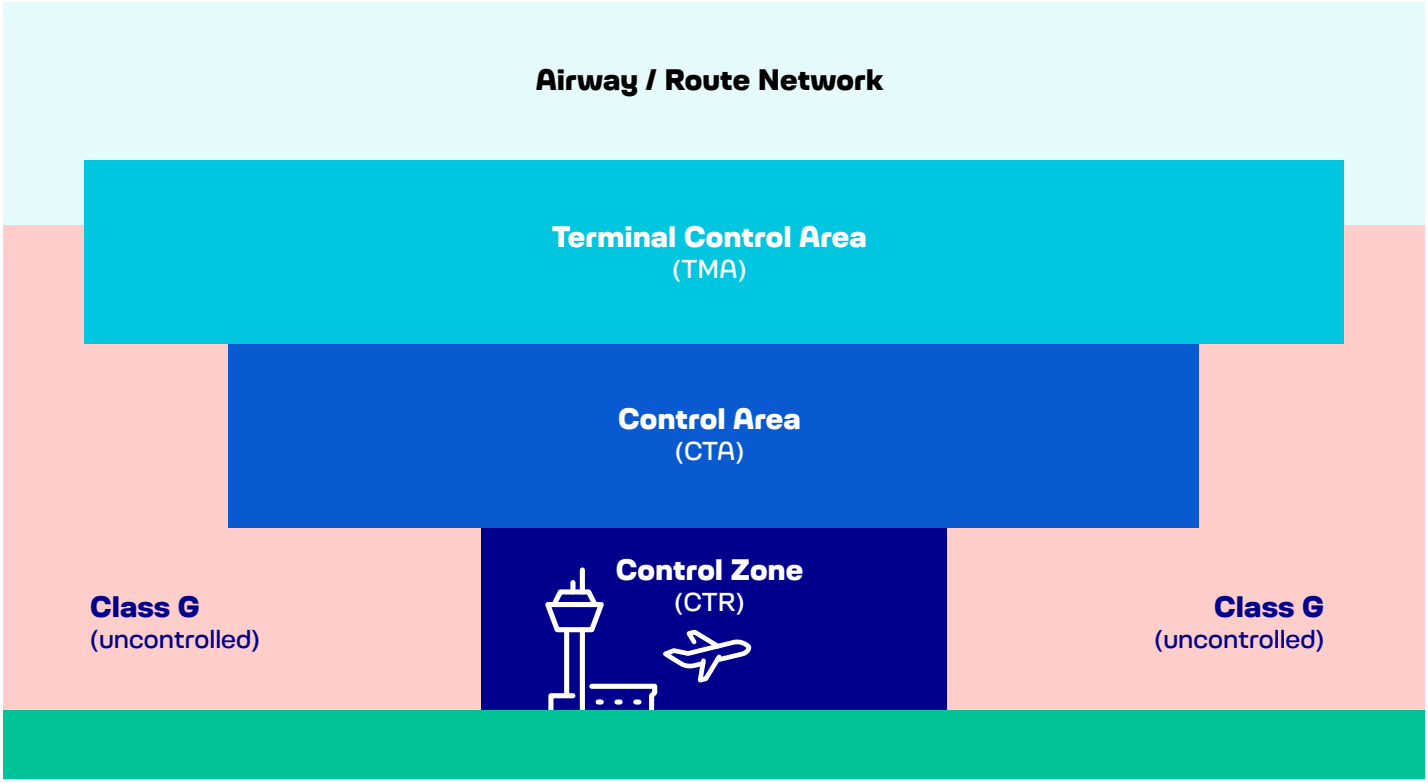
In the UK, Classes A-E are classed as controlled airspace. For more information see the CAA website here.

Control Zone (CTR)

Controlled airspace extending upwards from the surface of the earth to a specified upper limit. Control Zones afford protection to aircraft within the immediate vicinity of an aerodrome.

Control Area (CTA)

A CTA is controlled airspace which extends from a specified limit above the earth. Control Areas do not start at ground level, but are situated above the airport zone and afford protection over a larger area to a specified upper limit.



6 Aircraft arrival terminology

Holds/Holding Stacks

Aircraft are sometimes put in holds or holding patterns whilst they are waiting to land. Holds are typically used if there are multiple aircraft waiting to land and ATC need to delay an aircraft whilst another is landing. They can also be used when there is bad weather or at the request of the pilot.

Missed Approach

A missed approach occurs when it is judged that an approach cannot be continued to a safe landing. This may be due to weather or visibility making it difficult to land or when the aircraft is not correctly stabilised and aligned with the runway.

Missed Approach Procedure

A final approach procedure always has an associated missed approach procedure. This is flown when the aircraft is unable to land, and the approach cannot be continued. It provides the pilot with a procedure to reconnect to the final approach to perform another landing.