LEEDS BRADFORD INTERNATIONAL AIRPORT

VFR Operators Briefing Pack

(November 2014 Version)

Introduction

This document is intended as a guidance supplement to the UK AIP and should be read in conjunction with that document. If a procedure is adequately described in the AIP it will be referenced, rather than reproduced. This document includes information in which the ATC function at Leeds Bradford Airport is carried out, as well as describing the general operating procedures in various configurations and weather conditions.

The document will also give a guide to potential hazards found both within, and in the vicinity of Leeds Bradford Airspace, as well as give advice with the intention of reducing the number of Controlled Airspace infringements.

With the onset of low cost air travel Leeds Bradford has rapidly expanded over the last decade with commercial IFR movement rates often topping 100 on a daily basis. Due to the taxiway configuration requiring a partial runway backtrack, runway occupancy is at times almost 100% during peak summer periods.

The movement rates are further increased due to the activities of the South Side based flying school (fixed wing and helicopter), along with frequent executive movements to the based FBO on the Southside of the airfield.

Runways And Operating Modes

Leeds Bradford Airport has one runway, aligned 32/14. Due to the prevailing winds Runway 32 in generally the Runway in use between 60-70% of the time. Runway 32 is the preferred departure runway for noise abatement, although Runway 14 is often requested for longer haul flights due to the greater TODA available from that runway.

In order to meet regularity requirements small delays may be incurred due to essential runway inspections, or bird clearance activities. A thorough runway inspection regime takes place on a weekly basis for around a two hour period, during this time circuit training may be curtailed and training flights may encounter delays, as during this period it is best practice to try to “bunch” movements to allow as much uninterrupted inspection time as possible.

ATC Control Positions

Leeds Bradford Airport has three dedicated ATC functions. The table below summarises each function.

Call Sign	Frequency	Function
Leeds Delivery	121.800	Passing of Standard aircraft departure clearances (promulgated IFR SID's and VFR outbound traffic routing via promulgated VRP's). The position is usually manned 0600-2200LT, but be sure to carefully listen to the ATIS message prior to calling as this will advise the correct frequency to call for clearance.
Leeds Tower	120.300	Control of all aircraft and vehicles using the Runway. Control of aircraft within the Leeds Bradford Aerodrome Traffic Zone. Issue of non standard departure clearances. Issue of push, start and taxi clearance. Control of all aircraft and vehicles on taxiways(note, approved vehicles may freerange on the maneuvering area maintaining their own separation from aircraft)
Leeds Radar	133.125	Sequencing of IFR arrivals. Vectoring of outbound IFR aircraft if in confliction with other traffic. Providing a radar control service to aircraft transiting Leeds airspace. Providing ATSOCAS to traffic outside Controlled Airspace (note a basic service will be automatically assigned to traffic outside controlled airspace unless a radar service is asked for)

Arriving VFR Aircraft Procedures

Aircraft are required to call at least 5 minutes from the zone boundary for a variety of reasons. If arriving from another airfield the radar controller must complete a flight progress strip showing all of your details, and then pass the details by telephone to the Aerodrome Controller to enable them to plan traffic around your flight. A late call when approaching the zone boundary may result in a request for you to orbit outside controlled airspace, even if the traffic situation appears to be quiet, whilst we pass your details and coordinate your flight with the Aerodrome Controller.

ATC Visual control room

Radar room

During busy periods you may be told to standby by the radar controller. Please ensure that you do not “press on” and enter controlled airspace whilst you are waiting. If necessary take up an orbit and await the call back.

If working another ATC agency inbound (ie Linton to the East and Doncaster to the south), request to leave their frequency at least 5 minutes from the Leeds zone boundary. It is advisable not to wait for them to transfer you as they may put you across too late if dealing with other, higher priority traffic. It remains the pilots responsibility to remain outside of Leeds Airspace in the event of a late handover, do not assume that the agency working you has coordinated an airspace joining clearance with you.

Late calls may result in an orbit outside Controlled Airspace, whilst the Radar Controller arranges to pass your details to the Aerodrome Controller.

Be aware that even though you are in contact with Leeds Radar, you may not enter controlled airspace until you hear the instruction “enter controlled airspace”, or “enter the Leeds Zone”.

Radio Calls

On first contact a simple “Leeds Radar, Callsign, Inbound” is all that is required on the initial call. Unknown to yourself the Radar Controller may be coordinating on the telephone, therefore there is little point passing all of your details immediately, as you may be asked to pass them all again!

The radar controller writes on colour coded strip’s depending on if you are inbound or a transit, therefore it is always very useful to us if you let us know on first call if you are a transit, or inbound.

The radar controller will assume that a basic service is required, unless a request for a radar service is made.

TCAS Alerts

Whilst the introduction of TCAS has increased safety margin’s, any VFR traffic holding very close to the final approach can trigger a TCAS alert in an IFR aircraft, which at worse can cause the inbound aircraft to take avoid action and go around. For this reason you may occasionally be asked to orbit a little further away from the final approach if the Aerodrome Controller deems that you are holding too close to the final approach.

Inbound From The South

The usual join is via Dewsbury VRP, although if a direct routing is requested this will be given subject to the traffic situation at the time. An inbound routing via the Dewsbury VRP ensures that traffic remains well to the west of the 32 Instrument approach, or 14 climb out, ensuring that you remain an adequate distance from standard IFR traffic routings.

In the event of traffic on the 32 ILS, you will be asked to join at the commencement of the downwind left hand join for Runway 32 to keep you well to the west of the Runway 32 approach, otherwise expect a left base join, or a direct routing onto final.

Pilots inbound from the south should be aware of the Police Air Support Unit base at Carr Gate, Wakefield..

Helicopter pilots must avoid the restricted area of Wakefield Prison to the south of the Leeds control zone

Common errors include pilots mis-identifying the town of Wakefield for the Dewsbury VRP, thus placing the inbound in a closer confliction to the 32 Approach/14 climb out.

Common causes of airspace infringement include late calls due to the fact that Doncaster Radar have not had time to transfer traffic to Leeds Radar. The pilot is responsible at all times for ensuring that you remain outside controlled airspace, orbit if necessary until you are able to obtain a joining clearance from Leeds Radar.

Inbound From The West

Plan to enter via the Keighley VRP. If you are looking for a direct routing make the request on first call and we will try to accommodate.

A light aircraft strip at Oxenhope is located approximately 3 miles SW of Keighley with potential for non radio aircraft activity in the Keighley area.

There are paragliding sites within Leeds Airspace on both Baildon Moor, and Ilkley Moor. The paragliders will not be in radio contact with Leeds and will not be visible on our radars.

Inbound From The North East

Plan to enter the zone via the Harrogate VRP, however if you are looking for a direct routing make the request on first call and we will try to accommodate

A common misconception is that Harrogate lays on the boundary of Controlled Airspace. Harrogate is located approximately 3.5 miles to the north east of the control zone, with the zone boundary passing through the eastern outskirts of Huby

Inbound From The East

Plan to enter the zone via the Eccup Reservoir VRP, however, if you are looking for a direct routing make the request on first call and we will try to accommodate.

Numerous zone infringements have occurred in this area due to the late handover from Linton or Fenton LARS, with traffic calling inbound extremely close to the Control Zone boundary. In the event that a zone entry clearance cannot be obtained, orbit to the east of Eccup until 2 way with Leeds Radar.

Circuit Procedures

During busy periods you may be asked to orbit for several minutes to give priority to commercial traffic. Try to orbit immediately when the Aerodrome Controller asks you to, if possible avoiding built up areas in order to keep the noise nuisance to a minimum. If you require to change your position by over a mile in order to find a less populated area to orbit, make this request to the Aerodrome controller.

The Aerodrome Controller may ask you to report before turning base leg. In this case there may be commercial traffic on final which *could* affect you. Do not turn onto base leg without further clearance from Tower.

At times, in order to offer you the chance to expedite your arrival, you may be asked if you can keep the circuit tight, or to turn base leg sooner than the standard circuit. Do not feel obliged to do this, if you are not happy with a tighter circuit advise tower, and they will either extend or orbit you to make you number two.

If you are following traffic do not turn onto base leg or final unless you have the preceding traffic in sight. Numerous incidents have been caused by the second aircraft losing sight of the first, and guessing it's position. If in doubt ask the tower controller where number one is.

Wake Turbulence

If following traffic from a heavier wake turbulence category, ATC will issue you with a caution, along with a recommended distance to avoid the wake. If you intend to carry out further orbits, or extend downwind for spacing please advise the tower controller, as there may be further traffic positioning behind you.

Taxi Procedures

Always check with ATC if you have not been given an exit to vacate the runway onto. The first available exit may be about to become blocked with an opposite direction outbound aircraft. Non-based operators are requested to confirm with Multiflight, which apron they will be parking you on, as ATC may ask this prior to deciding your taxi routing.

Pre Flight Procedures

ATC are unable to take booking outs over the RT due to workload. All booking outs should be made by telephone direct with ATC at least 10 minutes prior to engine start.

It would assist if you begin the booking out message with the prefix "book out local" or "book out landing away" as this will determine which colour coded ATC flight progress strip is used for the flight.

All flights must be booked out via a designated VRP not above 2000 feet QNH, if you require a more direct route, or further climb make this request on first call to Leeds radar.

ATC Zone Clearance

Your zone clearance should be obtained from Leeds Delivery on 121.800Mhz, unless you are given alternative instructions at the time of booking out.

Outbound Taxi Procedures

After receipt of your clearance you will be transferred to the Leeds Tower Controller on 120.300 Mhz where you can request taxi clearance. You will be cleared to the relevant holding point for checks, prior to you reporting ready for departure.

ATC will assume that you do not require a back track unless you specifically request one, prior to entering the runway. During busy periods ATC may ask if you can accept an immediate line up and take off with an early turn after departure. This request is to offer you the chance of an expeditious departure, however if you are not happy with the rushed departure simply reply “negative” and we will accommodate your flight in the next gap in the traffic.

General Outbound Procedures

After departure the Aerodrome Controller will transfer you to radar once clear of all local traffic. It is a requirement for the radar controller to check that your Mode C altitude readouts are accurate, therefore it assists us greatly if on initial contact you report your passing altitude, otherwise radio time is increased as the controller has to request the information from you.

Ideal phraseology would be “ Leeds Radar, *callsign*, passing *altitude*, *any further requests (eg request further climb, or direct routing to)”*

On leaving the zone during LARS hours you will be transferred to the relevant LARS unit. Outside of LARS hours you will be given a service outside of controlled airspace by Leeds Radar. To keep RT transmissions to a minimum, a basic service will be given, unless requested otherwise by the pilot.

Outbound to The South

Standard departure is to Dewsbury, not above 2000 feet QNH. A Dewsbury track ensures that you are well separated from inbound ILS traffic on Runway 32, as well as departing traffic off Runway 14.

On leaving the zone be aware that the base of the Leeds CTA above you is 3000 feet QNH, whilst the stub of airspace with a base of 2500 feet is only a couple of miles east of you.

Outbound To The West

Standard departure is to Keighley, not above 2000 feet QNH. A Keighley track ensures that you are well separated from inbound ILS traffic on Runway 14, as well as departing traffic off Runway 32.

On leaving the zone be aware that the base of the Leeds CTA above you is 3000 feet QNH

Outbound To The North East

Standard departure is on track Harrogate, not above 2000 feet QNH. Please note, the boundary of the Leeds Zone is the eastern outskirts of Huby, around 3 miles south west of Harrogate.

During published LARS hours, Leeds ATC have an agreement with the military units stipulating that all traffic should be transferred to the relevant LARS unit, due to the military operations to the east of Leeds airspace. Due to this agreement, we are unable to offer a service outside controlled airspace during LARS hours, including short duration flights out to the east.

Outbound To The East

Standard departure is on track Eccup, not above 2000 feet QNH.

All traffic is transferred to the relevant LARS unit on leaving the zone.

Air Traffic Services Outside of Controlled Airspace

We find that there is occasionally confusion with the types of services available outside of controlled airspace and the implications of each service, therefore a brief explanation is added below.

Basic Service

The most commonly requested service for local VFR traffic. Under a basic service you are not identified and are usually placed on a 7000 conspicuity code. Information on conflicting traffic will not be given, you are responsible to see and avoid all traffic. Under this service you will have minimum radio exchanges with ATC, giving more time for uninterrupted instruction and enjoying the flight!

Traffic Service

Information on conflicting traffic will be provided to assist you to identify any potential confliction. You are responsible for taking any avoiding action. As Leeds is not a LARS Unit, and the Radar controller's primary function is the separation and sequencing of IFR traffic inside of Controlled Airspace, a traffic service may not be available in busy periods.

A reduced traffic service may be offered during busy periods, or at times where we cannot guarantee solid radar coverage due to your altitude, radar clutter or traffic intensity. Under a reduced traffic service we will pass information on conflicting traffic when conditions allow, however be prepared to see other traffic which has not been notified to you by the controller

Deconfliction Service

Under a deconfliction service the radar controller will attempt to separate you from all conflicting traffic outside of controlled airspace. You are expected to fly headings and altitudes given to you by the controller, therefore expect flight into IMC conditions. A deconfliction service can only be provided at, or above the minimum safe terrain level.

Due to the nature of the service, a lot of the controller's workload is concentrated on monitoring the flight and coordinating with other units to ensure conflicting traffic remains clear of the flight. For this reason it is often not possible for the Leeds Radar controller to offer a deconfliction service due to workload, especially when vectoring other traffic. If it is not viable to offer a deconfliction service, a traffic service may be offered, or an alternate LARS unit may be suggested if you are within their radar coverage.

Frequency Monitoring -Reference UK AIP EGNM AD 2.2

A frequency monitoring squawk is now available from Leeds Radar. A squawk of 2677 may be selected by the pilot if an ATC service from Leeds is not required, but the pilot intends to monitor the Leeds frequency.

Pilots may wish to operate on a listening watch for a variety of reasons, such as not wanting the RT workload of an ATC service, not feeling confident on the RT etc. The pilot monitors the radar frequency to gain a better situational awareness of conflicting traffic. In the event of an emergency, the radar frequency is already pre-selected in order to facilitate an early call.

A major advantage from an Air Traffic Control point of view is the early identification of any potential airspace infringements, which allows us to make a blind

radio call in order to identify the traffic and avoid any infringement. The listening watch also cuts down the amount of RT loading as there is no requirement to check in on frequency and pass your details.

If you wish to use the monitoring service, please select the 2677 squawk and the radar frequency of 133.125, **only when operating within 10 miles of Leeds Bradford Zone**.

There is no requirement to make RT contact with the Leeds Radar Controller, providing that you do **not** intend to transit through, or beneath controlled airspace. Please also select your Mode C to on if you have this facility. Fly on the Leeds QNH at all times (this can be obtained from monitoring the radar frequency or from the Leeds ATIS 118.025 Mhz)

Generally the Leeds Radar controller will not try to establish contact with you unless you look as if you are likely to accidentally enter controlled airspace. If we need to speak to you we will make a blind call to aircraft in a specific area to call us.

Aircraft which intend to either transit controlled airspace, or route under any portion of the Leeds Bradford Control Area should still contact Leeds Radar on 133.125Mhz for a service as we may have airliner traffic descending to 500 feet above the base of control airspace (or 500 feet from yourselves if you are flying only slightly below the base).

Zone Transits

We will try to accommodate both IFR and VFR crossings of Leeds airspace when traffic conditions allow. Unfortunately many of the popular routes (ie Sherburn to Blackpool) pass through the Runway 32 Instrument Approach at around 8 miles which often causes conflictions in this area.

In the event of IFR traffic affecting a direct transit we will offer you the option of

a) A alternative routing or different altitude
b) A hold outside controlled airspace
c) If delay is likely to be significant we may suggest that the most expeditious option is a routing to avoid controlled airspace.

A VFR transit is likely to get you across controlled airspace more expeditiously than an IFR transit.

Avoiding Airspace Infringements

We get on average between 3-5 airspace infringements per month. Most of the infringements have no further consequences, however at times avoiding action has been taken to avoid unknown traffic which has inadvertently entered controlled airspace.

The top causes of airspace infringement at Leeds Bradford are:

1) Pilot is too close to the boundary of controlled airspace prior to making the initial call for zone entry. By the time contact is established the flight is already inside of the zone.

   Solution : Try to call at least 5 minutes prior to the zone boundary. In the event that another ATC agency has not transferred you, give them a reminder. Commence an orbit around 3 miles from the zone boundary until you obtain a clearance.

2) Pilot is told to standby, but continues towards the airfield expecting that they will shortly get a clearance.

   Solution : Take up an orbit around 3 miles from the zone boundary if you have not received a clearance.

3) Outbound traffic leaves the Leeds Control Zone and immediately climbs, not realising that the Leeds Control Area above them has a base of between 2500-3000 feet. Once you have reported leaving the zone you are not clear to enter

   any other area of controlled airspace unless you have received a specific clearance to do so.

   Solution : Always brief thoroughly prior to the flight, making a note of the base of controlled airspace along your route. If you are looking for a higher altitude make the request with radar and we will try to accommodate. Once you leave controlled airspace do not enter again without a prior clearance.

4) Pilot becomes lost but leaves it too late prior to making contact with radar, at which point they have already entered controlled airspace.

   Solution : Never be afraid to admit that you are lost. An early call will enable you to get help and possibly avoid a potential infringement.

5) Over reliance on GPS navigation systems. The system fails and the pilot does not have enough visual reference to establish their correct position.

   Solution : Navigate using visual reference and treat the GPS as an additional safety net to be used as a cross reference to confirm your position

6) Traffic skirts the boundary of controlled airspace without calling ATC using GPS for navigation. Distraction occurs in the cockpit and the aircraft enters controlled airspace as the margin for error is so small.

   Solution : Try to give a wide berth from the edge of controlled airspace, ideally 2-3 miles. This will give additional leeway in the event of distraction, weather avoidance etc.

7) Pilot thinks that he has been given a clearance to enter control airspace but hasn't.

   Solution : You have not been given permission to enter controlled airspace until ATC use the following phrase " enter the zone" or "enter controlled airspace" . Do not assume that because you have been given the runway in use that this constitutes a clearance to enter controlled airspace.

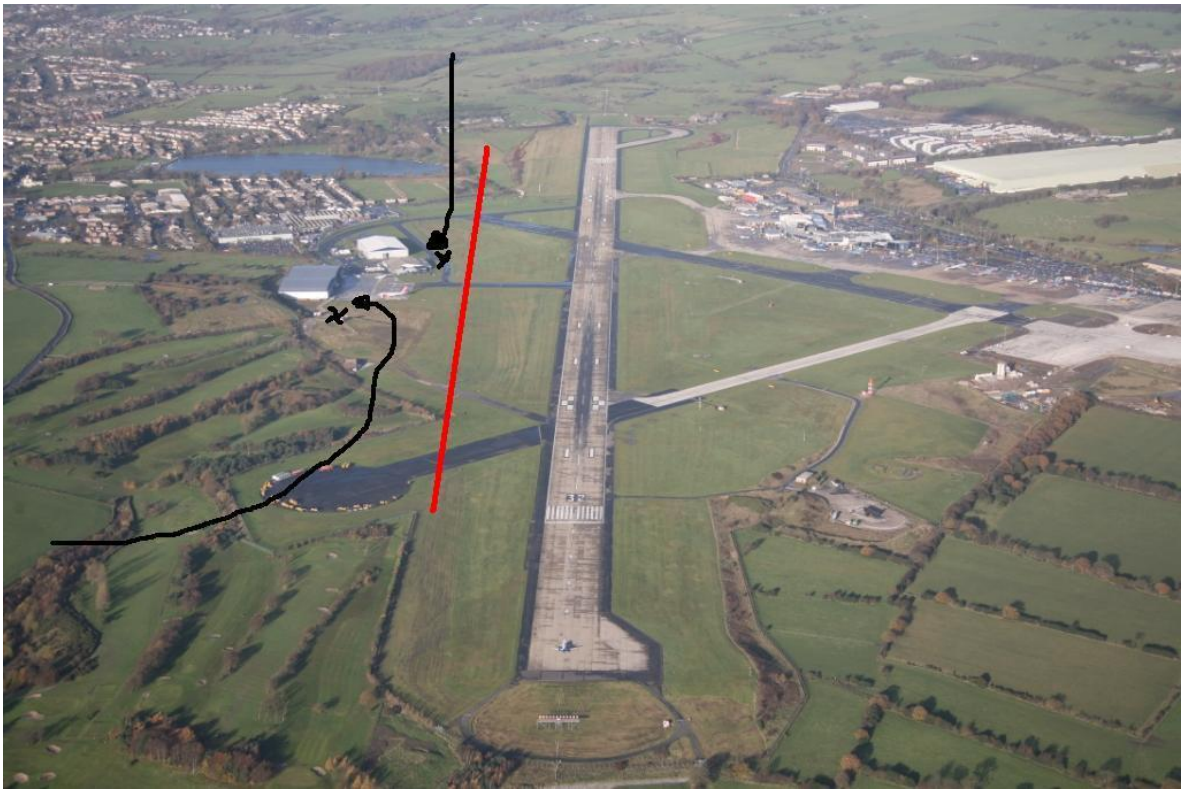
Helicopter Operations At Leeds Bradford Airport

All helicopters in the “light” wake turbulence category operating in daylight conditions operate to and from the X or Y helicopter aiming points to the south of Runway 32. The Runway is not available to helicopter movements at Leeds Bradford Airport.

When approaching or departing the aiming points to the south or west it is extremely important that you remain south of the runway and the clear and graded area at all times (illustrated on the map below by the red line), this ensures adequate separation from traffic using the runway.

If surface wind conditions mean that you need to infringe the clear and graded area to land into wind, please make this request with tower prior to reaching the Aerodrome boundary.

It is important that all crews are familiar with the aiming points and procedures prior to operating into Leeds as significant delays are likely to occur to your flight if you are unable to comply with the standard procedures.



Helicopter Arrivals

Inbound routings are via the VRP's as specified for fixed wing traffic, however in most cases you will be cleared to the aerodrome boundary, rather than the runway. Please do not proceed beyond the aerodrome boundary until cleared to do so by the Aerodrome Controller, in the event that you cannot get into the RT to make the call hold, or orbit at the boundary.

Helicopters arriving from the South or West will be cleared to land at the relevant aiming point, remaining well south of the runway as specified above. Helicopters arriving from the north or east will be held to the east of the runway, until a suitable gap appears in the traffic to get you across. Have your aerodrome map at hand as you may be instructed to cross the runway at a certain point in order to avoid the wake turbulence from a previous departure (eg cross via the 32 threshold, or cross 32 to the east of taxiway Lima).

When arriving from the south, or after crossing the runway from the east, ensure that you remain to the west of the red line shown on the chart above

On landing at the aiming point, request to air taxi to your requested parking area. Please ensure when you book in with Multiflight that they inform you of your parking area. This will be either Multiflight West Helipads, Multiflight Central Apron, or Multiflight East Apron. Please do not proceed to the apron without an ATC clearance.

Helicopter Departures

Please ensure that you book out over the telephone at least five minutes prior to departure, as booking out's cannot be taken over the radio.

Contact Leeds delivery on 121.80 Mhz to receive your zone clearance (note this does not imply permission has been given to depart the airport)

When instructed by delivery contact Leeds Tower on 120.30 Mhz when ready for departure. You will be given permission to air taxy to the relevant helicopter aiming point to report in position ready for departure. Again, permission to taxy to the aiming point does not mean that you have been clear to depart the airport yet.

When at the aiming point, report ready for departure. When traffic conditions allow you will be given take off clearance. If you are departing to the south or west you will be expected to remain south of the Runway and Clear and Graded area again as shown by the red line on the map above. In the event that the wind conditions mean that you need to infringe this area please make this request prior to departure.

Please note that as the aiming points are close to the runway, wake turbulence separation rules apply (3 minutes) against any heavier fixed wing departures from the Runway which rotate prior to the aiming point.

Have your Aerodrome Chart close at hand as the tower controller may give you specific routing instructing to cross the runway to avoid the wake turbulence from arriving aircraft (eg Cleared for take off from X, cross Runway 32 to the east of Lima eastbound)

Helicopter Operations At Leeds Heliport (Coney Park)

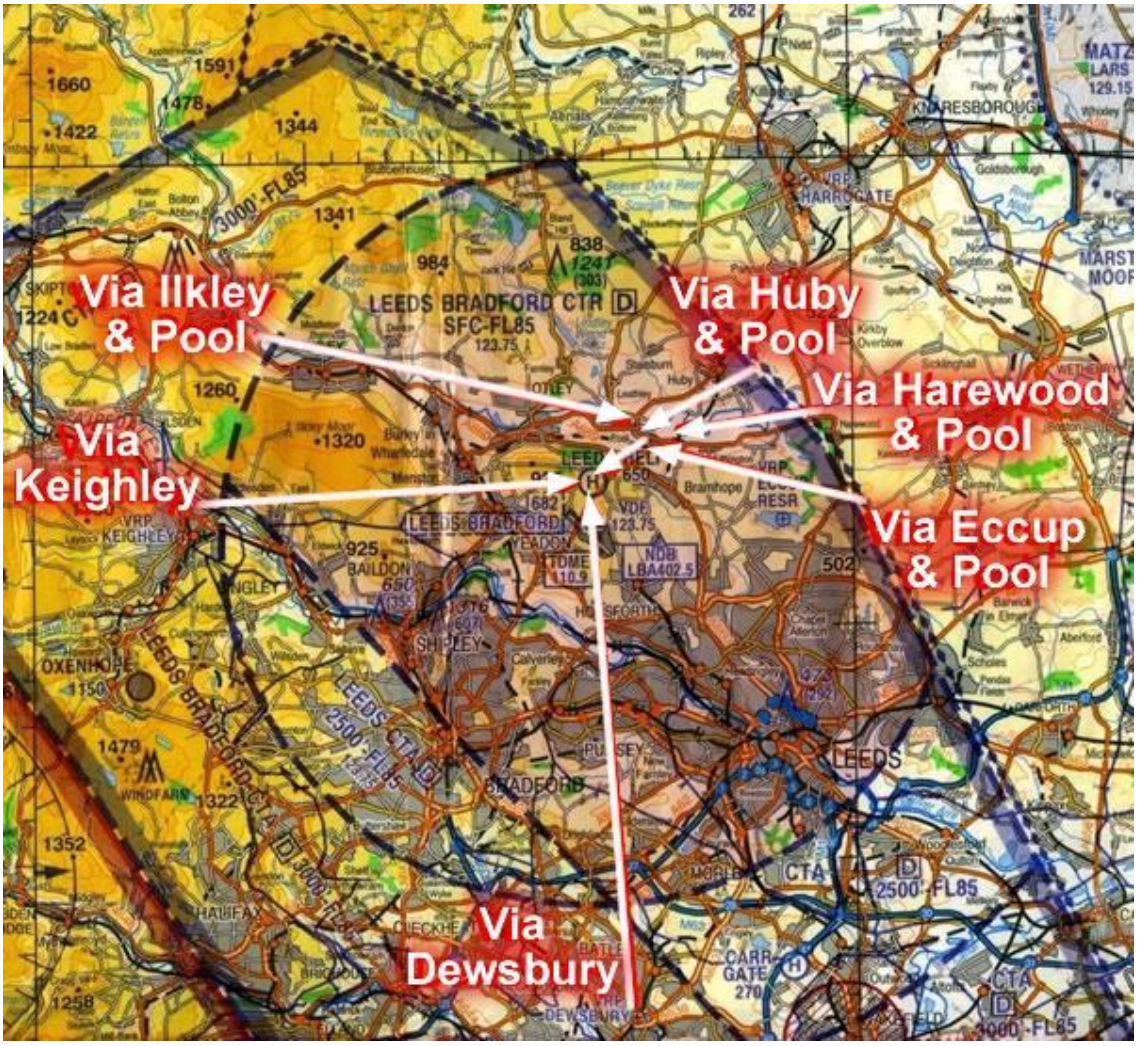
The heliport operation at Coney park is managed by a different operator. For traffic integration the standard helicopter routes are used to access Coney Park as illustrated on the diagram below. All routes have an altitude restriction of 1000 feet QNH whilst within Leeds airspace. This provides a buffer between the helicopter and fixed wing circuit traffic in the vicinity of Leeds Bradford Airport. When Runway 14 is in use, the 1000 feet restriction along the Wharfe Valley also ensures that no TCAS advisories are triggered on inbound ILS traffic.

As the Heliport is only 1300m East of the Runway 14 final approach it is important that inbound helicopters do not fly any further west than the Coney Park boundary on arrival and departure, without prior permission from Leeds ATC.

As the heliport is within the Leeds Bradford Aerodrome Traffic Zone, all traffic is required to contact Leeds Bradford ATC prior to arrival and departure. Booking out details are required to be passed over the telephone prior to any departure, unfortunately we are unable to take these details over the radio. Please try to book out at least 5 minutes prior to departure to allow us to complete the relavant flight progress strips and therefore avoid any delay to your flight.

Leeds Bradford ATC are unable to offer any VFR or SVFR clearances to helicopters when the reported visibility at Leeds Bradford Airport is less than 1500m.

IFR movements and helicopter circuits into Coney Park are not accommodated.



Further information on Leeds Heliport Operations can be found at http://www.helijet.co.uk/arrivals.html and the UK AIP

Continuous Improvement

We are always looking for ways where we might improve the Air Traffic Service that we give to our customers. We hope that this booklet has given you an insight into how we operate, and the problems that we have to deal with, which are not always apparent.