

Guide to VFR flying to and from



Introduction

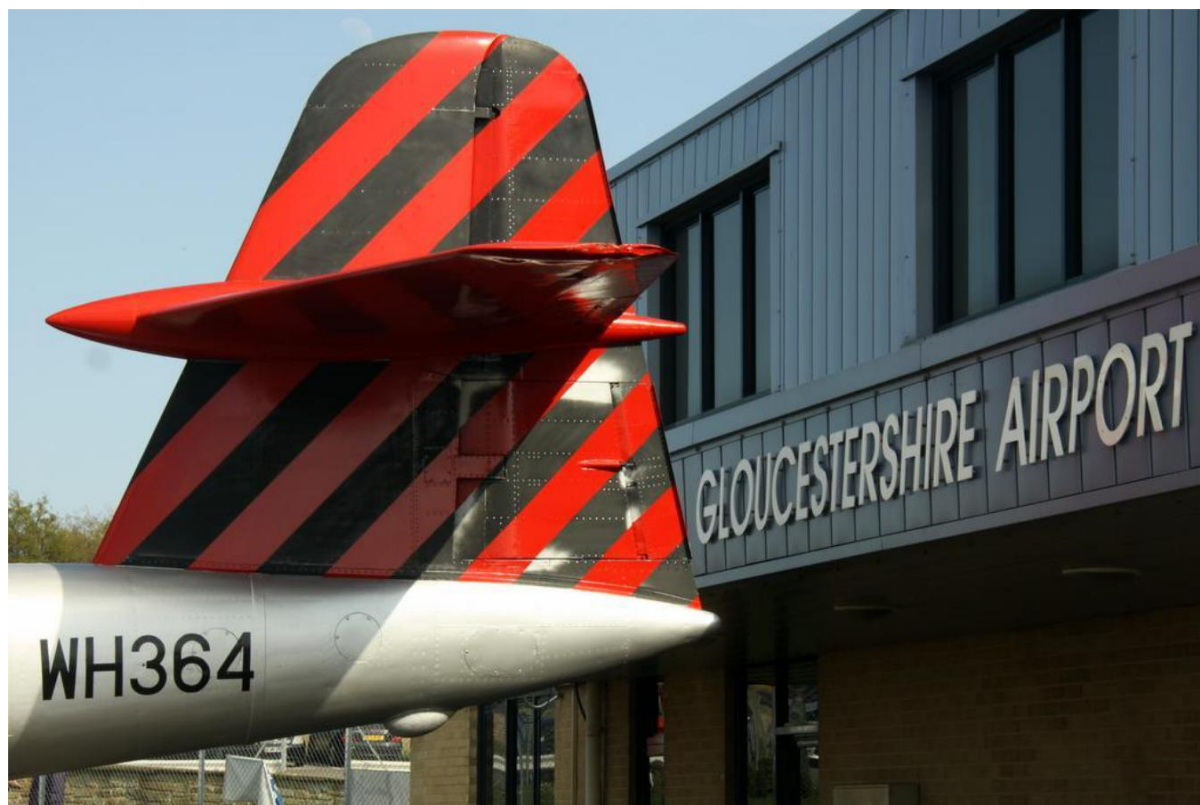


Image courtesy of Dave Haines

Gloucestershire Airport, EGBJ, is a busy little place. In fact, it's the UK's busiest General Aviation aerodrome, handling 75-90,000 flights per year. There are around 180 aircraft based here, ranging from microlights to intercontinental business jets. The intensity of both VFR and IFR air traffic, and the numerous runways and associated arrival/departure procedures, can cause complexities you may not have been expecting on your flight or experienced previously. Although general flight rules and regulations apply to all aerodromes, each one is unique in its size, set-up, and topography, therefore procedures will inevitably vary.

This guide is generally aimed at the visiting VFR pilot and is intended to provide an insight into the many Gloucester 'nuances' which should make the complexities a little easier to digest, thereby (hopefully) adding positively to your flight.

We want you to enjoy your visit to our airfield, experience the great location and facilities and visit again. Apologies in advance if the guide has the feel of teaching you to suck eggs; this is entirely unintentional!

It is also acknowledged that this booklet may appear quite long-winded, and it is not necessarily intended for use as a 'quick reference' document. However, short of talking face to face (which we also encourage via tower visits etc.), it is probably the only way of explaining things informally, and not in a "thou shalt do this, thou shalt do that" manner. You can be the judge as to whether or not we've achieved that!

Location



Gloucestershire Airport is situated in an area of Class G airspace and is surrounded by an Aerodrome Traffic Zone (ATZ), 2 NM in radius and 2000 ft in height. The uncontrolled (and, therefore often unpredictable) nature of the airspace means that, as a general rule, anything can happen. And it does happen. From paragliders and microlights to military helicopters and fast jets, they're all out there, so the phrase "keep a good lookout" has never been more applicable.



<http://en.wikipedia.org/wiki/File:GCHQ-aerial.jpg>

(Left) Radar dome

(Above) GCHQ

The aerodrome can be distinguished by the large white golf ball (radar dome) in the middle of the airfield, encapsulated by two hard runways. Other recognisable features are a golf course to the west, the M5 motorway which runs north/south along the eastern edge of the aerodrome (intersecting with the A40 dual carriageway which runs east/west along the southern boundary), and the doughnut-shaped GCHQ building located about two miles east of the field.

Air Traffic Service



There are several airfields in the Gloucestershire neighbourhood that provide an Air/Ground or Aerodrome Flight Information Service. Gloucester is an **Air Traffic Control** unit. We do have a basic primary radar but this has been unserviceable for some years and is currently in the process of being replaced. We can't 'see' any squawks and it is therefore not normally practical for us to provide the typical 'LARS' radar services like units such as Brize Norton or Farnborough.

Flying VFR outside controlled airspace, you will routinely be provided with a Basic Service, during which we are not at liberty to instruct you what to do. Nor are we obligated to provide you with traffic information, unless we have reason to believe a definite risk of collision exists. Although strictly speaking the ATZ is still Class G airspace, you do require a clearance to enter it and this clearance will normally take the form of joining instructions. Once inside the ATZ, it is expected that you will comply with our instructions unless deviating to avoid danger.

General

We are a PPR airfield, so make sure you phone and let us know you're inbound before you get airborne. We can then let you know the weather conditions and prepare a flight strip in advance.

Having your details beforehand really helps us to reduce RT loading on busy days, because we'll have your basic details when you first call inbound. More importantly, we can also initiate overdue action if you don't arrive. **Please let us know if your ETA changes or if you cancel altogether** as we are obligated, as an ATC Unit, to begin overdue action on pre-notified flights that haven't turned up within 30 minutes of the ETA.

Tracking a pilot down can be quite time-consuming especially if we have no contact details and the departure point is a private strip without an air traffic unit. We often have to enlist the help of D&D. It might seem like 'overkill' but the overdue action does not stop until the whereabouts of the aircraft has been confirmed, whether still in the hangar or upside-down in a field. At least you can be sure that, if things have gone pear-shaped, somebody is looking for you.

The Gloucestershire Airport AIP entry contains the aerodrome's local traffic regulations and warnings. Noise abatement procedures apply, as well as specific flight procedures with which we would appreciate your compliance. It also contains a printable aerodrome chart, which is useful to have with you if you don't have a flight guide.

ATIS is available on 127.480 MHz. The AIP states your first call to "Gloster Approach" (128.555 MHz) is to be made **at least five minutes prior to ETA and not less than five miles**, however ten minutes is advisable.

Apart from short periods at the beginning and end of aerodrome opening hours, we operate 'Approach' and 'Tower' as split functions with separate frequencies, so the more notice you give us, the more time Approach has to co-ordinate your arrival with Tower (which is vital on busy, sunny days).

Once you have been given your joining instructions, you will be asked to report at a particular range (usually between 3-5 miles) for transfer to Tower (122.905 MHz). We have instrument approaches to Runway 09/27 which extend out to around ten miles west/east of the aerodrome so if approaching from either of these directions, please avoid flying straight down the final approach paths (unless of course, you have been cleared for a straight-in approach!) Additionally, the holding pattern overhead and for around three miles immediately west and northwest of the aerodrome is frequently active from 2500 ft up to FL80. Instrument training takes place in all weather conditions, not just IMC days with around 5000 approaches flown per year.

After landing, follow ATC taxi instructions to parking. If you are unfamiliar with the aerodrome layout, feel free to request progressive taxi instructions. Assistance is provided for refuelling, and marshallers will normally meet you for parking. If in any doubt at all about an instruction you have been given, **do not be afraid to ask**, even when it is busy.



Image courtesy of Paul Beale

Fixed-wing

The default join for fixed-wing aircraft is the **Standard Overhead Join** (2000 ft QFE, to join the circuit at 1000 ft). We have lots of runways with varying circuit directions so for spatial awareness purposes, this is often the preferred join, particularly for students or first-time visitors. Approach Control can also issue this join without any specific co-ordination with Tower. It's the Approach Controller's job to sequence arrivals to ensure that no more than two arrivals reach the overhead at the same time.

If you want a direct join to a position in the circuit, such as downwind, base leg or straight in, **please request this on your first call to Approach** so RT time is not wasted by Approach dishing out the Standard Overhead Join 'blurb' to you. We will do our best to accommodate direct joins, but as Approach has to request them from Tower, and as it is not uncommon for Tower to have four or five in the circuit at any one time, direct joins may not always be available.

If given a Standard Overhead Join, you will be asked to report at a range of three miles for transfer to Tower, and at five miles for direct joins. Please make sure, if making an overhead join, that the full procedure is carried out – approaching from the 'dead side' and descending straight onto the crosswind leg constitutes a direct join.

The overhead join is a bit like Marmite and, rest assured, we've seen all the different interpretations of how to do it! Our interpretation is as follows:

The join procedure starts before you enter the ATZ with this basic rule. **If we're on a right-hand circuit, keep the airfield on your right. If it's left hand in use, keep the airfield on your left.** If you set yourself up in this manner in plenty of time, you can't easily go wrong;

When you enter the ATZ, make all turns in the same direction of the circuit;

Unless you're avoiding another aircraft, don't turn in the opposite direction to the circuit;

Think of the overhead as a roundabout – give way to aircraft on your right, circling around again if you need to avoid a fellow joiner;

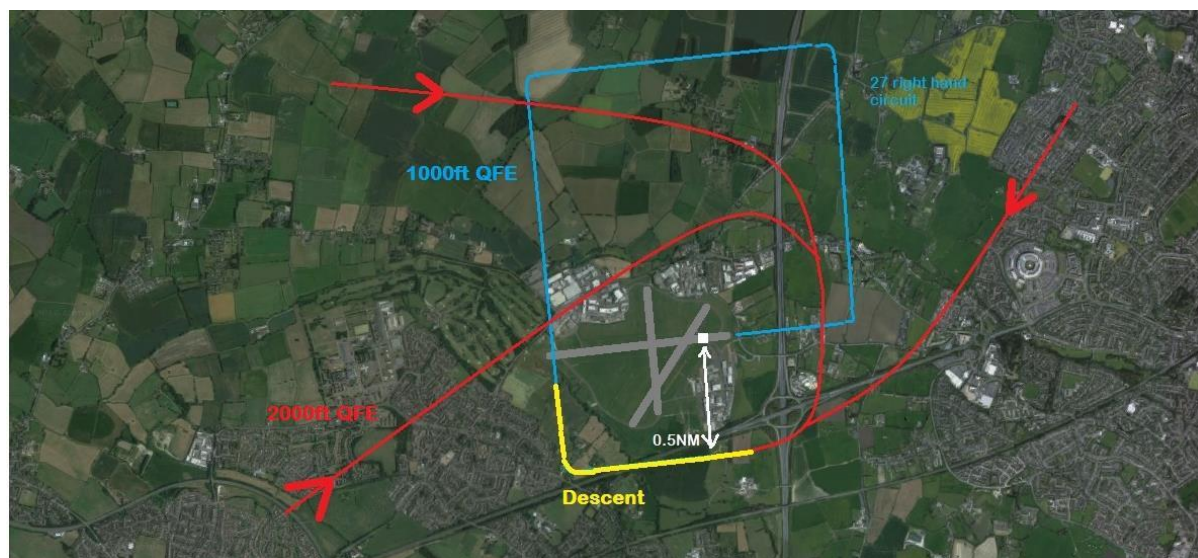
Fly around the overhead until you're parallel to the runway in use and, approximately half a mile south of the landing threshold. In the case of Runway 22 and 27, the motorway and A40 junction is a useful guide. Another useful check that you're in the correct place to descend is: 'right hand circuit, right wing pointing at the threshold';

When you're parallel to the runway, start your descent below 2000 ft QFE;

Cross the upwind end of the runway at 1000ft QFE – not below and not in the climb-out area! Keep a very good lookout for aircraft departing from the runway and instrument training traffic, which may be going around. Some business jets and several of our lighter microlight types have excellent climb performance; Use the crosswind leg to spot other crosswind, and downwind traffic.

The picture below shows three typical overhead joining profiles for a right-hand circuit on Runway 27.

The blue circuit phase is simply indicative, its shape and size will depend on other traffic:



With the two hard runways we have at Gloucester, which can be in use simultaneously, we fairly regularly experience pilots aligning themselves with the wrong runway or flying the wrong way around the circuit. Feel free to spend that extra bit of time in the overhead to make sure you know exactly which runway you're aiming for, and which side is the live/dead side. The white numbers on the runway threshold are a big giveaway! For noise abatement reasons, we normally keep circuits to the north and east of the airfield. Runways 22 and 27 have RH circuits, whereas the circuit direction for Runways 04 and 09 is LH. The ATIS will give you an idea and Approach will tell you definitively which runway and circuit direction are in use.

Instrument approaches are only available for Runways 09 and 27. For wind and sequencing purposes, instrument traffic will normally use Runway 27 whenever Runways 22 or 27 are in use, and Runway 09 whenever Runways 04 and 09 are in use.

Accurate height keeping in the circuit is really important. Please do not descend below 1000 ft until commencing base leg. The helicopter circuit operates parallel to and inside the fixed wing circuit up to 750 ft QFE with negative RT and IFR training traffic often goes around on Runway 09 and 27 for training purposes at heights varying from 200-700 ft. Descending below circuit height can bring you into conflict with these aircraft.

Once you have completed your join and you make your 'downwind' call, you will be provided with a number in the landing sequence and an instruction either to follow a particular aircraft which is ahead of you and going for the same runway, or information on traffic which is ahead of you in the sequence but landing on a different runway. For example ***"G-CD, report final, number two, follow the Cherokee on base leg"*** or ***"G-CD, report final Runway 22, number two, number one is a Citation Jet, four mile final Runway 27"***.

Sometimes, we will ask you to report ***“ready for base leg”*** – this is usually because we’ve not yet set in stone the landing order, and it may be that we can either get you in ahead of instrument traffic or require you to extend downwind or orbit for spacing. If asked to report ready for base leg, please do not turn onto base until advised by Tower.

If you are ‘number one’, please don’t extend your circuit unnecessarily. Many people are taught the ‘45° behind’ technique for turning base and, with quite a few urban areas near to our final approaches, we encourage you **not** to overfly our neighbours!

Further, if we have given you an instruction to follow an aircraft, please don’t turn onto base leg or final if you are not visual with that aircraft. Again, if in doubt, ask us, and we will update you on the position of the traffic you are to follow or, if we can see that it is safe for you to continue onto final, we will let you know.

When you are number one in the landing sequence, and if the runway is unoccupied, you will be given clearance to land. This is a mandatory read-back and is probably the most commonly omitted of all the read-back items.



Image courtesy of Paul Beale

We also have procedures at Gloucester whereby you are able to **‘land after’** either an aircraft which has already landed ahead of you and is still on the runway, or an aircraft which is departing from your landing runway. The phrase *“land after”* is not a clearance to land; it is an authorisation by us for you to land on a runway which is occupied by another aircraft and should therefore be read back as *“land after”* not *“cleared to land”*.

We will issue a ‘land after’ when we consider it to be of more benefit to you to have received permission to land in good time, rather than wait until the very last moment – as you are in the flare and in a somewhat inconvenient position to have to transmit a read-back – to issue a clearance to land. We will not issue a ‘land after’ if we don’t consider it safe to do so (i.e. if we think you’re too close to the aircraft in front), but it should be noted that the onus of responsibility with regard to the separation between you and the preceding aircraft lies with you – if you are not happy with a land-after, don’t accept it, and go around.

Once on the ground, leave the runway at the first available exit unless instructed otherwise by ATC, even if this onto another runway. Please **do not stop on the runway or backtrack** unless we clear you to; the chances are there's another aircraft landing behind you!

You will be given taxi instructions to parking. With the exception of the Jet Age Museum, most facilities are located on the south-east corner of the airfield, so you can generally expect to vacate to the south.

Please vacate the runway as quickly as possible and taxi sufficiently beyond the holding point markings if you need to stop to complete your after-landing checks. Technically, you haven't vacated the runway until all of your aircraft has passed the double solid and double dashed yellow lines and there's generally a good chance on busy days that there'll be someone else behind you.





Image courtesy of Paul Beale

Helicopters

The default join for helicopters is the '**Standard Helicopter Arrival**' to a particular helicopter training area (HTA) on the aerodrome. This standardised phrase has the meaning 'enter the ATZ not above 750 ft QFE, track inbound below the downwind leg, approaching as required to the designated HTA, remaining clear of fixed-wing final approach and climb-out tracks'.

You will be given the runway-in-use, circuit direction and QFE as part of the joining instruction and asked to report at a range of three miles for transfer to Tower. The upper limit of 750 ft is important because the fixed-wing circuit is habitually active at 1000 ft, with aircraft beginning their descent on base leg. Take care to avoid the climb out, final approach and base legs.

There are four HTAs on the aerodrome: 'Heli NW', 'Heli NE', 'Heli SW' and 'Heli S'. Heli NW and NE are collectively known as 'Heli North', and if given joining instructions to Heli N, you may either approach Heli NW or NE as required. If approaching from the north you will be given instructions to approach specifically either Heli NW or NE, and similarly Heli SW or S if approaching from the south, to ensure the runway is not infringed. If unfamiliar with your designated HTA, joining instructions to a runway may be accommodated.

Once in the hover at the designated HTA, await and follow taxi instructions to parking, where a marshaller will normally be in attendance.

All of our aprons can be congested. Please do all you can to minimise the effect of your rotor downwash on parked aircraft.

Instrument Approaches

We have several instrument approaches to Runway 09/27 available, and they are often active with training aircraft or normal IFR arrivals. We sometimes get pilots coming in VFR but wanting to fly an instrument approach for training or currency purposes - if you plan on doing this, please phone up and book it with us in advance.

We routinely apply a Procedural Service to IFR aircraft wanting to carry out holding and instrument approaches. In a nutshell, being in receipt of a Procedural Service means we will strive to achieve 1000 ft vertical separation between you and all other aircraft under a Procedural Service.

If you pitch up at 3000 ft wanting to fly the ILS and the Approach controller is swamped with IFR arrivals, you may well be required to climb a couple of thousand feet and/or take up delaying action until we can fit you in, or the instrument approach may not be accommodated at all. If you absolutely require an instrument approach to get on the ground, it won't be denied and we will endeavour to clear you for the approach with the least possible delay.

We have NDB/DME and RNAV approaches available for both Runways 09 and 27, but an ILS approach for Runway 27 only. On the days where Runway 09 is the active runway-in-use, the ILS will not be available for training purposes.

We conduct a large amount of instrument training with a wide variety of aircraft types in all weather conditions. Pilots under IFR training will be working extremely hard, often with simulated engine or system failures and reduced performance. Their ability to 'see and avoid' you in the circuit may be limited.

Outbound



Image courtesy of Paul Beale

General

Booking out can be done in the terminal building at the same time as sorting out the very reasonably priced landing fee, or by telephone, before departure. This ensures that ATC has your details when you call for taxi and reduces the amount of RT time spent gathering the information.

If you intend to fly under a callsign which is not your aircraft registration, please advise the Briefing staff so we in the tower don't get confused when we see a flight strip with only your registration on it. Please also tell us if you plan to route in a different direction to your destination initially, for example a scenic trip down the River Severn before heading off to the north, simply to make sure we don't clear you off in a different direction to where you want to go.

Please familiarise yourself with our noise abatement procedures as we will often include the phrase *"after noise abatement"* with your take-off clearance and it'll save us detailing it on the RT. The Airport has a large urban conurbation (Churchdown) to the south and west and a number of small villages and hamlets (Down Hatherley and Staverton) to the north. The approach to Runway 27 crosses over Cheltenham. Please look out for and do your best to avoid overflying any residential areas wherever possible. Use whatever minimum noise techniques you can to minimise the disturbance to our neighbours.

ATIS is available on 127.480 MHz. Please listen all the way through to the end of the information transmission as the last couple of appendages will tell you about any weather warnings, and also which frequency to call on. It will also ask you *"read back altimeter setting in use"* and to *"acknowledge receipt of information (X)"*. **We are obligated to ensure that you have read back a correct pressure setting BEFORE we give you taxi clearance** – if you only acknowledge that you are in receipt of 'Information (X)' and omit the pressure setting, we then have to give it to you and you have to read it back before we can get you moving.

Fixed-Wing Taxiing

Runway incursions are, unfortunately, a regular occurrence at Gloucestershire Airport. The layout is complex and can be quite confusing; we have produced a simplified aerodrome chart, which is included in this guide. To mitigate the risk of incursions, your taxi clearance will be quite specific and broken down into bite-sized chunks if necessary. Assuming you've read back the current ATIS letter and a pressure setting, you'll be given a clearance limit (i.e. where you can taxi to) and instructions to cross any intermediate runways. For example, **"Taxi holding point E1, cross Runway 27."** If we need to give you any further information, we will do so in a separate transmission.

Please **make sure you know exactly where your clearance limit is**. If you're in any doubt, please ask us to clarify before you taxi. Remember we often use more than one runway at a time so we might give the instructions to your departure runway holding point in stages. A classic example is when Runway 22 is in use but there is also instrument traffic landing Runway 27. In this case, you will be given taxi instructions initially to **"hold short of Runway 27"**, and onwards taxi to the Runway 22 holding point once the 27 traffic has passed.

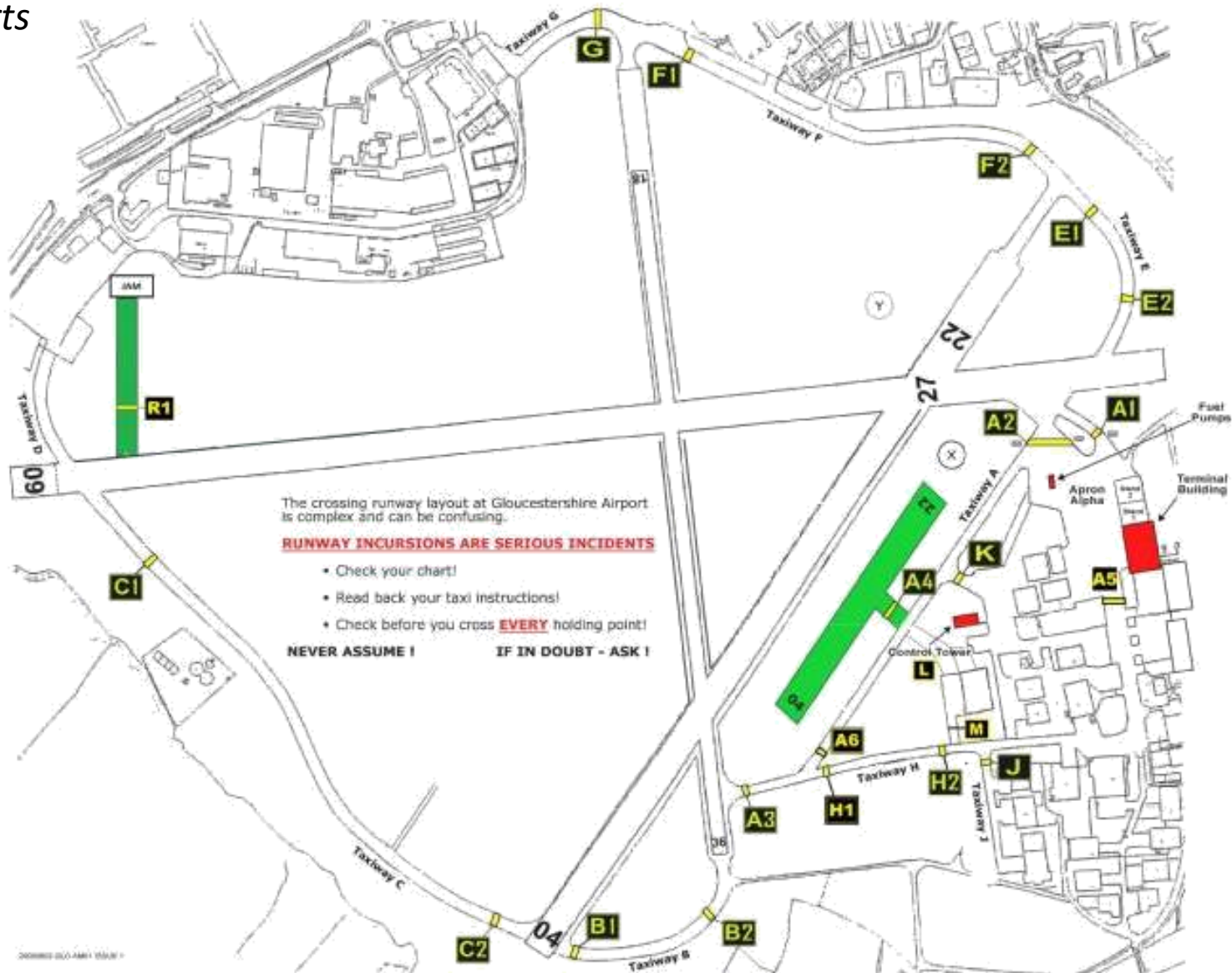
Power checks are to be carried out at the departure runway holding point unless otherwise advised by ATC. Please move up as close as possible to the holding point, allowing yourself sufficient room to manoeuvre the aircraft without infringing the runway. Once all pre-departure checks complete, report ready for departure. You may then be given one of many replies such as take-off clearance, 'line up and wait' or simply 'hold position'. Take-off clearance will often include information such as the direction of turn after departure, a reminder for noise abatement, surface wind and advice on circuit activity (fixed wing / helicopter). **Please ensure take-off clearance is read back.**

We will expect you to line up and take off without delay to make the most efficient use of the circuit spacing. If you need more time on the runway to complete final checks, or to backtrack for departure, please let us know beforehand.

Sometimes, we'll ask if you can accept an **'immediate departure'** to allow us to make use of a small gap in the arriving traffic. When **"cleared for immediate take-off"** you must line up and take off without stopping the aircraft.

If you wish to set course from the overhead, please request this beforehand as the Tower controller will need to co-ordinate this against Approach's joining traffic.

Aerodrome Charts

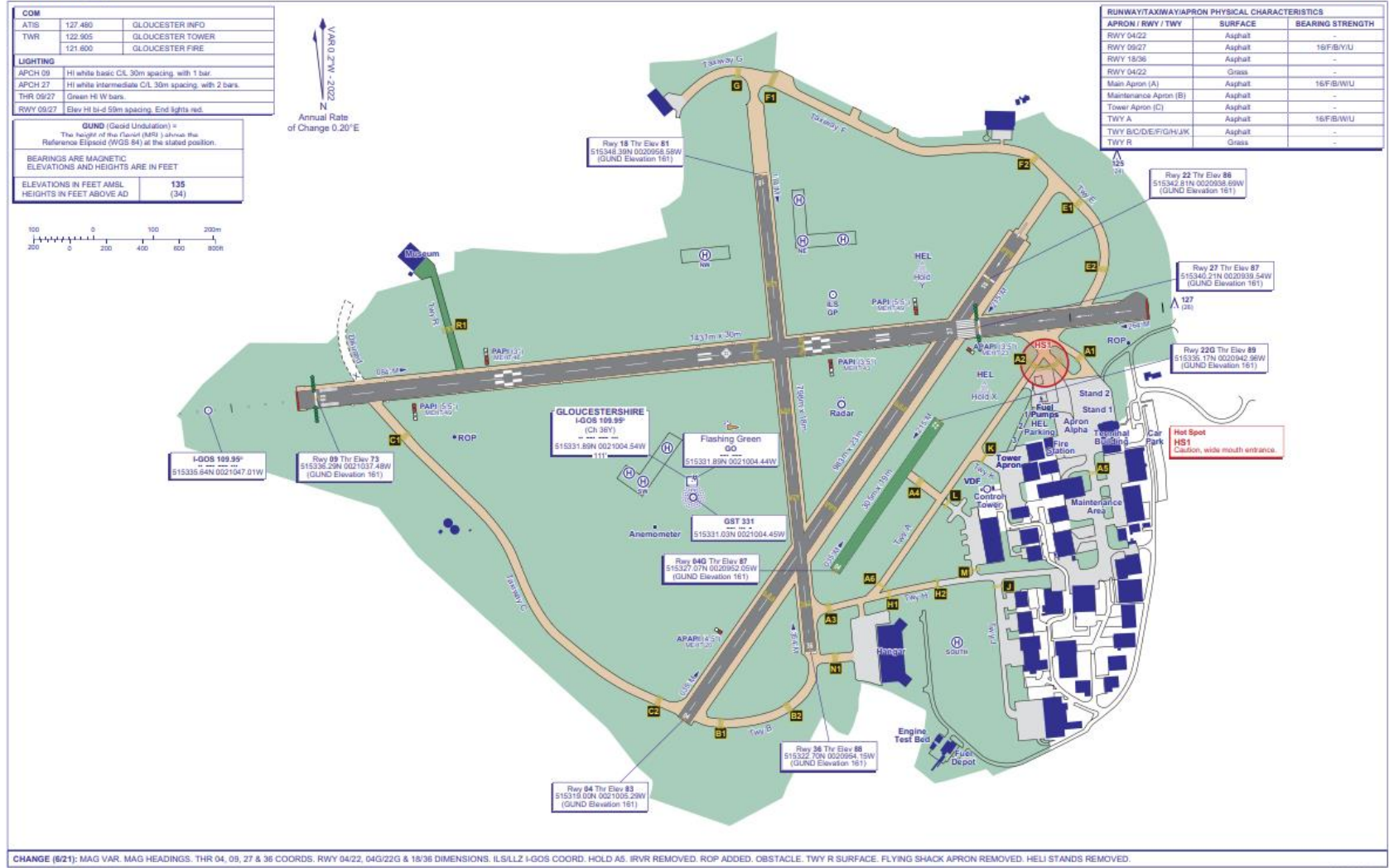


AERODROME
CHART - ICAO

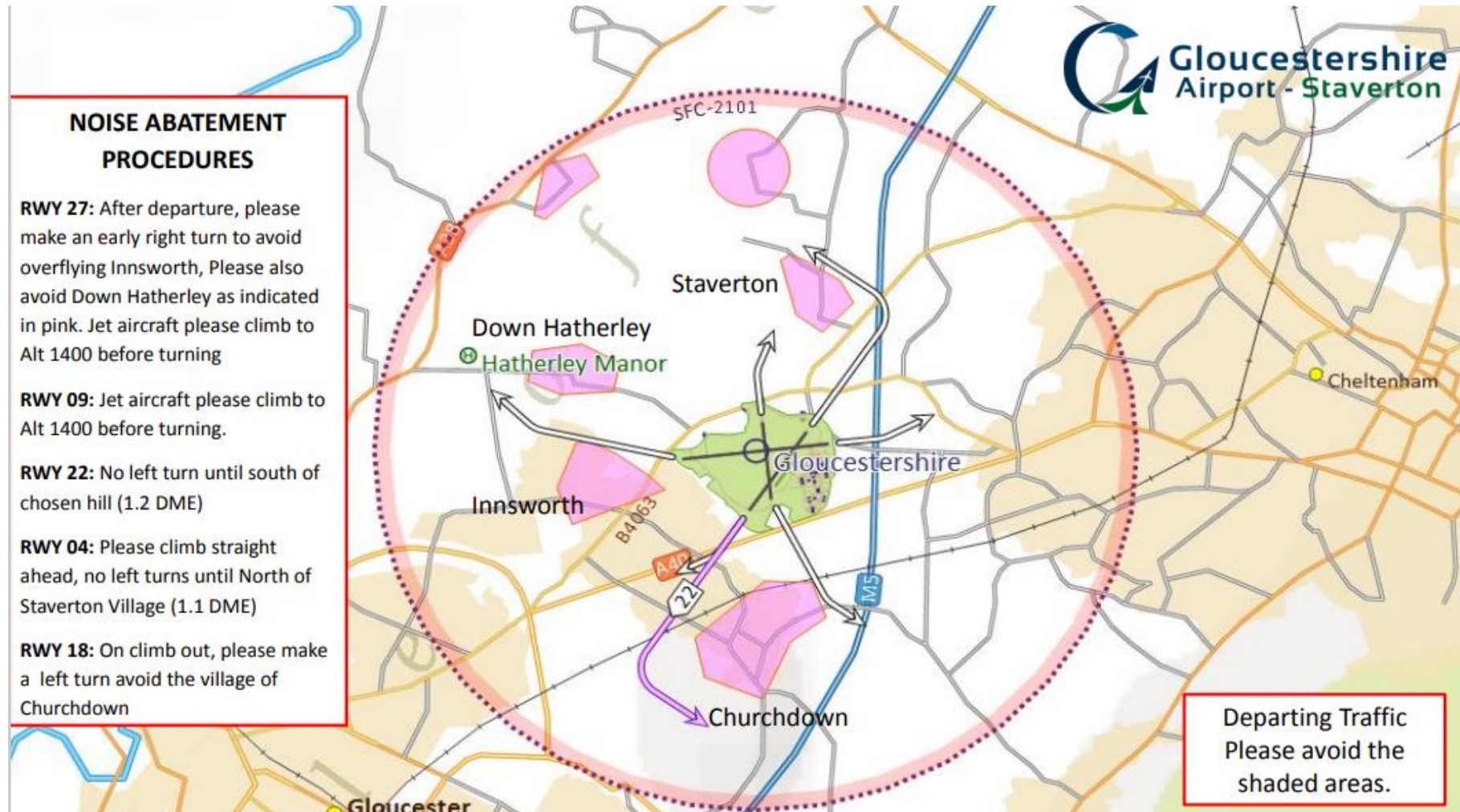
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AD ELEV 101FT

GLOUCESTERSHIRE
EGBJ



Noise Abatement



Helicopters

Again, remain vigilant and make sure you know exactly where your clearance limit is to avoid runway incursions. The runway strips are mown in the grass between the holding points.

Taxi instructions are often given to a holding point (usually 'X') or an HTA ('Heli S') prior to departure due to the fixed-wing traffic runway operations. When ready for departure and safe to do so, you will normally be given a specific instruction to cross the runway-in-use (if your outbound track requires it) and make a '**Standard Helicopter Departure**' in the desired direction. This standardised phrase has the meaning 'depart into wind or as required, remaining clear of the fixed-wing runway-in-use, turning to depart the circuit at right angles to the runway-in-use (i.e. beneath the downwind leg) not above 750 ft QFE, before departing the ATZ on the required track'.

A take-off clearance will also be issued and traffic information passed as appropriate. As always, please ensure take-off clearance is read back.

After Departure

Once airborne, settled in the climb and approaching the ATZ boundary, you will be instructed to contact Approach, who will normally provide you with a Basic Service. The Regional Pressure Setting is available if required.

We will normally ask you to report passing a geographical point or feature, such as Worcester, Evesham, the Cotswold Ridge or the 'bends in the river' (Severn). At this point, we'll normally suggest an agency or frequency you might like to talk to next. It's important that you tell us when you're leaving the frequency because we're still obligated to begin overdue action if we lose radio contact with you. This is particularly important when departing to the east or south, as your transmissions can quickly become masked by the high ground. If you do lose contact with us, please ask the next agency you talk to let us know as, otherwise, we're duty bound to look for you.



Image courtesy of Paul Beale

RT Procedures & Examples

We recognise that RT can be a daunting prospect for some pilots. As a busy training airfield, you can rest assured that our ATC team have heard all the mistakes before! Most of our controllers have flying experience and have been in your position at one point or another; they don't bite! If you're in any doubt about a clearance or transmission, please ask us to 'say again'. We'd much rather repeat ourselves several times and know that you've got the message correctly than have you assume something incorrectly.

Brief, concise RT will make your visit to Gloucester much easier. Our controllers have to 'chase' you for readbacks of numbers, generally, pressures, runways etc. and clearances and type of service too. Below are some typical examples of phraseology that might help. You'll note how extra words and phrases, such as 'we are', 'the' etc. can easily be omitted to improve brevity:

Joining

A/C **"Gloster Approach, G-ABCD, request joining instructions."**
ATC **"G-ABCD, Gloster Approach, pass your message."**
A/C **"G-ABCD, PA28 inbound from XYZ, 15 miles north, 2000 ft, information A."**
ATC **"G-CD, make a standard overhead join, Runway 27, right hand, QFE 1013."**
A/C **"Standard overhead join, Runway 27, right hand, QFE 1013, G-CD."**
ATC **"G-CD correct, Basic Service, report three miles."**
A/C **"Basic Service, wilco, G-CD."**

A/C **"Gloster Approach, G-ABCD, request direct join."**
ATC **"G-ABCD, Gloster Approach, join direct right base Runway 27, QFE 1013."**
A/C **"Join right base Runway 27, QFE 1013, G-ABCD"**
ATC **"G-CD correct, Basic Service, report five miles."**
A/C **"Basic Service, wilco, G-CD."**

A/C **"G-CD, three miles / five miles."**
APP **"G-CD, fixed-wing and helicopter circuits active, contact Tower 122.905."** A/C **"Tower 122.905, G-CD."**

A/C **"Gloster Tower, G-ABCD."** (Note: You only need your callsign! 'Contact' means your details have already been passed to Tower)
TWR **"G-ABCD, Gloster Tower, descend deadside, report descending/crosswind/downwind, circuit traffic is a Cessna 152 downwind."**
A/C **"Wilco, G-CD."**

A/C **"G-CD downwind."**
TWR **"G-CD, report final, number 2, follow the Cessna on base."**
A/C **"Number 2, Cessna in sight, G-CD."**

A/C "Gloster Approach, Helicopter G-ABCD, request joining instructions."
 ATC "G-ABCD, Gloster Approach, pass your message."
 A/C "G-ABCD, Robinson 22 inbound from XYZ, 15 miles north, 2000 ft, information A."
 ATC "G-CD, make a standard helicopter arrival to Heli North, Runway 27, right hand, QFE 1013."
 A/C "Standard helicopter arrival to Heli North, Runway 27, right hand, QFE 1013, G-CD."
 ATC "G-CD correct, Basic Service, report three miles."
 A/C "Basic Service, wilco, G-CD."

(after transferral to Tower)

A/C "Gloster Tower, G-ABCD."
 TWR "G-ABCD, Gloster Tower, cleared to land at Heli North, traffic is a Jet Ranger crosswind in the circuit."
 A/C "Cleared to land at Heli North, roger, G-ABCD."

Departing

A/C "Gloster Tower, G-ABCD, Apron Alpha, information B, QNH 1019, request taxi."
 TWR "G-ABCD, Gloster Tower, taxi holding point E1, cross Runway 27."
 A/C "Taxi holding point E1, cross Runway 27, G-ABCD."

A/C "G-ABCD ready for departure."
 TWR "G-CD, behind the landing Cherokee, via E1, line up and wait Runway 22 behind."
 A/C "Behind the landing Cherokee, via E1, line up and wait Runway 22 behind, G-CD."
 TWR "G-CD, Runway 22, cleared for take-off, right turn north, surface wind..."
 A/C "Runway 22 cleared for take-off, right turn, G-CD."

A/C "Gloster Tower, Helicopter G-ABCD, information B, QNH 1019, request taxi."
 TWR "G-ABCD, Gloster Tower, taxi holding point X-ray, surface wind..."
 A/C "Taxi holding point X-ray, G-ABCD."

TWR "G-CD, cross Runway 22, standard helicopter departure to the north, cleared for take-off."
 A/C "Cross Runway 22, standard helicopter departure to the north, cleared for take-off, G-CD."



Thank you for giving this guide some attention. Once again, if you're ever in any doubt about a procedure or ATC instruction, please do not hesitate to ask.

01452 857700 ext. 223 (Ops / booking in)
01452 855749 / vcr@gloucestershireairport.co.uk (ATC)

Thanks for your visit and have a safe trip back. We hope to see you again soon.