

Pilot Operational Procedures

Stratford on Avon Gliding Club



Version 4 July18

Revision Page

	Version No	Date	Update	Issue by
1	Version 1	April 2015		Steve Brown
2	Version 2	Nov 2015		Mike Coffee
3	Version 3	Aug 2017	<ul style="list-style-type: none"> • Change to approach when the landing to the West to avoid The Noise Abatement Zone around Wayfield House • Use of Transponder when taking off to the east • Re emphasis about the mandatory take off routes from Snitterfield • Ensure fuel sample are completed as part of the Daily Checks • Ensure the log is completed for any extending power checks 	Mike Coffee
4	Version 4	July 2018	Bham Radar/approach frequency has changed from 118:050 MHz to 123:980 MHz	Mike Coffee

TMG Pilot Operational Procedures

Stratford on Avon GC

All of the following procedures are required to ensure we operate safely, integrate smoothly with the gliding operation and satisfy the terms and conditions of our planning permission, so please follow them to the letter. If you have any queries please don't hesitate to contact the CFI or DCFI. It is essential that all pilots fully understand the planning limitations and our legal commitments laid out in the Section 106 that is attached to the planning permission. The key element is that SoAGC has entered into a legally binding document (Section 106) not to fly over the villages or, during takeoff, fly over two properties very close to the airfield. The TMG is fitted with a Flight Logger which is automatically activated on takeoff and these flight logs have to be available for inspection for a rolling 12 month period. These 'No Fly Zones' and 'No Engine Zones' are obviously not marked on aviation maps so it is up to each TMG pilot to ensure you know exactly where the boundaries are for these zones and stay outside of them. If we breach this undertaking we could have our TMG planning permission withdrawn. In addition there are also limitations on the number of takeoffs that can be undertaken in any given hour and any given day, including start and finish times for weekdays and Saturdays/Sundays etc. Again it is up to the TMG pilot to ensure you operate within these limitations and it is important you understand what the previous pilots have completed to ensure the cumulative hour and day time take off limits are not exceeded. Details of these limits are incorporated in these procedures.

Rules for flying the SoAGC Falke 2000

- You must read and understand both the 'Flight Manual SF25C Falke' and the SoAGC TMG procedures and comply with them in full, if you are unclear on any points please contact the CFI or DCFI. We will require you to sign to say that you have read and understand both documents.
- Do not tamper with the logger installed in the TMG as this might be needed if we have to answer any complaints we may receive.
- You must use the online booking system, the only time this wouldn't be necessary is when the club is operating and no bookings have been taken.
- You must obtain permission to fly from the duty instructor when the club is operating, as with any other glider.
- Currency requirements are 30 days for newly qualified pilots, 60 days for experienced pilots with 15hrs+ on type and for pilots with 50 hrs + on type 90 days.
- Newly licensed pilots must get authorisation to fly the Falke 2000 on the day of their flight from the CFI, DCFI or nominated instructor with a TMG rating.
- Experienced TMG pilots (50hrs+) may self authorise when the gliding club is not operating.
- **All** pilots that operate the TMG when the gliding club is closed **must** text 0795 8544887 before they take off and when they are back safely.
- When operating the TMG, whilst the gliding club is closed, two members must be present when unpacking and repacking the hangar.
- The PIC is responsible for NOTAMs and general flight safety, if they operate whilst the gliding club is closed there is no requirement to inform BHX.
- When members operate whilst the club is closed they are **totally responsible** for the site security, please make sure things are locked up, but please leave the main gate open whilst you are on site and flying.
- The PIC is responsible for refuelling the TMG after their flight, do not fill up to any more than **60lts**, use the dip stick to confirm the contents of the fuel tank. This is because this

Falke has an 80lt tank therefore if it was fully refuelled it would be easy to exceed the Maximum Take-off weight with two heavy members on board, and you don't know who will be flying it next.

- If you have to buy fuel whilst away from site you **must get a receipt** for it (excluding any landing fees you pay) and present it to the club for reimbursement, this will be credited to your flying account.
- It is very important the PIC checks the weight and balance and takes into account the airfield condition along with the ambient temperature of the day; all of these points will affect the take-off performance of the TMG.
- Please pay attention to the tyre pressures, length of the grass and wind strength, all of these points will affect the take off performance of the TMG.
- Please remember the cross wind limits (13kts) when planning your take off
- Do not taxi across the two concrete hard standings, small stones will damage the propeller and the fabric of the aircraft.
- Under **no circumstances** must you take off while there are winch cables out **to the launch point**.
- Landing may take place if cable are out but it is not permissible to taxi across any cables laid out on the field, if any pilots are reported doing this action will be taken.
- Any 'Go Rounds' must comply with the normal circuits and no abbreviated circuits must be flown.
- The PIC must be aware of the take off limitations on any day imposed by our planning restrictions. This does mean that the PIC must be aware what the previous pilot/s have completed as this may affect what remaining flights can be undertaken.
- All paper work must be completed fully on the day after the flight.
- It is the responsibility of the last pilot flying on the day to ensure the TMG is washed and cleaned, put away in the hangar and all covers are installed on the TMG.
- If anything is not functioning correctly on the TMG it must be written down in the DI book and also reported to Barry Kerby on the day.
- When checking the Oil level the normal and correct level should measure '2/3 on the dip stick when the tail is on the ground.
- Can you all ensure that you use the online TMG booking system when booking the TMG.
- The primary TMG landing circuit for the TMG will be to the South. Do not use the north circuit for landing unless in an emergency (This is in line with the latest BGA policy of not using opposing landing circuits).
- Please ensure that you consider the fuel reserves for the next pilot who will fly the TMG next i.e. if you use the onsite fuel you need to ensure it is replaced either by going to Bidford or Wellesborne to get the cans refilled or ensure you land at Wellesborne at the end of your flight to fill up with fuel. Please ensure there is sufficient fuel in the TMG for the next pilot and the onsite cans are kept full.
- Please ensure that you complete the Extended Power check log if the full power check lasts long than 16 seconds. This is a condition within the planning permission and therefore this must be complied with. This log sheet is on the Flight Log clip board in the cockpit.
- Ensure that you do take a fuel sample from the fuel drain under the fuselage. This is very important because we do not keep the TMG fuel tank full over night due to weight and balance limits but this can cause condensation in the tank and therefore water in the fuel. A sample glass has been purchased and will be kept in the aircraft.

Airfield Layout

There are now 5 TMG takeoff and landing directions which align with the gliding operation and are aimed at minimising any crosswind. In addition there are also two circuit patterns one to the North and one to the South. It is planned to use the southerly circuit as the main circuit which means it will be the same as the glider circuit. Starting a circuit at 1000 feet the TMG, with the engine fully throttled back, will fly at similar heights and speeds to the K13s so this should not be an issue. The sink rate will be higher which is why we are starting the circuit 200 feet higher.

Please bear in mind that as we are planning to operate similar circuits to the gliders and land in the same areas it is your responsibility to give way to the gliders and if necessary you can do a 'Go Round' if the circuit and landing area is becoming too congested.

One of the key points about flying the TMG from Snitterfield is the Falke 2000 has a very springy undercarriage and the field is not as smooth as we would like. These 5 take off/landing runs are being looked at to see if they can be improved which would benefit not only the TMG but also the club and private gliders.

Remember that when we use the radio we use "Snitterfield Traffic" in the air and "Snitterfield Base" on the ground, both using 129.975MHz.

In this document where the term 'cross track' is used it means the track from the old runway 34 to the windsock.

Takeoff Routes for the TMG in a Westerly direction

These take off routes have been agreed as part of our planning permission and therefore these are the only routes that can be used unless there is a genuine emergency. Please ensure that the climb out is straight and do not turn until you reach the A34 otherwise we are in breach of our planning permission.

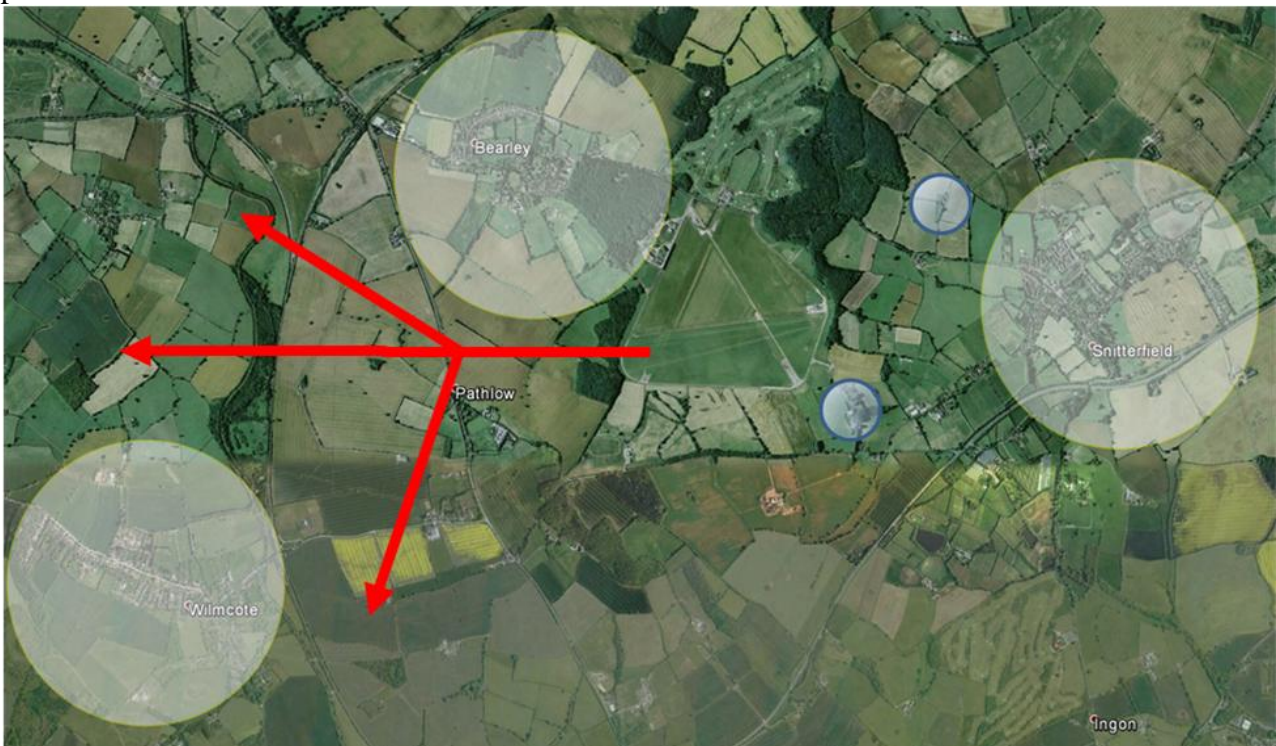


Diagram 1

Take off to the WEST on Takeoff run 24, 27, 30

- Inform the Duty Marshal or launch point about your TMG intentions and ensure the radio is being used before you get into the TMG.
- Call on 'Snitterfield Base' on the radio (129.975MHz) when you are preparing to taxi to the take off run and confirm your intentions.
- Take off **must not** take place when the winch cables are out at the Launch Point therefore from 'start up' to 'ready for takeoff' you need to align with the glider launching so as you are 'ready for takeoff' once the last cable has been drawn in.
- The launch point control will hold the cable retrieve until the TMG has taken off.
- Please conduct power checks before lining up to depart and where possible try to do these checks with the TMG pointing west so that the noise is absorbed by the tree line and not pointing at Wayfield House.
- **Be very careful** about gliders that have landed beyond the 'cross track' because these gliders are often out of sight and could be directly in line with the TMG take off run. It is the TMG pilot responsibility to check this. Use the radio if necessary.
- Call 'Snitterfield Base' on the radio to say you are 'Ready For Takeoff' hopefully they will confirm there are no cables out and no gliders that have landed in front of your take off run, hopefully they will say 'take off at your discretion'.
- A westerly departure is straight forward, fly straight out until you cross the Birmingham road and then turn off on your desired track but be careful not to infringe the Wilmcote 'No Fly Zone'

1) TMG Takeoff & Landing runs for a Westerly & North Westerly wind direction

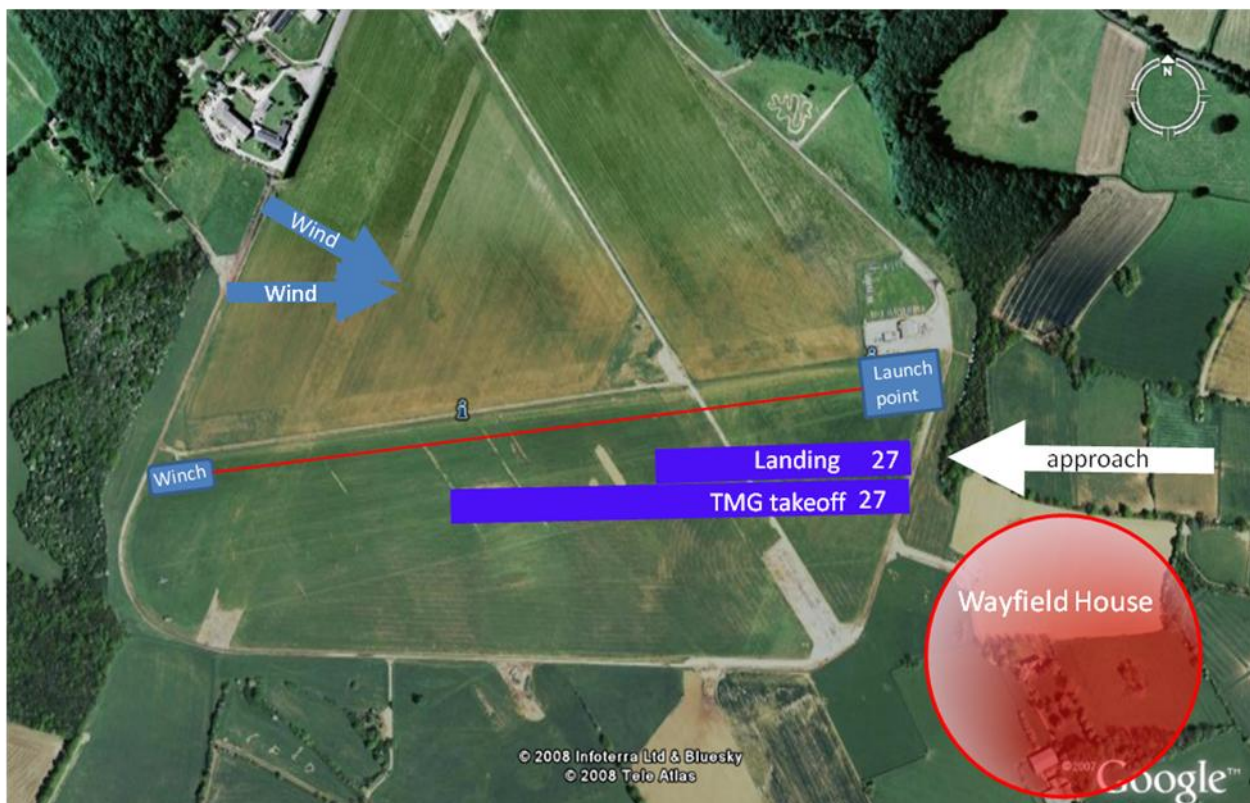


Diagram 2

2) TMG Takeoff & Landing runs for a North Westerly & Northerly wind direction

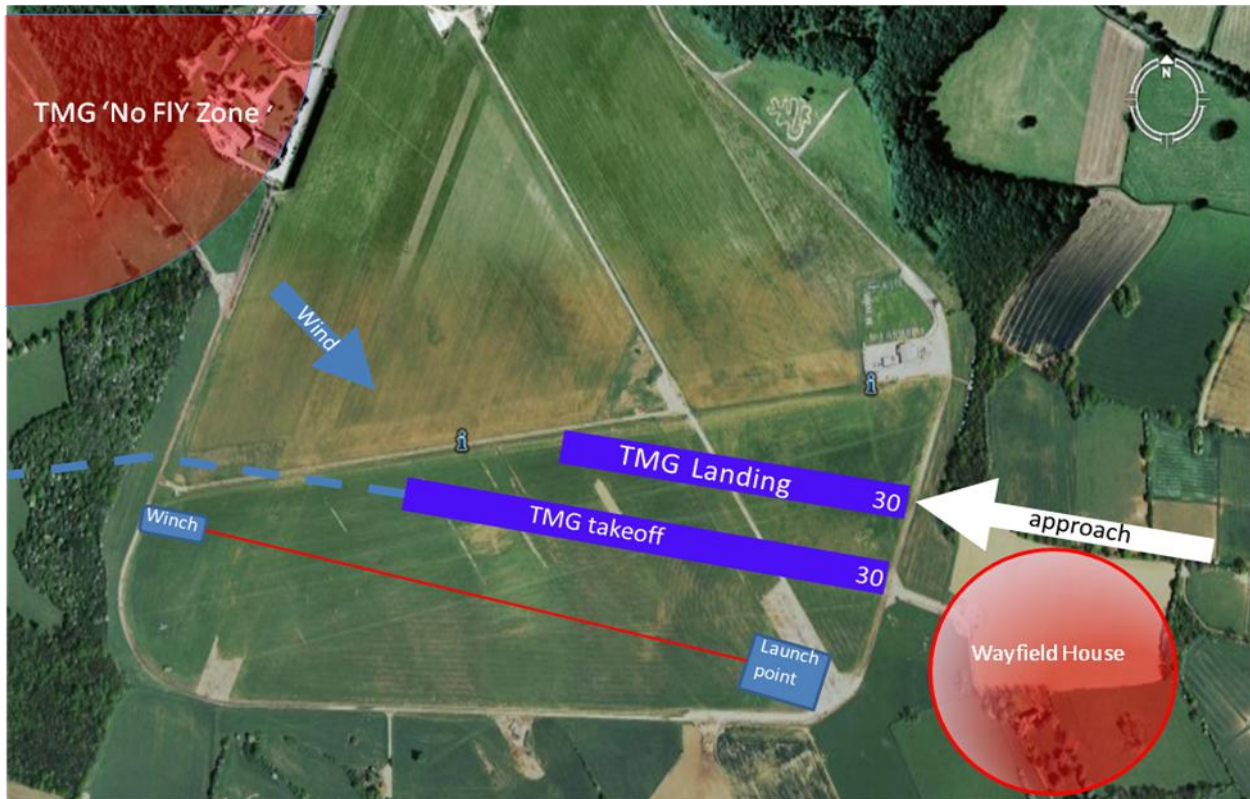


Diagram 3

Be aware that on this take off route it will take you close the 'No Fly Zone' over Bearley so once at a safe height you will need to turn more Westerly.

3) TMG Takeoff & Landing runs for a South Westerly wind direction

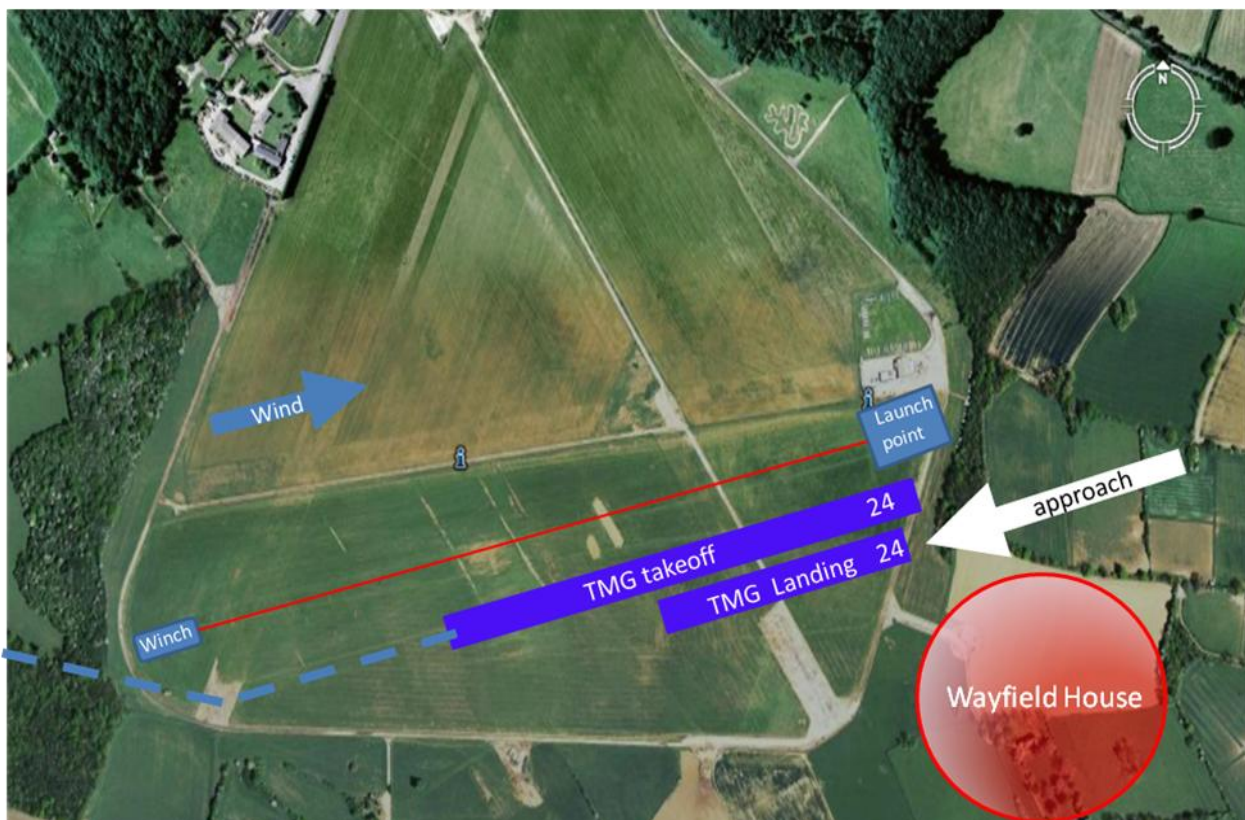


Diagram 4

Be aware that on this take off route it will require you to turn slightly to the west at a safe height to ensure the TMG departs on a Westerly heading from the airfield

Joining For Runway 30, 27 & 24 South Circuit

- NO overhead joins are permitted.
- Give a radio call to “Snitterfield Traffic” on 129.975 MHz approximately 5 minutes before joining the circuit; please report your height, position and intentions.
- If you can’t raise “Snitterfield Traffic”, then proceed to fly the circuit using blind calls?
- Start your downwind leg and call downwind over A34 Birmingham road no lower than 1000ft QFE, the call would be “Snitterfield Traffic –XK high key left hand downwind ‘30’ or ‘27’ or ‘24’”
- Keep a good lookout for glider traffic in the circuit.
- From 1000’ it should be possible to throttle back and glide the circuit without use of the engine to arrive on the approach @300/400 feet.
- If a little throttle is required, in the circuit, to maintain the correct height and distance then apply it slowly with minimum throttle to minimise noise.
- Once at a standstill you may receive airfield information from ‘Snitterfield Base’, or you can call ‘Snitterfield Base’ to inform them what you are doing,
- Backtrack and taxi back towards the club house, but taking into consideration launching and landing gliders, do not taxi over the old runway 34 and if crossing the ‘cross track’ then throttle right back and roll across the cross track. **We must protect the propeller.**
- Try to minimise the amount of throttle when manoeuvring the TMG and taxiing back to the parking area. This is to avoid complaints from the locals.
- Please park well away from the launch operation, taking into consideration any parked gliders and the effect of prop wash when manoeuvring the aircraft.

Southerly TMG circuit for Runway 24, 27 & 30

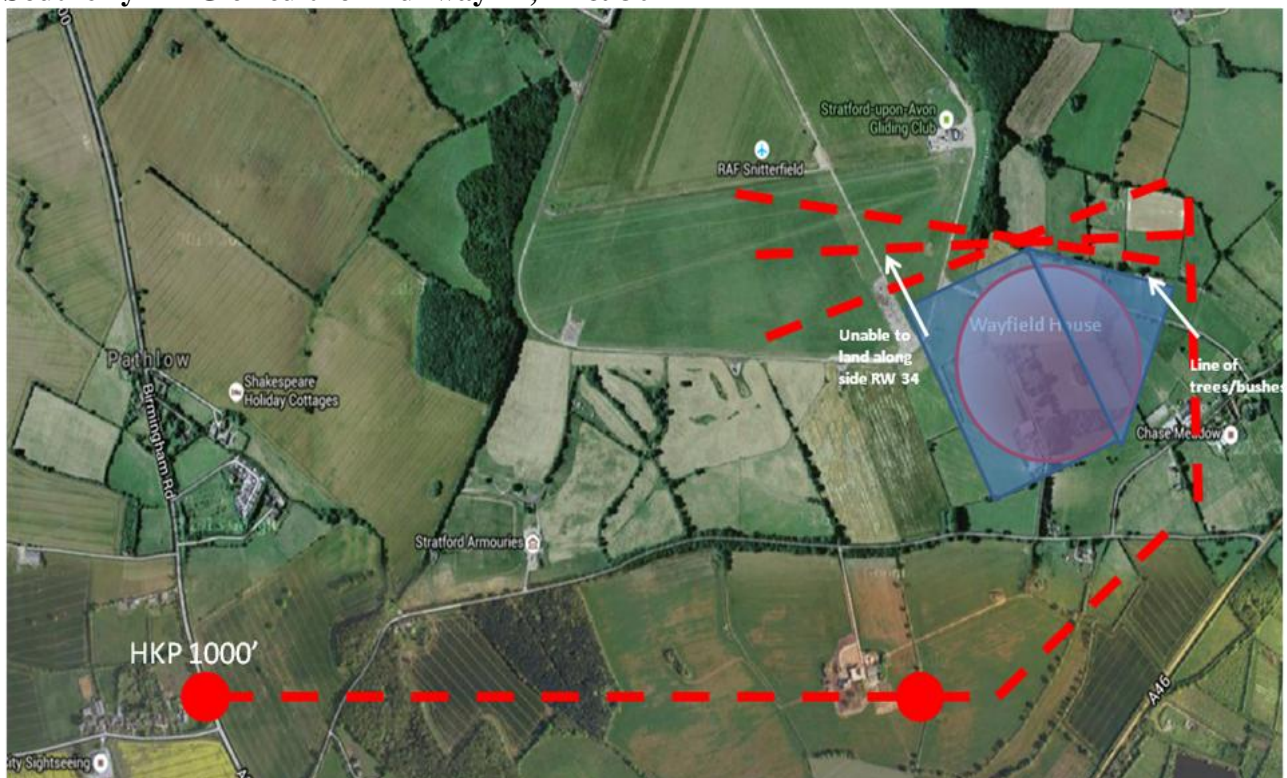


Diagram 5

The Approach for landing on 24 27 & 30

- It is absolute essential that you do not enter the Noise Abatement Zone (NAZ) over Wayfield house or Oak Farm during the approach and landing. This also includes an 'engine off approach' or if the engine is just on tick over. This means that the normal glider approach down the Pan Handle is not available when landing the TMG. These NAZ's were originally created to protect Wayfield House and Oak Farm from takeoff noise but unfortunately the planning permission includes a condition 23 that prevents us entering these zones for a powered landing. The planning department have determined that with our engine on tick over this is a powered landing. We cannot afford any breaches of the NAZ's and this is very important that all pilots strictly adhere to this rule. This means the approach for landings on RW 24, 27&30 all have to be made over the trees which is far from ideal. Landing over the trees will force the landing further into the field. See diagram 5. To help position the approach Diagram 5 shows a line of trees/bushes that runs easterly from the end of the main tree line. Your approach must not cross this line to the South. You must have a briefing before you fly these approaches for the first time.
- Decide whether you can land before the 'cross track' but **DO NOT** cut your margins, landing on the west side of the cross track is perfectly acceptable. We do not want the motor glider to roll across the cross track at speed. Land one side or the other.
- Is there plenty of room to land? If not fly a safe 'Go Round' and call 'Snitterfield Traffic' to clear the landing area.

Take off Routes for the TMG in an Easterly direction

These take off routes have been agreed as part of our planning permission and therefore these are the only routes that can be used unless there is a genuine emergency.

- We have essentially a North East and a South East takeoff run out of Snitterfield because a straight easterly run will take us directly into the 'No Fly Zone' over Snitterfield.
- In addition we have two 'Noise Abatement Zones (NAZ's)' over Oak Farm and Wayfield house. These must be avoided for takeoff and are intended to reduce noise and annoyance for these two properties. Due to a condition in the planning permission these NAZ's have to be avoided for all TMG landings.
- Be aware that if you resume an easterly or south easterly heading, after avoiding the Snitterfield 'No Fly Zone', then you will be getting close to Wellesborne and their traffic climbing out on their northerly runway.



Diagram 7

- The suggested take off route to the North East is to take off in an easterly direction from the airfield turn just after the hanger to the north and head for the middle of the trees. Take a NW heading which will take you over the northern end of the golf range. Hold that heading until you cross the railway line and turn westerly and keep the railway line on your left passing over the lake at Eddstone house. Either keep a westerly heading and climb out but be careful of the Bham Airspace 2500' AMSL. Or follow the railway line keeping it on your left until you reach the Y junction and then keep the railway line on your right to avoid Wilmcote

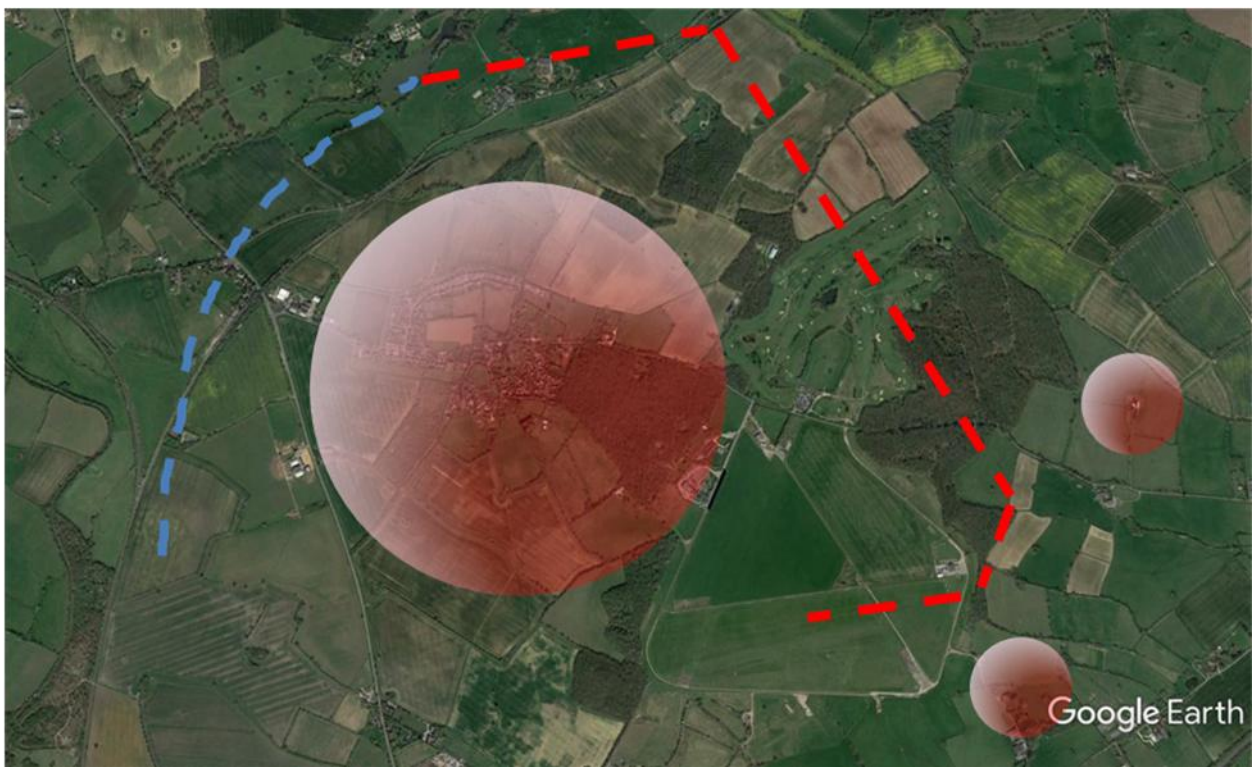


Diagram 8

Take Off to the EAST on Takeoff run 09 &11

- Inform the Duty Marshal or launch point about your TMG intentions and ensure the radio is being used before you get into the TMG.
- Call on 'Snitterfield Base' on the radio (129.975MHz) when you are preparing to taxi to the take off run and confirm your intentions.

- Take off **must not** take place when the winch cables are out at the Launch Point therefore from 'start up' to 'ready for takeoff' you need to align with the glider launching so as you are 'ready for takeoff' once the last cable has been drawn in.
- The launch point control will hold the cable retrieve until the TMG has taken off.
- Please conduct power checks before lining up to depart and where possible try to do these checks with the TMG pointing east so that the noise is absorbed by the tree line and not pointing directly at Bearley.
- Call 'Snitterfield Base' on the radio to say you are 'Ready For Takeoff', hopefully they will confirm there are no cables out and no gliders have landed in front of your take off run, then hopefully they will say 'take off at your discretion'.
- Call 'Snitterfield Base' on the radio to say you are 'Ready For Takeoff', hopefully they will confirm there are no cables out and no gliders have landed in front of your take off run, then hopefully they will say 'take off at your discretion'.
- When taking off to the East or North East set transponder code on 0010 just before takeoff run or before 1000ft QNH. Please remember to set transponder onto STANDBY before you're change the code and then back to ALT setting when set.
- While using this transponder code on 0010 you need to keep a listening watch on **123:98 MHz** which is the Birmingham Radar Service frequency. If ATC believe the TMG is about to infringe the TMA they may call and you need to respond otherwise just keep a listening watch.
- The new radio fitted in the TMG allows the radio to be set to dual frequency monitor (DM) meaning that we can listen to both Bham Radar/Approach and the glider airfield frequency 129.975 MHz, this is very useful function. Please refer to the Radio User Manual.
- Departure on '09' should be straight down the field until crossing the trees when a gradual turn to the North East should be made, avoiding Oak Farm.
- Departure on '11' is not the preferred takeoff. **This Takeoff route can only be used if there is a significant cross wind from the south, it must be authorised by the CFI or one of his deputies and the pilot has been fully briefed on the take off run.** If this route is used then at a safe height when a gradual turn to the South East, avoiding **Wayfield House**.
- Be aware that if you continue on an easterly departure route then there could be conflict from Wellesbourne traffic using their north runway which is their preferred runway.



Diagram 9

TMG traffic departing on an easterly route from Snitterfield could be around 800-1000 feet in the area where Wellesborne traffic is climbing out from Wellesborne. Their traffic will often turn West/North West to avoid Birmingham CTA. In addition on an easterly route, north of Snitterfield, care must be taken not to penetrate the Birmingham CTA which is only 1500 feet AMSL therefore on Snitterfield QFE this is only 1125 feet!!

Taxiing routes in a South East wind

- With the winching set up for a SE run it makes taxiing out from or to the hangar a little difficult because we have to cross the field. In this situation the TMG will need to hold at the two hold points marked and wait until the cables have been drawn in following a launch.
- Use the radio and contact “Snitterfield Base” before crossing the field



Diagram 10

TMG Take off & Landing runs for an Easterly and North Easterly wind direction

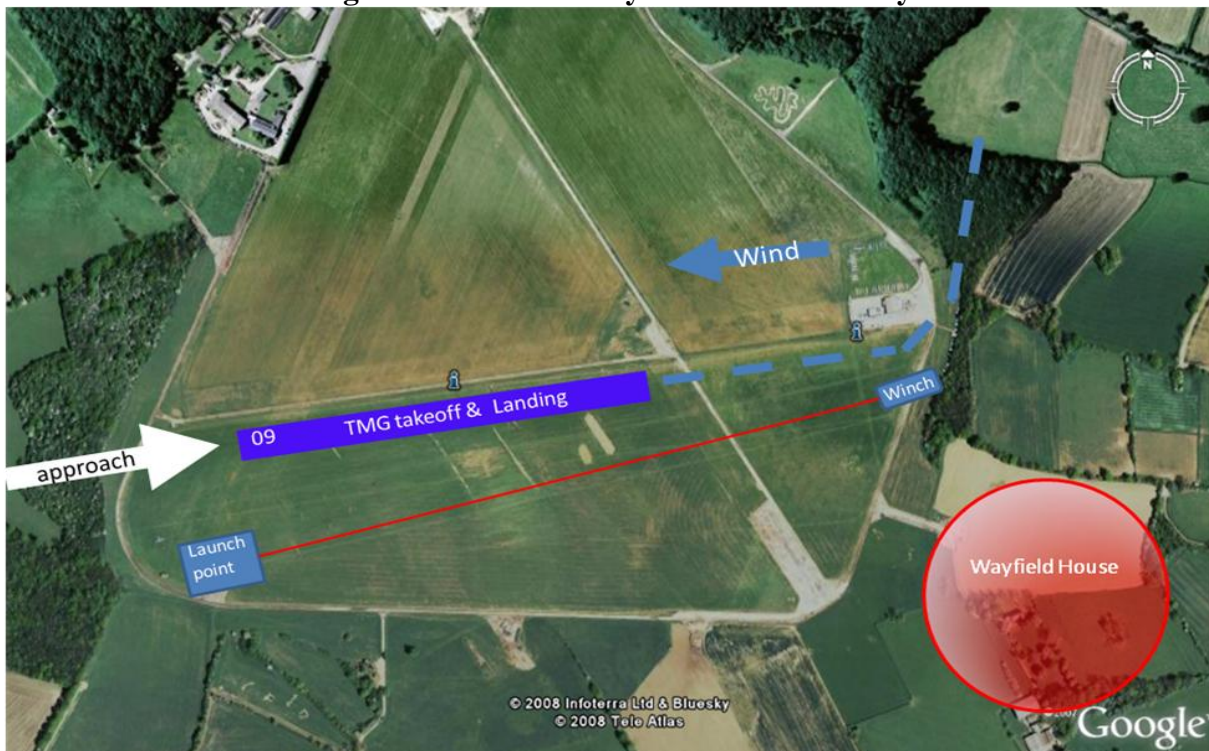


Diagram 11

4) TMG Take off & Landing runs for a South Easterly wind direction

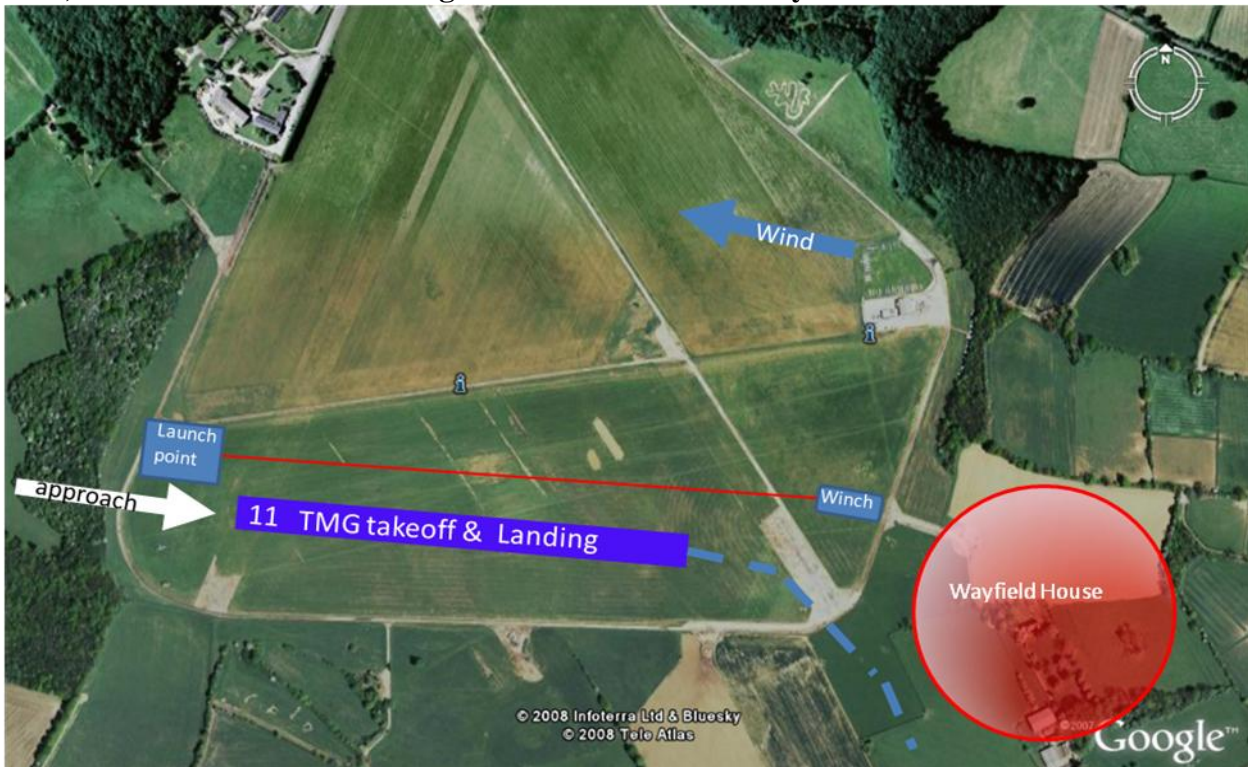


Diagram 12

Be aware that on this take off route it will take you close the 'Noise Abatement Zone (NAZ)' over Wayfield House so once at a safe height you will need to turn on to the South Easterly departure route.

Joining for Runway 09 & 11

- **NO** over head joins are permitted.
- Give a radio call to "Snitterfield Traffic" on 129.975 MHz approximately 5 minutes before joining the circuit; please report your height and position and intentions.
- If you can't raise "Snitterfield Traffic", then proceed to fly the circuit using blind calls?
- Start your downwind leg and call downwind no lower than 1000ft QFE, the call would be "Snitterfield Traffic –XK high key left hand downwind '09' or '11' "
- If the launch point is on the south side of the field, land on '09' on the north side
- If the launch point is on the north side of the field please land on '11' on the south side.
- Downwind leg not below 1000ft QFE.
- Please keep a good look out for glider traffic as it will be using the same circuit.
- From 1000' it should be possible to throttle back and glide the circuit without use of the engine to arrive on the approach @300/400 feet.
- If a little throttle is required in the circuit to maintain the correct height and distance then apply minimum throttle and slowly to minimise noise.
- Once you have landed you may receive a radio call from "Snitterfield Base" to advice on glider operations, if not then please advise "Snitterfield Base" of your taxiing intentions. Do not taxi over winch cables and keep a good look out for landing gliders.
- Try to minimise the amount of throttle when maneuvering the TMG and taxiing back to the parking area. This is to avoid complaints from the locals.

- Please park well away from the launch operation, please take into consideration any parked gliders and the effect of prop wash when manoeuvring the aircraft.

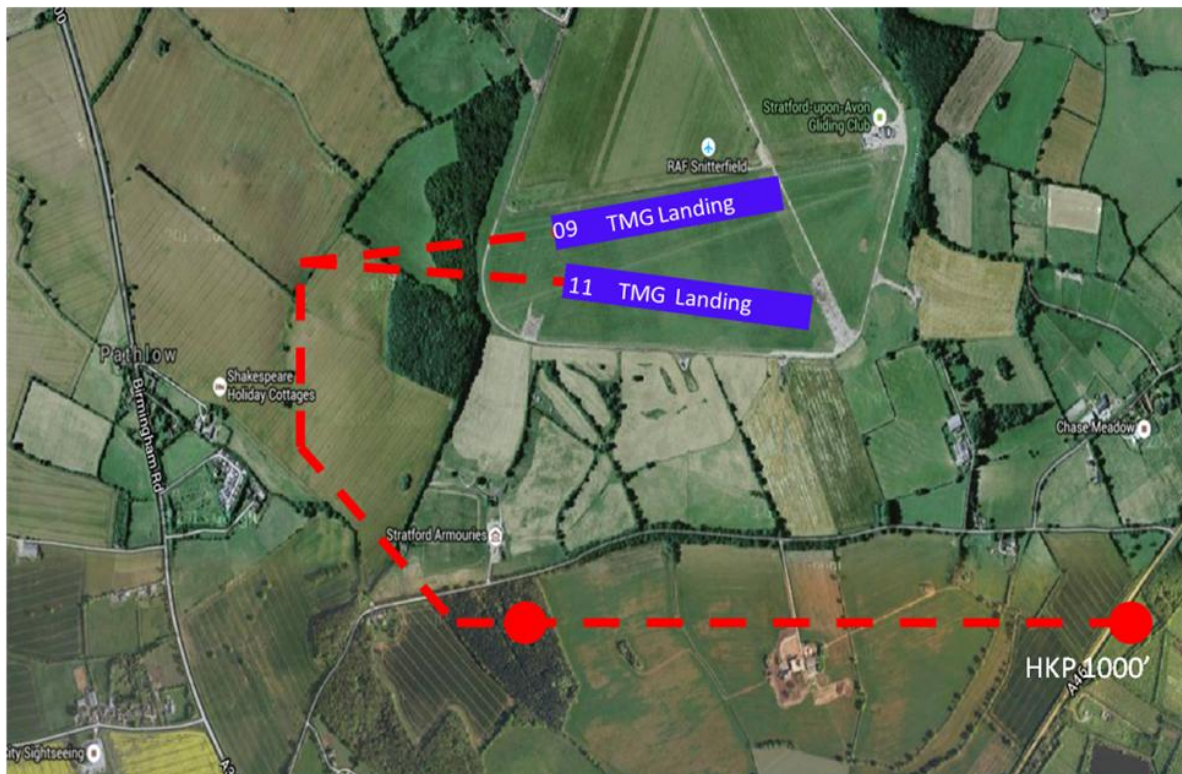


Diagram 13

Winter Operations

- As we all know Snitterfield gets very wet in the winter and we must ensure that we operate the TMG in a safe manner and prevent any operational accidents caused by the winter conditions. We are taking a cautious approach and these guideline can be amended but to start with please adhere to the following:-
- Determining if the field is suitable to fly off in the winter is a difficult decision but the following pointers should be considered:-
 - Standing water on the field should mean the field is not suitable to fly.
 - If the undercarriage is leaving noticeable tracks in the ground the field is not suitable for takeoff and landing.
 - If you have to use excessive engine revs to taxi on the field or you find it difficult turning the TMG while taxiing due to the soft or slippery surface it should be highlight the field is not suitable for TMG flying.
 - You must check the 'online booking system' because if the CFI or Deputy CFI considers the field is unsuitable then the TMG will be made unavailable by booking out the booking on the online system.
 - If the CFI, Deputy CFI or myself or Barry are present on site consult with them as to the suitability of the field.
- It is essential in the winter conditions to ensure that the wheel spats are fully cleaned out before the TMG is hangared and before any flight. It has been considered to remove the spats in the winter as some clubs do but it has been decided that we will not remove them but must be kept clean.
- It is essential that the tyre pressures are checked and are correct before any flight
- When you pull the TMG out of the hanger check for any unusual resistance from the under carriage i.e. mud or frozen mud in the wheel spats.

- When taxiing it will probably be more efficient to keep the revs a little higher on wet or soft ground because it is important to keep the momentum rather than grinding to a stop and having to use excess engine revs to get moving again.
- It is also good practice when taxiing onto the take off run (runway) to keep rolling and line up while opening up to full power without stopping. Again this keeps the momentum and should help to reduce the take off run distance.
- Do use the maximum take off run (runway behind you on takeoff in of no value at all) and in the winter the take off runs are likely to be longer for many reasons.
- When taxiing on soft ground or when turning crosswind be careful not to over use the throttle with the risk of tipping up the TMG. If you are in a difficult situation call for help using the radio and someone will come out to you and either hold the wing in the strong xwind situation or hold the tail down in a tail wind taxiing situation. We are also looking into making a tow out bar for the TMG so it can be towed by a vehicle which will be safer than over using the throttle.
- We are making Bidford out of bounds for landing in the winter months because as like our field it can be very wet and unpredictable. If fuel is required we are planning to fly into Wellesborne because this keeps us all in practice using a more formal airfield but more importantly there is a good quality hard runway. If anyone needs advice about flying into Wellesborne the relevant information is available on the Wellesborne web site or ask Barry or myself.
- Naturally the TMG will get very muddy in the winter so it is essential that it is properly washed removing all the mud particularly under the wings tail plane and fuselage after any flight. Please apply some caution about spraying too much water on the TMG because we don't want to get water into the spoiler boxes or inside the wings and fuselage as this could freeze or cause corrosion if it is regularly undertaken.
- We should only use soft nylon brushes when cleaning the fabric and we will extend the length of the hose pipe.

Operating the TMG to complying with the Planning Permission conditions

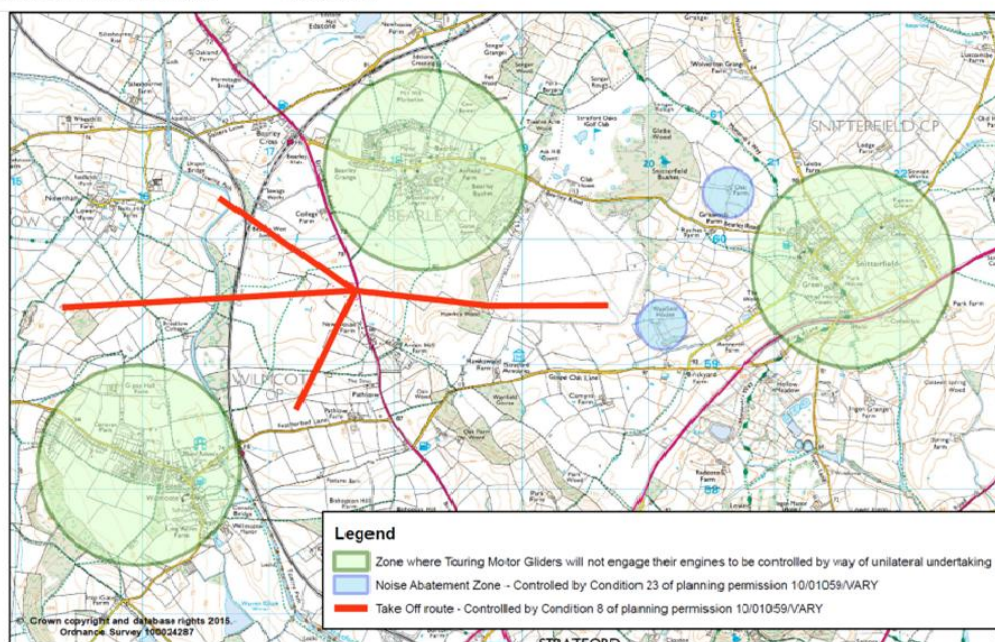
- It's the pilot's responsibility to make sure they comply with the conditions laid down in our planning permission; action will be taken against pilots that do not comply.
- No more than 15 powered take offs in total can be undertaken by TMGs from the site in any one operating day between the hours of 09:00 and 20:00 Monday to Friday; 09:00 and 18:00 on Saturdays and 10:00 and 17:00 on Sundays and bank holidays. Within these time periods the maximum number of powered TMG launches per hour (60 minute period), shall be limited to a maximum of four in a westerly direction or a maximum of two in a north easterly direction or a maximum of one in a south easterly direction (in accordance with the approved take-off routes). Within any 60 minute period only 1 take-off direction shall be used. For the avoidance of doubt 'touch and go' (landing on a runway and taking off again without coming to a full stop or attempting to land on a runway and taking off again without touching the ground) flights will contribute towards the total of 15 powered launches per day. No TMG's shall operate from the application site outside these hours.
- A maximum of 10 powered take offs can be undertaken by TMG's between the hours of 08:00 and 09:00 per calendar year upon the prior written approval of the Local Planning Authority in respect of the proposed time and date of each of these 10 powered launches. These 10 powered launches would count towards the 15 powered launches allowed in any one operating day and the maximum that can be undertaken within any 60 minute period and towards the 300 in total for the calendar year.
- No more than one extended TMG full power check (the revving of the engine while the TMG is static to above 2000 rpm for a period of 16 seconds or more) can be undertaken

within any 1 hour (60 minute) period. A log of all extended full power checks shall be recorded and shall, thereafter, be maintained and be made available to the Local Planning Authority for inspection at all reasonable times for a period of 12 months (from the date of each extended full power check).

- Save in an emergency any TMG shall adhere to the take-off (take-off as defined in the following pages) routes in a north easterly, south easterly and westerly directions.
- Save in an emergency, no TMG (a glider equipped with a method of propulsion utilising a fixed or feathered propeller) shall enter either of the two noise abatement zones shown on plans 2 and 3 during a powered landing (the decent coming down to land on the ground of the glider, including 'touch and go' as defined in condition 6)

TMG Departure Route (West)

Save in an emergency, all TMG departing to the west must adhere to the following departure routes and comply with the operational limits described in section 5:

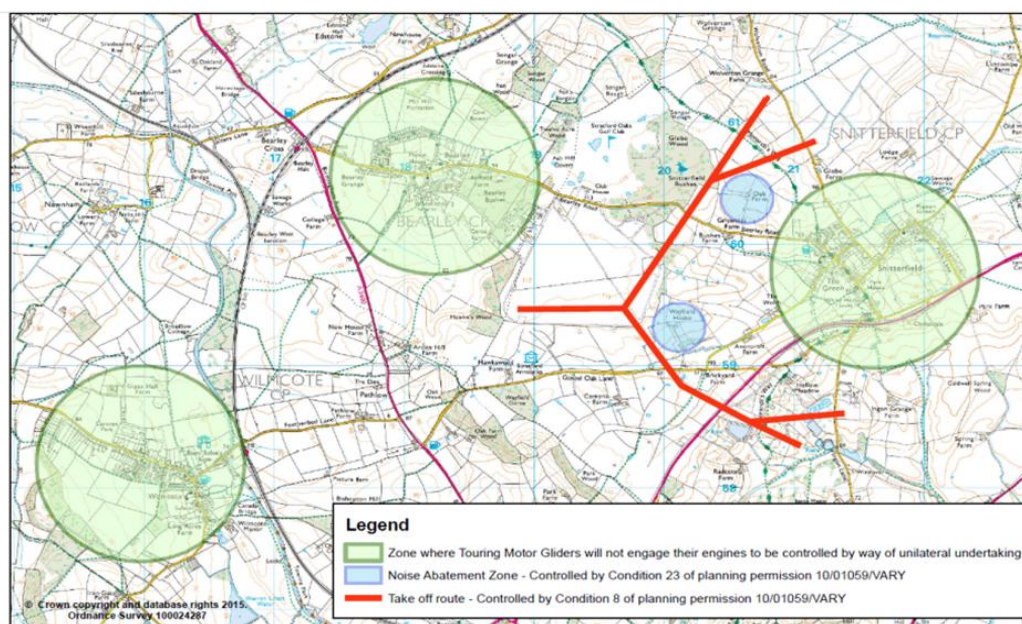


Plan 3 Take off route (red line) for any Touring Motor Glider in a westerly direction undertaking a powered take off (as defined in Condition 4 of planning permission 10/01059/FUL). The red line shows the direction of travel to be adhered to by the Touring Motor Glider up to a height of 1000 feet which may extend beyond the final point of the red line. For the avoidance of doubt the three zones where the Touring Motor Gliders will not engage their engines have been provided by the gliding club and are to be controlled by way of a unilateral undertaking.

Diagram 14

TMG Departure Routes (East)

Save in an emergency, all TMG departing to the east must adhere to the following departure routes and comply with the operational limits described in section 5:



Plan 2 Take off route (red line) for any Touring Motor Glider in a north easterly and south easterly direction undertaking a powered take off (as defined in Condition 4 of planning permission 10/01059/FUL). The red line shows the direction of travel to be adhered to by the Touring Motor Glider up to a height of 1000 feet which may extend beyond the final point of the red line. For the avoidance of doubt the three zones where the Touring Motor Gliders will not engage their engines have been provided by the gliding club and are to be controlled by way of a unilateral undertaking.

Diagram 15