



## Helicopter Operations v17

### 1. Introduction

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- 1.1 The Redhill Aerodrome Traffic Zone (ATZ) is divided into two sections (i) the helicopter circuit and (ii) the fixed-wing circuit area. The dividing line is orientated according to the runway in use and extends to the boundary of the ATZ. Fixed-wing aircraft shall not fly within the helicopter circuit area unless it is an emergency or authorised by ATC.
- 1.2 **All procedures are based on the QNH.** The QFE will only be provided if requested by a pilot.
- 1.3 All aircraft must either have a serviceable transponder or obtain an exemption from the Aerodrome Manager. Note: Aircraft operating with an exemption are prohibited from using Runway 18/36.
- 1.4 Operations will normally be conducted under Visual Flight Rules (VFR) observing the minima applicable to Class D airspace below 3000ft AMSL and less than 140kts IAS.
- 1.4.1 Fixed-wing aircraft: minimum meteorological visibility 5000m, clear of cloud and with the surface in sight.  
Helicopters: minimum meteorological visibility 1500m, clear of cloud and with the surface in sight.
- Note: when the weather conditions observed by Redhill ATC are below these values Special VFR operations may take place, see paragraph 15.
- 1.5 An Air Traffic Control Service, callsign Redhill Tower, is provided between the 0900 -1900 hours local (summer) and 0900-1700 hours local (winter) and at other times as required by the Aerodrome Licensee.
- 1.7 All helicopter operations at Redhill will be conducted in accordance with the procedures set out in the Redhill Aerodrome Manual and the Redhill ATC Manual of Air Traffic Services Part 2. These procedures comply with ICAO Annex 14 Volume 2 – Heliports.
- 1.8 ICAO divides helicopters into groups according to their MAUW. The helicopter groups, their wake turbulence classification together with the dimensions of the largest helicopter in each group is set out below.

#### ICAO Helicopter Groups/Wake Turbulence Categories

Group 1	Wake Turbulence Category
Max overall length: 13m	Light
Group 2	Wake Turbulence Category
Max overall length: 17m	Light
Group 3	Wake Turbulence Category
Max overall length: 23m	Small

### 2. Air Taxi Routes

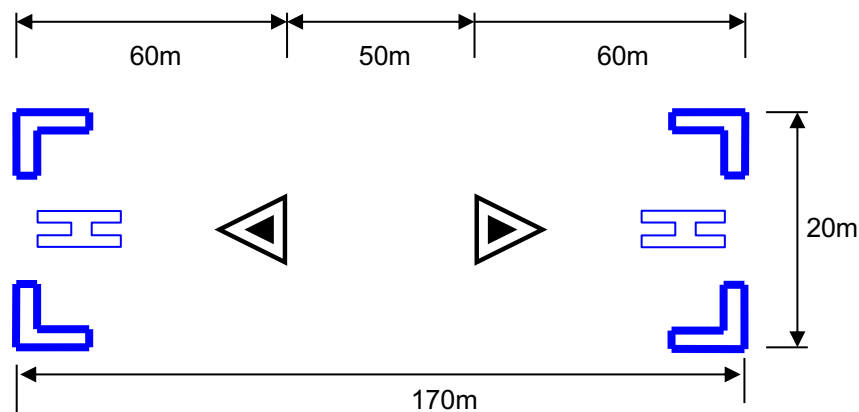
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- 2.1 All helicopters air-taxying from EBG Helicopters and NPAS will use Runway 18/36 as an air taxi route and air taxi along the centre-line. There is insufficient distance available to separate two air-taxying helicopters from each other and parked aircraft.
- 2.2 Pilots are to ensure that a distance of 3 x D is provided between air-taxying helicopters and parked/taxying fixed-wing and between two air-taxying or hovering helicopters.

- 2.3 Helicopters parked north-side of the Tower are to ensure that they remain north of the entrance road to the Terminal Building car park when routing between the parking area and Runway 18/36.
- 2.4 ATC may instruct helicopters to air-taxy east of the Tower and to hold by Hangar 11 (Blister hangar north of Tower).
- 2.5 Helicopters air-taxying will comply with the definition set out in ICAO Annex 14 Volume 2 - Heliports, not above 100ft and a ground speed not greater than 20kts.

### 3. Aerodrome Procedures

- 3.1 The two grass helistrips are marked with standard ICAO markings. H07/H25 has flush green edge lighting.



Helistrip	Dimension	Elev	TODAH	LDA	RTODAH
H18	170m x 20m	224ft	+165m	60m	+165m
H36	170m x 20m	219ft	+165m	60m	+165m
H07	175m x 20m	202ft	+175m	60m	+175m
H25	175m x 20m	204ft	+175m	60m	+175m

- 3.2 These helistrips are primarily for use by single engine (Group 1) helicopters up to and including a maximum overall length of 13m.
- 3.3 Group 2 helicopters will operate to any of the Hover Squares when Runway 07/25 is in use and to the Central Hover Square or the 08L numbers when Runway 18/36 is in use. Group 3 helicopters will always use the runway in use for their arrival and departure; with ATC providing the necessary standard wake turbulence separation.
- 3.4 During periods when the grass areas are waterlogged or too soft to support safe use by helicopters with wheeled undercarriage such helicopters may be directed to use unlicensed Runway 06/24.
- 3.5 All circuit patterns are to be flown parallel to fixed-wing runway. H36 and H25 left-hand, H07 and H18 right-hand.
- 3.6 Helicopters operating in the H07/H25 visual circuit must not fly between the helistrip and the fixed-wing runway.
- 3.7 The standard circuit height is 1200ft QNH.
- 3.8 Circuit patterns are depicted in Appendix 2 and 3. All turns are to be made in the same direction as the circuit pattern.
- 3.9 Helicopters flying under VFR in the visual circuit pattern operate a semi-passive RTF system. ATC issue positive take-off clearances to assist in deconflicting helicopters and fixed-wing in the climb-out area. Helicopter pilots make position/intention reports primarily for situational awareness of other pilots, these calls are acknowledged by ATC however no further action is taken unless ATC detects an unsafe situation developing.

- 3.9.1 Positive control will be provided by day when SVFR operations are taking place or when Runway 06/24 is in use and at night.
- 3.9.2 Outbound helicopters should, on receipt of ATC instructions, air-taxi to the appropriate aiming point (triangle with designator in the centre) for departure.
- 3.9.3 On final approach let down to the H.
- 3.9.3 If remaining in the circuit move forward to the aiming point and when cleared depart into the circuit.
- 3.9.4 Helicopters must avoid loitering on the helistrips,
- 3.9.5 Whenever possible taxi to/from the helistrips at 90°.
- 3.9.6 Helicopters may air-taxi directly to the aiming point even with traffic on final to the H.
- 3.10 To avoid damage to the runway surface helicopters are not to touch down on, or run across, the grass runways.

### 3.11 Autorotation and Engine Off Landings

“**Autorotation**” indicates that the helicopter will go-around from the exercise.

“**Engine-off**” indicates that the exercise will terminate in the hover or a run-on landing.

- (a) There are four areas available for practice autorotation/engine-off landings. These are south of Runway 07R/25L and are designated Areas One, Two, Three and Four. Area One is the eastern most area and Area Four is the western most area. When Runway 18/36 is in use only Areas Three and Four are available and, in order to avoid infringing the fixed-wing runway, helicopters must remain west of an imaginary line parallel with the runway from Hangar 10 (AAKSS) to the Central Hover Square. Additionally, when Rwy18/36 is in use Area West South may be used for autorotations.
- (b) Only one helicopter is permitted to carry-out autorotation or engine-off landings (EOL) to a particular area at any one time. If a pilot is unable to complete an approach in to the nominated area a go-around **must** be made.
- (c) Pilots are to nominate the area to be used when downwind. When Runway 07 is in use the first aircraft must nominate the most upwind area available i.e. 1, 2, 3 then 4. When Runway 25 is in use the first aircraft must nominate the most upwind area available i.e. 4, 3, 2 then 1.
- (d) Autorotations may be made to any area. The autorotation/engine-off circuit will be flown inside the standard circuit pattern. Normally Areas 1 and 2 will be used for EOLs.  
**Note:** helicopters are not to conduct hovering exercises in these areas, marked hover squares are provided for this purpose. It is dangerous for helicopters to loiter in the engine-off practice areas.

### 3.12 Practice Fan-stop Procedures

Helicopters may carry out practice fans-tops anywhere around the circuit except in the climb out from Runway 25. Pilots are to call on the R/T prior to commencing the exercise, this call will be acknowledged by ATC. If the Aerodrome Controller does not receive a (climbing) call within one minute of the exercise commencing, he will initiate overdue action.

### 3.13 Downwind Circuits

- (a) These circuits may only be flown to either the Southern Hover Square, Central Hover Square or the 07L threshold. Only one helicopter at a time may carry out this exercise and positive R/T will be used throughout.
- (b) Pilots carrying out quick stops, downwind circuits etc. are to switch on their landing lights to improve their conspicuity. These helicopters must remain clear of the heli-strips and hover squares.

### 3.14 Hover Squares, Confined Areas and Sloping Ground

There are nine other areas around the Aerodrome where helicopters may operate to and from, these are listed below:

Eastern Hover Square	Eastern Sloping Ground
Eastern Confined Area	Southern Hover Square
Central Hover Square	Western Confined Area
Western Sloping Ground*	Area West
Western Hover Square	

Note 1: Only one helicopter at a time is permitted in any of the above areas except the Western Sloping Ground; this is divided by a small hedge and may be used by two helicopters, one east and one west.

Note 2: During winter months the ground conditions may be such that the areas outside Taxiway C and D are not accessible by the ARFFS within the response time set out in CAP168. Under these circumstances the Areas may not be used by helicopters required to use a licensed aerodrome. A NOTAM will be issued and use of these HTAs will be at the pilot's discretion.

3.16 When Rwy18/36 is in use only the areas west of the runway may be used.

3.17 All the above areas, excluding H07/H25 are only available for use during daylight hours. After sunset helicopters must use either the H07/H25, equipped with flush green edge lights, or Runway 07R/25L.

### 3.18 Parking

Helicopters will only be parked on marked stands. Should all the stands normally used by an operator be occupied ATC will direct the helicopter to park on the grass stands at the Terminal Building. Helicopters are not permitted to park on unmarked grass areas without specific permission from the Aerodrome Manager.

## 4. Automatic Terminal Information Service (ATIS)

- 4.1 The ATIS provides pilots with weather and aerodrome information. Each broadcast has a code letter and pilots are required to monitor the ATIS; acknowledge the information received on first contact with ATC and include the QNH.
- 4.2 Pilots must listen the ATIS on frequency 125.305 MHz or via telephone 01737 822947 before contacting ATC.
- 4.3 When there is no meteorological observer available and outside ATC hours the information is compiled automatically and therefore not checked for accuracy. The broadcast states "This is Redhill Information (code letter) time \_\_\_\_ Automatic....."

**Pilots must be aware of the limitations of automatic meteorological observing equipment.**

## 5. Arrival and Departure Procedures

- 5.1 Helicopters will normally be instructed to route via Buckland or South Godstone Railway Station VRPs at 1,200 ft. QNH.

Visual Reference Point	Lat/Long (WGS84)
Godstone Railway Station (Godstone Railway Station)	511305N 0000304W
Buckland (Buckland Lake)	511424N 0001445W

The VRP used will depend upon the position of the helicopter and the runway in use. See Appendix 2 and 3.

- 5.2 When Runway 18/36 is in use helicopters should conduct local area training to the west of the Aerodrome.

- 5.3 When Runway 18 is in use any helicopters routing to the east will be required to use the fixed-wing runway and follow the fixed-wing Godstone Railway Station departure, climbing to 1,200ft QNH. Pilots should be prepared to except delays due to fixed-wing traffic. Arrivals from the east will be required to join via Godstone Railway Station, entering the ATZ not above 700ft QNH, routing to the 25L numbers and coming to an into wind hover over the numbers.
- 5.4 When Runway 36 is in use any training helicopters routing to the east will follow the standard circuit pattern climbing to 1400ft QNH routing via the overhead of the Aerodrome to Godstone Railway Station. Other flights may expect to depart from the fixed-wing runway and follow the fixed-wing routing.
- 5.5 Arrivals from the east will be required to join via Godstone Railway Station, entering the ATZ not above 700ft QNH, routing to the 25L numbers and coming to an into wind hover over the numbers. Exceptionally, ATC may require helicopters to join on to right base for the fixed-wing runway.
- 5.6 When Runway 36 is in use any helicopters routing to the north will be required to depart from the fixed-wing runway. Delays may occur due to fixed-wing traffic
- 5.7 When Runway 07/25 is in use arrivals and departures directly to/from the north may be permitted, subject to fixed-wing traffic and a maximum tailwind of 10kts. Pilots will be asked to report crossing the M25.
- 5.8 Helicopters may be permitted to make an approach to the threshold markings on Runway 07R/25L whilst a fixed-wing aircraft is either landing or taking-off on from the runway subject to procedures set out in the Redhill MATS Part 2.

## 6. London Sight-Seeing Flights

- 6.1 Helicopter sight-seeing flights will operate following routes H7 – H4 within the London Control Zone.
- 6.2 When surface wind and traffic conditions permit the following routings will be used:

Runway 07	departure from Runway 36, arrival via Godstone Railway Station VRP*
Runway 25	departure from Runway 36, arrival via Godstone Railway Station VRP*
Runway 18	departure via Buckland VRP, arrival via west abeam the Junction VRP
Runway 36	departure to the north, arrival via Buckland VRP

\*Arrivals via Runway 18 may be approved subject to surface wind and traffic conditions.

- 6.3 When Runway 07/56 is in use and the surface wind would present an unacceptable tail wind (in excess of 10kts) helicopters will departure via Buckland VRP and arrival via South Godstone Station VRP.
- 6.4 Pilots must keep a good lookout where their route crosses fixed-wing inbound or outbound tracks.
- 6.5 ATC will not issue any other clearances or routings to these flights.
- 6.6 ATC will, whenever possible, provide these flights with expeditious routings back to their hangars. Although public transport flights are afforded priority over training flights pilots should always expect to let down within the helicopter circuit.

## 7. RTF Procedures

- 7.1 Helicopters must request start-up clearance. During periods of heavy RTF loading helicopters operating flights with a flight priority Category A or B may start without permission and pass their flight details to ATC as soon as possible.
- 7.2 The following, modified, RTF procedures will be used:
- 7.3 Outbound: "Redhill Tower (callsign) outbound Information \_\_\_\_ QNH \_\_\_\_"

- 7.3.1 When ATC say 'Pass your message' give the following details: "(callsign) (registration if different to callsign) (type) (POB) request start for (local east or west/destination/circuits\*)" \*as appropriate
- 7.3.2 "Tower Helicopter \_\_\_\_ request lift"
- 7.3.3 "Tower Helicopter (last two letters of registration) or (callsign) downwind 180/360\* autorotation/engine-off\* area (number)."
- 7.3.4 "Tower Helicopter (last two letters of registration or callsign) downwind low-level \_\_\_\_\_ confined area."
- 7.3.5 "Tower Helicopter (last two letters of registration or callsign) departing [and complete] \_\_\_\_\_ confined area."
- 7.3.6 ATC will instruct helicopters to leave the ATZ via a VRP using the phrase "(callsign) after departure leave via (VRP) not above (altitude) VFR."
- 7.3.7 ATC may instruct helicopters to enter the ATZ using the phrase "join approved." This means route from the VRP, at circuit altitude, onto the downwind leg or final approach as appropriate.
- 7.4 CAP 413 Radiotelephony Manual states:
- "LIFT" shall describe a manoeuvre where the helicopter gets airborne and enters a "HOVER".
- "HOVER" describes a manoeuvre where the helicopter holds position whilst airborne in ground effect.
- A helicopter air taxiing and instructed to "HOLD", may hold in the hover or may touch down and hold on the ground. If touch down is not permitted the helicopter should be instructed to "HOLD IN THE HOVER."
- 7.5 During daylight hours a semi-passive R/T system is operated within the helicopter circuit area provided that the reported meteorological visibility is greater than 4000m.
- 7.6 In order that ATC can de-conflict helicopters and fixed-wing aircraft helicopter pilots must obtain a departure clearance for each circuit, the only exception is when going around from an autorotation. Do not depart in to the circuit pattern unless ATC have said "(callsign) cleared for take-off." Downwind and final calls will not normally be required however; pilots must monitor the Aerodrome Control frequency.
- 7.7 Helicopters working confined areas will report downwind for and when ready to depart from the area they are using. When complete this information will be included in the final departing call. Downwind calls will be made for all autorotation/engine-off landings with the intended area to be used will be included in this call. Pilots will report going around from an autorotation.
- 7.8 If the Aerodrome Controller cannot maintain visual contact with helicopters operating in the visual circuit, or the meteorological visibility is 4000m or less, the number of helicopters operating within the ATZ will be restricted and standard R/T procedures will be enforced.
- 7.9 At night or when fixed-wing aircraft are using Runway 06/24 standard R/T procedures will apply.
- 7.10 Unless using a company callsign helicopter pilots will use the last two letters of their registration prefixed with "Helicopter" (CAP413 refers).
- 7.11 Please ensure that you read back mandatory instructions/information
- (i) taxi instructions
  - (ii) altitude instructions
  - (iii) runway in use
  - (iv) clearance to enter, land, take-off, backtrack, cross or hold short of any active runway
  - (v) altimeter settings
  - (vi) frequency changes

- (vii) route clearances (Gatwick CTR)
- (viii) SSR code.

A full list is set out in CAP413 Radiotelephony Manual.

- 7.12 ATC are required to ensure that pilots read back these items. When pilots do not comply then ATC have to make additional transmissions until a read back of all the applicable items has been obtained.

## 8. Noise Abatement Procedures (Helicopters)

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- 8.1 These procedures apply to all helicopters using Redhill Aerodrome.
- (a) Pilots are to operate their aircraft in a manner that will minimise the disturbance caused to local residents. See Appendix 4.
  - (b) Runway 07R/25L is the preferential runway.
  - (c) Whenever possible avoid over flying Henhaw Farm by remaining east of the M23 motorway.
  - (d) Helicopter night flying training within the ATZ is not permitted after 2359 hours local time Monday to Friday.
  - (e) Helicopter night flying training within the ATZ is prohibited on Saturday and Sunday.
  - (f) During ATC hours all ground running of helicopters for maintenance purposes is subject to ATC approval. Except for Police and Air Ambulance helicopters ground runs may not take place prior to 0800 hours or after 2100 hours local time.
  - (g) Except for Police, Air Ambulance and based news gathering helicopters flights are not normally permitted during 0001 hours to 0600 hours Monday to Saturday or during the periods of 0001 hours to 0800 hours and 2200 hours to 2359 hours on a Sunday. All times are Local.
  - (h) Helicopters departing from the Runway 18 displaced threshold markings to the north are to use their best angle of climb speed.
  - (i) Except for Category A or B flights (AAKSS and NPAS) helicopter departures or arrivals via the Runway 18 displaced threshold markings are not permitted below the circuit altitude.
  - (j) Helicopter departures or arrivals via the Runway 18 displaced threshold markings are not permitted if the tail wind component exceeds 10kts.

## 9. Special VFR (SVFR) Operations

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- 9.1 When the weather conditions reported by Redhill ATC are below those set out in paragraph 1.4 fixed-wing and helicopters will offered SVFR clearances with the ATZ.
- 9.2 SVFR operations are only available from Runway 07R/25L. The runway lighting will be switched on whenever SVFR flights are taking place.
- 9.3 The minimum weather limits for SVFR at Redhill are:

	Visibility	Cloud Ceiling
Fixed-wing	3000m	BKN007
Helicopter	800m	BKN007

A General Exemption permits Police, Helimed, Rescue, Electricity, Grid, Powerline, Rail Track or Pipeline callsigns to operate SVFR below the minima set out above.



- 9.4 ATC is required to provide standard separation between SVFR flights and between VFR flights and IFR flights; it is important that pilots inbound to the Aerodrome contact ATC at least 5 minutes prior to any VRP.
- 9.4.1 ATC will normally achieve separation by either maintaining visual contact with each aircraft or by asking each aircraft if they are visual with each other. If pilots report visual and are able to accept visual separation they become responsible for ensuring they remain clear of each other.
- 9.4.2 If either pilot is not visual then aircraft will be held until ATC can ensure they are separated.
- 9.5 Pilots must follow the inbound/outbound routings set out in paragraphs 6 and 7.
- 9.6 Pilots requesting to use the Aerodrome when the weather is below VFR limits will be assumed to be able to operate SVFR.
- 9.7 A pilot operating SVFR:
- a) must comply with ATC instructions
  - b) is responsible for ensuring that the flight conditions enable them to remain clear of cloud, determine their flight path with reference to the surface and keep clear of obstructions
  - c) ensure they fly at an indicated airspeed of 140kts or less in order to provide adequate opportunity to observe any obstacles in time to avoid a collision. SERA.5010(b)(3) refers
  - d) is responsible for ensuring they fly within the limitations of their licence
  - e) is responsible for complying with the Rules of the Air Regulations low flying restrictions (other than the 1000ft rule)
  - f) is responsible for remaining outside an ATZ unless prior permission to enter has been obtained from an ATC Unit. CAP 493 MATS Part 1 Section 1 Chapter 2 refers.
- 9.8 Redhill ATC will issue a specific clearance for each flight flying within the ATZ/LFA.
- Outbound: "(callsign) after departure leave via (VRP) not above (altitude) SVFR."
- Inbound from VRP: "(callsign) clear to enter the Redhill ATZ not above (altitude) SVFR report (circuit position)."
- 9.9 Fixed-wing circuit flying is not permitted under SVFR.
- 9.10 Arriving aircraft shall take priority of departing aircraft.
- 9.11 When the meteorological visibility consists of two values, the lower of the two values shall be used when determining if a SVFR clearance can be issued. (MATS Part 1 Section 1 Chapter 2 Flight Rules refers).

## 10. Operations Outside the Published Aerodrome Hours

- 10.1 Use of Redhill Aerodrome outside the published closing times is restricted to operators who have obtained prior permission from the Aerodrome Manager, have a valid Out of Hours Permit and comply with the conditions stated within the Permit.
- 10.2 The Aerodrome will not provide ATC nor RFFS facilities as required under the Air Navigation Order 2009 Article 211 (7) Schedule 12.
- 10.3 With the exception of NPAS, KSSAA and BBC News/Sky News movements are not normally permitted before 0600 hours or after 2359 hours Monday – Saturday or before 0800 hours or after 2200 hours on Sundays. All times local.
- 10.4 All movements by non-emergency service aircraft must be notified to Redhill ATC by email to [ooh@redhillaerodrome.com](mailto:ooh@redhillaerodrome.com). Any changes to the above details, including non-operation of the flight, must be notified to Redhill ATC ASAP. Failure to do so will result in excess charges being incurred by the operator.
- 10.5 Except for NPAS/KSSAA flights that have obtained specific permission from the Aerodrome Licensee training and maintenance flights are not permitted.



## 11. Out of Hours Arrival and Departure Procedures

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- 11.1 All departures and arrivals are to be flown so as to remain within the Redhill ATZ which is designated as active H24. Rules applicable to Class D airspace apply. Permission to fly within the ATZ is granted when the permission to operate outside ATC hours is granted.
- 11.2 Inbound pilots should carry out an overhead in order to satisfy themselves that that runway/FATO and taxiways are not obstructed.
- 11.3 Flights must not enter the Gatwick CTR/CTA unless a positive clearance has been obtained from Gatwick ATC. Specific procedures apply for NPAS/AAKSS operations.
- 11.4 The ATIS will broadcast the Runway in Use either 07R or 25L.
- 11.5 Pilots must make standard inbound and outbound broadcasts of their intentions on 119.605MHz including changing frequency. This information must include the runway they are using. CAP413 page 61 refers.
- 11.6 Pilot Activated Lighting (PAL) is available. Details are provided on the Out of Hours Permit.
- 11.7 At night helicopters arrivals and departures should normally use Runway 07R/25L or the H07/H25 unless the surface wind dictates use of another direction or the operator has approval to operate to unlit areas using NVG.
- 11.8 Unless there is an overriding flight safety or operational requirement pilots must comply with the standard arrival and departure routes.
- 11.9 Unless operating on a discrete SSR code pilots must select **SSR code 7012** and monitor Gatwick Approach 126.825MHz.
- 11.10 Helicopters may use the Aerodrome H24. The Air Ambulances, callsign **Helimed 60A and Helimed 21A**, together with the NPAS helicopter, callsign **Police 37**, must be afforded priority over other arriving or departing helicopters.

## 12 Hi-Visibility Clothing

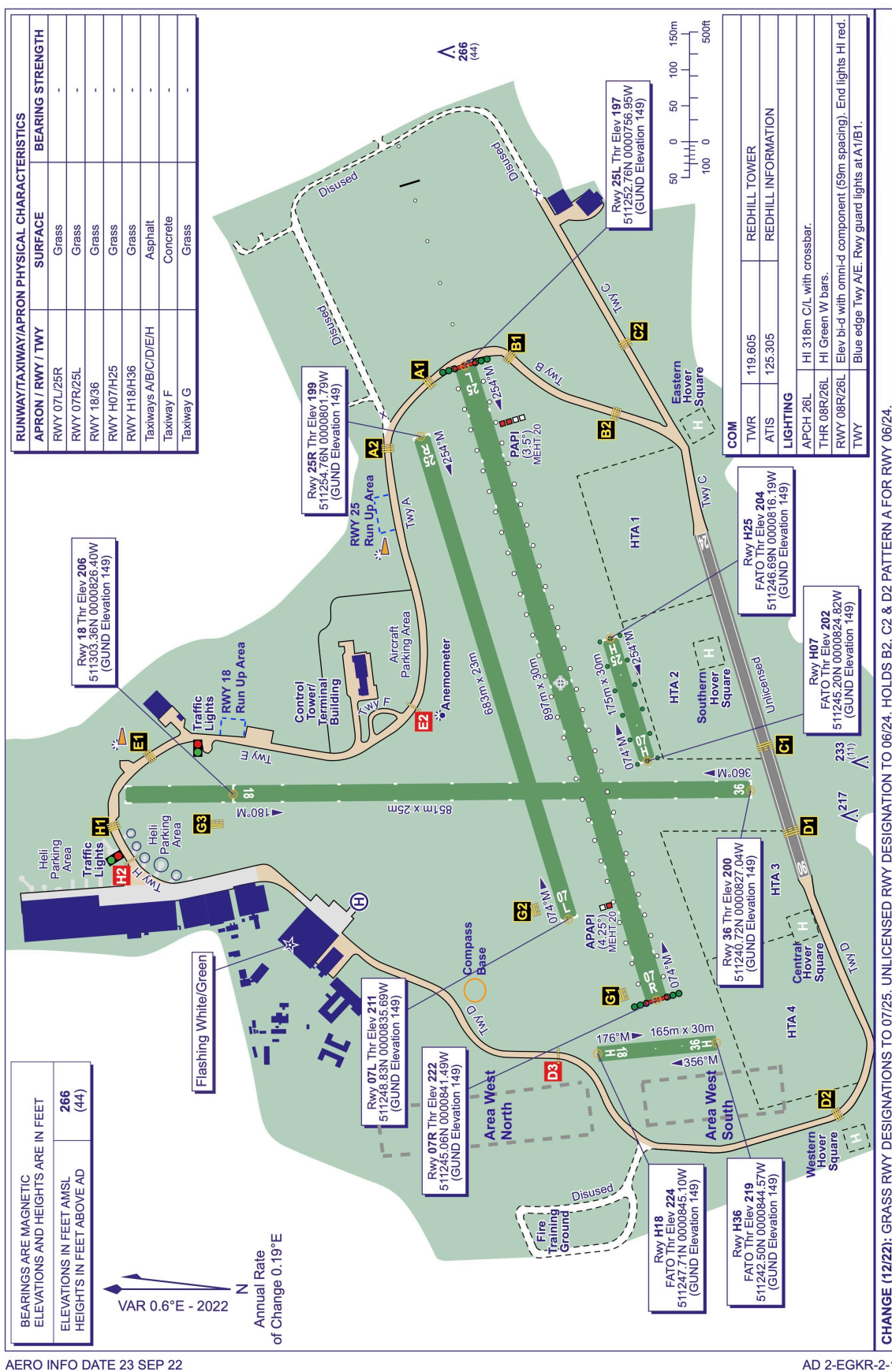
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- 12.1 This is only required to be worn during daylight hours by persons, on foot, on the runways/taxiways, **excluding aprons**, and pilots/ops staff engaged in helicopter rotors-running or fixed-wing engine running crew/passenger change overs.
- 12.2 At night all pilots/ops staff on foot must wear high visibility clothing on taxiways, runways and aprons.

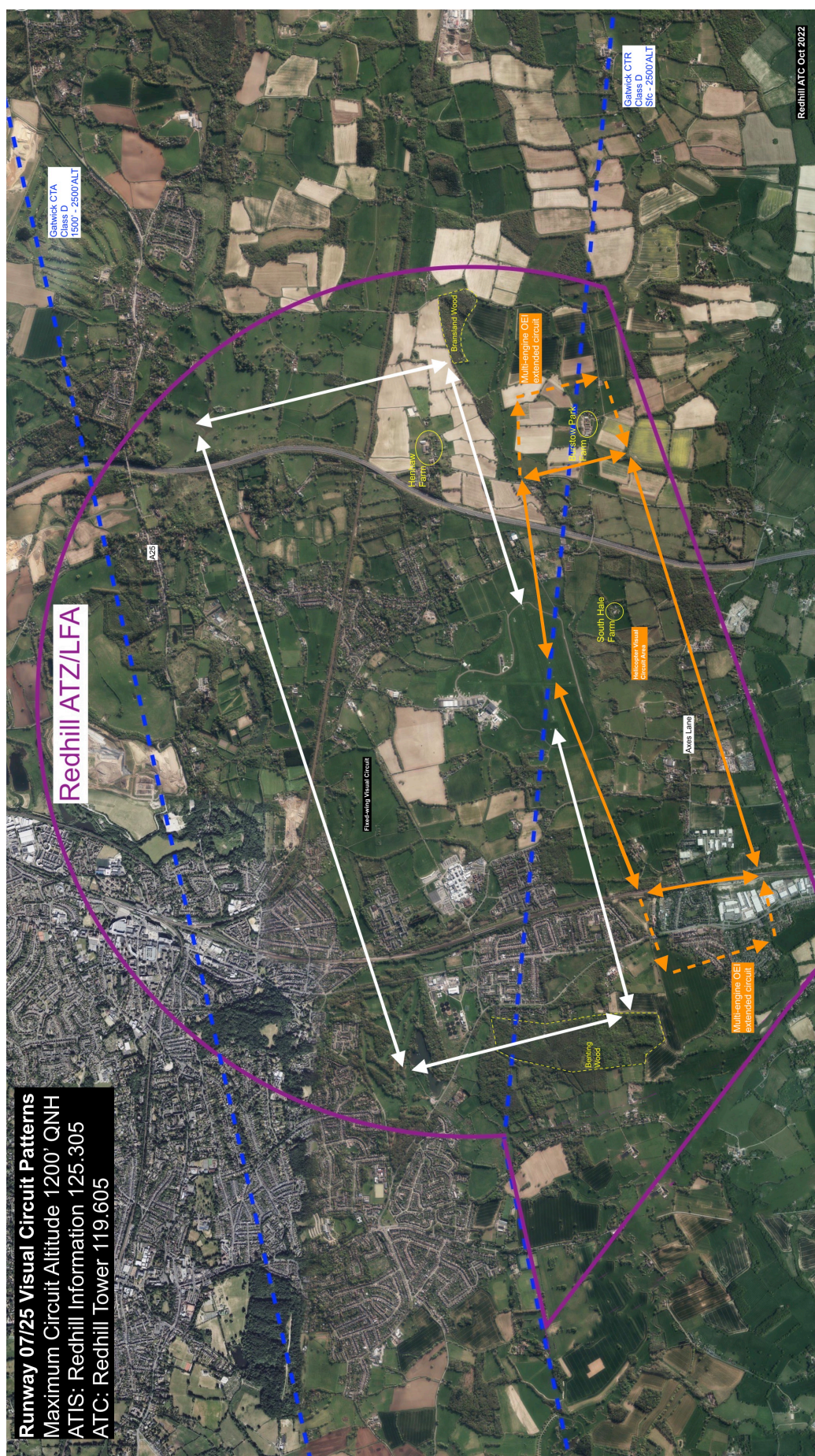


Philip Wright  
Aerodrome Manager/SATCO

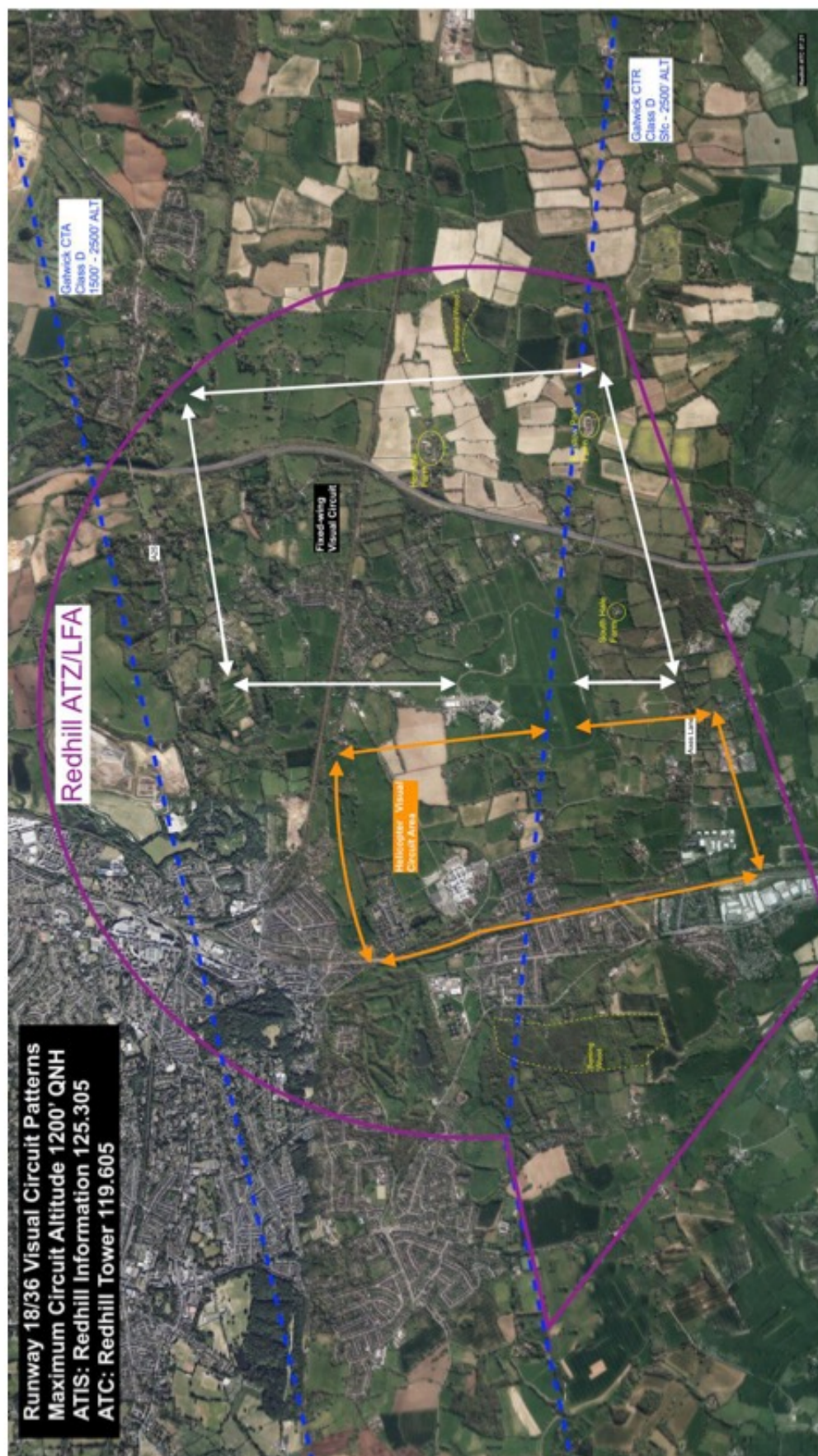
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Pilots are requested to avoid overflying these properties when arriving or departing especially at night.