



## Helicopter Operations v11

### 1. Introduction

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1.1 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.

1.2 ICAO divides helicopters into groups according to their MAUW. A list of helicopters, 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

<b>Group 1</b>	<b>Types</b>
Max overall length: 13m Wake Turbulence Category: Light	ALOU, AS50, B06, B407, EC20, EN28, EN48, H269, H500, MD52, MD60, R22, R44, R66, S330 and SCOU.
<b>Group 2</b>	<b>Types</b>
Max overall length: 17m Wake Turbulence Category: Light	A109, A139, AW39, AW89, B205, B212, B427, B105, BK17, AS55, AS65, EC15, EC35, EC75, EXPL, S76 and LYNX.
<b>Group 3</b>	<b>Types</b>
Max overall length: 23m Wake Turbulence Category: Small	BSTP, EH01, H53, H47, PUMA, AS32, EC25, S61, S64, H65 and S92.

1.3 All procedures are based on the QNH. The QFE will only be provided if it requested by a pilot.

1.4 All helicopters must have a serviceable transponder or obtain an exemption from the Aerodrome Manager. Note: Helicopters operating with an exemption are prohibited from using H18/H36.

1.5 Helicopter operations will normally be conducted under VFR with the minima applicable to Class D airspace (clear of cloud, surface in sight, minimum visibility 1500m), unless operators have lower minima approved by the CAA.

### 2. Air Taxi Routes

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2.1 All helicopters air-taxiing from Arena, EBG Helicopters, KSSAA 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-taxiing helicopters from each other and parked aircraft.

2.2 Pilots are to ensure that a distance of 3 x D is provided between air-taxiing helicopters and parked/taxiing fixed-wing and between two air-taxiing 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-taxi east of the Tower and to hold by Hangar 11 (Blister hangar north of Tower).

2.5 Helicopters air-taxiing 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

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3.1 The two grass heli-strips are marked with standard ICAO markings. These markings are not load bearing; helicopters are not to touch down on the markings.

Helistrip	Dimension	Elev	TODAH	LDA	RTODAH
H18	165m x 20m	224ft	+165m	60m	+165m
H36	165m x 20m	219ft	+165m	60m	+165m
H08	175m x 20m	202ft	+175m	60m	+175m
H26	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 08/26 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 All circuit patterns are to be flown parallel to fixed-wing runway. H36 and H26 left-hand, H08 and H18 right-hand.

3.5 Helicopters operating in the H08/H26 visual circuit must not fly between the helistrip and the fixed-wing runway.

3.6 Helicopters operating in the visual circuit must remain east of the Redhill – Brighton Railway Line.

3.7 The standard circuit height is 1200ft QNH. Bell 212 and similar types will fly the circuit at 1400ft QNH.

3.8 All turns are to be made in the same direction as the circuit pattern.

3.9 Outbound helicopters should, on receipt of ATC instructions, air-taxi to the appropriate aiming point (triangle with designator in the centre) for departure.

3.9.1 On final approach let down to the H.

3.9.2 If remaining in the circuit move forward to the aiming point and when cleared depart into the circuit.

3.9.3 Helicopters must avoid loitering on the helistrips,

3.9.4 Whenever possible taxi to/from the helistrips at 90°.

3.9.5 Helicopters may air-taxi directly to the aiming point even with traffic on final to the H.

3.10 Helicopters are not to touch down on 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 08R/26L 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 9 to the Central Hover Square. Additionally, when Rwy18/36 is in use Area West 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 08 is in use the first aircraft must nominate the most upwind area available i.e . 1, 2, 3 then 4. When Runway 26 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 Fanstop Procedures

Helicopters may carry out practice fanstops anywhere around the circuit except in the climb out from Runway 26. 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. [*When these exercises are conducted outside the Aerodrome boundary pilots are required to conform to SERA.5005(f) as amended by CAA Official Record Series General Permissions.*]

### 3.13 Downwind Circuits

(a) These circuits may only be flown to either the Southern Hover Square, Central Hover Square or the 08L 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 of the above areas including the heli-strips are only available for use during daylight hours. After sunset, helicopters are only permitted to operate to/from Runway 08R/26L, which is equipped with runway lighting.

### 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. RTF Procedures

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4.1 Pilots must monitor the ATIS frequency 125.300MHz prior to contacting ATC.

4.2 Outbound pilots must request start clearance.

4.3 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.

4.4 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.

4.5 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.

4.6 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.

4.7 At night or when fixed-wing aircraft are using Runway 07/25 standard R/T procedures will apply.

4.8 Unless using a company callsign helicopter pilots will use the last two letters of their registration prefixed with "Helicopter" (CAP413 page 14 July 2013 refers).

Listed below are some examples of R/T calls to be used at Redhill:

(i) "Redhill Tower Helicopter (callsign or registration) Outbound." When told "to pass your message"

(ii) "Tower Helicopter (callsign) or (registration) (type) Information \_\_, QNH \_\_\_\_\_ request start (number) on board for (local/destination)\*"

\*as appropriate

(iii) "Tower Helicopter \_\_\_\_ request lift"

(iv) "Tower Helicopter (last two letters of registration) or (callsign) downwind 180/360\* autorotation/engine-off\* area (number)."

(v) "Tower Helicopter (last two letters of registration or callsign) downwind low-level \_\_\_\_\_ confined area."

(vi) "Tower Helicopter (last two letters of registration or callsign) departing [and complete] \_\_\_\_\_ confined area."

(vii) ATC will instruct helicopters to leave the ATZ via a VRP using the phrase " (callsign) after departure leave via (VRP) VFR." This means leave via the designated VRP at 1,200ft QNH.

(viii) 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.

(ix) 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."

4.9 Please ensure that you read back mandatory instructions/information. At Redhill these will usually be:

- (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).

A full list is set out in CAP413 Radiotelephony Manual.

4.10 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.

## 5. Arrival and Departure Procedures

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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)
South Godstone 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 South Godstone Railway Station departure, climbing to 1,400ft QNH. Pilots should be prepared to expect delays due to fixed-wing traffic. Arrivals from the east will be required to join via South Godstone Railway Station, entering the ATZ not above 700ft QNH, routing to the 26L 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 South 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 South Godstone Railway Station, entering the ATZ not above 700ft QNH, routing to the 26L 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 08/26 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 08R/26L 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

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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 08	departure from Runway 36, arrival via South Godstone Station VRP*
Runway 26	departure from Runway 36, arrival via South Godstone 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 08/26 is in use and the surface wind would present an unacceptable tail wind (in excess of 10kts) these following routings will be used:

Runway 08	departure via Buckland VRP, arrival via South Godstone Station VRP
Runway 26	departure via Buckland VRP, 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. Noise Abatement Procedures

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7.1 These procedures apply to all aircraft using Redhill Aerodrome.

(a) Pilots are to operate their aircraft in a manner that will minimise the disturbance caused to local residents.

(b) Aerobatic manoeuvres are prohibited within the Redhill ATZ.

(c) Runway 08R/26L is the preferential runway.

(d) Fixed-wing aircraft departing Runway 08L/R must climb straight ahead, tracking the extended centre-line, until passed Henhaw Farm before turning on track.

(e) Fixed-wing aircraft departing Runway 26L/R must climb straight ahead, tracking the extended centre-line, until reaching the centre of Benting Wood before turning on track.

(f) Multi-engine fixed-wing aircraft may only use Runway 18/36 when the surface wind precludes the safe use of Runway 08R/26L.

(g) Circuit training by multi-engine fixed-wing aircraft is not permitted on Runway 18/36.

(h) Circuit training by multi-engine fixed-wing aircraft, except night flying, is not permitted after 1830 hours local time or at any time on a Sunday.

- (i) Helicopter night flying training within the ATZ is not permitted after 2359 hours local time Monday to Friday.
- (j) Helicopter night flying training within the ATZ is prohibited on Saturday and Sunday.
- (k) 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.
- (l) 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.
- (m) Helicopters departing from the Runway 18 displaced threshold markings to the north are to use their best angle of climb speed.
- (n) Except for Category A or B flights (MATS Part 1 Section 1 Chapter 4) helicopter departures or arrivals via the Runway 18 displaced threshold markings are not permitted below the circuit altitude.
- (o) Helicopter departures or arrivals via the Runway 18 displaced threshold markings are not permitted if the tail wind component exceeds 10kts.

## **8. Operations Outside the Published Aerodrome Hours**

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8.1 Use of Redhill Aerodrome outside the hours published in the UK AIP AD 2 - EGKR - 1 - 1 section AD 2.3 is restricted to operators who have obtained prior permission from the Aerodrome Manager. Unless specifically authorised by the Aerodrome Manager only flights by helicopters operating on an AOC/PAOC are permitted. Any fixed-wing operations are normally restricted to 1900 – 2100 during the summer period. UK IAIP EGKR AD 2.20 para 1 (d) refers.

8.2 The Aerodrome will not provide ATC nor RFFS facilities as required under the Air Navigation Order 2009 Article 211 (7) Schedule 12.

8.3 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.

8.4 All movements by non-emergency service aircraft must be notified to Redhill ATC by email to [oo@redhillaerodrome.com](mailto:oo@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.

8.5 Except for NPAS/KSSAA flights that have obtained specific permission from the Aerodrome Licensee training and maintenance flights are not permitted.

8.6 The pilot/operator agrees that no claim will be made against Redhill Aerodrome Limited or any group/company or any of their respective servants or agents, in respect of any loss or damage to property that may be suffered whilst using the aerodrome facilities outside the published hours of availability.

8.7 No waiver of claim or indemnity is sought in respect of personnel injury or death but Redhill Aerodrome Limited wishes to make it clear that it will seek to defend itself against



claims for personnel injury or death arising out of use of the aerodrome outside the published hours of availability.

8.8 A surcharge will be applied to all departures and arrivals between 1700 – 0800 hours local (winter) and 1900 – 0700 hours local (summer). Where the same flight departs and arrives during these times only one surcharge will be charged.

Note: (a) Redhill Aerodrome Limited reserves the right to require an ATC service to be provided and to charge operators accordingly.

(b) Surrey Police dog units and other personnel operate on the Aerodrome outside ATC hours.

## 9. Out of Hours Arrival and Departure Procedures

9.1 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.

9.2 Flights must not enter the Gatwick CTR/CTA unless a positive clearance has been obtained from Gatwick ATC. Specific procedures apply for NPAS/KSSAA operations.

9.3 Outside ATC hours the ATIS operates in automatic mode. Pilots must obtain the meteorological information prior to selecting the runway to be used. Pilots must be aware of the limitations of automatic meteorological observing systems.

9.4 Pilots must make standard inbound and outbound broadcasts of their intentions on 119.60MHz including changing frequency. This information must include the runway they are using. CAP413 Chapter 4 Radiotelephony Reports at Unattended Aerodromes refers.

9.5 Pilot Controlled Lighting (PCL) is available. This is limited to the 08R/26L runway edge, threshold and stop end lights. The PCL may be activated by KSSAA and NPAS via TETRA radio or by commercial/private operators via VHF (1 long click and 4 short clicks total time less than 5 seconds). The lighting operates for 15 minutes after activation. A new 15 minute period is started after any transmission on the Tower frequency..

9.6 At night helicopters arrivals and departures should normally use Runway 08R/26L unless the surface wind dictates use of another direction.

9.7 Unless there is an overriding flight safety or operational requirement pilots must comply with the standard arrival and departure routes.

9.8 Unless operating on a discrete SSR code pilots must select **SSR code 0012** and, if able, monitor Gatwick Approach 126.825MHz.

## 10. Hi-Visibility Clothing

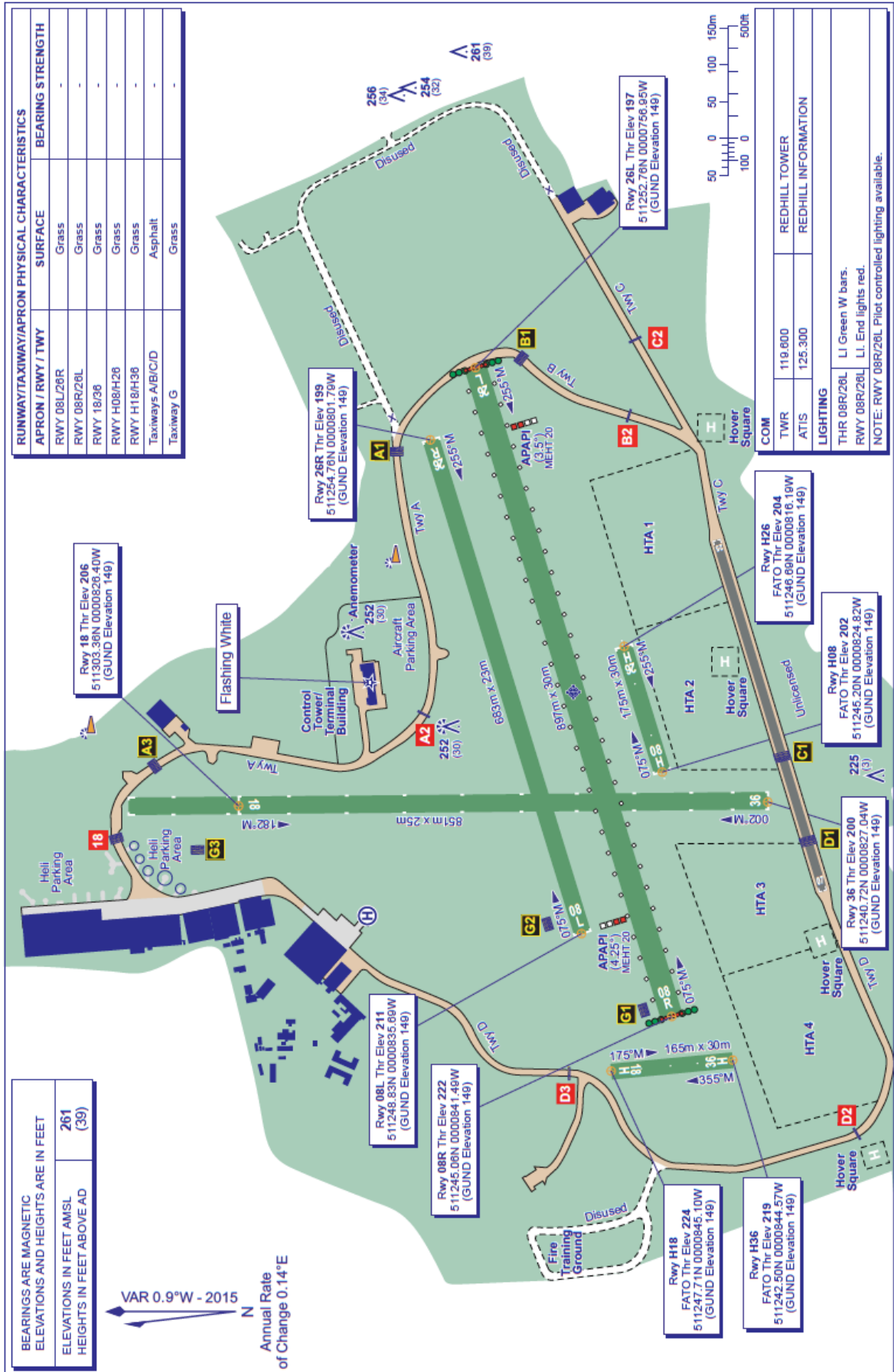
10.1 This is only required to be worn during daylight hours by persons, on foot, on the runways/taxiways, **excluding aprons**, and pilots/ops staff engaged in helicopter rotors-running or fixed-wing engine running crew/passenger change overs.

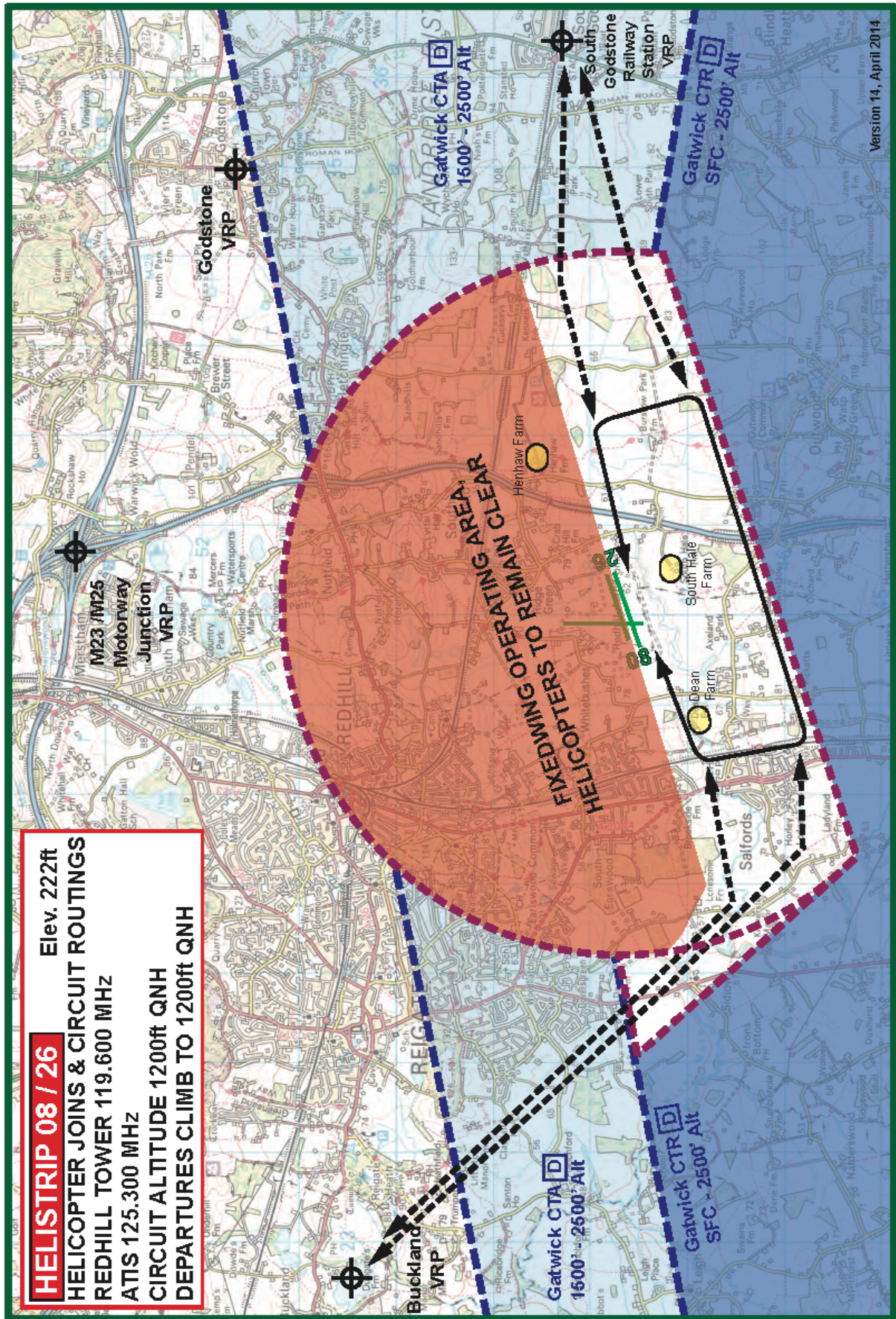
10.2 At night all pilots/ops staff on foot must wear high visibility clothing on taxiways, runways and aprons.

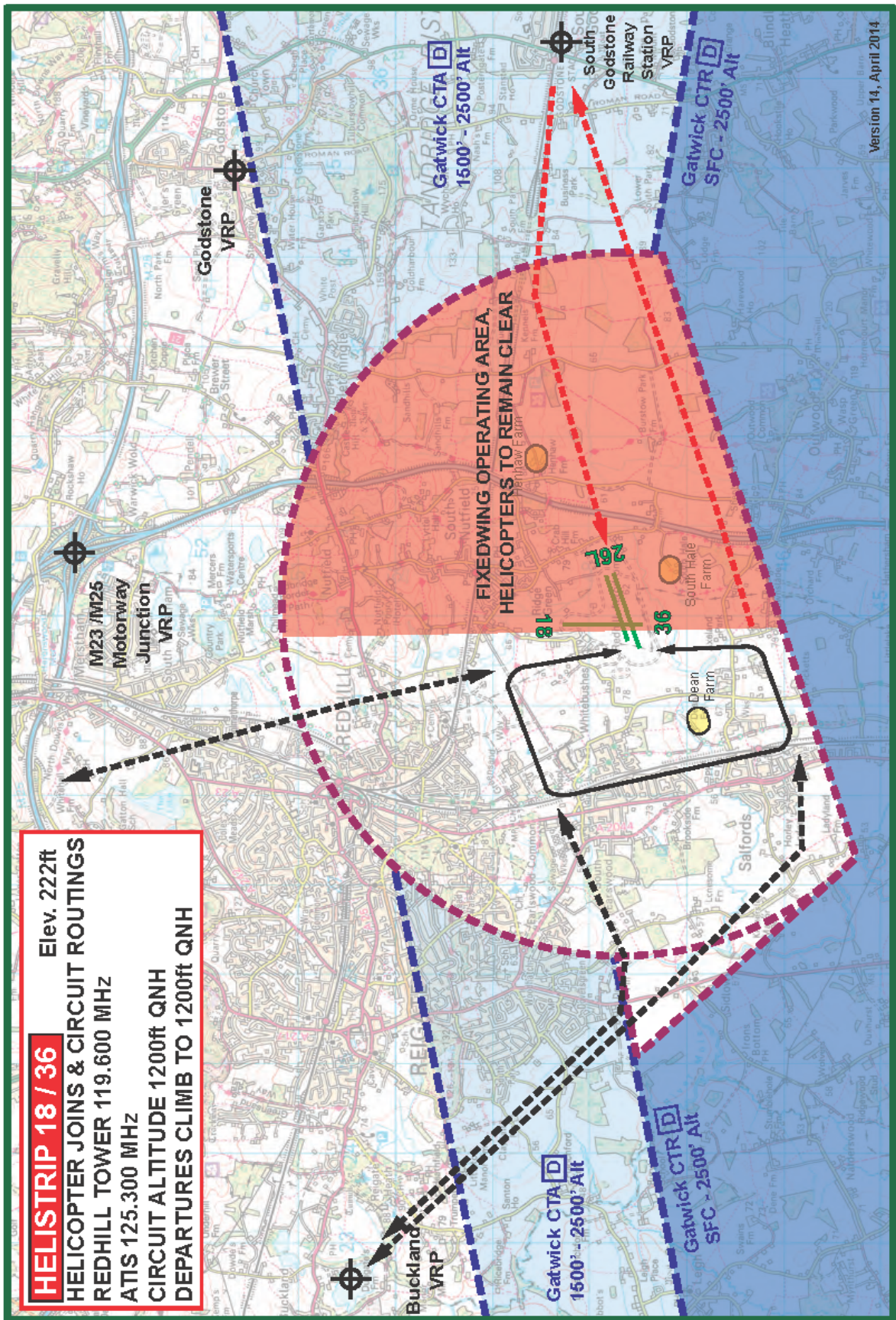
Philip Wright  
Aerodrome Manager/SATCO

04.01.2016

Appendix 1. Aerodrome Layout







**HELISTRIP 18 / 36** Elev. 222ft  
**HELICOPTER JOINS & CIRCUIT ROUTINGS**  
**REDHILL TOWER 119.600 MHz**  
**ATS 125.300 MHz**  
**CIRCUIT ALTITUDE 1200ft QNH**  
**DEPARTURES CLIMB TO 1200ft QNH**

Version 14, April 2014

## Appendix 4. Helicopter Noise Sensitive Areas



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