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VATSIM-UK SERTS

Shoreham Airport vMATS

20/11/2015

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This manual outlines the recommended operational procedures for controllers within the VATSIM-UK Division for Shoreham Airport.

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Throughout this document there will be examples of phraseology representative of radiotelephony procedures in use at Shoreham Airport. The messages will always appear in chronological order; subsequent messages may be omitted for clarity.

www.vatsim-uk.co.uk

VATSIM UK Division Website

www.flybrighton.com

Shoreham Airport Website

For airfield and approach charts, see:

<http://www.nats-uk.ead-it.com> and click on UK Aeronautical Information Publication (AIP) then Aerodrome Index – Specific.

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INTRODUCTION

Shoreham Airport (EGKA), also known as Shoreham (Brighton City) Airport, is situated 1 nautical mile (1.9 km) west of Shoreham-by-Sea in West Sussex and was founded in 1910. Shoreham Airport is the oldest licensed aerodrome in the UK. The Grade II listed art deco style Terminal Building was constructed in 1934, when the airport was established as a municipal airport for Brighton, Hove and Worthing. Companies such as Channel Air Ferries, Railway Air Services and Jersey Airways soon started to use the airport.

During the Second World War, international airline operations were moved from Croydon (London) Airport to Shoreham and a number of military aircraft, including Spitfires and Hurricanes were based at the airport.

Today, the airfield is at the forefront of general aviation with business, training and pleasure flights. The airfield also plays host to the popular annual Royal Air Forces Association 'Shoreham Airshow'.

Shoreham Airport is also used for filming and has appeared in *Agatha Christie's Poirot*, *The Da Vinci Code* and *Woman in Gold*.

The airfield has four runways; the main runway (20/02) was paved in 1981 - the other runways are grass. The aerodrome is equipped with a Non-Directional Beacon (SHM), DME (SRH) and VHF Direction Finding equipment.

SECTION 1 General Unit Instructions

Chapter 1 Altimeter Setting Procedures

1.1.1 Locally Based or Joining Aircraft

- 1) The ATIS carries both QNH and QFE.
- 2) Departing traffic should be passed the QNH.
- 3) The Chatham or Portland RPS may be given on request. Aircraft operating near the London TMA may be given the Gatwick QNH.
- 4) Aircraft intending to remain within the circuit should be passed the QFE on taxi.
- 5) Joining and circuit traffic should be passed the QFE.
- 6) Traffic carrying out an instrument approach procedures should be passed QNH and the QFE on request.

1.1.2 Transit Aircraft

Aircraft transiting the ATZ or local area should be passed the Shoreham QNH and, if requested, the Gatwick QNH or Portland/Chatham RPS.

1.1.3 Transition Altitude

The Transition Altitude is 6000 feet.

1.1.4 Transition Levels

Aerodrome QNH	1050-1032	1031-1013	1012-996	995-978	977-960	959-943
Transition Level	55	60	65	70	75	80

1.1.5 Minimum Flight Level Outside Controlled Airspace

See MATS Part 1 Section 4, Chapter 3.

1.1.1 ASRs

Shoreham is situated within the CHATHAM ASR. The PORTLAND ASR boundary is 8 nm west of Shoreham.

Chapter 2 Light Aircraft and Helicopter Procedures

1.2.1 Responsibilities (ADC or APC)

Aerodrome Control (ADC) is responsible for all aircraft operating on the manoeuvring area and flying within the ATZ until it has left the ATZ or been transferred to APC where no conflict inside the ATZ exists.

Approach Control (APC) is responsible for all transit traffic outside the ATZ and all inbound traffic until transferred to ADC at a suitable position outside the ATZ (see Figure 2 Shoreham Local Airspace Chart 'Shoreham Reporting Points').

Both ADC and APC are responsible for providing traffic information to aircraft under their control. This can be achieved by scanning either others flight progress display or electronic means. Particular consideration should be made for helicopters:

- i. APC shall notify inbound helicopters of any relevant helicopters within the ATZ before transfer to ADC.
- ii. ADC shall notify helicopters operating in the ATZ of relevant inbounds.
- iii. ADC shall notify outbound helicopters of any inbounds before transfer to APC.

1.2.2 Helicopter Routes

VFR helicopters should be routed along one of the published Helicopter Arrival and Departure Routes (see Figure 1 Helicopter Routes and Circuit Patterns) and are flown not above 600 feet to avoid conflict with fixed-wing traffic as much as possible.

Helicopter departure and joining instructions should whenever possible enable the helicopter to depart/land into wind. The RWY 25 or 31 numbers or the three Helicopter Training Areas (HTAs) can all be used for helicopter departures and arrivals. Arriving helicopters can be instructed to join the helicopter circuit based on whichever runway in use, for example "(callsign) **join the right hand circuit for Whiskey based on runway...** not above 600ft".

1.2.3 Helicopter Operations

All helicopter operations should be not above 600 feet unless otherwise authorised. If the traffic situation permits, the height restriction may be lifted by using the phrase 'no height restriction'.

1. Standard helicopter circuits

The following phraseology is to be used: "(callsign) **cleared right-hand circuits from 'Whisky' OR 'X-ray' based on runway...** not above 600ft" – 'remain west of runway...' may also be added if the pilot does not appear to be familiar with the published procedure.

Once this clearance has been given, the heli-circuit normally operates autonomously, maintaining a listening watch on the ADC frequency.

Helicopter Training Areas	Usage
E	Holding and hovering
X	Holding, manoeuvres, auto-rotations. RH circuits when RWY 25 in use LH circuits when RWY 07 in use
W	Holding, manoeuvres, auto-rotations. RH circuits when RWY 13, 20 in use LH circuits when RWY 31, 02 in use
RWY 25 / RWY 31	Subject to fixed-wing traffic Holding, manoeuvres, auto-rotations.

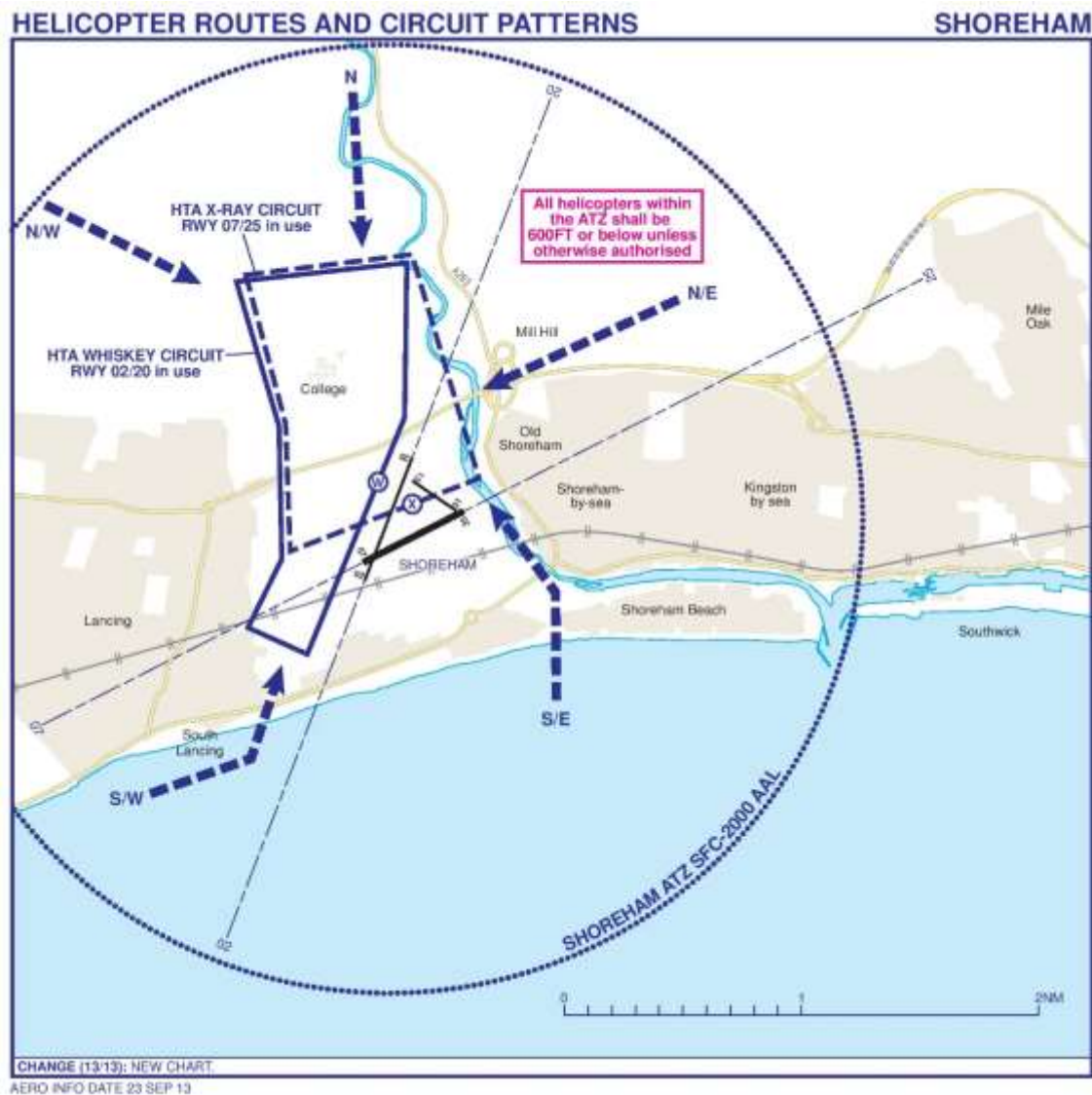


Figure 1 Helicopter Routes and Circuit Patterns

1.2.4 Radio Failure Procedures

In the event of an aircraft experiencing a radio failure during daytime, an aircraft should join overhead the aerodrome, fit into the traffic pattern and overfly the runway in use at 500 ft before positioning for landing.

1.2.5 Fanstop Procedures

Fanstop (practice engine failure after take-off) are only permitted on Runway 02 and Runway 31. The pilot will request a 'Fan-stop' on the RT prior to the start of the procedure and, when approval has been given, may commence procedure when ready but must be instructed to 'report climbing away' on completion.

1.2.6 Rejoin Procedures

Visual Reference Points are established for use by VFR traffic as follows:

VRP Name	Routing	Co-ordinates
Brighton Marina	E	504839N 0000603W
Lewes Intersection	E	505152N 0000127E
Littlehampton	W	504846N 0003247W
Washington Intersection	NW	505434N 0002428W

Direct base, crosswind or downwind joins in the circuit direction, should be issued in preference to a standard overhead join provided that they can be integrated with minimum disruption to circuit traffic.

Aircraft joining direct base-leg, downwind or straight-in should be instructed to report passing a suitable position outside the ATZ and a height restriction applied, normally 'not below 1600ft' until such time as required in order to minimise conflicts in the circuit. However, ATCO's are reminded of the overriding need for pilots of VFR flights to remain in VMC. All restrictions should be lifted as soon as possible.

A maximum of four aircraft may be permitted to join simultaneously; any further inbound traffic must be instructed to remain outside of the ATZ.

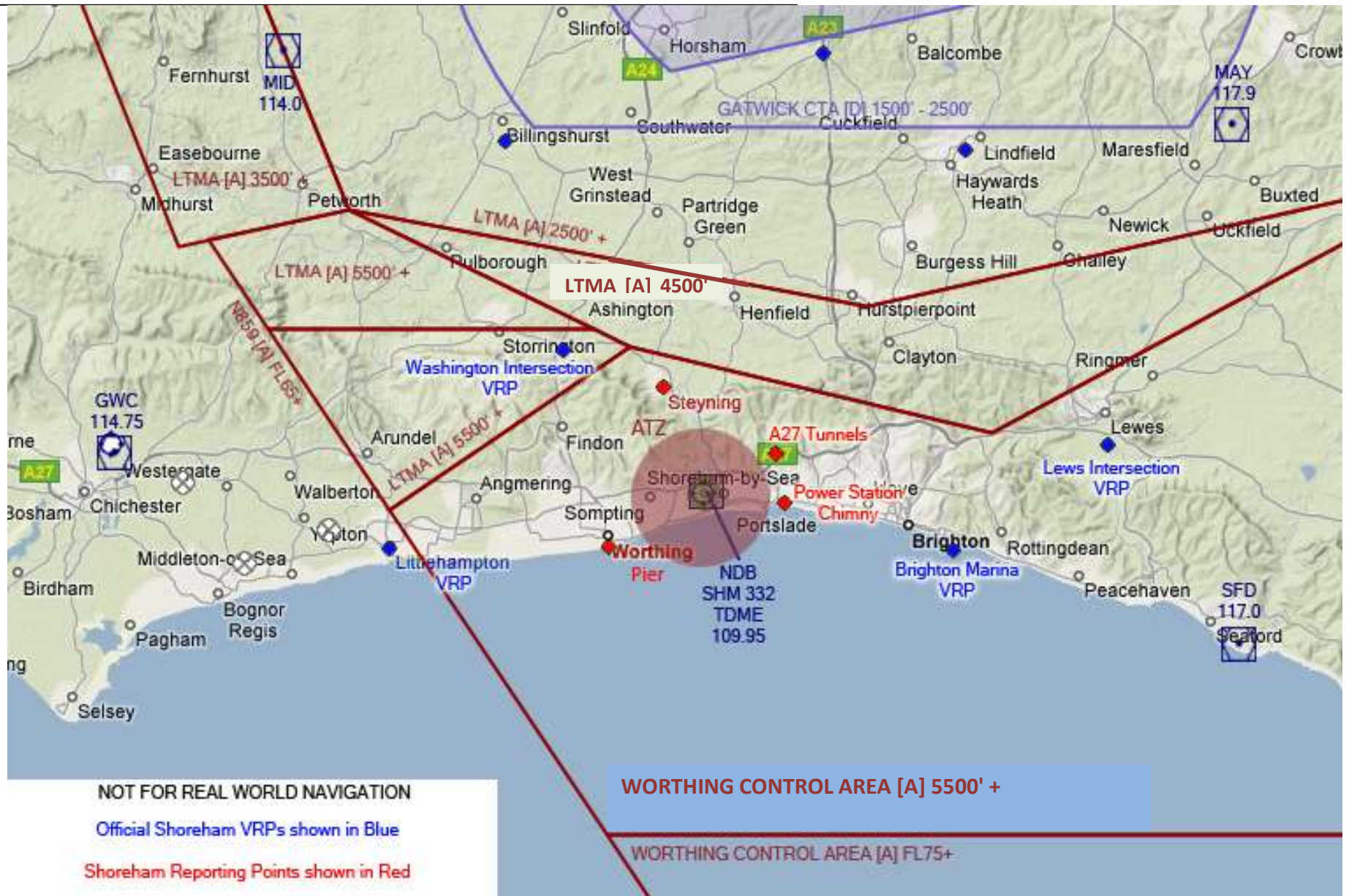


Figure 2 Shoreham Local Airspace Chart

Chapter 3 Noise Abatement Procedures

1.3.1 Minimum Noise Routings

Noise abatement techniques should be practiced at all times, the area to the east and west being particularly sensitive.

All arriving and departing helicopters should avoid overflying built up areas and follow the published minimum noise routings.

Aircraft departing runway 20 should turn right by 10 degrees whenever possible to avoid overflying built up area and not turn east/west bound until reaching the coast.

1.3.2 Procedures for Aircraft and Air Traffic Control

The preferred runways for use are 02 and 20.

Use of Helicopter Area E for extended periods of time should be avoided unless there is a strong easterly wind.

Departures from runway 20 should be instructed to turn after passing the coast e.g. "(callsign) **right turn after the coast**, runway 20 cleared for take-off, surface wind..."

Chapter 4 Traffic Data Display

1.4.1 Flight Progress Chips

Flight Progress ‘Chips’ are used to maintain an accurate presentation of the traffic situation. Alternatively, an electronic data display may be used facilitate online co-ordination between ADC and APC, such as the flight strips and scratchpad in the ATC client software.

A separate Chip is used for each aircraft. The Chips are arranged on a board with bays in the following layout:

<p>Airborne Traffic West/North of the aerodrome</p> <p>Aircraft Descending Deadside</p> <p>HTA ‘W’</p>	<p>Airborne Traffic East/South of the aerodrome</p> <p>Aircraft Descending Deadside</p> <p>HTA ‘X’/‘E’ or 25 numbers</p>	<p>Away KA based Helicopters</p>	<p>Away KA based Fixed-Wing</p>	<p>Away KA based Fixed-Wing</p>
<p>Runway Bay</p> <p>A/C on Final</p> <p style="text-align: center;">↑</p> <p>Circuit Traffic</p>	<p>K1 – 20</p> <p style="text-align: center;">↑</p> <p>Taxiing Aircraft</p>	<p>Visiting Helicopter Parked</p>	<p>Visiting Fixed-Wing Parked</p>	<p>Visiting Fixed-Wing Parked</p>

1.4.2 Flight Progress Strip & Chip Marking

Flight Progress Strips are used for flight planned flights (VFR/IFR), Overflights/Transits, and all IFR traffic. These are displayed in a separate bay and should be arranged in level order. Strip Marking symbols (MATS Part 1 Appendix D-4) are to be used. Flight progress chips are used for all traffic and are shown below.

1. Abbreviations

ICAO abbreviations are to be used an addition to the following local abbreviations:

CCT – circuit LB or RB – left base or right base join X – crosswind join
 SI – straight in approach O – overhead join BS – basic service
 PS – procedural service N, E, S, W, N/W, N/E etc. – North, East, South West etc.

2. Fixed-Wing Aircraft

GABCD	W
P28A	
3763	2

GABCD	KB
P28A	<u>1.6</u>
3763	3 L.B

Local Flight West 2 POB Inbound from EGKB 3 POB Left base join not below 1600 ft

3. Helicopters

GABCD	N/W
R44	⊙ W
3763	2

Local Flight north-west 2 POB landing/departing from HTA-W

4. Runway Holding Points



One for each of holding points.

5. Flight Planned or IFR Departures

CTOT	RFL	Type CALLSIGN TAS	Clearance Req. time			Departure Clearance	Amended Clearance	Taxi clearance QNH Freq Change POB
ETD	ATD		Route	Clearance received time				
			Amended clearance received time					
			Destination					

ETD passed to TC

6. Flight Planned or IFR Arrivals

ETA	IAF	Level	From	Type CALLSIGN	ETD	ATA	Last Fix	QNH App/Rwy	BS/PS
Live					Squawk	TAS			
ETA									

Hold entry time. Time at IAF/beacon outbound time.

7. Over-flights

SHM	Level	From-To CALLSIGN	Type	Geographical Positions or reporting points				Type of Service QNH etc.
				Squawk				
Time Abeam								

ETA/ATA for above position

Chapter 5 Special Categories of Flight

1.5.1 Light Aircraft & Gliding Sites

Parham Gliding site 2 nm NW of the Washington VRP with winch launching up to 2200 feet

Devils Dyke paragliding site 4 nm NE of the aerodrome.

Washington Private Grass aerodrome 6 nm NW of the aerodrome.

Swanborough Farm Private Grass aerodrome 11 nm E of the aerodrome.

Chapter 6 All Weather Operations

1.6.1 Aerodrome Terminal Information System

An arrival and departure ATIS is available on frequency 130.97 MHz. Arriving and departing aircraft are required to acknowledge receipt of the current ATIS information and QNH on initial contact with Shoreham. If a non-current code letter is used, or if receipt of the ATIS is not acknowledged, ATC must pass the relevant information.

Controller Information:

“Shoreham Tower” – ATIS available on 130.970

Suitable for G.A. Aircraft ONLY

Circuit Height 1100’

IFR clearance given at the holding point

OR:

“Shoreham Approach” – ATIS available on 130.970

Suitable for G.A. Aircraft ONLY

Circuit Height 1100’

IFR clearance given at the holding point

Euroscope users should use the standard UniATIS URL and append the following items to the URL as required. **Note:** the circuit direction and the type of ATC service/contact frequency should always be included in the ATIS.

URL appendage	ATIS component
&lh	[Left Hand Circuit]
&rh	[Right Hand Circuit]
&vh	[Variable Circuits]
&app	[All aircraft contact Shoreham Approach frequency 123.15] – <i>APP only</i>
&twr	[All aircraft contact Shoreham Tower frequency 123.15] – <i>TWR only</i>
&twrapp	[Inbound aircraft contact Shoreham Approach 123.15, outbound aircraft contact Shoreham Tower 125.4] – <i>TWR and APP open</i>
&lvp	[LVPs in Force]
&app20	[IFR Aircraft Expect an Instrument Approach Runway 20]
&app02	[IFR Aircraft Expect an Instrument Approach Runway 02] <i>To be used if a grass RWY is the runway-in-use and APP is open</i>

1.6.2 Runway Visual Range

There is no facility for measuring Runway Visual Range at Shoreham Airport.

1.6.3 Low Visibility Procedures

Low Visibility Procedures shall be implemented if either of the following conditions is met:

- a) The Meteorological Visibility falls below 1000 metres and is forecast to fall below 600 metres;
- b) Holding points K1 or A1 are not visible from the visual control room.

The following procedure is to be implemented:

- i. Only taxiway A can be used during LVPs; aircraft will hold at A1, (and backtrack if 20 in use).
- ii. Only one aircraft movement permitted at any one time;
- iii. Aircraft will not be permitted enter or cross the runway once an arriving aircraft has reported 'Base Turn Complete' or 'Final Approach Fix'.
- iv. The ATIS shall include the remark 'LVPs in force'

Chapter 7 Co-ordination with Adjacent Aerodromes

1.7.1 Closest Adjacent Aerodromes

Aerodrome	Bearing	Range (nm)	Runways	ICAO Code
Chichester/Goodwood	275°	17	14R/32L Grass 14L/32R Grass 06/24 Grass 10/28 Grass	EGHR
Deanland	082°	17	06/24 Grass	EGKL
Gatwick	013°	19	08R/26L 08L/26R	EGKK
Redhill	015°	23	18/36 Grass 08R/26L Grass 08L/26R Grass	EGKR
Bembridge	253°	32	12/30	EGHJ
Biggin Hill	023°	32	03/21 11/29	EGKB

Chapter 8 Shoreham ATS Conspicuity SSR Code

1.8.1 Shoreham ATS Conspicuity SSR Code

Shoreham ATSU has been allocated two conspicuity SSR codes to assist adjacent radar-equipped ATSUs identify aircraft receiving a service from Shoreham.

IFR Flights	3762
VFR Flights	3763

With the exception of the flights listed below (paragraph 1.8.2), all flights shall be assigned the appropriate IFR or VFR conspicuity code based on the aircraft's flight rules, irrespective of the type of service being provided. If the pilot cancels his IFR flight plan, then he shall be instructed to squawk 3763.

Upon termination of the ATS from Shoreham, aircraft shall be instructed to squawk 7000 prior to changing frequency.

Where an adjacent radar-equipped unit (such as Farnborough Radar) has been pre-noted and has provided an SSR code for departing flights, the Shoreham ATS conspicuity code shall be assigned whilst the aircraft is in receipt of an ATS from Shoreham. Prior to changing to the onward unit frequency, the pilot shall be instructed "for (ATSU callsign) squawk...."

1.8.2 Exceptions

The following flights shall **not** be assigned a Shoreham conspicuity code:

- Departing aircraft which have been allocated an SSR code by London Control;
- Arriving aircraft via the airways (transferred from either London TC or AC);
- Aircraft using a Special Purpose code (including Emergencies or FIR Lost); and
- Aircraft engaged in Search & Rescue operations or Police/Emergency Medical Services flights.

SECTION 2 Local Separation Standards

Chapter 1 Special Separation Standards IFR

2.1.1 Deemed Separations

- a) Separation is deemed to exist between aircraft holding at SFD/MID/GWC VORs and SHM NDB.
- b) Departing traffic is deemed to have passed overhead the NDB SHM and DME SRH.
- c) Traffic west of the Littlehampton VRP and east of the Brighton Marina VRP is deemed separated from traffic holding at the SHM and traffic carrying out the NDB approach to either runway.
- d) There are NO deemed separations for traffic in the RNAV (GNSS) approaches.

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SECTION 3 Aerodrome Control

Chapter 1 Aerodrome Control

Callsign:	EGKA_TWR	Shoreham Tower
Primary Frequency:	123.150	Use if Approach is <u>Offline</u>
Secondary Frequency:	125.400	Use if Approach is <u>Online</u>

3.1.1 Selection of Runway in Use

Guidance on selection of Runway in Use is published in MATS Part 1, Section 1, Chapter 2, Paragraph 19.

More than one runway may be used at any one time however only the main runway in use will be transmitted in the ATIS.

Runway 13/31 is only to be selected as the runway in use when the surface wind is more than 15 knots. It is to be used for full stop landings and departures only.

3.1.2 Preferential Runway

The preferred runway is 02/20.

3.1.3 Description of Airfield

ICAO Code	EGKA
Reference Point Co-ordinates and Location	Lat: 505008N Long: 0001750W Mid-point of Runway 02/20.
Elevation	7 ft AMSL – 0.26 hPa
Magnetic Variation/Annual Change	W1° (2014) – 0.14° decreasing.
Transition Altitude	6000 feet
Safety Altitude	2100 feet

8. Runways

Runway	TORA	TODA	ASDA	LDA	Threshold Elevation
02	1002	1031	1002	838	7
20	908	971	908	798	7
07	877	877	877	877	6
25	877	877	877	794	6
13	408	408	408	408	7
31	534	534	534	408	6

9. Taxiways & Holding Points

Runway	Holding Point
20	K1
02	B1
25	K3
07	A1 followed by clearance to cross runway 02 to the 07 Holding point. Only ONE aircraft is permitted at the RWY 07 Holding point at a time.
13	K4 then backtrack or K1 and then cross the grass to Hold 13
31	K4

Intermediate holding points are to be used if more than one runway is in use.

Large aircraft, such as C208 and above, or jet aircraft must not use taxiway K due to the width and radius of corners.

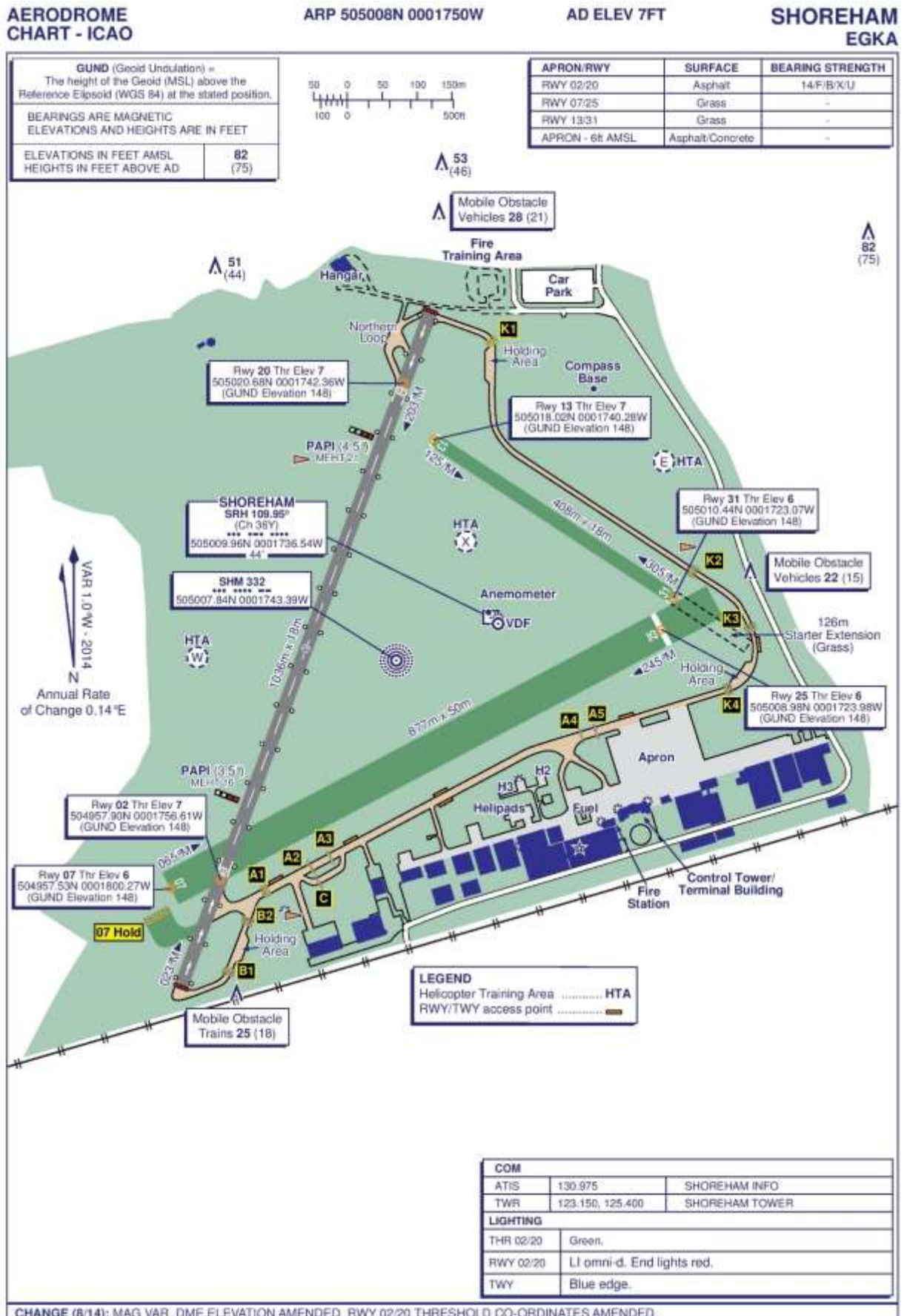
The 'Charlie Loop' adjacent to taxiway A may be used to enable small aircraft to pass.

'The Northern Loop' at the northern end of Runway 20 infringes the runway 02/20 visual strip and therefore must not be used to hold aircraft. Smaller aircraft (i.e. smaller than C208) may use the northern loop to turn around.

10. Parking

Visiting fixed-wing aircraft should generally park on the main apron. Visiting helicopters will normally be instructed to park on Helipad 2 or 3 near to the refuelling area. Helicopters with wheels may ground-taxi to park on the main apron.

3.1.4 Aerodrome Chart



Chapter 2 Aerodrome Operations

3.2.1 Co-ordination between Aerodrome and Approach Control

1. Aerodrome with Approach

Aerodrome Control must co-ordinate all IFR departures and aircraft intending to depart via the overhead with Approach Control. If APC is closed, ADC must co-ordinate IFR departures directly with the onward ATSU (e.g. London Control), see SECTION 4 Chapter 3 Co-ordination of IFR Flights.

ADC is to ensure APC is informed when the circuit is active, when PFL's are taking place, when visual circuits have ended, and when an aircraft on an instrument approach has landed.

2. Approach with Aerodrome

Approach Control will provide information to Aerodrome Control on all arriving IFR flights. When an aircraft is carrying out an instrument approach, APC will inform ADC when an aircraft is:

- a) beacon outbound or passing the initial approach fix;
- b) base turn complete or final approach track established;
- c) at any other range requested by the aerodrome controller.

APC will transfer communications of instrument approach traffic to ADC once the aircraft reports base turn complete or final approach track established or at a point agreed with ADC.

Arriving VFR flights carrying out an overhead join do not require prior co-ordination and will be transferred to ADC approaching the overhead. APC will annotate the flight progress chip/strip with 'O' to indicate to ADC that the aircraft is joining overhead.

APC will request approval from ADC for all other joining procedures and will endeavour to pass on any requests for a different RWY. The flight progress chip/strip is to be annotated with the type of join e.g. 'XW' for crosswind, 'LB/RB' for left base/right base, 'DW' for downwind or 'SI' for straight-in. The usual transfer points for VFR aircraft are:

- | | | |
|------|---------------------------|---------------------|
| i. | Power Station Chimney | RB/XW 02, DW 20 |
| ii. | Worthing Pier | LB 02, DW 25, SI 07 |
| iii. | North abeam Worthing Pier | XW 20 |
| iv. | A27 Tunnels | LB 20, DW 07 |

3.2.1 Circuit Procedures

Normal circuits are left hand at 1100ft QFE

Low level circuit details – RW 25LH / 07RH only at 750ft QFE

Ideally all aircraft should follow the normal circuit pattern. Subject to the traffic situation at the time – particularly helicopter operations, ATCOs may approve requests for tight/glide circuits.

3.2.2 Start-up clearances

VFR departures do not require start up clearance however, IFR departures normally request clearance for start-up.

3.2.3 Departure Clearances

1. IFR Departures:

ADC will pass departure instructions to IFR aircraft at the holding point prior to departure.

APC will provide a departure clearance including a track and level instruction as part of a procedural service. When APC is closed, a track and level will not be provided (as it is a basic service) unless it has been specified by London Control.

Full IFR clearances are given in the following format:

<Callsign> hold position, after departure, <left/right> turn on track <fix>, climb to altitude <level> *remain outside controlled airspace*, squawk <SSR code>, when advised contact <callsign> <frequency>

Example Instructions (will be joining controlled airspace once cleared by London):

SDL457, After Departure, Left Turn on track DRAKE, Climb to altitude 5000 feet, remain outside controlled airspace, Squawk 5213, when advised contact London Control 134.125

Example clearance (has been cleared by London to join controlled airspace):

SDL457 is cleared by London Control to join controlled airspace on track DRAKE, climb to altitude 6000 feet, Squawk 5213, when advised contact London Control 134.125

Example departure instructions (remaining outside controlled airspace):

GABCD, After departure, right turn on track KATHY, climb to altitude 4000 feet, squawk 3762, next frequency when advised, London Information 124.6

Example departure instructions when Approach Control is closed:

GABCD, After departure, right turn out, remain outside controlled airspace, squawk 3762, next frequency when advised, London Information 124.6

2. VFR Departures

VFR departures do not require departure instructions/clearance but do require specific approval for a right turn out (against the circuit direction) which will normally be given with the take-off clearance.

GCD, right turn out, runway 02 cleared for take-off, surface wind ...

3.2.4 Land After Procedures

Land after may be used in accordance with MATS Part 1, Section 2, Chapter 1, Para 15.2.

3.2.5 Separation of circuit traffic from IFR approaches

NDB approaches are not accurate and inbound traffic may not always be aligned with the final approach track. Circuit traffic may be instructed to land or to leave the circuit and hold away from the instrument approach at either Worthing Pier, A27 Tunnels or the Power Station Chimney.

Controllers should be aware of possible conflicts between the IFR missed approach and traffic joining crosswind or overhead.

3.2.6 Glider Operations on the airfield

Subject to the surface wind, runway 07/25 is the preferential runway for gliders due to its width.

3.2.7 Turbulence / Windshear Warnings

Any reports of turbulence/windshear shall be passed to subsequent aircraft until it is confirmed that turbulence/windshear conditions no longer exist.

3.2.8 Procedures for different or dual runway operations

More than one runway may be in use at any one time. In such circumstances, traffic joining for the second runway may need to be separated from traffic in the circuit for the main runway by issuing the joining traffic with a height restriction of 'not below 1600 feet'. Once clear of conflicting traffic, the instruction 'descend to circuit height should be issued'.

When issuing number in sequence, the number should reflect the overall number in sequence for example 'GCD number 2, number 1 is a Cessna on left base for 20, report final runway 13'.

When more than one runway is in use, intermediate holding points must be used to safeguard all active runways.

SECTION 4 APPROACH CONTROL

Chapter 1 Approach Control

4.1.1 General

The Approach Control function will be provided in accordance with MATS Part 1, Section 3, Chapter 1 and Section 2 of this document.

Approach Control may be combined with Aerodrome Control – ‘Shoreham Approach’ will carry out all functions described in Section 3, Aerodrome Control in addition to duties described in this Section.

4.1.2 Liaison with Aerodrome Control

The transfer point for inbound traffic will be agreed with ADC, normally be overhead at 2000ft or an appropriate point outside the ATZ (Worthing Pier, A27 Tunnels, Power Station Chimney). If aircraft are unable to maintain VMC at 2000ft, a lower level must be co-ordinated with ADC e.g. not below 1600ft.

ATZ transit traffic which has been co-ordinated with ADC may remain with APC if ADC does not need to work it.

When traffic is making an instrument approach, APC must inform ADC when an aircraft is:

- a) beacon outbound or passing the initial approach fix;
- b) base turn complete or final approach track established;
- c) at any other range requested by the aerodrome controller.

Chapter 2 Procedures for IFR Traffic

4.2.1 Information to arriving aircraft

After an arriving aircraft has made contact with Approach Control, the following information shall be passed as soon as practicable:

- a. Runway in use;
- b. Current ATIS weather code or current meteorological information;
- c. Current runway surface conditions when appropriate;
- d. Any changes in the operational status of visual and non-visual aids essential for approach and landing.

4.2.2 Allocation of levels

The lowest available altitude is 2200ft (Shoreham QNH). The highest holding level is 5200ft.

4.2.3 Expected Approach Times

Expected Approach Times (EATs) should be issued at 10 minute intervals for any of the published approach procedures whenever the aircraft will be required to hold.

4.2.4 Holding and Approach patterns

The Instrument Approach Procedures are published in the UKAIP. Details of the holding and approach procedures available at Shoreham are shown below.

Holding Pattern	
SHM	Inbound 023° Right Turns Outbound Time 1 minute
Runway	Approach Procedures
02	NDB(L)/DME RNAV (GNSS) VDF
20	NDB(L)/DME RNAV (GNSS)

4.2.5 Missed Approach Procedures

The Missed Approach Procedures are published in the UK AIP.

4.2.6 Departure Clearances

Approach Control is responsible for the issuing of departure clearances for all IFR departures.

Aircraft intending to join controlled airspace should be allocated a level to keep them outside controlled airspace (preferably 500ft below the base of controlled airspace).

E.g. "After departure left turn out on track SFD **climb to altitude 5000ft remain outside controlled airspace** squawk 5274 when instructed contact London Control 134.125"

Aircraft departing via MID or MAY VOR are to be given the appropriate MSA or a maximum of 2400ft.

Chapter 3 Co-ordination of IFR Flights

4.3.1 London Terminal Control

1. Inbound Aircraft

IFR Inbounds from Controlled Airspace will be cleared to leave controlled airspace in the descent to the SHM either by London TC South West or London AC Worthing Sector. London Control will not necessarily co-ordinate inbounds but may pass an estimate for SHM, and request an acceptance level.

Approach Control will provide the level, commonly 3200ft or the next available level and the Expected Approach Time if holding is taking place. London TC may elect to transfer control by means of an inbound release and will specify a Release Point (which will be inside controlled airspace).

If there is a potential conflict between inbound/outbound traffic, London should be informed and responsibility for resolving the conflict should be agreed.

2. Outbound Aircraft

Requests for airways joining clearance are made to London TC SW (or the appropriate 'top-down' sector). The clearance from TC will include the instruction to remain outside controlled airspace, squawk code and contact frequency. TC will be passed an ETD and the ATD will only be passed if it differs from the ETD by more than 3 minutes.

4.3.2 Farnborough

Farnborough will co-ordinate any IFR inbounds they are working directly with Shoreham.

IFR departures routing through the Farnborough area and remaining outside controlled airspace should be pre-noted to Farnborough Radar prior to departure and, once clear transferred to them.

4.3.1 Gatwick

Aircraft departing to Gatwick IFR should be co-ordination directly with Gatwick Director prior to departure and then transferred directly to Gatwick Director.

Any aircraft departing to Gatwick which are not co-ordinated with Gatwick Director must be pre-noted to Farnborough Radar before departure and transferred to Farnborough Radar after departure.

4.3.1 Southampton

IFR departures routing via SAM (remaining outside controlled airspace) or inbound to EGHI/EGHH should be pre-noted to Solent Approach/Radar prior to departure. They may assign a squawk and will normally request a freecall when the aircraft reaches GWC.

4.3.2 London Information

If the flight will remain outside controlled airspace routing south or east or when the above ATSU's are closed, Shoreham will pass the details to London Information.

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SECTION 5 TELECOMMUNICATIONS

Chapter 1 R/T Procedures

R/T procedures should be in accordance with CAP 413. The following examples are provided to clarify local procedures.

1.1.1 Visual Circuit

Aircraft Phraseology	Controller Phraseology	Controller Action
Shoreham Tower, GABCD	GABCD, Shoreham Tower, Pass your message.	
GABCD, Cessna 172 on the main apron request taxi for circuits with information A QFE 1011	GCD, squawk 3763, taxi holding point K1, Runway 20 via K	
GCD ready for departure	GCD left hand circuits, runway 20 cleared for take-off, surface wind 210 8 knots	
Left hand circuits cleared for take-off GCD		
GCD downwind.	GCD report final, number 2 follow the PA28 late downwind.	
GCD final	GCD runway 20, cleared touch and go, surface wind.....	

1.1.2 VFR Departure

Aircraft Phraseology	Controller Phraseology	Controller Action
Shoreham Tower, GABCD outbound	GABCD, Shoreham Tower, Pass your message.	
GABCD, Cessna 172 on the main apron request taxi for a VFR departure to Lydd information A QFE 1011	GCD, squawk 3763, taxi holding point K1, Runway 20 via K	
GCD ready for departure	GCD left turn out, runway 20 cleared for take-off, surface wind 210 8 knots	
Left turn out cleared for take-off GCD		
	GCD, contact Shoreham Approach 123.15	If TWR/APP split, transfer to APP once clear of circuit traffic
Approach GABCD passing 1500	GCD Shoreham Approach, Basic Service [traffic info if applicable]	If APP is closed, basic service is

ft	report changing frequency.	provided by TWR.
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1.1.3 VFR Arrival

1. Cross-wind join

Aircraft Phraseology	Controller Phraseology	Controller Action
Shoreham Approach GOASD inbound	GOASD Shoreham Approach pass your message	If APP is closed, this will be carried out by TWR
GOASD PA28 inbound from Bristol, Littlehampton at altitude 3000ft information A request join.	GSD basic service squawk 3763 report north abeam Worthing pier, crosswind join runway 20 left hand circuit QFE 1011	Pertinent traffic info should be passed (e.g. traffic joining from the same direction or departing towards the inbound) and strip/chip annotated with join type
GSD abeam Worthing Pier	GSD contact Shoreham Tower 125.4	
Shoreham Tower GOASD	GSD Shoreham Tower, join crosswind and report left hand downwind runway 20, 3 in the circuit.	Circuit traffic info to aid pilot's situational awareness and if required provide additional information to assist the pilot with integrating into the circuit.

2. Left-base join

Aircraft Phraseology	Controller Phraseology	Controller Action
Shoreham Approach GOASD inbound	GOASD Shoreham Approach pass your message	If APP is closed, this will be carried out by TWR
GOASD PA28 inbound from Lydd, north abeam Brighton Marina at altitude 2400ft information A request join.	GSD basic service squawk 3763 report the A27 tunnels, not below height 1600ft left-base join runway 20, QFE 1011	Pertinent traffic info should be passed and strip/chip annotated with join type and level restriction if applied.
GSD A27 tunnels 1600ft	GSD contact Shoreham Tower 125.4	
Shoreham Tower GOASD	GSD Shoreham Tower, continue descent and report final runway 20, number 2 follow the Cherokee on final OR GSD Shoreham Tower, make one right-hand orbit, report visual with a Seneca left downwind runway 20	Integrate with circuit traffic

3. Overhead join

Aircraft Phraseology	Controller Phraseology	Controller Action
Shoreham Approach GOASD inbound	GOASD Shoreham Approach pass your message	If APP is closed, this will be carried out by TWR
GOASD PA28 inbound from Lydd, north abeam Brighton Marina at altitude 2400ft information A request join.	GSD basic service, squawk 3763 report overhead height 2000ft runway 20 left hand circuit, QFE 1011	Pertinent traffic info should be passed and strip/chip annotated with join type.
GSD overhead 2000ft	GSD contact Shoreham Tower 125.4	
Shoreham Tower GOASD	GSD Shoreham Tower, descend deadside, report left-hand downwind runway 20, 4 in the circuit.	Additionally pass specific information on other traffic joining overhead or descending deadside.

5.1.1 IFR Departure

Aircraft Phraseology	Controller Phraseology	Controller Action
Shoreham Tower, NJE6XK request start information B	NJE6XK Shoreham Tower, start approved outside air temperature +7	
NJE6XK request taxi	NJE6XK taxi holding point B1 runway 02 via taxiways A and B QNH 1022	<p>TWR request a clearance from APP or if APP is closed, carry out co-ordination directly.</p> <p>APP: "Shoreham Approach, request on NJE6XK"</p> <p>LON: "NJE6XK remain outside controlled airspace on track GWC squawk 5233 call for join 134.125"</p> <p>APP: "[readback clearance], estimated airborne at 20"</p> <p>APP pass clearance to TWR, taking into account separation with other IFR traffic. Append with 'Release Subject Approach' or 'Release not before (callsign) + ... minutes' if required.</p>
	NJE6XK I have your clearance	

Ready to copy NJE6XK	NJE6XK, hold at B1 after departure, left turn on track GWC, climb to altitude 5000ft, remain outside controlled airspace, squawk 5233, when instructed contact London Control 134.125	
[readback]	NJE6XK correct, report ready for departure.	

1.1.4 IFR Arrival

1. NDB Approach

Aircraft Phraseology	Controller Phraseology	Controller Action
Shoreham Approach VAA07A descending to altitude 3200ft QNH 1022 information B estimating SHM at 23 request NDB/DME approach	VAA07A Shoreham Approach, procedural service, cleared to SHM descending to altitude 2200ft, no delay for NDB/DME approach runway 20	If based on the ETA, the aircraft will be required to hold, the expected approach time must be issued instead of 'no delay'
	VAA07A cleared NDB/DME approach runway 20 report beacon outbound.	
VAA07A beacon outbound	VAA07A report base turn complete	Inform of the TWR beacon outbound time
VAA07A base turn complete	VAA07A contact Shoreham Tower 125.4 OR report 4 DME	Inform TWR base turn complete and retain until 4 DME or transfer to TWR (as agreed with TWR).

2. RNAV Approach

Aircraft Phraseology	Controller Phraseology	Controller Action
Shoreham Approach N113AC descending to altitude 3200ft information B estimating NITEN at 23 request RNAV approach	N113AC Shoreham Approach, procedural service, descend to altitude 2200ft, QNH 1022 cleared RNAV approach runway 20, report NITEN	If based on the ETA, the aircraft will be required to hold, the aircraft must be cleared to SHM at the next available level and an expected approach time must be issued instead.
N3AC NITEN 2200ft	N3AC report established on the final approach track	Inform of the TWR initial approach fix time
N3AC established final approach track	N3AC contact Shoreham Tower 125.4 OR report final approach fix	Inform TWR established final approach track and transfer or retain until final approach fix (as agreed with TWR).